

Natural Heritage and the Law:

Bats and People





Why are bats protected?

There is considerable evidence that all species of bat in Britain have declined significantly this century, particularly since the 1960s. The reasons for the decline include: loss of suitable roost sites, loss of feeding habitat, reduced availability of insect prey through pesticide use and mortality resulting from the use of highly toxic timber treatment chemicals in house roosts.



I have bats in my attic; I know they are protected but I need to have the roof repaired, what should I do?

The presence of bats in the attic does not mean that necessary maintenance cannot be undertaken; however the timing and nature of the work are very important considerations. If you need to do any work which might affect a bat roost, you should contact Scottish Natural Heritage for advice on how best to proceed.



Do bats cause damage to my house?

It is almost unknown for bats to cause damage to houses. They don't build nests like birds or chew cables and gnaw wood like mice.



I've heard that bats can get caught in people's hair; is this true?

This is very rare. Bats have a very sophisticated ultra-sonic echolocation system which enables them to navigate in the dark and manoeuvre quickly in complex environments such as amongst the foliage of trees, whilst feeding on insects. Avoiding flying into a person's hair should be child's play to a bat!



Natural Heritage and the Law:

Bats and People

Table of Contents

What's special about bats?	3	Helping bats	14
Wings	4	Underground.	14
Sonar.	4	Hollow trees	14
Feeding	5	House roosts	14
Hibernation.	6	Bat boxes	14
Breeding	6	Bat grilles	15
Life span	7	Bats in the garden	15
Bats and their roosts	7	Bat groups.	15
Bats in buildings	9	Identifying bats	16
House roost sites.	10	Scotland's bats.	16
Bats and people.	10		
Bats in rooms	11	Bats and the law	18
Noise.	11	Further reading	20
Droppings and smell	12		
Damage.	12		
Disease	12		
Bats and household maintenance	13		
Repairs, re-roofing and alterations	13		
Remedial timber treatment	13		
Burglar alarms.	13		



What's special about bats?

Bats are highly specialised and remarkable animals with some amazing features. They are the only true flying mammals. Like us, bats are warm-blooded, give birth, and suckle their young. They are also long-lived, intelligent, and have complex social lives. Although they're often called flying mice, bats are not closely related to mice but form a special group of their own: the Chiroptera.

World-wide, there are almost 1000 different species of bat, ranging from the tropical flying fox, with a wing-span of almost 2 metres (6'), down to the hog-nosed bat of south-east Asia, which is little bigger than a large bumble-bee. In Britain there are 16 species of bats, nine or ten of which occur in Scotland.

In many parts of the world, including Britain, the number of bats has declined significantly in recent years - some species have declined to the point of extinction. Although we don't have much historical information, it's clear that many of our bats are under threat and some species are now much less common than in the past.

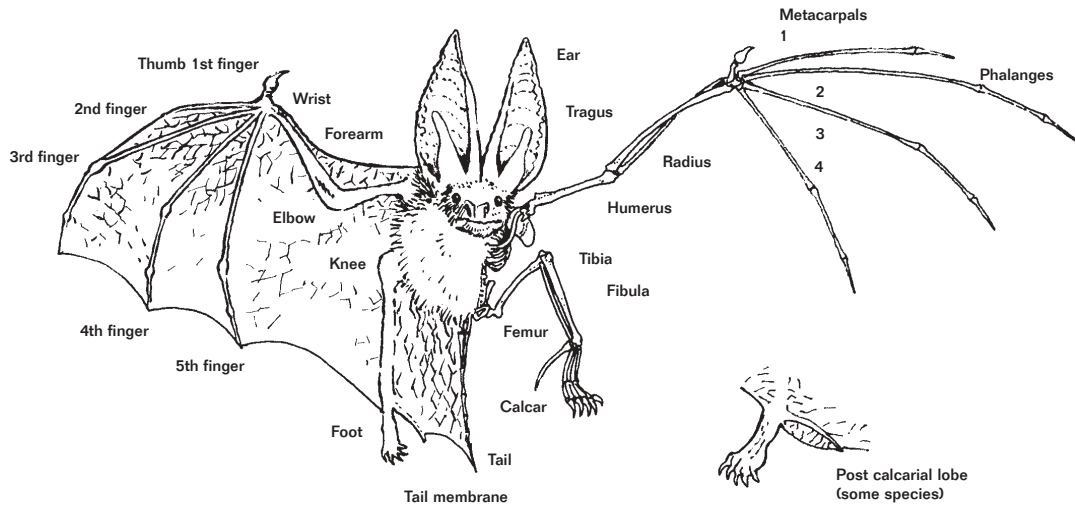
Brown long-eared bat
foraging over grassland

Brown long-eared bats in
a typical maternity roost



Wings

Bats' wings are made out of a soft, elastic membrane of skin stretched over their arms and legs and which continues to meet the tail. Bats have the same bones in their arms as humans but their hand bones are much longer and support their wings; the group's name comes from the Greek for hand (chiro) and wing (ptera). The structure of bats' legs enables them to hang upside down whilst roosting without needing any energy to hold on, although many bats prefer to roost in small holes and crevices.



