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TREMARCOOMBE COMMON

BADGER SURVEY



August 2011

A REPORT TO
Mrs Derris Watson
Jensome
Higher Tremarcombe
Liskeard
Cornwall
PL14 5LHP

**Report prepared by:
J. Hutchinson BSc.(Hons) MSc.**

Report :

HEA reference : HEA 156/11b

Surveyor(s) : J. Hutchinson (BSc.(Hons). MSc) AIEEM and S Allison-Fleming

Authorised by: J. Hutchinson





EXECUTIVE SUMMARY

<u>Brief Survey Summary</u>	
Badgers Presence:	<p>Within the site two outlier setts, protected structures were identified on the northern site boundary (north of the stream). In close proximity to this structure a small area of foraging was noted and two confirmed badger paths exiting the site over the northern boundary hedge.</p> <p>No further notable evidence of badgers was noted within the extended 500m survey radius.</p>
Further work required:	<p>No further effort is required with regard to this species if the recommendations enclose within this report are undertaken. As the site is to be sympathetically managed for Nature Conservation the protected sett structure will not be impacted upon. Vigilance is recommended at all times during works and works may need to be timed to minimise disturbances.</p> <p>If works do not commence within a year of this survey an updated survey and report will be required.</p>



ADMINISTRATION

<u>Administration</u>	
Survey Reference:	HEA 156/11b
Grid Reference:	SX 253 689 (approximate)
Site Surveyed:	Higher Tremarcombe Common
Client Contact details: Invoicing Contact details:	Mrs Derris Watson Jensome Higher Tremarcombe Liskeard Cornwall PL14 5LHP Derris.watson@btinternet.com Tel: 07817180203
Surveyor (s):	Jessica Hutchinson Scott Fleming
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Date of survey(s):	Badger survey: 19/08/2011



All of the details below ensure the quality and authenticity of the below report. If one of these sections is not completed by the above authors, without good reason, please refer to the consultancy immediately.

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Signed:-

A handwritten signature in black ink, appearing to read 'Jessica Hutchinson', with a horizontal line underneath the name.

Date:- 30/08/2011

Report Authorised by:- Jessica Hutchinson

Signed:-

A handwritten signature in black ink, appearing to read 'Jessica Hutchinson', with a horizontal line underneath the name.

Date:- 11/11/2011

Report status:- Complete

Signed:-

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Date:- 11/11/2011



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TREMARCOOMBE COMMON, ST CLEER, CORNWALL

Badger Survey

1. Introduction

Hutchinson Ecological Associates¹ were commissioned by Mrs Derris Watson of the Higher Tremarcombe Toyz Pond areas Project to complete a Badger Survey at Tremarcombe, St Cleer, Cornwall approx (OSGB SX 253 689) following recommendations made in an Extended Phase 1 Habitat Survey carried out by HEA in 2010.

The site consists of the old pipewell (surrounded by scrub vegetation) in the centre of the village, which was the historical village water supply, and an area to the east around Toyz Pond which although falls into the County Wildlife Site (CWS) of Tremarcombe Common has become dominated by dense scrub, bracken and Himalayan Balsam as a result of a lack of management.

The survey is required to assess badger activity within the habitat management area in order to provide appropriate advice for a local project to manage the habitat for future sustainability and also as an area for education.

Refer to Figures 1 and 2 for a plan of the site and survey area. Photographs of badger evidence on the site are presented within Figure 3.

2. Aim

The overall aim is to establish any ecological issues in relation to the future management of the site, with reference to populations of badgers.

Specific objectives included;

- Determine if and how badgers are using the site
- Determine the current levels of activity
- Advise on appropriate mitigation / enhancement measures for the future management of the site

¹ here after referred to as HEA



3. Species Legal Status

Badgers and their setts are legally protected under the Protection of Badgers Act 1992, and the Wildlife and Countryside Act 1981 and subsequent amendment 1985. As such it is an offence to wilfully take, kill, injure or ill-treat a badger. Under the Protection of Badgers Act 1992 their setts are also protected against obstruction, destruction, or damage in any part, and the animals within a sett cannot be disturbed.

