ENGLISH NATURE

Barn owls on site

A guide for developers and planners

THE BARN OWL TRUST
ASHBURTON 653026

working today
for nature tomorrow

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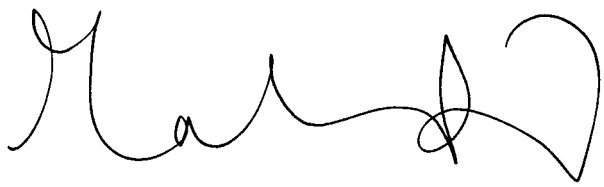
Foreword

The archaeological record reveals that barn owls and man have been neighbours since the Iron Age; this close relationship has survived right up to the present day. However, over the last sixty years, changing land-use and agricultural intensification have increased pressures on the barn owl. As a result, the barn owl population has shown a dramatic and alarming fall.

Barn owls still make great use of old barns and other traditional agricultural buildings as breeding and roosting sites. However, it is these refuges which are falling into disuse and disrepair or being converted to homes, driving out the barn owls. Research has shown that barn owl home ranges usually contain a number of roosting sites, but the loss of just one may result in barn owls abandoning the entire area, rather than adopting a new site.

The aim of this booklet is not to prevent the conversion or development of old barns but to actively promote ways to encourage the co-existence of barn owls and man. This booklet, aimed at planners and developers, is intended to provide all the most useful information about barn owls and their housing needs.

On behalf of English Nature, I am delighted to welcome this positive approach by the Barn Owl Trust. I recommend the booklet to all those with an interest in these owls. If its guidance is followed, we can all look forward to the continuing co-existence of barn owl and man.



Martin Doughty
Chair of English Nature

March 2002

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An introduction to the booklet

The barn owl (*Tyto alba*) was considered to be very common during the 19th century but has declined to such an extent that it is now a rare bird over much of Britain with some counties having only a few pairs left. As a result the barn owl is afforded special protection under the Wildlife and Countryside Act 1981 (as amended) and has as much legal protection as any wild bird can have in Britain. Individual birds, their eggs and young are protected at all times and nesting barn owls are protected against disturbance. As nests are usually located within buildings the implications for developers are wide ranging.

The number of enquiries received by wildlife organisations and government agencies has highlighted the need for a publication to outline the implications of the legislation for development control and the effects of site loss on barn owls.

During the 1990s the Barn Owl Trust carried out a major research project looking at the effects of barn conversions on barn owls. The effect of the loss of occupied barn owl sites and the relative suitability of different types of alternative sites was investigated. This booklet was produced to facilitate the adoption of the recommendations contained within the *Barn Conversion Research Project Report* (see Appendix G). This second edition includes updates arising from the latest research, new legislation, and new recommendations based on best practice.

Designed to present a positive approach to the development of occupied barn owl sites and to provide planners and developers with background information on barn owls and the problems the birds face, the booklet will enable the reader to carry out an initial site survey (to assess whether or not barn owls are actually using a site) and to take appropriate steps to minimise the effect of the redevelopment on any birds which may be resident. The emphasis is on working with and around barn owls rather than against them. The measures described are all relatively inexpensive and are most easily incorporated during conversion rather than added on afterwards.

Barn conversion is one way of ensuring that part of our architectural heritage is preserved. The Barn Owl Trust would like to see provision for barn owls incorporated into all rural barn conversions as a matter of course whether or not birds are present at the time of development. The simultaneous conservation of old barns and their resident barn owls may be achieved with the help of this booklet.

Readers who are new to the subject may find it helpful to use the Quick reference guides (Appendices H & I) *Basic facts you should know* and *Frequently asked questions* (see pages 46 – 47).

Background to barn owls

Barn owl identification

The barn owl is a very beautiful bird with pale golden buff coloured upper-parts laced with silver grey and white under-parts. It has a distinctive white heart shaped face and when seen in flight the overall impression is of a large white bird. Adult birds of both sexes are between 33-35cm from head to tail and have a wing span of approximately 85cm. Many people will recognise a barn owl from pictures, but in the wild the species is generally very elusive. The birds are most active just after dusk and just before dawn, and as a result it is not unusual to find that people living close to an occupied site can be unaware of the birds' presence. Contrary to popular belief barn owls are not woodland birds and do not hoot. They do however have a considerable vocabulary of calls including screeches, hisses and snoring sounds.

Feeding and habitat requirements

In Britain the field vole (*Microtus agrestis*) is the barn owl's main prey species; shrews and mice are also significant. During an average year a breeding pair of barn owls and their young may consume as many as 5,000 small mammals. In the breeding season most foraging occurs within about 1km of the nest. However, during the winter birds have been recorded at up to 4.5 km from their former nest sites. Food supply is the predominant factor governing barn owl survival and breeding success.

The ideal habitat for barn owls is rough grassland supporting a high density of small mammals. This can be in the form of linear features such as drainage ditches or woodland edge, or non-linear features such as young tree plantations or fallow pastures (see picture 13 on page 20). Intensively grazed pasture, silage and arable fields yield little prey and the birds are not adapted to hunt within woodland. Nevertheless, Barn Owl Trust studies have shown that breeding barn owls are sometimes found with less than one acre of rough grassland within 1km of the nest. Thus even in areas of intensive grazing and cultivation the possible presence of resident barn owls cannot be discounted.

Breeding and roosting behaviour

Barn owls are often found in close proximity to man, making use of farm buildings, dovecotes, church towers, bale stacks and a wide variety of derelict and unused buildings, as well as hollow trees and cliff sites where available.

Site use falls into three main categories: roosting and breeding, roosting only, or visiting occasionally.

Occupied sites are usually free from direct or unusual disturbance, that is they are undisturbed or provide opportunities for the birds to remain unseen. The idea that barn owls require a remote site without human activity is a myth; providing the birds have somewhere to hide, such as in a nestbox, they can learn to tolerate regular noises. Breeding sites must have a large cavity or wide ledge as barn owls do not build a nest but require a level surface on which to lay eggs. Modern farm buildings are not generally suitable as breeding sites unless nestboxes are provided.

A pair of barn owls will normally use several sites in their home range, for example a breeding site, several roosting sites and other sites that they visit occasionally. However, some pairs seem to use their breeding site as their only roosting place all year round.

Once established, adult barn owls show an incredible amount of site fidelity – they usually remain faithful to their sites from one year to the next. There is a growing body of evidence to suggest that the sedentary behaviour and site fidelity shown by established adult barn owls has survival value. Birds which know their home ranges intimately are more likely to survive and are likely to produce more young.

Barn owls have been found breeding in all months of the year, but most eggs are laid in April and May. The eggs are white, (see picture 10 on page 28) and are laid at about 2.5 day intervals. The female begins to incubate as soon as the first egg is laid. With a mean clutch size of 5.8, an incubation period of 31 days and an average fledging age of 62.5 days (9 weeks), it can be calculated that nests are occupied by eggs or young for an average duration of 108 days (3.5 months). Fledged young often return to the nest but have normally moved on by their 14th week. Second (and very rarely) even third broods may occur.

Problems facing barn owls

Barn owl decline

There is no doubt that Britain's barn owl population has suffered a severe decline, although the evidence for this is largely anecdotal. Owing to its lifestyle, the barn owl is not an easy species to survey and as a result the national population can only be estimated. The comparison of various estimates would seem to indicate a decline of approximately 70% since the 1930s. Although still widely distributed over much of Britain, the

species population density is considered to be critically low over a great deal of its range.

The loss of prey-rich habitat

Intensive farming methods have resulted in the loss of good foraging areas (particularly rough grassland) through increased arable farming and intensive grassland management. Although arable farming and areas of short-cropped grass may provide some food for barn owls, it is generally considered that such impoverished habitats are unlikely to support birds during the winter or enable breeding to take place. Winter survival in barn owls is closely linked to food availability and the first year survival rate is only 25%. Food availability also exerts a powerful influence over breeding success. On average breeding barn owls manage to fledge just 2.6 young per year.

The loss of roosting and breeding sites

Old barns used by barn owls are disappearing from the countryside as a result of demolition and decay. The conversion of barns and the redevelopment of derelict cottages has contributed to site loss as it is still unusual for any provision for barn owls to be incorporated. Hollow trees are also used by barn owls, but unfortunately these have also disappeared as a result of decay, Dutch elm disease, hedgerow loss and the general tidying-up of the countryside. Modern barns are more numerous than old barns, but are generally unsuitable for the birds as they lack dark cavities for roosting and breeding.

In areas with numerous potential barn owl sites, one would expect that the loss of an occupied site would have a minimal affect on the resident(s) who would simply move to another nearby site. However, research by the Barn Owl Trust has shown that in many cases the birds are reluctant to move in this way. Furthermore, other occupied sites may be abandoned when one site is lost and the birds may disappear entirely from the locality. Adults which move away from their familiar home range are much less likely to survive.

Other problems

Apart from the loss of habitat and sites there are other problems which barn owls may face during their lives (which are frequently very short). Periods of prolonged rain or snow cover can reduce food availability. Road deaths account for 50-60% of known barn owl mortality. Drowning in water troughs is not uncommon. Barn owls are frequently exposed to secondary poisoning by eating poisoned rodents. Barn Owl Trust

leaflet No. 21 *Rodent Control* has more information on these topics.

Barn owls and the law

Legal protection and law enforcement

All birds, their nests and eggs are protected by law under Part 1 of the Wildlife and Countryside Act 1981 (as amended). Barn owls are listed on Schedule 1 which gives them special protection.