Sonar

Although bats certainly aren't blind, their sight is not used for hunting insects in the dark. They have developed a highly sophisticated echolocation system that allows them to catch tiny insects and avoid obstacles, even in complete darkness. When they're flying, bats produce a stream of high-pitched squeaks and listen to the echoes to produce a sound picture of their surroundings.

It was only discovered in 1793 that bats could avoid obstacles in the dark, and only 50 years ago that their echolocation system was detected. Bat squeaks are too high-pitched for humans to hear, so many bat-enthusiasts use electronic bat-detectors that pick up these high-pitched squeaks and turn them into audible sounds that can be used to identify different species in the field.



Ideal bat feeding habitat,
River Tweed

Feeding

Different species of bats around the world feed on a variety of foods including fruit, nectar, small mammals, fish and frogs, but Scottish bats eat only insects which they catch in flight or pick off water, the ground or foliage. Some specialise in catching large insects such as beetles or moths while others eat thousands of very small insects, such as small moths and the ubiquitous biting midge, a single bat may consume over 3000 of these in a night. Bats feed where there are lots of insects, so their favourite feeding areas include traditional pasture, woodland, marshes, ponds, and slow moving rivers. Typically, bats will feed for two or three hours around dusk and dawn when insects are most active.



A Daubenton's bat foraging
over water

Hibernation

There are very few insects around in winter, so animals that eat insects have to adopt different strategies in order to survive. Birds migrate south to warmer climates, but our bats have evolved a different technique - hibernation. During the autumn, bats put on weight. Then as the weather gets colder, they let their body temperature drop to close to that of their surroundings and slow their heart rate to only a few beats per minute. By entering this state known as torpor, bats can make their food reserves last much longer.

Surprisingly, bats don't sleep right through the winter; they may wake up and go out to feed and drink on mild evenings when some insects are found. Even on very cold nights, bats may be seen on the wing as they move to more sheltered roosts. Flying in the winter uses up energy that bats can't easily replace and so their chances of surviving the winter might be affected if they are disturbed while hibernating. In Scotland, bats are spotted so rarely in winter that it has been suggested that they migrate in the same way as many birds do (and some bats in continental Europe).

Bats have good control over their body temperature. Even during the summer, bats can enter torpor during cool spells. This helps them to conserve energy and to survive periods of bad weather when food is scarce.



A hibernating Daubenton's bat showing drops of condensation on its fur

Breeding

Our bats have a unique and fascinating way of combining their breeding cycle with hibernation. Mating takes place during the autumn. The female stores the sperm in her body throughout the winter and only becomes pregnant the following spring. Pregnancy lasts between six and nine weeks and can vary in length depending on the weather. Usually bats have only one baby each year and it is looked after very carefully. The baby bat lives on its mother's milk for four to five weeks until it can fly and hunt for itself. A mother may fly to another roost site and carry her baby with her. Bats don't bring food back to the roost to feed their young.

Life span

Compared with other small mammals such as shrews and mice, which often live for less than a year, bats are amazingly long-lived. They can live over 25 years in the wild - a remarkable feat for an animal weighing less than 10 grams! Perhaps this is because they spend more than half their lives asleep.

Bats and their roosts

A bat's choice of roost depends upon, amongst other things, its species and sex, the time of the year and the availability of food. In any one year several different roosts are used on a seasonal basis, where conditions meet the bats' social and reproductive requirements at the time. As bats cannot always rouse themselves quickly to escape from danger the roost must be safe and free from disturbance. Summer roosts are generally close to good feeding habitats which are rich in insects.

Natterer's bats in a
maternity roost



Most bats form social groups for at least part of the year and it is at these times that bat roosts are most obvious.

Adult females gather together in maternity roosts in late May to early June to give birth and rear their babies. As soon as the young start to fly these maternity colonies begin to break up and the bats move to other roosts. Bats may congregate from a large area to form these colonies, so any major disruption at this summer breeding site could potentially wipe out all the females from this area. In contrast, male bats typically prefer to live alone or in small groups in cooler sites. This may be another adaptation to help them save energy. During late summer male bats set up territories around a mating roost to which they attract females.

