Surveying for Badgers
Good Practice Guidelines

Version 1: 2018
Acknowledgements

Scottish Badgers would like to express our thanks to all those who contributed to the original Survey Manual, edited by Ian Hutchison. This document is based on the pioneering work of many dedicated volunteers.

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Thanks to Laura Carter-Davis, Steve Jackson-Matthews and Andy Riches who spent a great deal of time revising the document to produce these current Guidelines.

Many others have contributed to the development of this document in a variety of ways and we thank each for their efforts.

Scottish Badgers

September 2018

About The Guidelines

The purpose of this document is to provide a standardised survey methodology for the survey of the Eurasian badger (Meles meles) in Scotland.

The Guidelines will be updated in line with advances in survey method and surveyors are encouraged to share their experiences and observations with Scottish Badgers via operationscoordinator@scottishbadgers.org.uk.

The information contained with this document does not constitute legal advice. Surveyors are responsible for their own compliance with all relevant nature conservation legislation in Scotland and are advised to seek legal advice where necessary. All text and photographs in this document are protected by Copyright.

The Guidelines should be cited as:

Contents

1 Using the Guidelines........................................................................................................................................1
2 Legal Protection and Threats .......................................................................................................................2
3 Overview of Badger Ecology ..........................................................................................................................4
4 Survey Methods ...........................................................................................................................................9
5 Badger Field Signs ......................................................................................................................................13
6 Data Management .......................................................................................................................................23
7 Evidence of Badger Crime ...........................................................................................................................24
1 Using the Guidelines

The methods described in these Guidelines provide a robust and repeatable approach to collecting and interpreting badger field data, thus are of particular value in informing the planning and development process.

In addition to providing methodological advice, the Guidelines provide an overview of the current legal status of badgers in Scotland and how badger data should be managed, interpreted and shared.

The document is structured as follows:

- Legal Protection and Threats to Badgers
- Overview of Badger Ecology
- Survey Methods
- Field Identification
- Data Management
- Evidence of Badger Crime

The Guidelines do not provide advice in relation to species licensing. Surveyors should contact Scottish Natural Heritage (SNH) for further information in relation to species licensing and development planning, [https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing/species-licensing-legislation](https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing/species-licensing-legislation).
2 Legal Protection and Threats

Legislation

Badgers and their setts are protected by the Protection of Badgers Act 1992 (as amended).

The legislation is subject to regular amendment and update; surveyors are encouraged to ensure they are aware of the most up-to-date legislation by visiting www.scottishbadgers.org.uk and downloading the current Act.

It is an offence to intentionally or recklessly:

- kill, injure, take, possess or cruelly ill-treat a badger or to attempt to do so
- interfere with a sett by damaging or destroying it
- obstruct access to, or any entrance of, a badger sett
- disturb a badger whilst it is occupying a sett
- cause a dog to enter a sett
- sell a live badger or offer one for sale or possess a live badger
- be in possession or control of a dead badger or anything derived from a dead badger

In relation to development planning, it is particularly important to note that the 'reckless' definition could include a failure by an ecological consultant to conduct a proper survey, including a comprehensive data search or to produce an appropriate mitigation plan. There is also a corporate negligence offence under section 12B which further exposes consultants and their clients to liability.

Obtrusive survey methods are beyond the scope of these Guidelines, but should surveyors require to disturb badger setts as part of their survey method, they should seek advice from SNH Species Licensing (see Chapter 1).

Threats to Badgers

The biggest threat to badgers is traffic and many are killed on the roads, especially in early spring and in August, when there are the greatest population movements. The second greatest threat is loss of feeding resources because of development. If a field, waste ground or open space is developed for housing, roads, offices or car parks, the badgers lose a food source. Fortunately, if open spaces are planted rather than paved and if gardens are not decked or ‘hard landscaped’ then some foraging is returned to badgers. If not, then badgers and other wild animals are forced
to forage further and further afield each night, increasing the death toll on the roads and eventually badgers may disappear from an area altogether.

Surveyors should be aware that badgers continue to be subject to persecution throughout Scotland. Badger baiting is common across all parts of the country and surveyors should be aware of the signs of illegal activity. Further advice in relation to badger crime is provided in later chapters.

