

Finding Evidence of Badgers



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The Definitive On-Line Guide to Badgers in the UK

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Foreword

People view nature in all sorts of different ways. Whilst some people enjoy the big picture of the overall sights, sounds and smells of nature; other people really like to examine the detail of nature in its many individual forms. Some people are happy if they simply catch sight of an animal, whereas others want to learn how to track the animal in the manner of a forensic investigator and study all the clues that it leaves. This booklet is targeted at the person who wants to study badgers and the evidence they leave behind.

We hope that this booklet will provide a useful starting point to help you enjoy your wildlife experiences and will help further your knowledge about badgers in particular.

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What is in this booklet?

We have arranged this booklet into the following sections:

- Introduction to Badgers
- Biology
- Nocturnal Lifestyle
- The Social Badger
- Causes of Death
- Month by Month
- Food Sources
- Badger Noises
- Descriptions of Badger Calls
- Territories
- Badger Paths
- Setts
- Holes Comparison
- Scratch marks
- Footprints
- Latrines, Droppings and Urine
- Droppings Comparison
- Badger Bones
- Badger Watching
- Useful Equipment
- Badger Sett Recording Form

Introduction to Badgers

The Badger is one of the most popular wild animals in the UK. Widespread across England and Wales (with a few in Scotland), the badger is loved by most but seen by few. This booklet explains about the badger, its family, its home, its diet, its lifestyle and its environment. It shows how you can spot the signs of badgers, how you can record that information and pass it on to people who can help protect them.

Biology

The Badger is a mammal, meaning that they are warm blooded creatures whose young drink their mother's milk. Badgers are also carnivores as they have large canine teeth and are designed to eat meat. In reality, they eat a wide variety of food including plant materials too.

Badgers are members of the Mustelid family - meaning that they have a large gland under their tail which secretes a musky smell. Their closest relatives are the otter, stoat, weasel, polecat and pine marten.

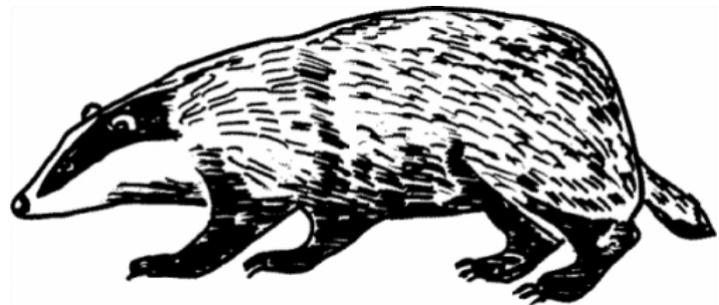
The badgers in the UK are Eurasian Badgers - meaning that they are present throughout much of Europe and Asia. The Latin name for our badger is *Meles meles* - although they are sometimes known by their country names of Brock or Pate.

Males are known as Boars, females are Sows and babies are Cubs.

Size, Shape and Weight

An adult badger can grow up to 68-80cm long (head and body), plus a tail of up to 12-18cm long too.

Fully grown they measure up to 30cm at the shoulder. Adults weigh 9-12 kilos, females will be 1kg lighter than males, and lactating females 1kg lighter again.



Both sexes are heavier in the early winter than in the late spring; as they store a thick layer of fat to see them through the winter, when there is little food. In winter, they may have a few lazy days when they do not emerge from their setts (this is known as a winter torpor), but they do not hibernate.

The badger has short, powerful legs, strong shoulders and long claws (especially on the front feet); which make it an excellent digger. The nostrils and ears can be closed slightly when digging to avoid them getting filled with soil.

The badger has a coarse coat of black and white hair which leads to a grey appearance from a distance. It has a black chest and forepaws; with a prominent white face with black eye stripes and white ears. It also has sensitive whiskers around the nose and above the eyes, which are very useful when digging or tunnelling.

Each body hair will be up to 10cm in length and will usually have a black section around 1-2cm long at or near the tip. Badger hairs may be stained with the local earth (especially at the end opposite the hair follicle). These long hairs feel rough, and "square" when rolled between the finger-tips. They will commonly be found caught on barbed wires, rough tree bark and logs, wooden fence posts and rails, and mixed up with bedding materials and in spoil heaps.