If necessary, it is possible to move badgers from a sett, but the difficulty/success of such actions depends upon the importance of the sett to that group of badgers and whether a suitable alternative sett exists within their territory. For setts in current use by badgers, a licence must be issued (by Natural England) before the badgers can be moved and /or the sett destroyed. In general, the smaller the sett, the less important it is likely to be to the continued survival of a group of badgers, and the more successfully the badgers can be excluded from it.

Any attempt to move badgers by direct means (using exclusion fencing, for example) must be done responsibly, and with suitable expertise. The licensing procedure should ensure that the implications of such an action have been fully investigated, any mitigating measures have been undertaken, and that a person with suitable expertise carries out the operation.

4. Survey Methodology

The site and the surrounding area, to within a 500 metre radius of the site, was systematically searched for setts, and other characteristic signs of badger activity, such as latrines², paths, footprints, hairs (caught on fences and in sett entrances) and feeding signs.

For any badger setts encountered, the nature of the sett and the current level of activity at each sett entrance hole was classified and recorded (sett definitions and classifications of level of activity are given in Appendix 1 and 2). Sett grid references were established using a hand-held GPS unit (Garmin® Extrex), accurate to between 5 and 10 metres

² Badgers defecate in pits termed dung pits and aggregations of these pits are called latrines.



5. Results

Refer to Figure 1 for a plan of the site and figure 2 for an outline of the survey area. Photographs of the site and badger activity are present in Figure 3. The results below must be interpreted with consideration of the constraints of the survey.

5.1 Survey conditions

The Badger Survey was undertaken on the 19/08/2011 in good weather, with a light wind, no precipitation, cloud cover of 1/8 and a temperature of 12°C.

5.2 Survey Constraints

An exhaustive search of the whole site and study area was not possible due to land owner permission. Where access was not available the areas were surveyed from public roads and rights of way. Due to the site being heavily used by local residents disturbance levels were high and paths were not definitively used by a single species.

5.3 Badger Activity

5.3.1 Badger setts'

Within the site two outlier setts were identified on the northern boundary at SX 25318 69445 each comprising of a single partially-used hole displaying no signs of current use.

No further badger sett structures were identified within the extend 500m radius study area.

5.3.2 Badger foraging

A small amount of foraging was identified within the site at SX25369 69418, in close proximity to the badger setts noted on the site. No notable evidence of foraging was identified within the remainder of the accessible 500m radius study area.

5.3.3 Badger territory marking (latrines)

No signs of badger territorial marking, in the form of latrines, were identified within the site or the 500m radius study area.

5.3.4 Badger commuting – paths and runs

Two confirmed badger paths were noted on the northern boundary of the site and are associated with the outlier setts SX25369 69418. Although other paths were noted within the site these paths are most likely to be used by numerous species as well as humans walking through the area of Common land. No further confirmed badger paths were identified within the 500m radius study area.



6. Recommendations and discussion

The habitat present within the site is suitable for a wide range of badger activities. The dense scrub vegetation and earth banks provide areas suitable for sett construction and the site overall generates numerous food resources ranging from urban refuse to natural sources within the areas of Common land. Connectivity with a range of different habitats within a larger area is good allowing for badgers to easily move throughout a territory during a night's activity. However it must be noted though that the site, being open access common land, is heavily disturbed by humans using the site for recreational activities.

Due to the aim of this project being to preserve the heritage and Nature Conservation of the site the overall impacts upon badgers is envisaged to be negligible as a favourable conservation status will be retained however the below recommended guidance should be implemented throughout works and vigilance is essential at all times.

Although two outlier badger setts have been identified in the hedge bank on the northern boundary the impact of the management works proposed upon these features is envisaged to have a negligible impact. Works around the badger setts must solely be by hand with no vegetation clearance within 10 meters. Between 10-30 meters some low noise hand operated machinery (all machinery to be used should be agreed suitable by a suitably experienced badger consultant) can be used and outside of 30 meters heavier machinery may be used. It is essential that great care is taken to ensure that the above recommendations are adhered to. Any works that cause destruction, damage, or disturbance to a badger sett is a licensable activity, under The Badgers Act 1992 (as amended). Destruction, damage or disturbance to a badger sett without the appropriate license in place will be a breach of the current legislation and could lead to prosecution.