K. Grey
3 Overview of Badger Ecology

Description

Badgers are the size of a stoutly built spaniel, about 1 metre long and weighing 8-14kg. They have a very distinctive black and white striped face, the grey upper body is covered by long coarse, black banded, white hairs and their legs and undersides are black. Although they have very distinctive faces, we find it difficult to distinguish one badger from another, sometimes even males from females. Badgers have long, strong claws, which they use for digging at the sett and when searching out roots, worms and insect larvae hidden inside rotting logs. Badgers eyes are small and their eyesight poor but they see better than us in dim light, their hearing is keener than ours and their sense of smell is excellent, being the sense through which they ‘see’ their world.

Distribution

The badger is a very adaptable animal and can be found occupying many habitats throughout much of Great Britain. In Scotland it is thought that there are between 20,000 to 25,000 animals ranging in varying densities from the North coast through to the border with England. Arran is the only Scottish Island confirmed as having a population of badgers. Badgers live underground in a tunnel system known as a sett and this is fully protected by law from interference, damage or destruction. Setts are noticeable to us because of the large amount of soil heaped outside. This soil is combined with discarded bedding and padded flat on top by badgers which emerge each evening to sniff for danger and then sit around grooming and socialising before heading off to feed.

Badgers are opportunistic in exploiting different landscape features for their setts. Scottish Badgers have amassed a vast amount of information about badgers and their setts. One thing that becomes immediately clear is that setts are not always found in places where you would expect them to be according to some traditional textbooks. Typically badgers are thought to prefer constructing setts on sloping ground at the edge of woodland. However, setts are regularly found in flooded ditches in flat arable landscapes, in the middle of vast conifer plantations, under mountain cairns at elevations above 2,000 feet, in the middle of seemingly barren high moorland, in narrow green corridors within built-up urban landscapes, within
old ammunition bunkers, under old and new buildings, and within canal banks, tips, and motorway verges. This list is by no means exhaustive.

Within any given area there are pressures on badgers, and competition between social groups for good sett sites and foraging grounds.

**Badger Diet**

Badgers are omnivores but whenever possible will eat earthworms; several badgers may be seen quietly padding over pasture or a sports field sucking up earthworms like spaghetti. On damp, windless nights when the air temperature is about 10°C or above earthworms may lie above the ground to feed and mate. On most nights there is at least one area in a badger's territory with earthworms on the surface, the badgers just have to find the right place at the right time; this requires an intimate knowledge and excellent memory of their food patches. In spring badgers dig out rabbit nests (stops) to eat the young rabbits and dig for roots of pignut, bulbs and for insect larvae. During late summer and autumn they dig out wasp and wild bee nests to eat the grubs and honey. They are also partial to cereals and fruits in season will be taken. Titbits found in gardens are very important to the survival of urban badgers.

Digging is an important feature of their foraging behaviour throughout the year and so it is a useful field sign often found in longer grass, in open areas in woodland, rough verges, field edges, golf course rough areas and overgrown pasture.

![Pie chart showing the diet of badgers](image)

**Seasonality**

Badgers are animals of habit; they usually stay in the same place each night, feed in the same places and they do things according to a fairly accurate biological calendar which is governed by the natural cycle of the seasons as well as by the badgers own biological clock. This is best seen in the badger year below.
Up to four cubs are born around mid-February and this is the main mating and territory marking season. Monogamy is rarely the rule, and mating continues throughout the year although the mechanism of delayed implantation results in sows becoming pregnant in December when they are least active. At birth, cubs are tiny and blind so they remain underground, dependant on their mother’s milk until May. They grow fast and are weaned during July but are not fully grown until the following year. In the autumn, badgers eat with great dedication putting on a lot of weight and taking in mounds of bedding to keep them warm through the winter when, although they don’t actually hibernate in Britain, food is in short supply. By spring badgers are thin and hungry so if the weather is dry, finding food becomes very difficult and in some years few cubs survive. But remember, just as the time of the swallow returning each spring varies, so do the events within the calendar.

From October to May badgers emerge from their setts at about sunset but during the long summer evenings they come out while it is still light. After a period of socialising and play adults and yearlings head, one by one for the night’s chosen feeding area, first snuffling around in the undergrowth and woods and later heading for open areas. Cubs stay together and forage as a gang after their mother has given them independence. Usually a badger follows their favourite route, often along hedgerows, walls, ditches and river banking, or foraging from garden to garden creating footpaths through fences, hedges and under bridges. This routine changes with season, weather and food supply.