Hair from the legs and the eye stripes will be almost pure black, with hair from the face and ears being white or a light creamy colour. You may also find short white or cream hairs - this being the softer under fur. Badgers moult from a lighter-coloured heavy winter coat to a slightly darker, thinner summer coat in the spring.

Adult males are more heavily built than females, and, when viewed head on, show a distinctly broader head with fuller cheeks. This is because males tend to have stronger jaw muscles which develop more quickly than those in sows. Also, the region of the skull between the ears is slightly more domed in males than in females. Male badgers usually have a tail which is thinner and whiter than females.

All these differences are variable to some degree and not at all easy to distinguish at night!

Lactating females will have prominent teats - often with bare-looking skin around them. Putting food in a high place (such as on a fallen tree trunk or a bench) will sometimes allow an observer to see the underside of the badger.

A small proportion of badgers have albino-type colouring, with pink eyes and white or creamy-coloured fur (except where stained by local soil or musky secretions). A small number of badgers have Erythristic-type colouring, with ginger or red-brown fur. These albino and Erythristic colours are inherited, and a proportion of their cubs will be white or ginger too.

Nocturnal Lifestyle

Badgers are nocturnal - meaning that they emerge just after dusk and return back home before dawn. As a general rule, badgers will emerge between Sunset and Dusk from May to September; and after dusk in other months. They will usually return back to their sett after first light but before sunrise.

Badgers are also extremely shy, and this is why so few people have ever seen one. They are very wary of people - especially away from habitations. Badgers which do not come into gardens are easily spooked by humans.

Badgers effectively see only in black and white and have fairly poor eyesight. They can distinguish shapes and silhouettes - especially of humans and new sights; and will be aware of bright lights or camera flashes.

Badgers have very good hearing and can easily hear twigs being snapped, leaves being trodden on and noisy coats flapping. They can hear high and low frequencies, as well as beeps from mobile phones/cameras and the high-pitched whine of a camera flash being recharged. However, they will get used to noises which they judge to be

safe; so are not usually spooked by dogs barking or other natural noises unless they are close by.

Their sense of smell is perhaps 800 times more sensitive than humans, and badgers can detect smells many metres away (especially if that smell is upwind). Their sense of smell is more acute in moist, humid conditions; and badgers will often sniff the air at the sett entrance before deciding which direction to go in search of food. When watching badgers try to remain downwind of them so they can not pick up your scent.

The Social Badger

Badgers are social animals as they live in family groups (called a Clan). Their home is a series of tunnels and nesting chambers called a Sett. They maintain a much larger territory around the sett for feeding.

Sows have a true gestation period of about 7 weeks, and usually give birth to 1 and 5 cubs - the average litter size being 3 cubs. A new-born cub is 12cm long and weighs 75-130g when born. Their eyes are closed for the first 5 weeks. Cubs live with their mother in a single nesting chamber for the first 8 weeks; and are weaned by 15 weeks.

There is a pecking order within the clan; with one boar being the dominant male and one sow the dominant female. The dominant boar will mark all other badgers by applying his musk to them and they will groom one another. On average there will be five badgers per clan, although there can be anything between 2 and 15.

Adults squabble as they compete to rise up the social hierarchy, as this may mean more food and an increased chance to breed successfully. Subordinate males or females are commonly siblings and have much less chance of raising cubs within the clan. Males may breed with females of adjacent clans and up to a quarter of young boars leave permanently and join nearby clans around breeding times.

Badgers are usually sexually mature by the age of 12-15 months, but females vary from as early as 9 months if feeding well, up to 2 years if little food is available.

Clan members will often emerge at more or less the same time as one another; and will often engage in mutual grooming and musking. Grooming is where one badger will scratch or nuzzle another in order to deal with any biting insects (like fleas and lice). Musking is where badgers smear a small amount of their oily musk on other members of the clan. This means that every badger acquires a common smell; and badgers from other territories can be quickly identified as outsiders. The large musk gland is situated under the tail.

Badgers are not very social feeders. Often the first badger to find a food supply will eat it, until a higher ranking badger arrives and muscules in. When feeding, they only really co-operate to check whether an area has already been swept for worms by another badger.