It is an offence, with certain exceptions, to:

- Intentionally kill, injure, or take (handle) any wild barn owl.
- Intentionally take, damage or destroy any wild barn owl nest whilst in use or being 'built' (barn owls do not 'build' a nest but may make a nest scrape).
- Intentionally take or destroy a wild barn owl egg.
- Have in one's possession or control a wild barn owl (dead or alive), or egg, (unless one can show that it was obtained legally).
- Intentionally or recklessly disturb any wild barn owl whilst 'building' a nest or whilst in, on, or near a nest containing eggs or young.
- Intentionally or recklessly disturb any dependent young of wild barn owls.

It is not an offence to:

- Take (handle) a disabled wild barn owl (unless you unlawfully disabled it) solely for the purpose of tending it until fully recovered and then returning it to the wild.

- Kill, injure, take or disturb barn owls if these were the incidental result of a lawful operation and could not reasonably have been avoided.

Should anyone disturb a barn owl (at or near the nest) who is genuinely unaware of the bird's presence, this does not constitute an offence unless it can be shown that the defendant was reckless. Disturbance may be deemed reckless if it is committed by someone who could be expected to know that the bird(s) might be present but failed to check.

Under the 1981 Act (Part 1, section 25) local authorities are given the function of bringing this legislation to the attention of the public and may institute proceedings for any offence committed within their area. The police are empowered to enter onto any land and search, or stop and search, any person where an offence is suspected (section 14).
Anyone found guilty of an offence is liable to a fine of up to £5,000 or to imprisonment for a term not exceeding six months, or both.

Licences

The Country Agencies, English Nature, Scottish Natural Heritage and the Countryside Council for Wales can grant licences to permit otherwise illegal acts. Licences may be granted for science, research or education, conservation, ringing and marking or photography.

Licences can not be issued for removal of barn owls in order to facilitate development.

Interpretation of the law

It is important to note that barn owls are only protected against disturbance whilst at or near a nest containing eggs or young. 'Near' a nest is open to interpretation but normally approximates to *within the same building or just outside**. In the case of a tree nest *circa. 30 metres**. Breeding can occur at any time of year and a site can only be proved **not** to be a current nest site through a detailed search being carried out (by a licence holder).

* this does not constitute a legal definition

Just what constitutes 'disturbance' is also open to interpretation. Generally what disturbs barn owls is the unexpected. Thus, normal, frequent and regular human, animal or machinery activity within the same building as an occupied nest may not be disturbing to the birds. Conversely, any unexpected prolonged and/or noisy work within the building or close by may be extremely disturbing to the birds and pose a major threat to breeding success.

The bird's sensitivity to disturbance varies a great deal. From pre egg-laying until the brood average three weeks old the adult pair are likely to be on-site and highly sensitive at all times. From the time the brood is three to four weeks old it is probable that the adults will be roosting off-site during the day and will not start food deliveries until shortly before dusk. At this late stage in the nesting cycle it is sometimes possible for building work to be carried out during the day providing it has finished and everyone has gone home well before dusk. Nest inspections can only be carried out by a licence holder.

Professionals involved in the building industry (especially barn conversions) must be aware of the protection afforded to barn owls. It is reasonable to expect such people to be aware of the possible presence of protected species in potential development sites. Therefore a professional who fails to assess the barn owl status of any probable barn owl site and then carries out a potentially disturbing activity may be deemed 'reckless' and thereby guilty of an offence.

Barn conversions and barn owls

Regional variation and the loss of sites

Traditional agricultural buildings provide the majority of potential barn owl sites and are used by the birds to a greater extent than other types of site. There are however some regional variations within Britain. For example, in south west Scotland abandoned agricultural workers' cottages are important and in parts of eastern England the majority of known barn owl sites are hollow trees. In areas such as Devon the birds depend on the availability of old barns as there are very few derelict cottages or hollow trees, and modern barns are generally unsuitable.

The supply of traditional buildings is finite and will eventually dwindle as conversion, demolition and decay continue to take their toll. Although barn conversion can ensure that some traditional buildings are preserved, (albeit in an altered state), where no provision for barn owls is made the effect for the birds is the same as demolition. Barn Owl Trust studies in Devon have shown that in 1991, 10% of old barns had already been converted, 4% were undergoing conversion, and 20% were in a state of terminal decay or had already collapsed.

The effects of the loss of an occupied site on resident barn owls

The extent to which the loss of a single occupied barn owl site may affect the resident bird(s) is likely to depend to a large extent on the availability of alternative sites within the birds' home range. In areas with few old barns, derelict cottages, or large hollow trees it may be site availability which is the predominant factor limiting the barn owl population. In areas such as these (south west Scotland, for example) the loss of an occupied site may directly affect the overall population level. However, over most of rural Britain there are potential roosting and breeding sites which are unoccupied by barn owls and most old barns have long since lost their resident birds.

Where site availability is relatively high, one would expect to find that the loss of one occupied site had little effect on the birds. However this is often not the case. In 1995 the Barn Owl Trust's *Barn Conversion Research Project* provided the first detailed information on this subject and found that the loss of one occupied site can have a remarkable 'knock-on' effect. It is usual for resident barn owls to occupy more than one site; typically two or three roosting sites may be used within 1.5 km of the breeding site. The project

showed that when one occupied site was lost, barn owls not only disappeared from that site but also abandoned other sites simultaneously and often entirely left the area (within 1.5 km of the lost site), despite the fact that apparently suitable alternative sites were available within the area. The likelihood of this occurring may depend on the age or temperament of the individual birds concerned.

The usefulness of making provision for barn owls

There is nothing new about the idea of people sharing buildings with barn owls - there is evidence that barn owls were roosting in farm buildings as long ago as the Iron Age.

It is often thought that barn owls prefer isolated sites where there is little human activity, but this is simply not the case. Long before barn conversions became fashionable there were cases of barn owls roosting and breeding in the attics of lived-in houses and cottages. Barn owls residing in traditional farm buildings may tolerate the conversion of their home into a human dwelling and continue to occupy the site, provided that suitable provision is made. Regular human activity can be tolerated by wild barn owls, as long as the birds have a dark cavity, well above ground level, in which they can safely roost out of sight. Barn owls can occupy modern structures, including rural industrial units, provided that these needs are met and food availability in the area is sufficient.

There is a lack of information as to exactly how barn owls select the sites they will roost or breed in within their home range. Occupied sites are presumably those deemed most suitable by the birds. Hence, where suitable provision for the birds is made allowing them to continue to occupy their chosen site, they may do so in spite of development pressures.

The cost of incorporating provision for barn owls during the development of a site is minimal and experience has shown that there are no significant health or nuisance implications providing that provision is made according to the.appropriate specifications

Barn owls are such beautiful birds that, should the site ever be marketed, the presence of resident barn owls can afford the vendor a special selling feature with great public appeal.

The importance of timing

Under the 1981 Wildlife and Countryside Act, active barn owl nests are afforded protection against disturbance, as are breeding adults and dependent young whilst at or near the nest. As nests are often situated in hidden cavities within old buildings or

trees, it is not uncommon for the presence of an occupied nest to remain undetected until development of the site commences. Emergency situations where eggs or nestling barn owls are discovered when an old roof is being removed are all too common. Most of these 'worst case scenarios' have arisen not because the nest was impossible to locate beforehand, but simply because no preliminary search for signs of occupation was carried out.

As a general rule, development during the breeding season should be avoided where there is any evidence of occupation by barn owls. In cases where a roosting-only site is affected it is entirely possible that the development may have a detrimental 'knock-on' effect if the barn owl concerned has a nest nearby.

The nesting period must be avoided at development sites where a building (or tree) which is a known breeding site is due for demolition or redevelopment. In approving an application, planners sometimes attach a condition which restricts the timing of the commencement of works to avoid the main nesting season (March to August) and requires the provision for the owls to be completed by the end of the following January. This gives ample time for the adults to move in and settle prior to egg-laying. When this occurs the birds can be very tolerant of the remaining building works being completed directly below them.

Barn owls have the longest breeding season of any owl species and active nests have been found in every month of the year, so a cautionary approach is called for. In buildings where fresh barn owl pellets are found it may be wise to assume that the birds **are** breeding and that no works should be undertaken until it is proved that they are not. Some roosting sites may be deemed to be roosting-only sites because it is obvious that there is nowhere where the birds could possibly be nesting. If there are no other potential barn owl sites within circa. 500 metres it may be deemed that the resident bird is not breeding or that its nest is far enough away that any disturbance would not constitute a contravention of the 1981 Act. Where potential breeding places are available within about 500 metres and evidence of recent roosting is found between March and August, it is best to assume that the bird is probably breeding nearby.

The nesting period

The nesting period is normally considered to be from the time that the female makes a 'scrape' and lays the first egg until the time when the last 'dependent' young stops returning to the nest site. This is the period during which disturbance must be avoided.

As previously stated, eggs can be laid at any time of year. Normally, however, the first egg is laid in April, May, or the first half of June. The average date of first egg laid is May 9. The length of the nesting period depends upon the number of eggs laid and the number of young reared. The absolute minimum time in which one newly laid egg could become a newly fledged barn owl is 87 days. With an average clutch and brood size the period from first egg laid to last young fledged is 108 days. However, to these time periods must be added a further period of approximately 10 days, as newly fledged young habitually return to the nest whilst they are still dependent on the adults for food. At sites where one newly laid barn owl egg is discovered and the protection of breeding barn owls has called a temporary halt to the development, the delay will not normally exceed four months in total. It is unusual to find young nestling barn owls after the end of August unless the first clutch of eggs failed and a replacement clutch was laid or the birds are double brooding (breeding twice in one year).