<table>
<thead>
<tr>
<th>Month</th>
<th>Badger Behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>Badgers spend most of the time underground. Females are pregnant.</td>
</tr>
<tr>
<td>February</td>
<td>Pregnant females give birth underground. Boars start to demarcate their territory more often.</td>
</tr>
<tr>
<td>March</td>
<td>The weather becomes warmer and food is easier to find. Breeding disputes drive subordinates out of territory.†</td>
</tr>
<tr>
<td>April</td>
<td>Cubs start to explore the mouth of the sett.</td>
</tr>
<tr>
<td>May</td>
<td>Because the hours of darkness are so short badgers need to emerge in daylight to get enough time to feed, cubs start to explore area surrounding sett.</td>
</tr>
<tr>
<td>June</td>
<td>Cubs forage either with other cubs or with adults or on their own.</td>
</tr>
</tbody>
</table>

† Highest road casualties are recorded in March and April then August and September. These represent the main breeding times when males may be in conflict and force dispersal. In August and September cubs are foraging further afield. Both may have an influence on road casualty numbers.
<table>
<thead>
<tr>
<th>Month</th>
<th>Activity Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>July</td>
<td>If the weather is dry badgers can spend much time foraging in daylight for food. Some may starve.</td>
</tr>
<tr>
<td>August</td>
<td>Increased road casualties as badgers forage further for food. Food includes cereal crops. Increased digging at setts.</td>
</tr>
<tr>
<td>September</td>
<td>Badgers try to increase their fat reserves for winter as they feast on the autumn fruits.</td>
</tr>
<tr>
<td>October</td>
<td>Badgers continue to increase fat reserves and prepare the setts for winter by digging and bringing in fresh bedding.</td>
</tr>
<tr>
<td>November</td>
<td>Badgers spend more time underground as the weather worsens. They will attempt to feed on frost-free, damp nights.</td>
</tr>
<tr>
<td>December</td>
<td>Badgers spend most of the time underground. Embryos from delayed implantation start to develop.</td>
</tr>
</tbody>
</table>

**Badger Social Group Territory**

A typical badger social group (clan) comprises an adult male (dominant boar), an adult female (dominant sow), this year’s cubs, and the previous
year’s cubs that normally stay at the main sett at least until their second August when they are about 18 months old. In addition there can be other older relatives (both male and female) but all are subordinate to the dominant pair.

In Scotland badgers can be found in almost any type of habitat but typically setts are dug into sloping ground in dry ‘diggable’ soil frequently near the boundary of a wood. However there are setts on open moorland at and above 2,000 feet and there are setts in sand dunes where the rhizomes of the Marram grass *Ammophila arenaria* have stabilised the dunes allowing badgers to excavate and tunnel through them. There are truly highland badgers and in our towns and cities there are urban badgers living cheek by jowl with their human neighbours.

The density of badgers is dictated by the amount of suitable land to dig and the resources available to eat. Thus it is impossible to provide an average area covered by a single social group territory given that in some areas such as Angus there could be as much as 1.5 kilometres between groups and often there are wide-open expanses bordering the territory where there are no badgers for miles. The point to remember is to keep an open mind and to research the area, time your visit correctly according to season, have the right maps and survey with meticulous attention to detail.

Throughout most of Britain, each badger clan has one main sett occupied all year and a number of smaller satellite setts that are used at different seasons and can sometimes lie deserted for years before suddenly being cleared out and lived in again. These satellite setts are essential as shelter for a badger fleeing from danger, perhaps from a dog, when one badger is being harassed by other members of the clan or feeling ill, when a junior female wants to have her cubs away from the bad tempered senior sow and even as a place where these juniors can go to have clandestine matings with those from other setts (this serves the purpose of preventing inbreeding). Urban badgers have more of these setts than their rural cousins because of the greater likelihood of sudden encounters with danger.
4 Survey Methods

Preparing for Survey

Surveyor Competence
All surveyors involved in badger surveys should be sufficiently competent and experienced. Professional ecological consultants should refer to survey competencies set out by the Chartered Institute of Ecology and Environmental Management (CIEEM). Visit www.cieem.net for further information.