Badgers do not have a recognised alarm call and one badger will generally run from danger without making certain that any fellow adult clan members are safe. However,

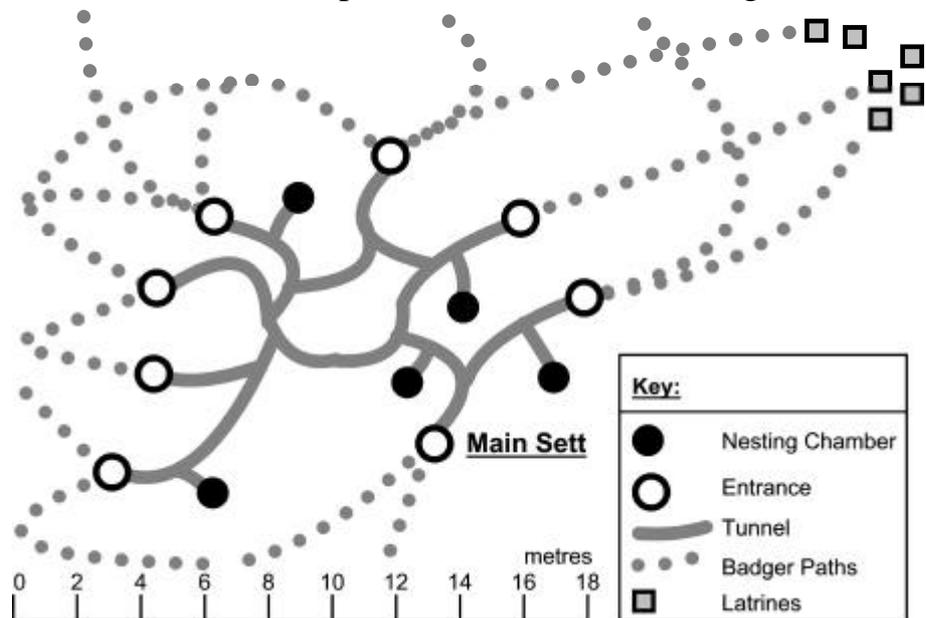
Setts

A sett is the name for a collection of interlinked tunnels and underground nesting chambers in a confined area. There will usually be more than one sett in most badger territories.

The tunnels are at least 200mm high and 310mm wide. New tunnels may be smaller, and older tunnels may be larger. New tunnels will be circular in cross-section, whereas older ones tend to have a flat floor. Long tunnels may also have occasional passing places to allow badgers to pass one another.

Each entrance will have a large spoil heap of soil, stones, bedding, badger hair and possibly small bones. There will be a channel or furrow leading from the hole to the spoil heap - this is formed as badgers excavate soil or remove bedding. Bedding materials may be left in the furrow to freshen up before it is re-used underground.

Each territory will have a main sett with many metres of tunnels and several entrances and nesting chambers. There will usually be spare nesting chambers, as badgers like to sleep in a fresh chamber from time to time. Nesting chambers may be as little as 600mm in diameter but may sleep two or three badgers nose-to-tail.