In cases where development work awaits the completion of a breeding cycle, a nest inspection should be carried out by a barn owl licence holder before work is resumed (see Appendix F).

Initial site survey

Search procedure and the identification of signs

When you first visit a potential development site in a rural area you may notice signs of occupation by barn owls. The first stage is to be aware that this is a possibility. An initial site survey can be carried out quickly and easily during a routine visit. Whilst inspecting the site look out for droppings, pellets, feathers and nest debris. Remember to consider your own safety when inspecting old buildings and trees.

Droppings - wherever birds perch they are likely to deposit their droppings. In dry locations barn owl droppings may remain for many months. These appear as large white splashes on a hard surface or smaller white patches on old hay or straw (see picture 11, page 28).

During dry summer months droppings may accumulate on roofs, fence posts or below tree branches. Most barn owl droppings are found on the floors of farm buildings directly below the roof beams where the birds perch. The droppings may run down the roof timbers and appear as white vertical lines (see picture 4, page 20). Where birds have perched on walls similar white lines may be noticed. The presence of droppings does not

necessarily indicate occupation by barn owls as similar large white droppings are produced by various bird species. They are, however, a good initial indicator of possible occupation.

Pellets - barn owls generally swallow their prey whole and regurgitate the indigestible parts in the form of a pellet. Barn owl pellets, composed mainly of hair and bone, often accumulate in places where the bird regularly roosts. Lots of different bird species produce pellets, including tawny owls, little owls, crows and even sparrows. However, barn owl pellets are quite easily distinguished and can be a reliable source of information on site occupancy (see picture 12, page 31). When fresh, barn owl pellets are moist, black and glossy and they vary from thumb nail size to whole thumb size (see picture 5, page 21). They are often rounded at both ends, but not always. If they have landed on a hard surface the pellets can be very flat on one side or one end. The drying and decomposition rate of pellets depends on where they accumulate i.e. pellets in a wet location can disappear quickly, whereas pellets in dry places may remain for several years and can be aged quite easily (see picture 6, page 24, and Appendix E).

Feathers - barn owls begin their first moult (with the exception of nestling 'fluff') at about 11 months old, normally in the month of May whilst they may be breeding. The largest and most noticeable feathers (wing feathers) are normally shed during the months of May to October for females and July to November for males. Barn owl feathers are very distinctive and can render reliable information on site occupancy (see picture 7, page 25).

Nest debris - barn owls do not carry nesting materials and do not build a nest. If nests made of sticks are found within a building or tree hollow, jackdaws or stock doves are almost certainly responsible. The minimum entrance hole size required for barn owls to gain access into a building or tree is only 7cm x 7cm (or about 8 cm in diameter if round). Buildings where barn owls roost or breed are usually over 3 metres high with the nest located in the uppermost part on a ledge or in a cavity. Barn owls need a level area on which to lay their eggs, normally over 3 metres (and very rarely less than 2 metres) above ground level. Typical nest places within buildings are - top of wall (see pictures 1 and 2), between bales, wall cavity, nestbox, dry water tank, loft or attic floor, between stored items and wall, inside a chimney. Barn owls will sometimes breed on top of old stick nests. Nests in tree hollows are normally located within the main trunk above ground level. In very large trees hollow side branches may

be used. When searching tree cavities a torch and a small mirror is an advantage. Trees within an area of very dense woodland are not likely to be used by barn owls.

Note: If the initial site survey is during the main breeding season of March to August and there is any evidence of recent barn owl occupation of the site, **do not** attempt to search any potential nest places. Consult your local office of the relevant country agency, English Nature, Countryside Council for Wales, or Scottish Natural Heritage, (see Appendix F).

Outside the breeding season you may wish to check potential nest places yourself. Recently used nest places will usually have a distinctive smell (noticeable only at close quarters) and may show small pieces of white fluff which were shed by the nestlings. Whereas even the smallest of feathers moulted by the adults will have a quill, a nestling's fluff (mesoptile down) is distinguished by the lack of a quill. Both the smell and the fluff are likely to have gone within a month of the nest being vacated. What remains is a layer of pellet debris (see pictures 1 and 2). When searching a building for possible holes and potential nest cavities, remember that some wall cavities are only accessible from the outside of the building (see pictures 8 and 9).

Reading the signs

Assuming that evidence has not been removed by the action of humans, animals or the weather, in dry locations the signs may be read as follows (see pictures 1,2,4,6,7,11 and Appendix E):

The presence of large white droppings means "Good, look harder"; the absence of large white droppings means nothing. The presence of only a few crumbling pellets means the site was probably used by a barn owl at least a year ago. The presence of approximately twenty pellets with a wide age range (from crumbling to glossy black) means the site has been visited occasionally for at least the past year. The presence of over 100 pellets with such an age range means the site has been used regularly over the past year, and so on.

The presence of only one feather may mean simply that one adult barn owl visited the site once during the summer. Remember that the presence of feathers is a strong indication of the site being occupied during the summer (May to November) by an adult (possibly breeding) bird.

If you are searching during the winter and find thirty pellets all about the same age - all dry and dark grey but still solid - and a few feathers, you can be reasonably sure that an adult barn

Picture 1 Nestling barn owls (eldest four weeks) showing fresh black nest debris on top of old cob wall in the month of June. David Ramsden

Picture 2 The same nest nine months later (March) showing the previous year's nest debris which is now grey and dry. David Ramsden

Picture 13 Although rough grassland is the optimum habitat for barn owls, please note that they are sometimes found in areas without any. David Ramsden

Picture 3 (Right) An occupied barn owl nestbox in the roof beams of a traditional farm building. David Ramsden

Picture 4 (Above) When checking a site for possible occupation by barn owls, look out for vertical white lines down roof timbers and walls. David Ramsden

Picture 5 Barn owl pellets showing a variation in size and shape. David Ramsden

owl roosted at the site for perhaps a month during the previous summer. If some of the large feathers are brown on one side of the quill with black bars (female) and other similar sized feathers are very pale or entirely white (male), then it is likely that an adult pair have both been roosting at the site. Therefore breeding within the site or somewhere nearby is likely. Feathers lying about become dirty and moth eaten in appearance and may become covered in cobwebs, allowing some indication of whether they were moulted during the current year or a previous year. Anyone with a liking for a little detective work could become fascinated!

> Although droppings, pellets and feathers can all render useful information, the absence of such signs does not necessarily mean that barn owls do not ever use the site.

How to get help and who to notify

Sample pellets and/or feathers may be posted to the Barn Owl Trust for identification (free of charge). Remember to include your contact details.

If, during an initial survey, some evidence of barn owl occupation is found, it is a good idea to inform the local office of your country agency - English Nature, the Countryside Council for Wales (CCW) or Scottish Natural Heritage (SNH). If it is thought that barn owls breed at or near the site of the proposed development the local office of English Nature, CCW or SNH should definitely be informed. If an active nest is discovered and the development has commenced or is imminent they must be informed immediately (see Appendix F).

If you require any further information on nestboxes, making provision for barn owls, habitat or any other barn owl conservation matter, you can contact the Barn Owl Trust who have a range of free information leaflets available by post or fax (see Appendix F).

For advice on bats or badgers contact your local office of English Nature, CCW or SNH. For advice on other wildlife issues contact the Conservation Officer of your County Wildlife Trust (see Appendix F).

There are various groups and individuals involved in barn owl conservation, some with more relevant experience than others. For help in your own area contact the Barn Owl Trust, RSPB or country agency and ask them to recommend someone.

Where evidence of barn owls is found on site prior to a detailed planning application being determined, the relevant local planning authority should be informed as soon as possible.

Planning for barn owls

Planning applications - outline stage

When an application for outline planning permission is made, even at this early stage, it is wise to inform the planning authority that barn owls are present on site or that some evidence of occupation has been found. The application should be accompanied by a full supporting statement indicating which part of the site is known to be used by barn owl(s) and outlining your plans to accommodate the birds and minimise disturbance to them. This will indicate the co-operation of the developer in protecting the birds and help to avoid delays at a later stage. Nothing is worse for both sides than a situation where outline plans are approved, detailed plans approved, works scheduled, and then the presence of barn owls is notified by a third party. Better by far to acknowledge the birds' presence from the outset and to work with them rather than against them.

Planning applications - full application and reserved matters stage

Once outline permission has been obtained the practicalities of designing a scheme to accommodate both people and barn owls can be addressed. There is no reason why, with adequate foresight, they cannot exist alongside each other, even under one roof. Having determined which parts of the proposed development site are used by barn owls, the detailed application should incorporate the following measures:

- At the earliest possible stage, provide nestboxes in other nearby buildings (which are not due for development) following the advice in Appendix A.
- Time the building works so as to avoid the birds' main nesting season (March to August).
- Shortly before building works commence, undertake a final search of each structure (or hollow tree) involved to ensure that no breeding is taking place.
- Position noisy static machinery away from any buildings or trees occupied by owls.
- Prevent site workers from gaining entry into occupied or potential barn owl sites (on or

Picture 6 Barn owl pellets showing a variation in appearance according to age (range - one day < thirty months). Note; these pellets were collected from dry locations, see Appendix E
David Ramsden

Picture 7 Barn owl feathers showing variation in size and colour. The presence of freshly moulted feathers is a good indication of site occupation during the summer (May - November). Paul Airs

near the site) which are not due for development so as to provide 'sanctuary' areas for the birds.