Although bats can be found in all sorts of places, there are three main types of roost:

Buildings such as houses, churches, farms, bridges, ancient monuments, fortifications, schools, hospitals and all sorts of industrial buildings. These are most important in summer, though some are used throughout the year.

Caves, mines and other **underground places** like cellars, ice-houses and tunnels. These are most important for hibernation as they give the cool, sheltered and stable conditions that bats need during winter.

Tree holes - these are used by bats throughout the year.

Some favour buildings throughout the year while others rely on buildings during the summer and caves or abandoned mines during the winter, and yet others prefer tree holes. Bats have well established traditions and tend to return to the same sites, at the same time, year after year.

If bats are present during the summer, it's often possible to see them fly out at dusk or even hear them inside the roost on hot days or before they emerge in the evening. Frequently, though, only signs of bats will be seen rather than the animals themselves. The most characteristic signs are their droppings which are composed of the indigestible remains of their insect prey. These are roughly the size and shape of mouse droppings but they crumble to a powder when dry and are usually found stuck to walls or in small piles below roosting bats or below the roost exit.

Because bats come back to the same roost year after year, their roost is legally protected even when the bats are not there.



Pipistrelles are the species of bat most commonly found in house roosts

Bats in buildings

With the clearing of woodland, the numbers of most bat species have declined. In response to this they have adapted to living in buildings and now rely so heavily on these for roosting that their conservation depends largely on our tolerance and good-will.

Like house martins and swallows, bats are usually seasonal visitors to houses and are typically present for only four to five months of the year. They tend to form maternity colonies during May and June and then leave during August and early September once the young bats are independent. The colonies are often most obvious during July, when the young are starting to fly; soon after this the adults will start to leave, followed by the young. Although this seasonal pattern usually applies, different species have slightly different habits, notably brown long-eared bats, which can sometimes occupy the same building throughout the year.

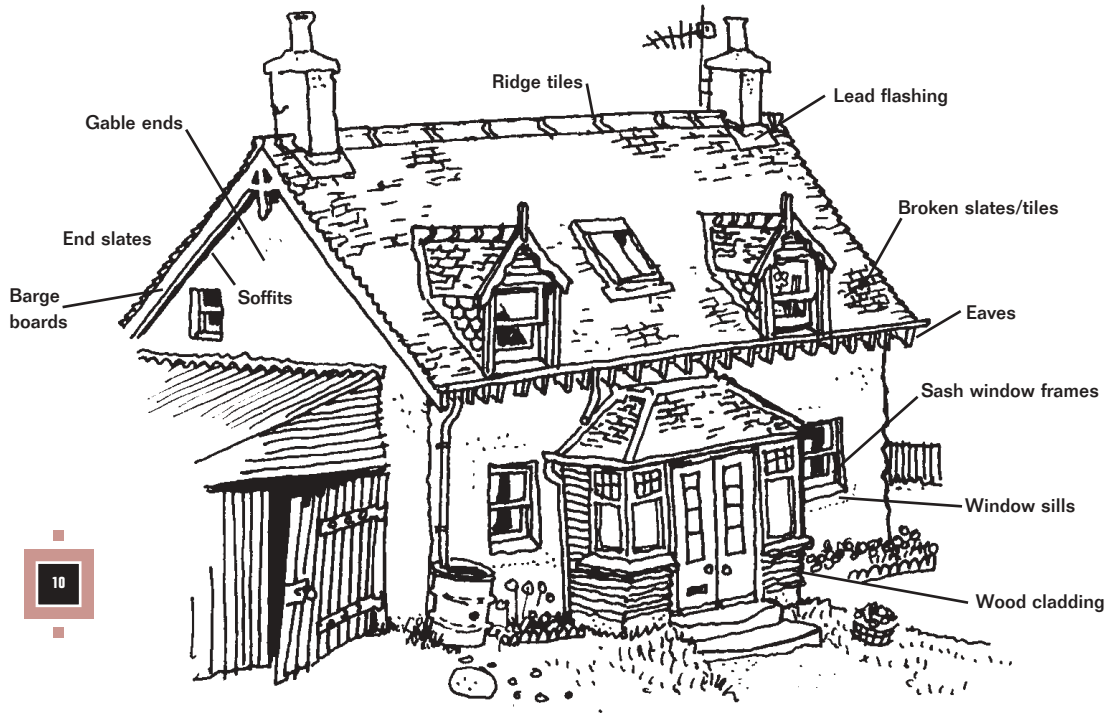
The typical size of a maternity roost, occupied by either of the two widespread pipistrelle species in Scotland, is between 100 and 200 bats. Exceptionally, colonies may contain over 1000 bats. In general, colonies at the smaller end of this range mostly comprise common pipistrelles, while the very large ones are formed by the closely-related soprano pipistrelle.