Scottish Badgers’ recognised Level 1 Badger Worker status is a means of demonstrating sufficient skill and experience in badger survey. More information is available at www.scottishbadgers.org.uk. Scottish Badgers also runs numerous survey skills training courses across the country.

Desk Study
Prior to carrying out the field survey, a desk study should be undertaken so as to inform you of existing badger records within the study area (sightings, setts and/or road casualties [RTAs]). A standard search radius around a development site is 2km, although for large or linear developments a greater search radius may be required. You should expect to pay for these records. Scottish Badgers have the most comprehensive data for sett records and RTA casualties in Scotland. No survey should be conducted without reference to them datasearch@scottishbadgers.org.uk. Local Record Centres may also be consulted.

Badgers, unlike many other mammals, do not normally disperse their young when they reach maturity. For that reason and many others it takes a long time for them to expand their territories. The pressure from other surrounding groups may mean that the area they occupy never expands. Setts can exist and be continuously occupied for many years and historical records should never be discounted, as there is every chance that the badgers are still at that site.

Survey Timing
Time of year is critical when surveying for badgers for two reasons. The most obvious difficulty is the physical barrier that summer vegetation poses when looking for signs, hence the reason for preferably surveying in spring or autumn. The second most overlooked reason for spring or autumn surveying is badger biology; badgers are most active at certain times of year, and therefore field signs at these times are more frequent. In the autumn badgers are active gaining fat reserves for their winter torpor, and in the spring they
are active when they need to replenish lost fat reserves and scent mark their territory. It is a generally held view that it is during the spring that badgers demarcate their territories more often than normal because it is then that food resources can be scarcer, more widely distributed and competition between social groups is at its greatest for access to them.

Surveys that are undertaken when the vegetation is high and/or activity less intense can be harder to carry out and the results may be limiting, even when badgers are present in high numbers, although this will be dependent on the type of vegetation present and the geographic area.

**Standard Survey Methodology**

Once the development, or 'red line boundary', has been established the survey area can be determined. Generally the development area plus a buffer around the site will be surveyed. A standard buffer around the site is 100 metres which gives consideration to setts outwith, but close to, the development. There may be the need to increase the buffer to a larger distance around the site if the works within the site may be particularly disturbing (e.g. blasting).

All land within the survey area requires to be surveyed for badgers. This involves viewing all areas of the survey area for setts or other field signs. Badgers will commute from setts to foraging areas along paths, and they will demarcate their territories using dung in pits, often positioned along linear features which form the boundaries of their territory. Open areas such as grazed fields can be surveyed very quickly from the margins using binoculars if necessary, while wooded area will be more time-consuming to survey.

Transects lines should be walked through habitats so as to ensure full ground coverage. The distance between the transect lines will be dependent on the density of the vegetation cover. For example, transect lines in coniferous plantation such as Sitka spruce may need to be positioned at 5 metre intervals, whereas in open broadleaved woodland, ground cover may permit transects to be 20 metres apart. Linear landscape features such as walls and fences should also be walked along in order to identify any territory markings or badger crossing points.

Field signs will be searched for, which include:

- Setts
- Day beds (above ground areas where badgers sleep, characterised by flattened vegetation or bundles of grass)
- Badger faeces in dung pits, a concentration of which is termed a latrine
- Foraging signs such as diggings or snuffle holes (where badgers have inserted their snouts into the ground to search for earthworms and insects)
- Paths linking setts and foraging areas
- Scratching posts
- Hair
- Footprints

Sometimes a mammal hole is found which could potentially be used by badgers. A sett is defined as ‘any structure or place which displays signs indicating current use by a badger’. There is no legal definition as to what ‘signs indicating current use’ are, although Scottish Natural Heritage consider these to be field signs including bedding, fresh spoil heaps, hair, latrines, and footprints in or around the feature in question. If it is not immediately clear whether a feature is a sett, all potential entrances should simultaneously undergo active monitoring for at least two weeks using sand traps (to look for footprints) and light-weight sticks placed across the entrances (to monitor if any animal enters or leaves).