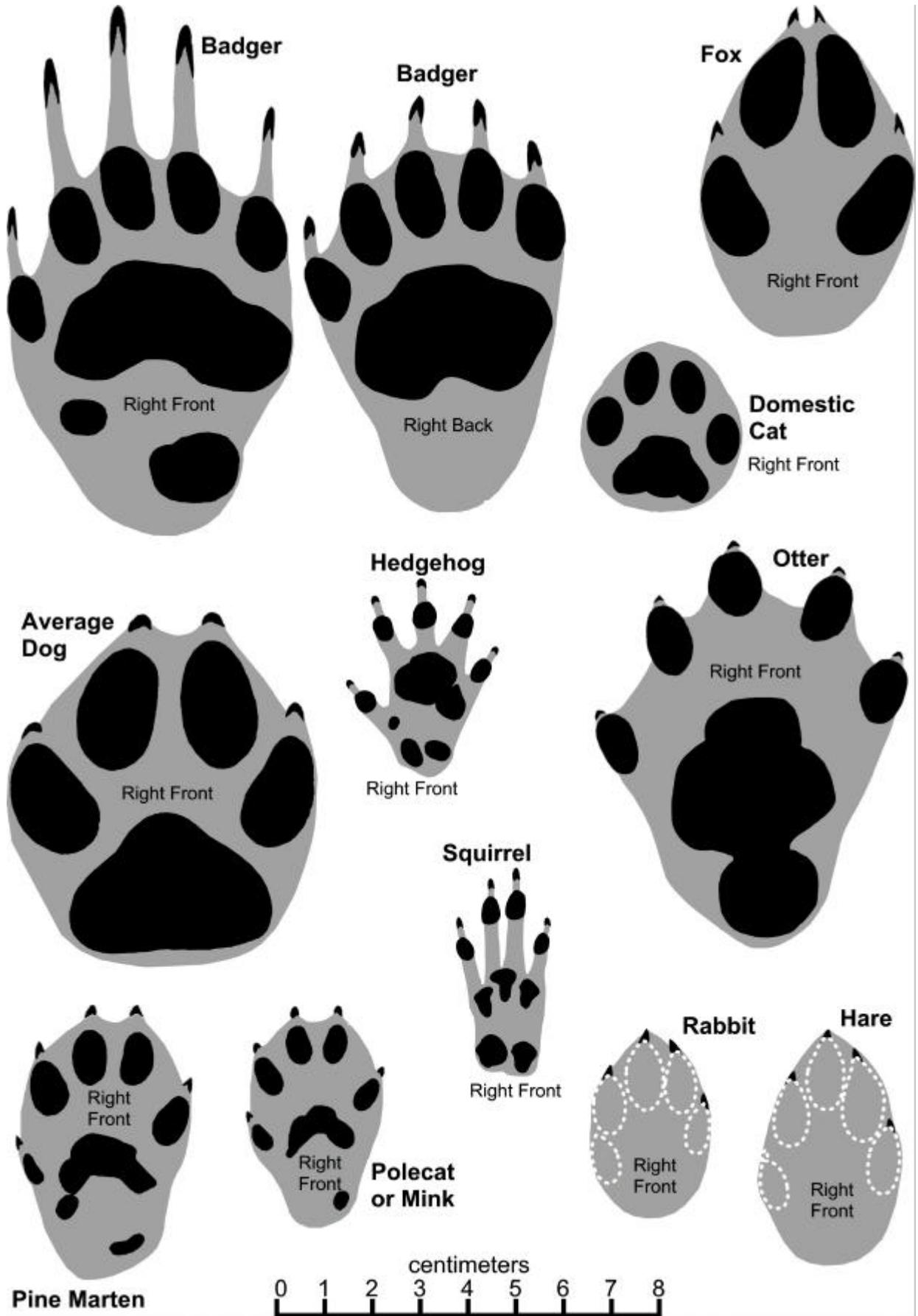
Plan of a Main Badger Sett

Nesting chambers will never look directly into the open air; and they will always be at a dead end of a tunnel for extra safety against being attacked.

Badgers keep the chamber warm and fresh by taking in bedding such as grass, hay, moss and leaves. There will often be a trail of scratched up vegetation into the sett. Clumps of bedding material may have been dropped by badgers as they hold it between their feet and drag it backwards into the sett.

The main sett will be near the centre of the territory, and the main sett area may be tens of metres across. There may be smaller annexe, subsidiary or outlier setts too.

The vast majority of setts are underground, but in summer months a few badgers may sleep above ground in well concealed areas - such as in the middle of dense gorse or rhododendron bushes or in haystacks. On cold still winter days, you may be able to see steam rising from entrances or breather holes in active badger setts.



Footprints Comparison

Badger Protection

Badgers and their setts are protected by both the Protection of Badgers Act 1992 and the Wildlife and Countryside Act 1981. These acts make it **ILLEGAL** for any person:

- To kill, injure or take any badger, or to use gas or poison on a badger or to catch one in a snare.
- To cruelly ill-treat any badger
- To dig for a badger
- To possess a dead badger or part of a dead badger (such as a pelt)
- To sell, try to sell or keep a live badger.
- To intentionally or recklessly damage, destroy or obstruct access to any entrance to a badger sett
- To Cause a dog to enter a badger sett
- To disturb a badger which is in a sett.

If badgers are causing serious problems, it is possible to apply to English Nature for a licence to deal with the problem. However, these are not easy for people to obtain unless a badger survey has been completed.

- Importantly too, other animals and environmental areas are also protected, so prosecutions are possible under other laws too.

Further Information

For future information please look at the www.badgerland.co.uk web-site or write to us at:

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