To maximise warmth, maternity roosts are often located on the south and west of houses or close to sources of heat such as chimneys and boilers. Most species prefer to roost in quite small spaces and are not usually found in open draughty areas like barns. The common and soprano pipistrelles are our smallest and most common bat species. They are generally found in the inaccessible parts of the roof structure and around its edges and rarely enter the loft space. Both species colonise new buildings quite readily and frequently roost in houses built since the 1960s. By contrast, the brown long-eared bat, our third most common species, prefers older building with large roof spaces and is often seen in clusters at the top of the roof ridge inside the loft.

Where bats are seen in buildings during the winter, they tend to be alone or in small scattered groups, hidden in crevices or under slates and away from sources of heat.



House roost sites



Although often concealed when roosting, bats often make full use of the roof space prior to leaving the roost for the night

Bats and people

Bat colonies usually live happily with their human landlords, but occasionally problems or concerns arise. However, most bats are seasonal visitors and will leave of their own accord at the end of the breeding season. Scottish Natural Heritage is happy to provide advice on how to deal with any problems, the most common of which are outlined below. Scottish Natural Heritage should, by law, be consulted before you take any action that may affect bats or their roosts. Details of the how the law protects bats can be found on page 18.

Bats in rooms

Bats generally come and go from their roosts without any trouble, but occasionally they appear inside the house. This seems to be most common when baby bats, which are tiny and often grey, crawl out of their roost and find a way into the rooms. There are also cases of young, inexperienced, bats flying in through windows by mistake. If a bat is flying inside a room, open doors or windows to allow it to escape. If it has settled, and remembering you should not touch bats, phone your nearest Scottish Natural Heritage office or the SNH bat helpline on 07774 161219. If you need to remove a bat from a room or anywhere else, place a small box or other container over it and slide a piece of cardboard underneath to trap it. Alternatively, cover the bat with a soft cloth or towel and gather it up carefully. In both cases you should wear protective gloves. Carry the box or cloth outside and release the bat away from houses, cats and people, preferably at dusk.

If more than one bat appears inside, it is most likely that they are crawling through from a roost, so block up any holes around pipes or gaps in ceilings or floors from inside the house. If you are not sure what to do, phone Scottish Natural Heritage or your local Bat Group for advice.

Noise

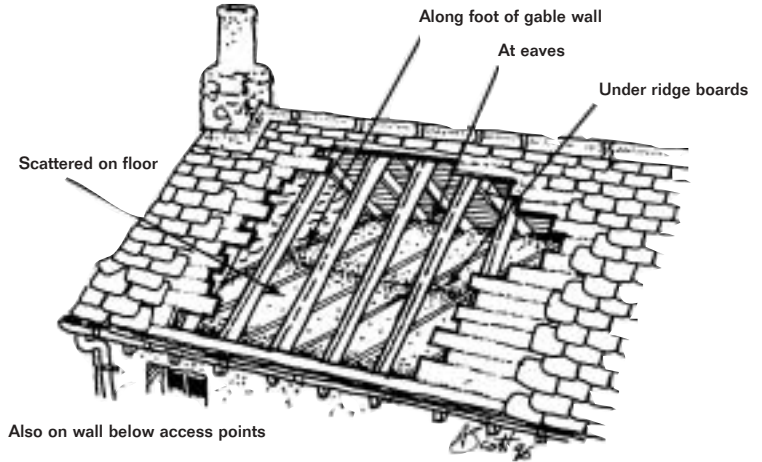
Problems of noise can occur occasionally; if they do, then specialist advice may be needed. Large colonies of pipistrelles can be noisy during the summer, especially if they are within the wall of a bedroom. While this may last for only a short time it can be disturbing - Scottish Natural Heritage can advise on possible solutions that will help both you and the bats.



Droppings and smell

Bat droppings can be unsightly, though in Britain there is no known health risk associated with them. In the loft, the simplest and most cost-effective measure is to cover stored goods with dust-sheets, which can be brushed off every now and then. Outside, droppings stuck to the wall and windows are usually only a seasonal problem, but if a remedy is required, deflector boards fitted above windows and doors can provide a solution. Bat droppings do not normally smell strongly, but may do so if they get wet, either because they are in a very confined space with little ventilation or because rain water is entering the roost and the building.