Camera traps can also be used. By doing the above immediately prior to the proposed works occurring, and checking regularly throughout the monitoring period, it should be possible to come to a decision as to whether the feature is a sett or not. It is particularly important to note that other species especially foxes will use badger setts and joint occupation, including use of the same entrances, is not unusual. For this reason it is crucial that a burrow is not disregarded as a sett in current use merely because of the presence of foxes.

Other Survey Methods

Occasionally, other survey methods are necessary to fully understand badger activity at a site. These methods can include ‘bait-marking studies’ where badger clans are provided with supplementary food, loaded with coloured non-toxic plastic pellets. Latrines and dung pits are then visited regularly to track coloured pellets with a view to establishing territory shapes and sizes.

In areas where badger density is low bait marking surveys frequently fail to produce meaningful results as territory boundaries can be very fluid and the passive defence produced by latrines is unnecessary.

Bait marking is a specialist method and should only be adopted by experienced surveyors in consultation with Scottish Natural Heritage. Scottish Badgers can provide advice in these instances.

It is becoming increasingly common to use wildlife cameras, or trailcams, to monitor wildlife activity and identify direct evidence of species presence. The use of any filming equipment in publicly accessible land is carefully
controlled by legislation. If surveyors propose to use surveillance equipment, they should take account of all legal requirements.
5 Badger Field Signs

Badger Setts

A sett is defined in the Protection of Badgers Act 1992 as amended, as “any structure or place which displays signs indicating current use by a badger”. There is no case law which clarifies what “signs indicating current use” are, and so SNH has produced interpretive guidance, and consider that presence of fields signs such as bedding, fresh spoil heaps, recent digging, hair, dung pits, or footprints in or around the potential sett, or evidence of badgers entering or exiting the potential sett would indicate current use by a badger.

In most cases each social group of badgers has more than one sett in its territory, and these vary in status and level of use due to social or environmental factors. The current standard for identifying and classifying setts is listed below.

Main setts

Normally each group of badgers has only one main sett, and so by counting all the main setts in an area you can find out how many social groups of badgers are present. Main setts usually have several holes with large spoil heaps, and the sett generally looks well used. There are obvious paths to and from the sett and between sett entrances. In the British National Badger Survey the average number of holes for a main sett was twelve, although main setts may be much smaller, even a single hole in exceptional circumstances. Although normally the breeding sett and in continuous use, it is possible to find a main sett that has some disused or dormant entrances.

Annexe setts

These are often close to a main sett, normally less than 150 metres away, and are connected to the main sett by one or more well-worn paths. Usually there are several holes but the sett may not be in use all the time, even if the main sett is very active. The average number of holes per annexe sett in the British survey was eight.
A badger sett in woodland. Note the large spoil heaps at entrance holes.

**Subsidiary setts**
These are usually at least 50 metres from a main sett, and do not have an obvious path connecting with another sett. They are not continuously active. The average number of holes per subsidiary sett in the British survey was four.

**Outlier setts**
These often have little spoil outside the holes, have no obvious path connecting them with another sett, and are only used sporadically. When not in use by badgers, they are often taken over by foxes or even rabbits. However, they can still be recognised as badger setts by the shape of the tunnel (not the actual entrance hole), which is at least 25 centimetres in diameter, and rounded or a flattened oval shape (i.e. broader than high). Fox and rabbit tunnels are smaller and often taller than they are broad. The average number of holes per outlying sett in the British survey was two.

In some cases it can be quite difficult to assess the status of a sett, and it is open to interpretation. It is therefore recommended that if you are unsure as to the type of sett present, you refer to setts as ‘Other’.

It is very important to realise that some quite small apparently “outlier” setts can be used for breeding and in some cases there may be more than one sett being used for breeding in a particular territory.
**Sett Classification**

There may be many entrances to a badger sett and some will be well used whilst others remain dormant. Outside each hole there will be a significant amount of soil, the spoil heap, which can contain several tons of material including excavated soil and stones together with discarded bedding. On close inspection you should find badger hair mixed into the soil. The hole created by a badger is normally in the shape of a ‘D’ lying on its back; however, in very crumbly substrate like sand or clinker, collapses can result in entrances becoming much larger and rounder. During a survey, each sett entrance is classified according to its degree of usage:

**Well Used (WU)** are clear of debris and vegetation, sides worn smooth but not necessarily excavated recently.

**Partially used (PU)** are not in regular use and have debris e.g. twigs and leaves in the entrance. They could be used after only a minimal amount of clearance.