Impacts upon badger foraging within the site are considered to be minor adverse – negligible at a local level. The removal of some of the scrub habitat will reduce the amount of fruit food resource present on the site and the habitat will be more accessible to humans for recreational activities. However it is envisaged that the management of the site as grazed common thus will establish a wider variety of food resources, such as fungi and invertebrates etc, for foraging. The exact area and extent of habitat management will determine the abundances of food resources.

The lack of territorial latrines within the site and study areas suggest that the site is located within a badger territory thus impacts upon territorial behaviour and marking, as a result of the proposed management of the site, are considered to be negligible.

Badger paths / runs are noted as being present on the northern boundary of the site. Numerous additional paths are present throughout the site although are clearly used by a range of wildlife species and humans thus the overall impact upon badger dispersal, as a result of the proposed management works, is envisaged to be negligible.



7. Conclusions

Although badger activity has been noted at the Higher Tremarcoombe Common site overall activity is low with overall impacts, as a result of the proposed site management, envisaged to be negligible if the recommendations within the above report are undertaken and adhered to. Two partially used single hole outlier setts, displaying no signs of current use, are present in the bank on the northern boundary of the site. Associated with these two holes two badger paths / runs lead from the site to the north over the northern boundary hedge bank. A small amount for foraging is notable to the south of the established badger setts and paths / runs, to the north of the stream.

8. Declaration

This report has been prepared in good faith, with all reasonable skill, care, diligence, in a professional manner in accordance with accepted standards, methodologies and guidelines. This report is based on the evidence provided and accessible at the time of the survey within the scope of work agreed with the client. Due to the nature of the Taxon involved, further surveys may be required at a later date and therefore Hutchinson Ecological Associates are not responsible for any omissions and subsequent actions that the lack of such data may cause. We disclaim any responsibility to the client, and others, in respect of any matters outside the scope of that agreed. This report has been produced and is provided for the sole use of the named client and is confidential to them and their professional advisors.



Table 1 – Swanvale badger activity 2011

Feature reference	Feature	Location	Description	Notes
A	Outlying Sett	SX 25318 69445	Two outlier setts each partially used sett entrances displaying signs no signs of current use (within 10 meters of each other)	In a bank to the North of the site.
B	Path / runs	SX 25318 69445	Well worn paths leading from the outlier setts over the northern hedge (site boundary) to the eastern section of the site	Over the northern hedge bank that forms the site boundary of the eastern section of the site
C	Foraging	SX 25369 69418	Snuffle holes and digging above the stream / river	North of the river, south of the hedge bank that forms the northern boundary of the eastern section of the site