- Incorporate provision for barn owls into the part(s) of the development site used by the birds following the advice provided by this booklet.
- Do not leave any steep-sided containers of water uncovered on the site (to avoid the risk of barn owls drowning).
- Position new tree plantings and overhead wires to allow a clear flight path for barn owls to and from the access hole(s) provided for them.
- Where possible, landscape the site to provide areas of rough grassland as foraging areas for barn owls and to encourage other native flora and fauna.

Protection prior to and during construction

At the earliest possible stage (prior to any building work commencing) alternative roosting and breeding places should be provided in the form of nestboxes (see Appendix A). These are best placed in structures where there is already some evidence of barn owl occupation as it is normally far easier to retain birds at existing sites than to encourage them into new ones.

Where evidence of barn owls is found in one of a group of suitable buildings it is probable that evidence will also be found in one or more of the others. If possible one or more nestboxes should be provided in these structures which are then designated 'no-go' areas. Where the occupied site is a single isolated building (or hollow tree due for felling) and there are no potential alternative sites nearby, outdoor nestboxes should be provided in trees, on the outside of buildings or even on poles (see Barn Owl Trust leaflet No. 4 *Outdoor Nestbox Design*). Generally, however, indoor boxes are easier to provide and may be preferred by the birds (see Appendix A).

Once boxes have been provided it is not a good idea to inspect them. Birds which have only recently occupied a site may be particularly sensitive to disturbance. As a matter of course all unnecessary disturbance should be avoided. Never attempt to physically move a barn owl or its nest contents (see Barn owls and the law page 11).

The aim during this pre-development stage is simply to enhance the suitability of alternative sites the birds are already using and to ensure that alternative sites are available in every case. This will help to maximise the chances of the resident birds remaining within their home range whilst the development takes place.

Established adult barn owls are naturally inclined to remain at the same site throughout their lives and may readily adopt any nestboxes provided. However where occupied sites are lost and no provision for the birds is made, the effect can be devastating. The birds may not only leave the lost site but may simultaneously abandon other sites they have been using within their home range.

Incorporating provision for barn owls in the redevelopment of an existing building should be done at the earliest stage possible. For example, when an old barn is being converted into a dwelling the roof is normally replaced. This is an ideal time to create a new entrance hole (if necessary) for the birds through the end wall close to the apex. As soon as the new roof is complete provision for the birds can be made by boarding off

Picture 8 When checking a site for potential nest cavities don't overlook the outside of the building. Note the white lines on the wall to the right of the ladder.
David Ramsden

Picture 9 This cavity (note the debris and droppings) was accessible only from the outside of the site and could easily have been missed during a survey.
David Ramsden

Picture 10 Five newly laid (clean) barn owls eggs showing size variation and one hatched egg showing natural discoloration which can occur during incubation.
Paul Airs

what will become part of the attic area (see Appendices B, C and D). Thus the building is ready for the birds to occupy before most of the conversion work has taken place.

Experience has shown that in such cases the birds may occupy the new provision whilst the conversion is still being done and the builders' regular activities are often tolerated. However, unexpected extra-noisy work close to an active nest must be avoided. Therefore the stage at which provision for the birds is made may be determined by the timing of any extra-noisy construction phases in relation to the breeding season (March to August).

Picture 11 Typical accumulation of droppings, pellets and feathers on old hay beneath a well used roosting place. Note the variation in colouration of the three wing feathers indicating probable occupation by a pair of barn owls. The presence of numerous feathers indicates occupation during the summer and the pellets are fresh (black).
David Ramsden

What to do if eggs or young are discovered during a development

With the use of this booklet the chance of discovering an occupied nest should be minimal. However, as barn owls sometimes nest in cavities which are inaccessible to humans there is a

chance that an active nest could remain undetected until development of the site commences. Typical situations in which such discoveries may be made are: when old hay or straw bales are moved, or when roof sections are removed or hollow trees felled. Upon discovery of a nest the following steps should be taken:

- Stop work.
- If possible quietly replace the object which had previously covered the nest (the last roof section removed, for example).
- Inform the site foreman and warn workers to avoid additional disturbance.
- Telephone the local office of the relevant country agency (English Nature, CCW, SNH) immediately (see Useful Contacts Appendix F) and follow their instructions.

Normally the country agency will arrange for someone with a barn owl nest inspection licence to visit the site and will ask for work to be temporarily suspended at least until this visit has taken place.

Every effort is made to ensure that the development can continue in a way which is consistent with the birds' welfare and the law. The advice given will depend upon numerous factors, such as the age of the nest contents etc. It is possible that certain works may have to wait until the last dependent young has stopped returning to the nest.

If an incubating female barn owl has been flushed from the nest and eggs are discovered, the nest should be left alone as it is likely that the bird will return. Cases have been recorded where eggs have been temporarily abandoned for up to 24 hours and have subsequently hatched successfully. Although the vast majority of barn owl eggs are white, occasionally viable eggs are discoloured. For example, eggs in a rusty old water tank can appear orange! If in doubt take advice.

Protection after construction

Landscaping the site may provide an opportunity for creating areas of rough grassland to encourage voles and shrews (the barn owl's main prey species). As barn owls normally forage over an area of at least 3 sq km, most development sites are not likely to include much of the birds' feeding area. However, within the intensively farmed landscape which covers most of Britain, small patches of rough grass can tip the balance in favour of the owls. The birds may concentrate their hunting on quite small patches of long grass and

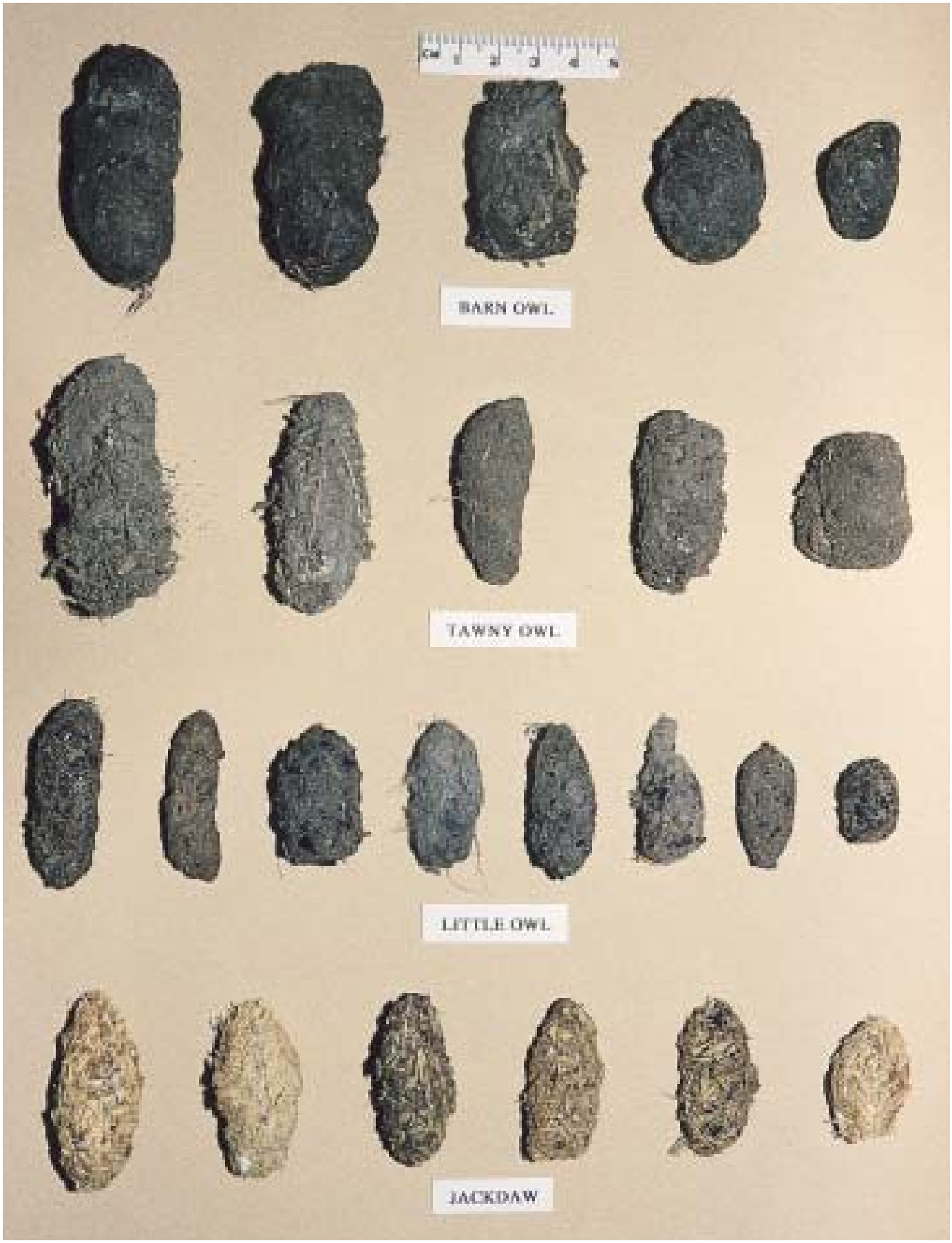
commute from one to the next ignoring short grass or cultivated land. Thus the provision of even small areas of rough grass can be beneficial to barn owls as well as wild flowers, butterflies and other wildlife (see the Barn Owl Trust leaflet No. 1 *Habitat Management*.)

The creation of new woodlands can be beneficial in the short term, as small mammal populations build up in the rough grass between the new plantings. However, the barn owl is not a woodland bird, therefore some benefit is lost as the trees grow. When planning a new copse, allocate slightly more ground than is required to ensure a strip of rough grass remains around the trees. This should be topped occasionally to prevent scrub encroachment.

Nestboxes for barn owls do not need much maintenance provided that they are correctly designed, positioned and secured. Once erected, boxes should be left undisturbed, although a situation may arise where an inspection is desirable. The main reason for nestbox inspection is for monitoring purposes by ornithologists during the nesting period. This can only be carried out by someone with the appropriate licence and the site owner's permission. Another reason to inspect boxes is to check for occupation by other species. It is not unusual for instance, for jackdaws to fill large cavities with sticks to the extent that the cavity becomes too small for barn owls to use. The clearing out of boxes and maintenance inspections are best carried out between October and January when breeding birds are least likely to be encountered and a licence is not normally required.

If rats or mice are found to be a problem on site it may be necessary to use a rodenticide bait. In areas where rats have not developed resistance to first genertation rodenticides such as Warfarin then it is better to use these products rather than the more toxic second generation products. If it is necessary to use any products containing Flucomafen, Brodifacoum, Bromadiolone, Difenacoum, or Alphachloralose then follow the label instructions carefully. New safer rodenticides are currently under development. For further information consult the Barn Owl Trust's leaflet No. 21 *Rodent Control* which is regularly updated.

It is not uncommon for barn owls to be found dead from drowning in cattle troughs or water butts. Many cases involve breeding females during the summer months. All steep-sided containers of water should be covered or should have a means of escape incorporated (see the Barn Owl Trust leaflet No. 31 *How to Prevent Drowning* for further information).



Picture 12 Pellets produced by various bird species. Barn owl pellets are much darker than tawny owl pellets which are normally grey and may show insect remains. Little owl pellets often show insect remains (kestrel pellets are very similar). Jackdaw pellets are highly variable in content. David Ramsden

Selling the site

Second only perhaps to the robin, the barn owl is one of the best known British birds and certainly one of the most attractive. Its decline and the conservation work undertaken on its behalf has received much publicity. As a result the barn owl is admired by many people from different walks of life. The presence of these magnificent birds would certainly be seen as a unique selling point by a significant proportion of home buyers who would welcome the opportunity to live alongside these beautiful owls. Wild barn owls are easy to live with.

It is often surprising how much human activity wild barn owls can become accustomed to, provided they can tuck themselves away in a dark cavity high above the ground. Regular domestic activity is not likely to disturb the birds at all and experience has shown that barn owls can roost all year round and breed annually in the roofs of occupied dwellings with children playing, dogs barking, cars coming and going and bright outside lights.

There are of course a minority of people who don't like the idea of having birds in their attic, but once suitable advice has been given, genuine problems are virtually unheard of.

The Barn Owl Trust has produced a leaflet specifically for the owners of occupied barn owl sites. Where occupied sites are sold it is suggested that such information is provided to the new owners as a matter of course (see leaflet No. 28 *Safeguarding Wild sites*).

Further Reading

Barn Owl Trust free information leaflets include:
No. 1 *Habitat Management*
No. 3 *Indoor Nestboxes*
No. 4 *Outdoor Nestboxes*
No. 21 *Rodent Control*
No. 22 *Barn Conversions*
No. 26 *Survey Techniques*
No. 28 *Safeguarding Wild Sites*
Please send a large SAE to
The Barn Owl Trust
Waterleat
Ashburton
Devon
TQ13 7HU
Or visit the Trust's website at
www.barnowltrust.org.uk

Badgers on Site - A Guide for Developers and Planners
Cox, P. R. (1993)
ISBN 1851631682.
Available by post (cost £3.00 inc. p&p) from
Babtie Public Services Division
Shire Hall
Shinfield Park
Reading
RG2 9XG

Bats in roofs - a guide for surveyors
Available free of charge from
English Nature
Northminster House
Peterborough
PE1 1UA

Bats in Houses
Hutson A. M.
Available by post (cost £1.20 inc. p&p) from
The Bat Conservation Trust
London Ecology Centre
45 Shelton Street
London
WC2H 9HJ

Bat Information Pack - for Architects and Surveyors
Free of charge from
The Bat Conservation Trust
London Ecology Centre
45 Shelton Street
London
WC2H 9HJ

Barn Conversion Research Project Report
Ramsden D. J. (1995) Barn Owl Trust.
Available by post (cost £10 plus £2 p&p) from
The Barn Owl Trust
Waterleat
Ashburton
Devon
TQ13 7HU

The Barn Owl
Taylor, I. R. (1989)
Shire Publications
ISBN 0-7478-0024-3.

Appendix A

Indoor nestbox, specification and positioning details

Construction

Indoor nestboxes for dry locations are often made using a packing case such as a tea-chest. Alternatively a purpose-built box may be constructed using 9 mm softwood ply (CDX) and batten as necessary. Boxes made of thin plywood are lightweight and therefore easier to erect (see Figure 1 on page 35).

The use of tropical hardwood is not sustainable and should be avoided. Always select Canadian or Scandinavian softwood ply. If a tea-chest is re-used, ensure that the foil lining and any sharp nails or strips of metal that might injure the owls are removed.

Note

This design of box is only suitable for use within buildings. For details of an outdoor nestbox design please send for a copy of Barn Owl Trust leaflet No. 4 *Outdoor Nestboxes*.

Positioning

Wherever possible, indoor nestboxes should be positioned as follows:

- Within a building with an owl access hole at least 3 metres above ground level.
- So that an owl entering the building through the most likely opening will see the box entrance hole and have an easy flight path to it.
- At least 3 metres above ground level - normally at or near the apex.
- Within a building where there is some evidence of a barn owl roosting or visiting.
- Within a building which is not subject to increased disturbance in the late winter or spring. Avoid farm buildings used mainly for lambing.

Lining the box - although it is not necessary to put anything in the box you may wish to provide a layer of wood flakes. Do not use sawdust, peat or hay.

The Barn Owl Trust's leaflet No. 3 *Indoor Nestboxes* contains additional information on this subject.

Update (October 1999)

Following several years of trials the Barn Owl Trust have changed their recommended indoor nestbox design. The new design reduces the chance of nestlings falling out of the box.

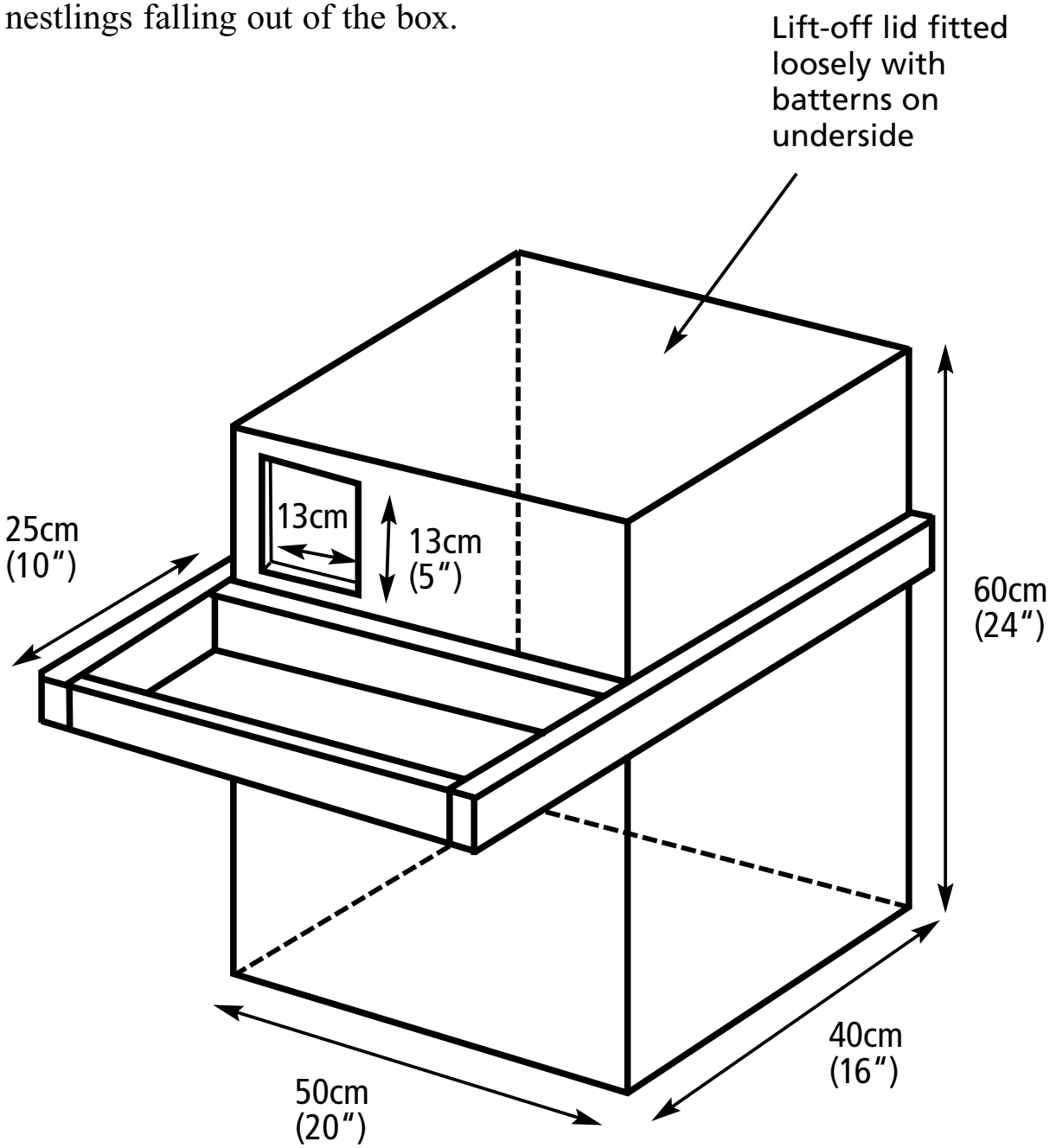


Figure 1 Indoor nestbox design

Appendices B and C

Provision for barn owls within loft areas

See illustrations on pages 37 and 38.

There are numerous ways in which provision for barn owls can be incorporated into buildings. Where indoor boxes are provided in traditional agricultural buildings they are normally attached to the roof timbers as shown in Figure 3. (illustration on page 38). As barn owls seem to prefer an enclosed nesting cavity high above the ground the provision of a nestbox (see Appendix A) can greatly enhance the suitability of the site. In houses or barn conversions with a large loft, provision for the birds can be made in this way.

In buildings with only a small loft where the space may be so small as to make the provision of a nestbox impractical, the birds will nest on the floor as shown in Figure 2. (illustration overleaf). As the young owls develop they will move around a great deal before they can fly, for this reason it is important to position the entrance/exit hole at least 40 cm above the level of the nest area to prevent the nestlings falling out. An adult barn owl needs a minimum of 40 cm headroom and the absolute minimum floor area recommended is 40 x 40 cm.

There are various factors to be considered when deciding which part of the development to make provision in. It is very important to incorporate human access into the owls' nesting area as occasional maintenance may be needed. Wherever possible the owls' entrance hole should be positioned:

- So as to allow the birds to enter the building in the same way as they did prior to the development.
- At least 3 metres above ground level.
- Avoiding obstructions such as trees and overhead wires.
- Facing away from the prevailing wind.
- On the side of the site which will be the least disturbed, after the completion of the development.
- Overlooking open countryside and visible to any passing birds.

Although not essential, it is a good idea to provide an external perch or landing platform which will give emerging young owls more room to exercise their wings before their first flight.

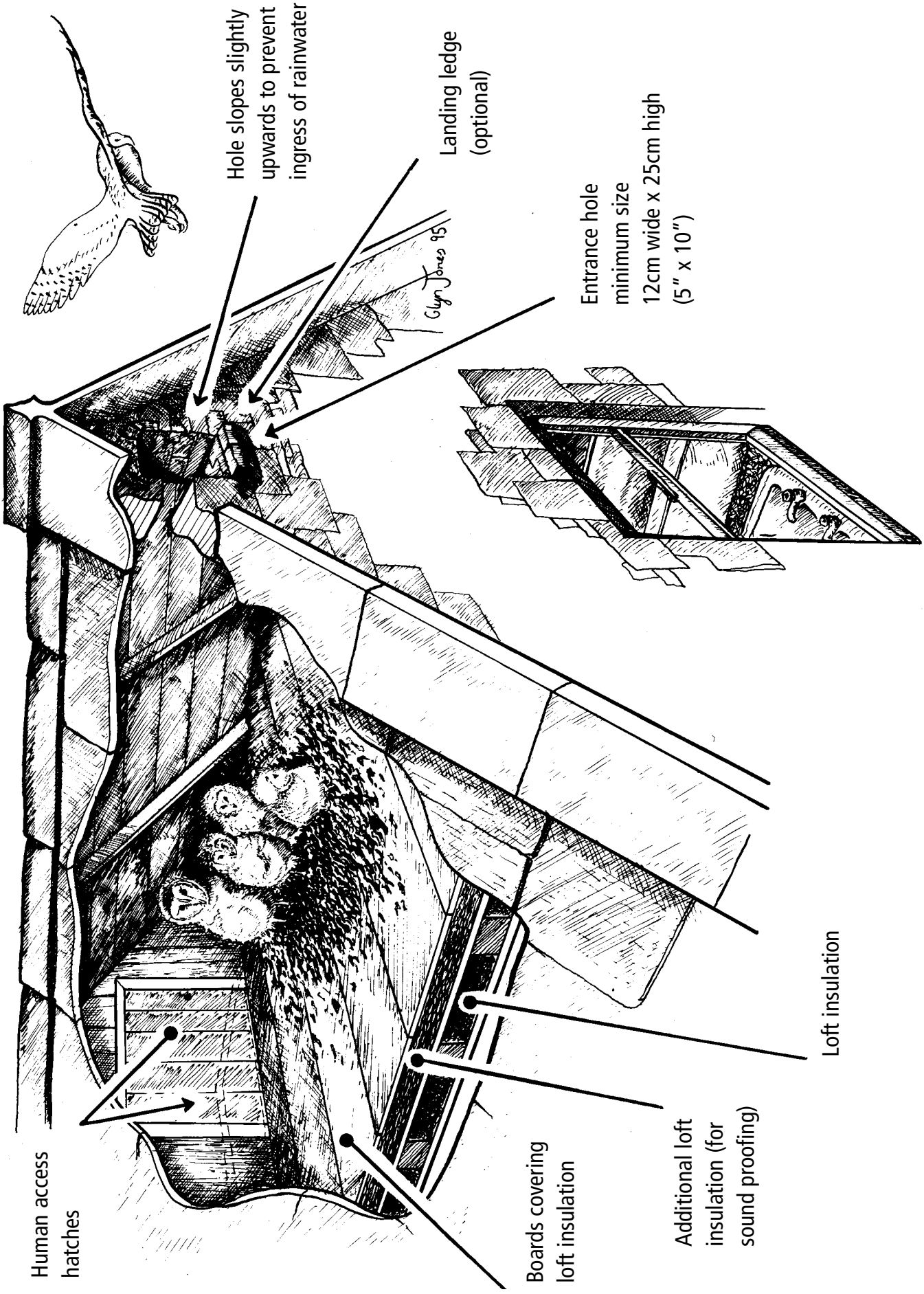
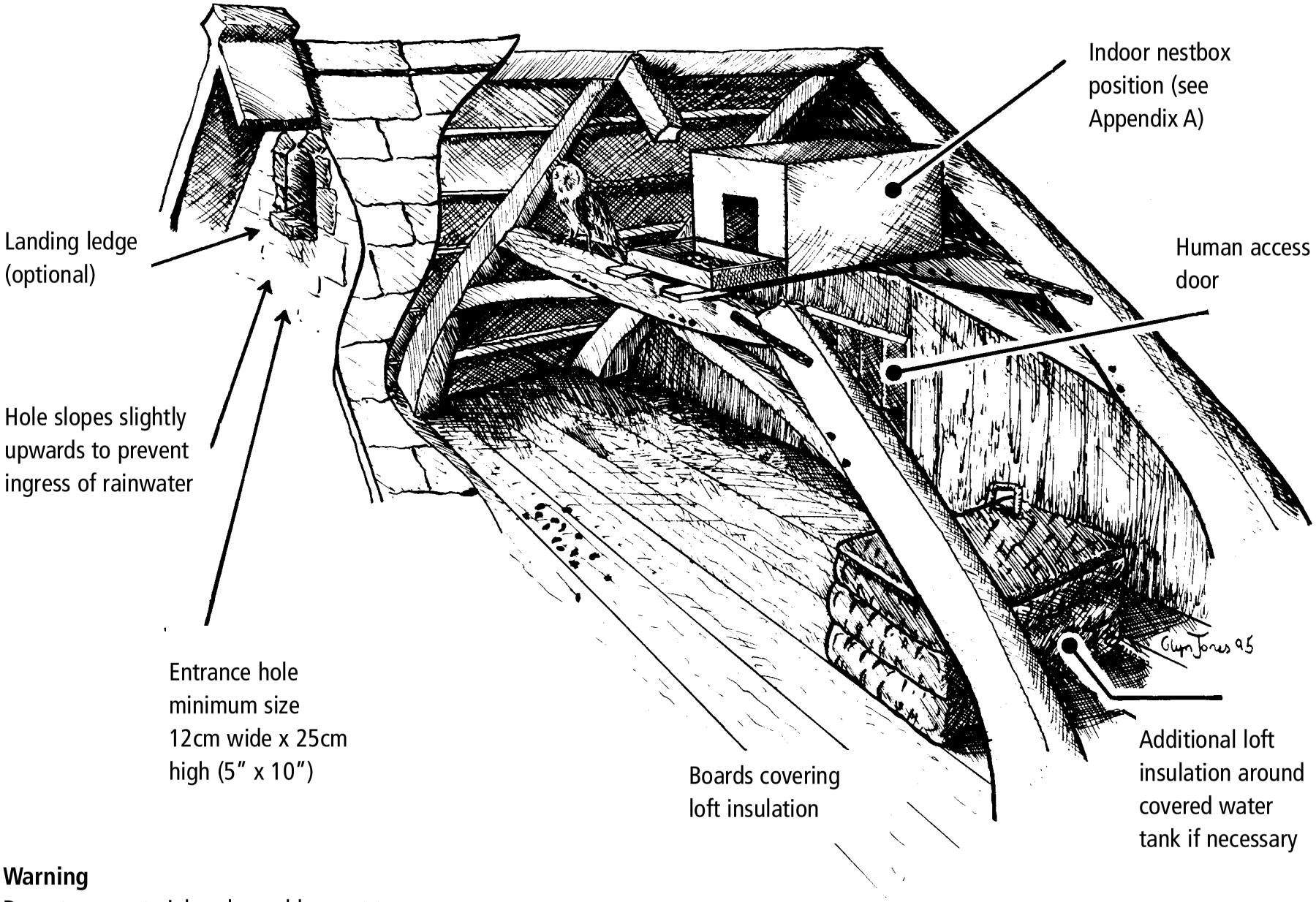


Figure 2 Example of provision for barn owls within a small loft area of a converted barn or other dwelling



Warning
Do not use material such as old carpet to cover loft insulation as young barn owls can become entangled in loose thread

Figure 3 Example of provision for barn owls within the large loft area of a dwelling or traditional agricultural building

Appendix D

Example of an owl entrance hole through a hipped roof

It is possible to create an owl access hole through the roof itself (see Figure 4). This is fairly simple during the construction of a slate roof using either a decorative mini-dormer style construction or a ready-made welded-lead ‘owl tile’ (please contact the Trust for further details). A similar hole can be created during thatching.

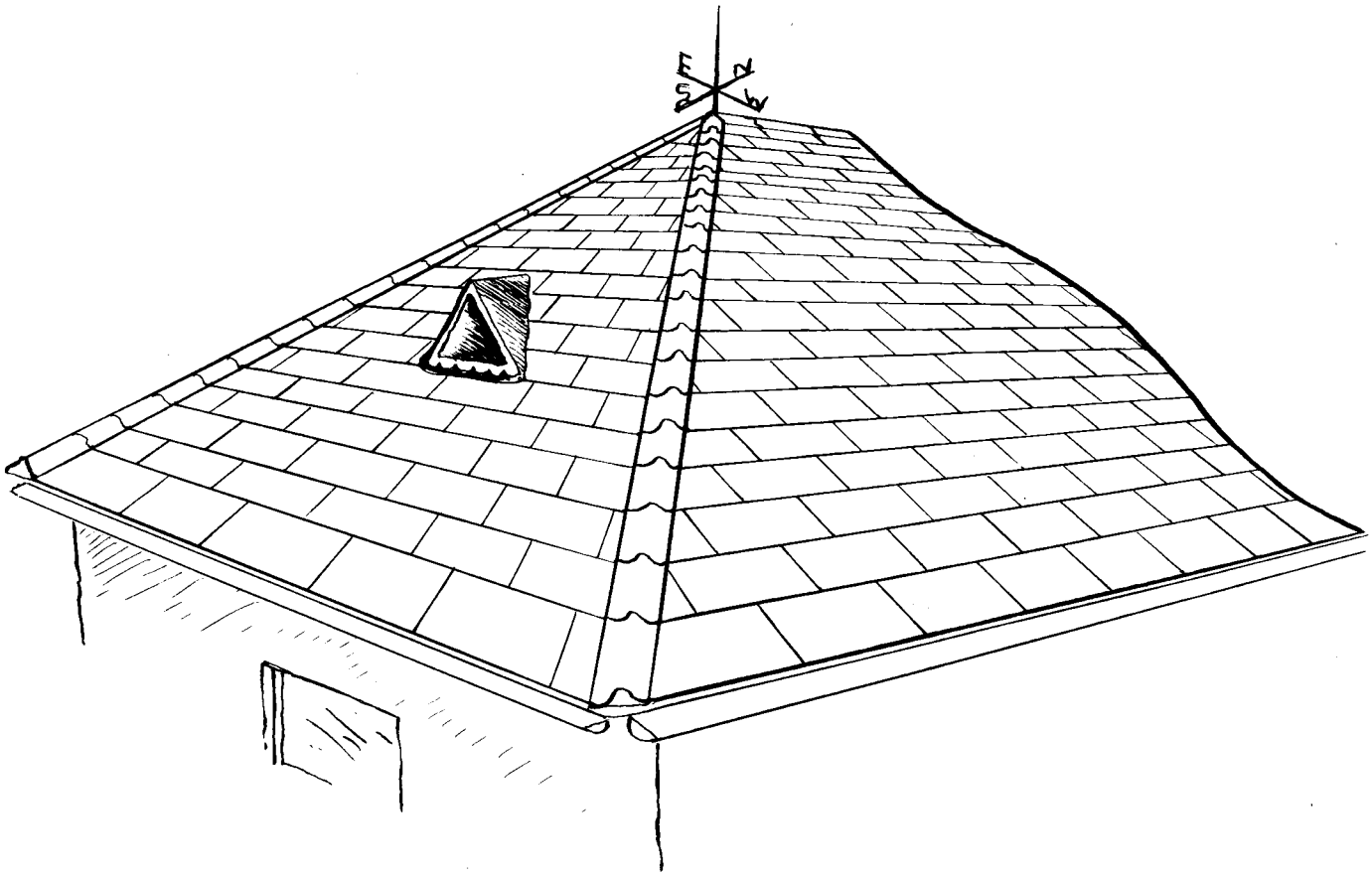


Figure 4 Example of an owl entrance hole through a hipped roof

Appendix E

Age determination of wild barn owl pellets (from dry locations)

Method and limitations

Method

As part of the *Barn Conversion Research Project* a reference collection of wild barn owl pellets was established. When very fresh (wet) barn owl pellets were found during searches of dry roosting sites (usually farm buildings) they were carefully removed. The samples were then dated and placed in a dry outbuilding alongside other barn owl pellet samples. All of the pellets in this collection contained small mammal remains.

Limitations

The drying and decomposition rate of pellets is likely to be variable and may depend on numerous factors e.g. time of year, presence or absence of clothes moths, micro-climate of roosting site and the diet of the birds concerned. However, despite these limitations, pellet age determination holds great potential as a source of information on present and past site occupancy.

The descriptions opposite can be used as a guide to age determination provided that the pellets in your sample:

- Are barn owl pellets.
- Have lain in a dry position since regurgitation.
- Have lain undisturbed and uncovered.
- Are not comprised of remains from unusual food items such as birds (identifiable by the presence of feathers) or frogs (identifiable by the absence of hair).

Pellet samples may be posted to the Barn Owl Trust for free species confirmation and an estimate of age where applicable. If you find a suspected owl pellet which is very smelly it is not from an owl so please don't post it to the Trust!

Barn owl pellets found in dry roosting sites may be compared to the descriptions opposite. (See picture 6, page 24).

Fresh

Appearance	Black and glossy.
To feel	Wet, quite soft and may blacken fingers slightly.
To break	Pulls apart easily.
Composed of	Wet hair and bone.

Six days

Appearance	Black and slightly glossy.
To feel	Dry to touch, fairly soft inside.
To break	Pulls apart quite easily.
Composed of	Moist hair and bone.

Ten days

Appearance	Matt black.
To feel	Dry and firm.
To break	Outer surface a bit tough but can be broken by pulling apart.
Composed of	Dry dark grey hair (and bone).

One month

Appearance	Very dark grey (matt).
To feel	Dry and quite hard. Crackles when squeezed hard.
To break	Quite tough.
Composed of	Dry dark grey hair (and bone).

Eight months (Very similar to one month)

Appearance	Dark grey (matt).
To feel	Dry and hard. Crackles when squeezed hard.
To break	Quite tough.
Composed of	Dry grey hair (and bone), may contain numerous clothes moth larvae.

15 months

Appearance	Grey with a rough surface.
To feel	Rough and crumbly surface but firm inside (crackles).
To break	Pulls apart easily.
Composed of	Some grey hair close to surface, interior - grey granules (and bone), may contain clothes moth larvae.

21 months

Appearance	Grey, rough surface of granules.
To feel	Soft and fragile.
To break	Crumbles easily between fingers.
Composed of	Grey granules and bone, almost powdery. Few if any clothes moth larvae.

30 months

Appearance	Cluster of bones on layer of grey granules.
To feel	Boney.
To break	Falls apart if not handled carefully.
Composed of	Mostly bone, some coarse grey powder. No larvae.

Appendix F

Useful contacts

Barn Owl Trust,
Waterleat, Ashburton,
Devon, TQ13 7HU. Tel: 01364 653026
website www.barnowltrust.org.uk
Email info@barnowltrust.org.uk

Country Agencies.
Contact your country agency for details of a licence holder if a nest inspection is required during the breeding season.

English Nature,
Northminster House,
Peterborough, PE1 1UA. Tel: 01733 455000

English Nature
Area Teams:

Beds, Cambs & Northants	Tel: 01733 405850
Cornwall & Isles of Scilly	Tel: 01872 265710
Cumbria	Tel: 01539 792800
Devon	Tel: 01392 889770
Dorset	Tel: 01929 557450
East Midlands	Tel: 01476 568431
Essex, Herts & London	Tel: 01206 796666
or London office	Tel: 020 7831 6922
Hampshire & Isle of Wight	Tel: 02380 286410
Three Counties	Tel: 01531 638500
Humber to Pennines	Tel: 01924 334500
Kent	Tel: 01233 812525
North & East Yorkshire	Tel: 01904 435500
or Leyburn office	Tel: 01969 623447
Norfolk	Tel: 01603 598400
Northumbria	Tel: 01661 845500
North West	Tel: 01942 820342
Peak District & Derbyshire	Tel: 01629 816640
Suffolk	Tel: 01284 762218
Somerset	Tel: 01823 283211
Sussex & Surrey	Tel: 01273 476595
Thames & Chilterns	Tel: 01635 268881
West Midlands	Tel: 01743 282000
or Warwickshire office	Tel: 01295 257601
Wiltshire	Tel: 01380 726344

Countryside Council for Wales,
Plas Penrhos, Ffordd,
Penrhos, Bangor,
Gwynedd, LL57 2LQ. Tel: 01248 370444

Countryside Council for Wales
Regional Offices:

North Wales - Bangor	Tel: 01248 672500
Dyfed/Powys - Aberystwyth	Tel: 01970 821100
South Wales - Cardiff	Tel: 02920 772400
North East - Mold	Tel: 01352 706600
East - Llandrindod Well.	Tel: 01597 827400

Scottish Natural Heritage,
12 Hope Terrace,
Edinburgh, EH9 2AS. Tel: 0131 4474784

Scottish Natural Heritage Regions:

North West - Inverness	Tel: 01463 723100
North East - Aberdeen	Tel: 01224 642863
South West - Clydebank	Tel: 0141 9514488
South East - Perth	Tel: 01738 444177

The Wildlife Trusts,
The Kiln, Waterside, Mather Road,
Newark, Nottinghamshire,
NG24 1WT. Tel: 01636 677711

County Wildlife Trusts:

Avon	Tel: 01179 177270
Beds, Cambs, Northants & P'boro	Tel: 01223 712400
Berks, Bucks & Oxon	Tel: 01865 775476
Birmingham & Black Country	Tel: 0121 4541199
Brecknock	Tel: 01874 625708
Cheshire	Tel: 01270 610180
Cornwall	Tel: 01872 273939
Cumbria	Tel: 01539 448280
Derbyshire	Tel: 01332 756610
Devon	Tel: 01392 279244
Dorset	Tel: 01305 264620
Durham	Tel: 01915 843112
Essex	Tel: 01621 862960
Glamorgan	Tel: 01656 724100
Gloucestershire	Tel: 01452 383333
Gwent	Tel: 01600 715501
Hampshire & Isle of Wight	Tel: 02380 613636
or	Tel: 02380 613737
Herefordshire	Tel: 01432 356872
Hertfordshire & Middlesex	Tel: 01727 858901
Isles of Scilly	Tel: 01720 422153
Kent	Tel: 01622 662012
Lancashire	Tel: 01772 324129
Leicestershire & Rutland	Tel: 01162 702999
Lincolnshire	Tel: 01507 526667
London	Tel: 0207 261 0447
Manx	Tel: 01624 801985
Montgomeryshire	Tel: 01938 555654
Norfolk	Tel: 01603 625540
Northumberland	Tel: 0191 2846884
North Wales	Tel: 01248 351541
Nottinghamshire	Tel: 0115 9588242
Radnorshire	Tel: 01597 823298
Scottish (Edinburgh)	Tel: 0131 3127765
Sheffield	Tel: 0114 2634335
Shropshire	Tel: 01743 284280
Somerset	Tel: 01823 451587
Staffordshire	Tel: 01889 508534
Suffolk	Tel: 01473 890089
Sussex	Tel: 01273 492630
Tees Valley	Tel: 01642 759900
Ulster	Tel: 01396 830282
Warwickshire	Tel: 01203 302912
West Wales	Tel: 01239 621212
Wiltshire	Tel: 01380 725670
Worcestershire	Tel: 01905 754919
Yorkshire	Tel: 01904 659570

Appendix G

Barn Owl Trust recommended polices for incorporation into local plans and other local authority policy documents

- The local authority (LA) will not consider an application for the re-use of rural buildings until the results of a barn owl survey have been submitted by the applicant. (Note: this is often combined with a bat survey)

- The LA will consult the relevant country agency (English Nature, Countryside Council for Wales or Scottish Natural Heritage) on any application where it is suspected or known that barn owls or their habitat may be affected by a development proposal.

- Where a proposal is likely to effect resident barn owls the LA will normally impose restrictions on the timing of the development in order to avoid disturbance to nesting barn owls.

- The LA will, without exception, stipulate that provision for barn owls is incorporated (into the conversion) at every site where there is any evidence of the current or historic use of the site by barn owls.

- The LA will stipulate that provision for barn owls is incorporated into all barn conversions, irrespective of whether or not barn owls are present, unless the site is within an urban area, more than 300 metres above sea level, or there is a valid reason for not doing so.

- In cases where planning permission is required for a new agricultural building over three metres high, local authorities should stipulate that provision for barn owls is incorporated. (Note: this is inexpensive and can be done in such a way as to prevent the birds having access to the whole interior of the building, thereby avoiding possible conflict with salmonella control).

- Where planning permission involves the destruction of barn owl feeding habitat, the LA will seek to ensure that replacement habitat is created nearby.

Note: each of the above policies has previously been adopted by one or more local authorities.

Other Barn Owl Trust recommendations for local authorities

- The Council will seek to ensure that grant-aided tree planting avoids rough grassland and other prime habitat for barn owls in the areas where the species is known to be present.

- All local authority planning officers should, as a matter of course, receive sufficient training to enable them to recognise signs of occupation by barn owls (droppings, pellets and feathers) and should check for these during site visits. (Note: this is not a difficult or time consuming task).

Appendix H

Planning for barn owls - basic facts you should know

Quick reference guide 1

- Barn owls are mainly white and stand about 25cm (10”) tall with a wingspan of about 85cm (33”). They don’t hoot and they don’t normally live in woodland (that’s the tawny owl).

- Most barn owls live in large buildings in the countryside such as barns, ruins, old houses, etc. They hunt mainly at dusk and dawn over long grass.

- Barn owls used to be common but now they are rare, mainly because of the loss of old buildings, hollow trees, and suitable hunting areas.

- Barn conversions can be good for barn owls!
  Planning permission is **never** refused because of barn owls.

- Barn owls can live alongside people. There are sites where barn owls breed successfully in converted barns, in new houses, and busy farmyards.

- Making provision for barn owls is simple and inexpensive; all they need is a small hole high above the ground leading into a nest area about the size of a tea chest.

- Experience shows that having barn owls living in a dwelling does not cause any nuisance so long as provision is properly made for them.

- Because they are rare, barn owls have special legal protection. This is not usually a problem for developers except during the period when the birds are nesting, in which case some of the work may need to be re-scheduled.

- Resident barn owls can give your building an extra selling point!

- The Barn Owl Trust can help your development to go ahead in an owl-friendly way.

Appendix I

Frequently asked questions

Quick reference guide 2

Q Can I get planning consent for a site used by barn owls?

A Yes, planning permission is never refused because of barn owls but you may be required to avoid the nesting season (normally March to August). See page 23.

Q How do I know if barn owls use the site?

A Look for signs (droppings, pellets, feathers) using the photos in this booklet (pages 20, 21, 24, 25 and 28) or ask an ecological consultant to do an assessment for you. If it is probable that barn owls are nesting, a search can only be carried out by someone with a licence to disturb. See page 16.

Q Why should I bother about barn owls?

A Barn owls are given special legal protection. It is an offence to intentionally or recklessly disturb a barn owl whilst it is in breeding or the dependent young. To avoid committing an offence full consideration should be given to the possible presence of barn owls. See page 11.

Q If there are barn owls here, what's going to happen?

A There are three basic things to do:

1. Make nearby alternative provision for the birds before development begins by erecting nestboxes.
2. Avoid the nesting period (normally March – August)
3. Incorporate permanent provision for the owls into the development itself. See pages 13, 14, 15, 26 and 29.

Q Who can do a barn owl survey for me – do I have to pay?

A Surveys in the nesting period should only be done by a licence holder (see page 12). For larger developments use a firm of ecological consultants. Please expect to pay. For smaller developments ask your country agency to recommend someone (see page 23). Alternatively, ask the Barn Owl Trust (see page 42). Some small-scale surveys may be done by a volunteer barn owl worker who may simply request expenses.

Q Is it expensive to make provision for barn owls?

A No. The materials for a new nestbox may cost between £10 and £35 depending on the type of box (see page 34). The cost of incorporating provision for barn owls (as in Figure 2, page 37) in a dwelling is negligible compared to the development costs and can be a selling feature.

Q Why bother to make provision if there are no barn owls here?

A Great efforts are being made to increase barn owl numbers by numerous individual volunteers, wildlife charities, and the Government. Most of the sites that barn owls used to occupy (old buildings and hollow trees) have disappeared. The birds can only recolonise an area if special provision has been made for them.

Q What about bats?

A Bats too, have special legal protection and the sites they use are protected even when the bats are absent. There are various groups involved in bat conservation and consultancy work. Contact your country agency and ask them to recommend someone (see page 42). Barn owls virtually never eat bats.

Q What about other birds?

A All birds (except a few pest species) and their nests are protected against destruction at all times. Some bird species often nest in buildings (such as robins, wrens, house sparrows, swallows, house martins, swifts, starlings, tits, little owls, and kestrels). Try to avoid demolition or alterations in the period April – July. If you discover a nest try to work around it and if in doubt, or in any way concerned, take advice.

Q Can I incorporate a miniature camera or one-way glass for viewing the owls?

A Yes but be aware you **must not** disturb nesting barn owls. Nest cameras must be set up long before the first egg is laid and then not altered or adjusted until the last dependent young has stopped returning to the nest. Any filming which necessitates nest visits or artificial lighting **must** be licensed by your country agency (see page 42). One-way glass only works if there is more light on the owls' side than on the viewers' side. In addition, condensation is usually a problem. One-way glass is not a practical proposition in most cases.

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We hope that you will find this booklet informative and by using it will contribute to the conservation of this beautiful bird.

Frances and David Ramsden.
Waterleat 2001.

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In order to preserve our natural world for future generations, we human beings must learn to live in harmony with our environment, each other and the creatures that share the planet with us.

Together we can make a world of difference.

Shield by Jenny Piper

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