**Disused (D)** not in use for some time, are partially blocked and could not be used without considerable effort. If the hole has been disused for some time all that may be visible is the overgrown spoil heap and a depression in the ground where the hole used to be. Rabbits and foxes may take over part of a sett and keep disused entrances open.

In addition there may be:

**Collapses** where a tunnel has collapsed

**Air Holes** where badgers have made a small hole in a tunnel roof from below.

![Typical shape of a sett entrance.](image)
Badger Field Signs

In general once you are aware of the appearance of a badger sett they are unmistakable but to prove that the sett is in current use, certain signs are required, namely hair, bedding and/or tracks.

**Badger Guard Hair**
Guard hairs are the thick hairs that cover the badger’s body and give it its colouring. They are a dirty white with a silver tip and a dark band approximately 10mm wide just below it. They are extremely distinctive in their structure being around 70mm long, oval in cross section and coarse, almost wiry, in texture. The tell-tail, oval shape is evident when the hairs are rolled between the finger and thumb. No other mammal found naturally in the wild in Britain has guard hair that fells like this. Guard hairs are frequently found in spoil heaps or caught on barbed wire or brambles where badgers have passed through.

![Badger hair snagged on a barbed wire fence](image)

**Badger Bedding**
Badgers collect and take underground large quantities of vegetation for use as bedding, biting off lengths, clawing it up into a bundle, tucking it under their chins and shuffling backwards towards their sett. Usually fragments are visible around the sett as evidence of its collection but you may also see vegetation trails or balls of vegetation sometimes many metres from the sett. It may include grass, bracken, wood rush, hedge clippings or straw. Underground the bedding is often chewed up into short lengths and eventually deposited on the spoil heap when the sett is cleaned out during the spring and summer.
Dung Pits and Territory Demarcation
Badgers dig dung pits in which they defecate and urinate, and you will normally find them throughout a badger territory. They use groups of dung pits called latrines to delineate their territory from other social groups. These tend to be at boundaries such as fences, or corners of field and woods. On rare occasions badgers will defecate on the ground (i.e. not in a pit) or on raised surfaces such as walls. Because our sense of smell is so poor we can rarely detect ‘eau de badger’ except from the dung itself. Most people are surprised to find the smell is not unpleasant; it is sweet and musky. Below each badger’s tail is a large scent gland (the sub-caudal gland), which they use to mark both their territory and each other. Badgers also communicate with each other by smell so by marking each other with musk they develop a clan smell and by “musking” the paths and places they visit they mark out a clan territory which neighbouring clans recognise and avoid. Both boars and sows can be very aggressive towards each other, especially during territorial fights.
Scratching Posts
Badgers also have extremely sharp claws, which leave marks on tree trunks, and you may find a ‘scratching post’ on or close to setts. In areas where the badgers cross fallen trees, stone walls or rocks you will often find distinctive scratch marks.

This tree has been used as a scratching post.
**Foraging Signs**

Foraging signs are often evident where badgers have been searching for food. You may find snuffle holes where badgers have inserted their noses into the vegetation in a search for earthworms, and scrapes and diggings in the ground. Be aware that other animals such as rabbits, deer and pheasants may also scrape and dig at the ground, particularly in wooded areas.
Surveying for Badgers: Good Practice Guidelines

**Badger Tracks**
Badger paws have five toes and long sharp claws used for digging. Prints are distinctive sometimes showing all five toe marks and the impression of the claws, which are not retractable, at the front of the print. The following depictions are clearly perfect representations of prints but you will rarely find such unmistakably defined prints in the wild.

![Badger Print](image)

The sizes given above are average for an adult badger. Note badger front paws are broader than the rear by about 5 mm. Large boar prints can measure as much as 65 mm.
Badger paw prints are very distinctive although on occasion the rear paws will over mark the front paw as the animal moves forward.

This picture clearly shows the presence of the five toes and claw marks.

Badger Paths
Badger paths are distinctive and often well used, made by the constant movement of badgers in an area. They are very faithful to their paths and over a period of years can build up a substantial network throughout their habitat. Paths are wider than a normal mammal track and may continue under obstacles such as fallen trees or under thick bushes such as Rhododendron. Normally several species share paths. Fence lines, hedges
and gaps in walls are good places to check for paths crossing from one area to the next but the paths do not normally continue far across a field as badgers disperse to feed. You may also find hair attached to fences, especially barbed wire, where badgers pass underneath.

Distinctive badger path.

Check fence lines, in particular barbed wire, for hair left as badgers pass below.
6 Data Management

Data Recording

When field signs are found they must be recorded very carefully. A GPS device must be used to accurately record the location of the field signs to at least eight figures (e.g. NT 1234 9876) which will allow them to be plotted onto a map to show their location.

When setts are found, the activity should be recorded using the following categories:

- Number of well used holes
- Number of partially used holes
- Number of disused holes.

The setts should be classified as follows (see definition on pages 9-11):

- Main sett
- Annexe sett
- Subsidiary sett
- Outlier sett

If the status of a sett cannot be classified it should be labelled as “Other sett”.

Scottish Badgers’ standard recording form is available at www.scottishbadgers.org.uk and we recommend that surveyors use this data form or generate a similar approach to collecting field information.

Data Sharing

The development planning process in Scotland requires that planning applications and their accompanying documents, including ecology reports, are shared in the public domain. However, given the sensitive nature of badger data and its potential use in informing criminal activity, it is appropriate to redact badger sett records from planning applications.

Where consultants are required to produce detailed badger survey reports, they should be marked ‘confidential’. Developers and clients should be instructed not to upload badger survey reports to Planning Portals. Data should not be shared with consultees or stakeholders beyond those involved in interpreting ecological information.

Subject to client permission, badger records should be shared with Scottish Badgers, ensuring that future data searches are robust and accurate. Records should also be shared with Local Records Centres where confidentiality is confirmed.
7 Evidence of Badger Crime

Badger persecution is common and widespread in Scotland. Surveyors may encounter evidence of badger crime during the course of their work and it is important that the often subtle signs can be recognised by those in the field.

Police Scotland, not SNH or Scottish Badgers, are responsible for investigating badger crime. Thus, if surveyors are concerned about potential badger crime at their site, they should immediately contact Police Scotland by telephoning ‘101’, ensuring an incident reference number is given. They should then withdraw from the sett and await further instruction from the police.

Once the incident has been logged with the police, the incident number should be passed to Scottish Badgers who will follow up with the relevant Wildlife Crime Liaison Officer.

Please note that it is best practice to inform your client/landowner of the incident, but this does not absolve surveyors of their professional duty to report wildlife crime.

Below are some examples of the types of interference often encountered in Scotland.

**Sett Gassing:** This illegal and highly dangerous practise still occurs. Cyanide crystals are placed in the sett entrances which are then blocked with plastic sacks containing earth. These are then covered with loose earth to blend in with the surroundings. The plastic sacks act as a seal and if removed it is likely that cyanide gas will be released and will poison anyone in the immediate vicinity. If you find a sett that you suspect has been treated in this way then police need to be informed immediately as this is a serious threat to life.
Sett Digging: Badger baiting often involves digging into a sett to recover a terrier dog and/or extract a badger. Sometimes these “crowning down holes” are left open and sometimes they are back filled. The open holes are fairly obvious and can be huge. Back filled holes can be identified by the square shape of the disturbed earth which is usually at least 30cm square. The bigger the back filled square the deeper the crowning down hole went. Signs of badger baiting like this should be reported to the police using the 101 number and also to Scottish Badgers.
Snaring: When badgers are snared they tend to fight hard against the snare. The energy that they expend desperately trying to escape causes them to create a circle known as a “doughnut”. This is characteristic of badgers being snared and is sometimes found in the landscape long after the dead badger and the snare have been removed. Where the snare has been set near an obstruction, such as a fence, the doughnut may be partial. If you
find a doughnut you should report it to the police using the 101 number and also inform Scottish Badgers.
Licensing violations: Consultants may sometimes come across licensing violations when dealing with development, agricultural or forestry work. It is important to report these to SNH straight away as otherwise the consultant may become liable for the actions taken and this could have serious consequences professionally.