Figure 1 – Annotated map of the site with badger activity

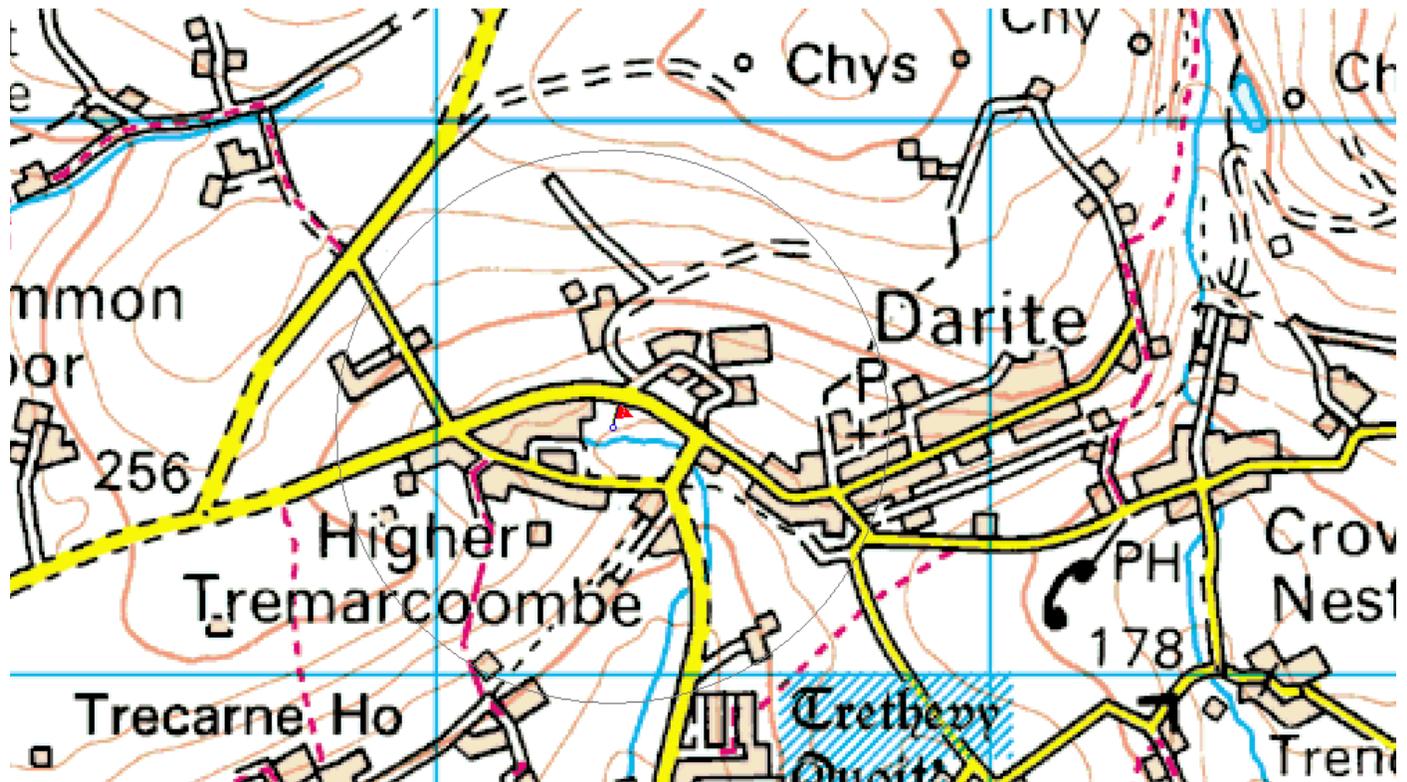


*Extract from HEA phase 1 report, 2010
Note above plan is not to scale*

The site is within the yellow outline of the above phase 1 habitat map. The red stars indicate the badger sett locations, the red arrows the badger paths and the brown speckled area badger foraging.



Figure 2 – Map of the badger study area around the site



Map extract from Memory Map; OS 1:50k Southern England – Region 1.
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The red flag indicates the location of the eastern section of the site. The gray circle illustrates the area within which the extended badger survey was undertaken.



Figure 3 – Photographs of badger activity on the site

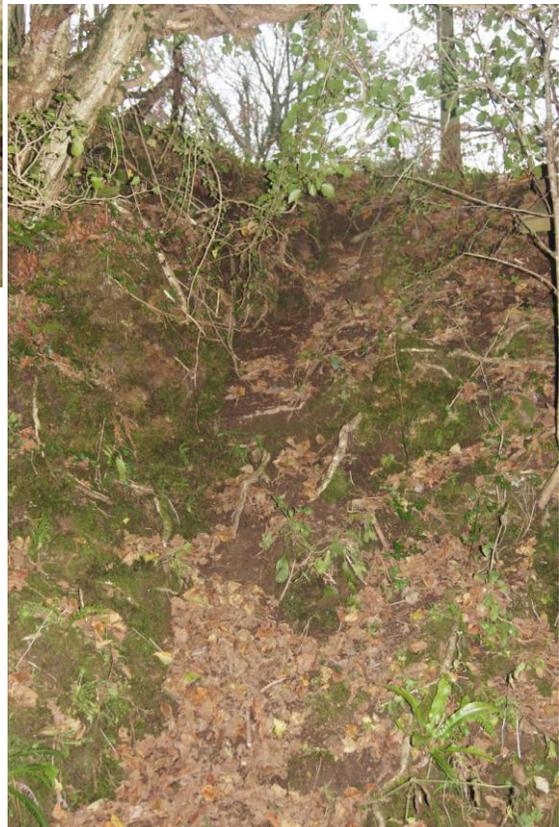


Top Left: single hole eastern outlier badger (partially used displaying no signs of current use) sett located within the northern boundary hedge bank of the eastern section of the site.