Common sites for bat droppings in a house roof



Damage

It is very rare for bats to cause any damage to houses. Unlike birds, they do not bring in material to build nests and, unlike mice, they don't gnaw wood, electric cables, or entrance holes; they merely take advantage of existing gaps or holes. Once inside the roost they cling onto the timbers or squeeze themselves into cracks and crevices. Most bat colonies are small, with a colony of 50 bats weighing in at well under 500 grams.

Disease

British bats have few diseases that could affect humans and problems are very rare indeed. In recent years a tiny number of bats have been detected with a rabies-like virus called European bat lyssavirus, which can infect humans. For this reason, you should not touch bats or have contact with bat saliva. Bats rarely come into contact with people, but if you are bitten or scratched by a bat, you should wash the wound thoroughly with soap and running water for at least 5 minutes and seek immediate medical advice. An effective post exposure rabies treatment is available. Even if you have bats in your roof, there is minimal risk to you, provided you do not handle them.

Bats and household maintenance

Because they depend so much on buildings, bats need our tolerance and help to survive. This is mainly a matter of leaving them undisturbed. However, repairs, maintenance and alterations to buildings can adversely affect bats and their roosts. In these cases, a little forethought can minimise the problems. Remember the legal position is that advice must be sought from Scottish Natural Heritage before anything is done that could affect bats or their roosts.

Repairs, re-roofing and alterations

If you think you have a bat roost and want to carry out work such as re-roofing, roof repairs, alterations in the loft, wall repointing, or repairs to eaves or cladding that might affect the bats, please contact Scottish Natural Heritage for advice before starting the work.

In most cases, it is just a matter of organising the timing of the work to avoid the bats' breeding season. We may also ask you to leave access points so the bats can return in the following years.

Remedial timber treatment

Treatment of woodworm or rot can be a major hazard to bats if carried out with the wrong sort of chemicals or at the wrong time of the year. Older-type insecticides such as lindane leave poisonous deposits on the treated surfaces which can kill bats even if they're not present at the time of treatment. Fortunately, this situation has now been improved by the introduction of more modern insecticides like permethrin or cypermethrin, which are much less poisonous to mammals. However, timber treatment should not be carried out when bats are present. If you think bats use the building, tell your timber treatment company and request advice from Scottish Natural Heritage on the type of chemicals to use and when to apply them. Likewise, there is a range of fungicides for treating wet and dry rot which are approved for use in bat roosts.

Burglar alarms

Sometimes bats flying in and around buildings can set off burglar alarms, including those that use light beams, microwave or ultrasonic detectors, or passive infra-red sensors. Persistent problems can usually be solved by moving the detectors, installing additional sensors or changing the system, for example to modern pulse-counter detectors, which are resistant to false alarms.



**Remedial timber treatment
with permethrin**

Helping bats

Here are some ways in which people can give bats a helping hand.

Underground

Many bats rely on underground sites such as caves, abandoned mines, tunnels, cellars and ice-houses for hibernation. Unfortunately, such places are sometimes blocked up for safety reasons or by rubbish dumping, so bats either lose their hibernation site or, worse still, are sealed up inside. If you're planning to block, cap, grille or demolish any sort of underground place which might be used by bats, please consult Scottish Natural Heritage before starting work. Also, try to avoid entering these places during the winter if you think bats may be hibernating there.

Hollow trees

These are important for bats and other wildlife but they are often 'tidied up' without thinking about their value. Leaving hollow trees standing provides ideal roosts for bats and other wildlife, and sometimes lopping branches is all that it takes to make them safe. Even hollow branches on healthy trees can be important for bats.

House roosts

You can make your house accessible to bats by providing holes in the right places, however, it's just a matter of chance if bats find them. Access holes should be no larger than 20mm wide and the best places to put them are along eaves near the corners of buildings or at gable apexes.

Bat boxes

These are like bird boxes but with a slit at the bottom for the bats to get in rather than a hole in the side. It's best if they're put up on trees in an area such as a conifer plantation where there are lots of insects but no natural roosts for bats. Bats will sometimes use boxes on houses, but don't be disappointed if the box appears to stay empty. They should be put as high up as possible facing south. You may have a local bat group who could advise you, and The Bat Conservation Trust or Scottish Natural Heritage are always happy to provide advice.



Members of a bat group
checking bat boxes

Bat grilles

Underground sites, such as caves, abandoned mines, cellars or tunnels, can be protected with specially designed grilles which will keep people out but allow bats in. These need to be built to a tested specification and fitted carefully. If you know of a site you feel needs protection, please contact Scottish Natural Heritage for detailed advice and assistance.

Bats in the garden

Planting a wildlife garden can help to provide the insects that bats need, especially if there's a pond and night-scented flowers and shrubs.

Bat groups

If you want to learn more about bats and become more actively involved in their conservation, there is a network of local voluntary bat groups - affiliated to the Bat Conservation Trust (BCT) - covering much of Scotland, i.e. Orkney, Sutherland & Caithness, Inverness, Skye, Aberdeen, Strathspey, Angus, Perth, Central Scotland, Loch Lomond, Fife & Kinross, Isle of Arran, Clyde, Lothians, Borders, Ayrshire, Dumfries & Galloway. Details of how to make contact with your nearest group can be obtained through the BCT or from your local Scottish Natural Heritage Area Office.



Identifying bats

Even experts find bats difficult to identify, as most species look similar. The ones that stand out from the crowd are the long-eared bats, whose ears are almost as long as their bodies, and Daubenton's bats whose habit of flying low and fast over water makes them easy to identify in flight.

The following table lists the different species of bats that are found in Scotland.

Scotland's bats			
Species in houses	Frequency	Main distribution in Scotland and the rest of Britain	Main roosts
Common pipistrelle <i>(Pipistrellus pipistrellus)</i>	Common	Throughout mainland Britain and some islands including the Orkney, Inner Hebrides and Lewis.	Buildings
Soprano pipistrelle <i>(Pipistrellus pigmaeus)</i>	Common	Throughout mainland Britain and some inner Hebridean islands.	Buildings
Brown long-eared bat <i>(Plecotus auritus)</i>	Common	Throughout mainland Britain and some Inner Hebridean islands.	Buildings
Daubenton's bat <i>(Myotis daubentonii)</i>	Fairly common	Throughout mainland Britain as far north as Sutherland, and possibly on some of the larger Inner Hebridean islands.	Trees, buildings, caves
Natterer's bat <i>(Myotis nattereri)</i>	Uncommon	Throughout mainland Britain as far north as Inverness and on some Inner Hebridean islands.	Buildings, caves
Whiskered bat <i>(Myotis mystacinus)</i>	Uncommon	England, Wales and southern and central Scotland.	Buildings, caves
Noctule <i>(Nyctalus noctula)</i>	Rare	England, Wales and southern Scotland. (May occur further north).	Trees
Leisler's bat <i>(Nyctalus leisleri)</i>	Rare	England, Wales and south-west Scotland. (May occur further north).	Buildings.
Brandt's bat <i>(Myotis brandtii)</i>	Rare	Difficult to separate from whiskered bat. Range and status unclear but may occur in southern Scotland.	Buildings, caves
Nathusius' pipistrelle <i>(Pipistrellus nathusii)</i>	Rare	Range and status unclear. Occurs as a migrant and may be breeding in Scotland.	Trees, buildings



Bats and the law

All bats and their roosts are protected by law.

All bats are protected by the Wildlife and Countryside Act 1981 and by the Conservation (Natural Habitats, &c.) Regulations 1994.

Is an offence to:

- intentionally or deliberately kill, injure or capture (take) a bat
- deliberately disturb a bat (whether in a roost or not)
- damage, destroy or obstruct access to a bat roost
- possess or transport a bat or any part of a bat, unless acquired legally
- sell, barter or exchange a bat, or any part of a bat

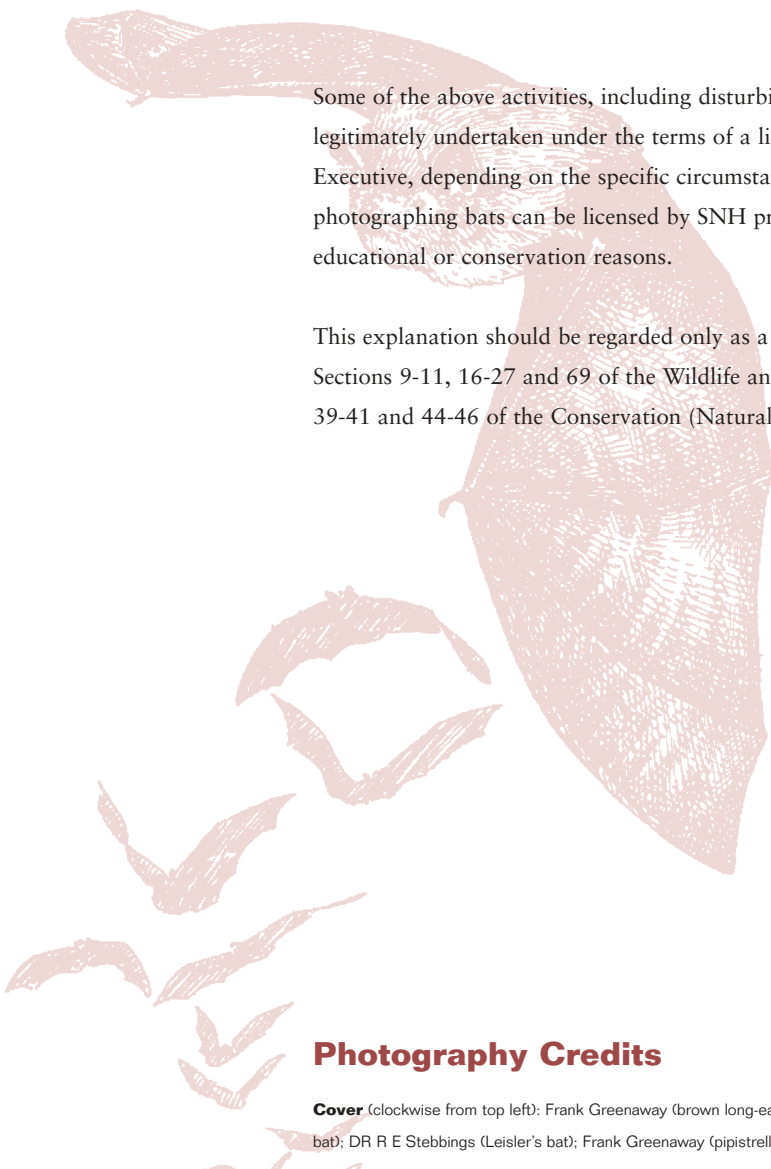
It is a legal requirement to consult Scottish Natural Heritage before you do anything that might affect bats or their roosts. This might include:

- blocking, filling, or installing grilles over old mines or tunnels
- building, alteration or maintenance work
- getting rid of unwanted bat colonies
- removing hollow trees
- re-roofing
- remedial timber treatment
- rewiring or plumbing in roofs
- treatment of wasps, bees or cluster flies.

Remember that because bats return to the same places every year, a bat roost is protected even if there are no bats there.

The law allows you to tend disabled bats, kill seriously injured ones and disturb bats in the living area of a house. This means that if you have bats in your house, unless they are in the living area itself, you should consult SNH before taking any action which would disturb the bats or affect their roost. The living area means those parts of the house which are in continual occupation, i.e. it excludes the loft/attic space unless this area has been converted into bedrooms, or other habitable space.





Some of the above activities, including disturbing or any attempt to remove the bats, may be legitimately undertaken under the terms of a licence issued either by SNH or the Scottish Executive, depending on the specific circumstances. Activities such as catching, ringing or photographing bats can be licensed by SNH provided they are for scientific, educational or conservation reasons.

This explanation should be regarded only as a guide to the law. For further details, refer to Sections 9-11, 16-27 and 69 of the Wildlife and Countryside Act 1981 and to Regulations 39-41 and 44-46 of the Conservation (Natural Habitats, &c.) Regulations 1994.

Photography Credits

Cover (clockwise from top left): Frank Greenaway (brown long-eared bat); Dr R E Stebbings (Natterer's bats); NHPA (whiskered bat); DR R E Stebbings (Leisler's bat); Frank Greenaway (pipistrelle); Frank Greenaway (Daubenton's bat).

Inside front cover (left to right) Frank Greenaway (Daubenton's bat); Frank Greenaway (pipistrelle); DR R E Stebbings (brown long-eared bat); S Dalton/NHPA/The Bat Conservation Trust (echolocation); NHPA (brown long-eared bat).

Inside back cover (left to right) Dr R E Stebbings (Natterer's bat); NHPA (brown long-eared bat); Frank Greenaway (brown long-eared bat); Dr R E Stebbings (pipistrelle mother and baby); Dr R E Stebbings (noctule bat).

Text pages p2 NHPA (brown long-eared bat); p3 Dr R E Stebbings (brown long-eared bat); p5 Laurie Campbell (River Tweed); p5 NHPA (Daubenton's bat); p6 Dr R E Stebbings (Daubenton's bat); p7 Dr R E Stebbings (Natterer's bats); p8 NHPA (pipistrelles); p9 NHPA (pipistrelle); p11 Frank Greenaway (pipistrelles); p13 Dr R E Stebbings (timber treatment); p14 David Woodfall (bat conservation); p17 Frank Greenaway (noctule); p18 Dr R E Stebbings (pipistrelles).

Further Reading

Bats in houses A M Hutson, 1988, Fauna and Flora Preservation Society

Bats in the garden Shirley Thomson, 1996, SGC Books

Bats Phil Richardson, 2000, Whittet Books

Bats Tony Hutson, 2000, Colin Baxter Photography

British bats J D Altringham, 2003, Collins (New Naturalist Series)

Habitat management for bats: A guide for land managers, land owners and their advisors

A C Entwistle, S Harris, A M Hutson, P A Racey, A Walsh, S D Gibson, I Hepburn & J Johnston, 2001, JNCC Peterborough.

Bats and Human Health, 2003, SNH & SCIEH

These and many other publications are available from the following organisations, which have a special interest in bat conservation.

Useful Websites

www.batcon.org *The Bat Conservation International (BCI) website.*

www.bats.org.uk *The Bat Conservation Trust (BCT) website.*

www.biosonar.bris.ac.uk *The University of Bristol bat echolocation research website.*

www.scotbats.org.uk *Newsletter with articles on the activities of Scottish bat groups.*

www.jncc.gov.uk/communications/pubcat/publications/Habitat_Management_for_bats.pdf
On-line version of the JNCC Habitat Management for bats publication

Useful Contacts

Your Local SNH office is at:

The Bat Conservation Trust

15 Cloisters House

8 Battersea Park Road

London SW8 4BG

Tel: 020 7627 2629

Scottish Natural Heritage

Wynne-Edwards House 17 Rubislaw Terrace Aberdeen AB10 1XE • Tel.: 01224 642863

Scottish Natural Heritage 2 Anderson Place Edinburgh EH6 5NP • Tel.: 0131 554 9797



Where do bats go in the winter?

During the winter, bats hibernate in cool, moist places such as caves, old mine-workings, cellars and disused tunnels. These places, known as hibernacula, are usually difficult to find as the bats tend to be well-concealed in crevices etc and leave no obvious signs of their presence. During periods of mild weather the bats may wake up in order to drink and feed and fly around.



What should I do if a bat gets into my living room?

Bats which get into the living space of houses are often disorientated juveniles. The best thing to do is to open all windows and doors wide and leave the room. The bat should find its way out of its own accord. If it does not, contact Scottish Natural Heritage for further advice. If you have bats roosting near to a window, it is advisable to keep that window shut while the bats are around, to minimise the chances of a bat entering the living space. You should not handle bats.



Are bats a health risk?

Bats, like other mammals can carry rabies, and the closely-related virus EBL is present in some British bats. However, the level of infection within the bat population is probably very low. Human infection can only occur after being bitten or scratched by an infected bat. As few people, including roost owners, have ever seen a bat at close quarters, there is minimal risk provided you do not touch or handle a bat.



Do bats breed like mice?

No. Each adult female bat has only one (occasionally two) young in a given year and as pipistrelle maternity roosts are comprised almost entirely of adult females, even if all their young survived to adulthood, a colony could only increase by a theoretical maximum of around 50% per annum (half of the young born are males and these will roost separately in future years). In practice, the actual increase in the colony size is less than this, as not every female in the roost is likely to be pregnant and not all the youngsters will survive.





Scottish Natural Heritage

is a government body, responsible to the Scottish Executive and Scottish Parliament.

Our mission statement:

Working with Scotland's people to care for our natural heritage.

Our aim:

Scotland's natural heritage is a local, national and global asset. We promote its care and improvement, its responsible enjoyment, its greater understanding and appreciation and its sustainable use now and for future generations.

Our operating principles:

We work in partnership by co-operation, negotiation and consensus, where possible, with all relevant interests in Scotland: public, private and voluntary organisations and individuals.

We operate in a devolved manner, delegating decision-making to local level within the organisation to encourage and assist SNH to be accessible and responsive to local needs and circumstances.

We operate in an open and accountable manner in all our activities.

Further copies available from: Scottish Natural Heritage,
Design & Publications, Battleby, Redgorton, Perth PH1 3EW
Tel: 01738 444177 Fax: 01738 827411 E-mail: pubs@snh.gov.uk
Website: <http://www.snh.org.uk>

© Scottish Natural Heritage 2003

ISBN 1 85397 010 7 • XX3K0503 • Designed by map.ref.ltd.
Printed on environmentally friendly paper.