Middle Left: single hole western outlier badger (partially used displaying no signs of current use) sett located within the northern boundary hedge bank of the eastern section of the site.

Bottom Right: badger path / run over the northern boundary hedge bank of the eastern section of the site.





APPENDICES

Appendix 1 - Disturbance of badgers occupying setts

Under the Protection of Badgers Act 1992 it is an offence to disturb badgers when they are occupying setts. As the Act does not define what constitutes disturbance, Natural England have produced guidelines on the distances from setts of certain activities that they consider are likely to disturb badgers and which are therefore licensable. These guidelines are summarised as follows:

- All work within 10 metres of the nearest sett entrance should be licensed.
- Between 10 and 20 metres use of machinery is licensable, but hand digging is not unless tunnels are accidentally breached.
- Between 20 and 30 metres only the largest machinery requires a Licence.
- Over 30 metres use of explosives and pile-driving are licensable to much greater distances.

Badger licences (disturbance and interference) are not generally issued by Natural England between 1 December and 30 June inclusive as there is effectively a 'close season' on activities which disturb badgers during this period because (a) the animals are markedly less active during winter and hence actions such as exclusion are unlikely to be effective, and (b) pregnant/lactating females and their dependent cubs are likely to be found underground between mid January and the end of June.



Appendix 2 - Badgers – background biology, setts & sett use

1. Overview

Badgers live in groups and the members of each group jointly defend a territory. Other badgers are more or less excluded from this land, which will encompass sufficient foraging areas to support the group throughout the year. Badgers defecate in pits termed 'dung pits' and aggregations of these pits are called 'latrines'. The largest 'latrines' tend to be found close to setts and along territorial boundaries, with smaller aggregations of 'dung pits' at path intersections and within important feeding areas. Badgers tend routinely to use a network of well-worn paths to access different parts of their territory. The territory may include a number of setts of different sizes and functions:

2. Types of Setts

Main setts

These are in continuous use, they are large, well-established, often extensive and may have large spoil heaps outside the entrances. There are likely to be well-worn paths leading to the sett. It is where the cubs are most likely to be born. There is generally only one main sett per social group of badgers. Main setts are usually built in very specific positions, where there is the right combination of soil (to facilitate drainage and ease of digging), aspect, slope and cover. Since suitable sett sites are at a premium, main setts are usually long-established, and may have been in use for decades or even centuries. The average number of holes is 15.

Annexe setts

These occur in close association with the main sett (usually within 150m), and are linked to the main sett by clear well-used paths. Annexe setts consist of six holes on average, but they are not necessarily in use all the time, even if the main sett is very active. If a second litter of cubs are born, this may be where they are reared.

Subsidiary setts

These comprise five holes on average, but are not in continuous use and are usually some distance from the main sett (50m or more). There is no obvious path connecting them to the main sett and their 'ownership' can often only be determined by bait marking.

Outlying setts

These consist of only one or two holes. They can be found anywhere within the territory and usually have small spoil heaps, indicating that they are not very extensive underground. There are no obvious paths connecting them to other setts, they are only used sporadically and often used by foxes or rabbits when not occupied by badgers.



3. Setts Use and Levels of Activity

The size, status and level of activity of each sett can be assessed by counting the number of entrance holes. The degree of use of each entrance hole can be classified as follows:

Well-used holes

These are clear of any debris or vegetation, are obviously in regular use, and may or may not have been excavated recently.

Partially-used holes

These are not in regular use and have debris such as leaves and twigs in the entrance, or have moss and/or other plants growing in or around the entrance. They could be in regular use after a minimal amount of clearance.

Disused holes

These have not been in use for some time, are partially or completely blocked, and could not be used without a considerable amount of clearance. If the hole has been disused for some time, all that may be visible is a depression in the ground where the hole used to be, and the remains of the spoil heap, which may be covered in moss or plants.

In addition to their setts, badgers occasionally lie-up above ground in small depressions lined with dry grass and leaves, usually under a fallen log or dense patch of bramble. These are termed 'day nests', although it is uncommon for badgers to occupy them during the day; the animals more often use them as shelter for short periods during the night. These structures are not usually given the legal protection afforded to setts.



NOTES: