# **Bat Survey Report**

Tregarthen Cottage, Long Rock, Cornwall

## October 2020



Freelance Senior Ecologist

## **Administration Details**

Site Address: Tregarthen Cottage, Long Rock, Penzance, TR20 8YH

Grid Reference: SW 49981 3288

Client: Evans Planning

Prepared by: Mrs Sophie Higgins, BSc (hons), I

Number: 2015-18867-CLS-CLS

Date of Survey: Inspection Survey: 25th August 2020

**Emergence survey: 27th September 2020** 

Weather Conditions: 18° C Sunny with cloud and light breeze

12°C, clear with light patchy clouds and still

Report Number: SH0370

Version No: 1

Date Issued: 4<sup>th</sup> October 2020

The information which we have prepared is true and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environment's Code of Professional Conduct. We confirm that the opinions expressed are true and professional.

#### Disclosure

The information, opinion and advice provided in this report is true and has been prepared in accordance with the CIEEM's code of Professional Conduct. This report has been prepared by Sophie Higgins, Freelance Senior Ecologist for the client solely as a Bat Survey Report. Sophie Higgins accepts no responsibility or liability for any use that is made of this document other than by the client for the purpose for which it was originally commissioned and prepared.

#### Validity of Data

The findings of this report are valid for a period of 12 months from the date of the survey.

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## 1. INTRODUCTION

Sophie Higgins, Freelance Senior Ecologist, was commissioned to carry out a Bat and Breeding Bird Survey at the barns at Tregarthen Cottage, Long Rock, Penzance, Cornwall.

#### 1.1 Purpose of Assessment

The aim of this assessment was to identify the presence, or likely presence, of roosting bats in the property and where possible to identify the species present. The assessment aims to evaluate the overall importance of the building for bats to identify any constraints that the proposed works will have on bats. To do this, the assessment included the following:

- detailed external and internal inspection of the building for evidence of bats.
- identified of any other protected species such as nesting birds; and
- recommendations for further surveys, mitigation, compensation and enhancement measures and licencing were appropriate.

## 1.2 Summary of proposed works

The proposals are to restore and extend the single storey barn into a single dwelling.

#### 1.3 Bat Ecology

There are 17 species of breeding bats found in the UK and approximately 16 of these occur in Cornwall. Evidence has shown that bat numbers have dramatically reduced within the last 50 years due to loss of roost sites, habitat fragmentation, reduction of feeding habitats, increased use of pesticides and direct persecution. However, bats remain widespread in rural and urban locations.

Bats are nocturnal and are active mainly at night and they spend most of the daylight hours roosting together in either groups, individually or small numbers. Bats emerge from their daytime roosts at dusk to hunt and return to their roosts at dawn. Bats can be found in any building old or new where they often hide away in small cracks and crevices of just a few centimetres in size. Only some species of bats will visibly hang from a beam or a wall, however for most bats it is a case of looking for signs of their presence. The roof space and external features of houses and buildings often provide a variety of ideal roosting areas.

Bats require different conditions from a roosting place throughout the year. The main roost types which bats will spend most of their time are winter hibernation sites and summer maternity roosts. Summer maternity roosts need to be sites which are warm, constant, and draught-free and winter hibernation sites need to be cool and humid. When bats have found the right conditions, they will return to the same roost year after year.

## 2. LEGISLATION

All British bats are European protected species (EPS), included on Annex IV(a) of the European Communities Habitats Directive. Annex IV(a) species are protected in this country under Schedule 2 of the Conservation of Habitats and Species Regulations 2017. Additionally, bat species in the UK are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 and Schedule 12 of the Countryside Rights of Way Act 2000. In combination, this makes it an offence to:

- Deliberately kill, injure or capture bats;
- Intentionally or recklessly disturb a bat in its roost, or deliberately disturb a group of bats;
- Intentionally or recklessly damage, destroy or obstruct access to a bat roost (a bat roost is interpreted as any structure or place which is used for shelter or protection, regardless of whether bats are present at the time or not);
- Possess or transport a bat or any part of a bat, unless acquired legally; and
- Sell, barter or exchange bats or parts of bats.

#### 2.1 UK Biodiversity Policy

The UK Biodiversity Action Plan (BAP) (Anon, 1995), is the national strategy developed in response to the Convention on Biological Diversity signed in Rio in 1992. This has identified species that require priority action to address their cause of decline and to take action to maintain/improve their conservation status.

The UKBAP, as updated in 2007, lists seven bat species as conservation priorities:

- Barbastelle Barbastella barbastellus
- Bechstein's bat Myotis bechsteinii
- Noctule Nyctalus noctula
- Soprano pipistrelle Pipistrellus pygmaeus
- Brown long-eared bat Plecotus auritus
- Greater horseshoe bat Rhinolophus ferrumequinum
- Lesser horseshoe bat Rhinolophus hipposideros

The Cornwall BAP contains Species Action Plan (SAP) for the following bat species:

- Barbastelle Barbastella barbastellus
- Greater Horseshoe Bat Rhinolophus ferrumequinum
- Lesser Horseshoe Bat Rhinolophus hipposideros
- Common Pipistrelle Pipistrellus pipistrellus

#### 2.2 Bat licensing

In some circumstances, Natural England can issue licences under the Habitats Regulations to permit what would otherwise be illegal actions. A licence can only be issued if it can be shown that there is no alternative way of carrying out works and that the works will not adversely affect the local bat population. It is better to avoid affecting the bats or their roost wherever possible, and this can usually be done by careful timing of the proposed works or using particular materials or methods of working. Care should be taken to ensure that no access points used by bats are blocked and that their roosting areas are not damaged as this would be an offence even if it is not intentional.

A licence would be required when repairs, refurbished or development within or adjacent to the property such as a loft conversion or extension, will unavoidably damage or destroy a bat roost.

As off the 29<sup>th</sup> April 2019 Natural England will be charging for the submission of a European Protected Species (EPS) Licence. A full licence will be charged at £500 with more complex ones having an additional charge of £105 per hour. A Low Impact Licence will be charged at £130. Houses being extended are exempt from these charges.

# 3. Site description

Tregarthen Cottage is located in a rural area with a small number of barns to the south, north and south-west. The cottage is c. 818 metres north-east of Longrock and c.2.04km north-west of Marizion, Cornwall. The former cottage is surrounded by cleared scrub to the west, south and north with small patches of semi-improved grassland to the east. A part converted barn lies adjeacnt to the north-eastern corner of the cottage. The immeidate area comprises of scrub habitat around the former corrage with semi-mature trees to the west and north, linking to mature trees to the north and west. Arable fields are the dominant habitat in the wider area. Cornish hedges bound these fields and link to the site through a network of semi-mature and mature hedges. A dedicuos woodland lies c.414 metres west of the cottage. The woodland continues north-west for at least a kilometre. The area around the cottage provides suitable foraging and commuting habitat for bats.

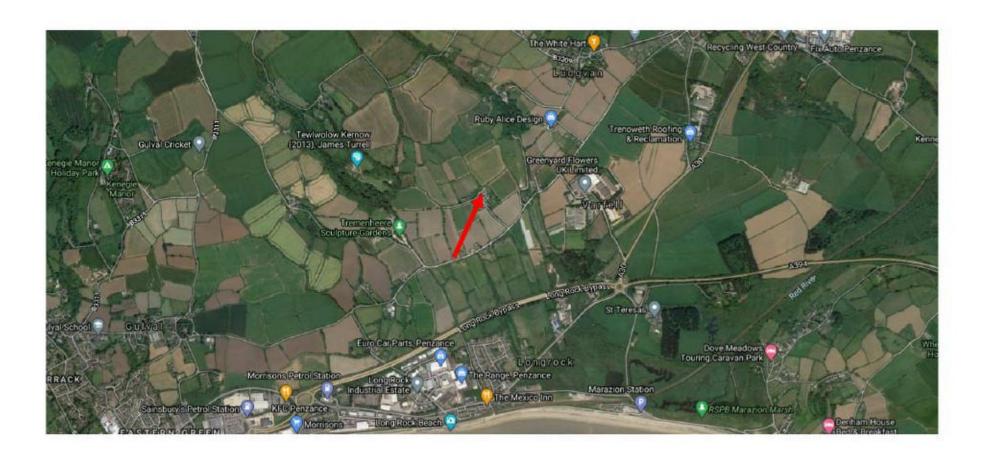


Figure 1: Site Location Map Google Earth Imagery 2019. The site is shown by the red arrow.

## 4. SURVEY METHODOLOGY

## 4.1 Bat Visual Survey

A visual assessment of the building was carried out internally and externally to search for signs of bats, past or present. This included searching for droppings, feeding remains and bats. All surfaces were examined, internally and externally, as well as window ledges and other protruding features for bat droppings and feeding evidence. Any open cavities present were searched with a torch for roosting bats and between the roof timbers, walls and around any openings. A search around the perimeter of the building was conducted and any gaps and crevices which had the potential for roosting bats checked.

As bats can leave little evidence of their occupation, this survey included an assessment of the potential of the building and features of the building to support roosting bats.

The buildings potential to support roosting bats was categories according to the guidelines provided by the Bat Conservation Trust as shown in Table 1 below.

Roosting potential	Criteria
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessment in this table are made irrespective of species conservation status, which is established after presence is confirmed).
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

## 4.2 Barn Owl and Nesting Birds

The building(s) were inspected internally and externally for evidence of nesting birds including past and present usage by barn owls (*Tyto alba*) and other nesting bird species. Field signs for barn owls include:

- Droppings White vertical streaks on ledges or roof beams and white splashes on floor;
- Pellets Barn owls swallow their prey whole and regurgitate the indigestible parts (bones and fur) as pellets. The colour and condition of pellets can give an indication of when the site was last used by barn owls;
- Feathers- Barn owl nestlings begin their initial moult at 11 months and adult barn owls
  will shed their primary and secondary wing feathers before and after breeding;
- Nest debris- Barn owls do not built nests, but their nesting areas are likely to contain nestling fluff and pellet debris;
- Potential access points The minimum entrance hole for a barn owl is 7cm by 7cm;
   and
- Suitable nesting platform Barn owls need a suitable nesting platform which needs
  to be a level area usually over 3cm in length and over 3m off the ground.

#### 4.3 Emergence Surveys

The survey methodology followed that set out by the Bat Conservation Trusts (Collins, 2016) for two emergence surveys for buildings of "Low" suitability for bats.

A single emergence survey using three surveyors with at one bat licenced ecologist was carried out on the 27<sup>th</sup> September 2020. The survey focused on the external features identified as providing suitable access for bats. Surveyors were positioned to provide adequate coverage of the cottage.

Surveyors were equipped with bat detectors and recording devices: echo meter touch on iPhones for recording.

Bat sightings and behaviour were recorded, along with time heard or seen, species, number seen and if they emerged from the property. The emergency survey commenced 15 minutes prior to sunset and continued until one hour after sunset.

All recordings taken during the surveys were analysed by an experienced ecologist using Analook. Species were compared to what was written during the survey. The weather during the survey was 12°C, clear with some patchy light cloud and dry. End temperature was 11°C.

#### 4.4 Limitations

It was not possible to undertake static monitoring inside the cottage because the cottage no longer has a roof and the static detector would have picked up on foraging bats around and past the cottage.

## 5. RESULTS

## 5.1 Summary of Results

Number of bats seen at time of visit	None
Droppings?	None
Any known history of colony?	None
Other evidence found	Access to a fireplace and gaps between concrete block wall

#### 5.2 Detailed Bat assessment results

A visual survey of the property was carried out on the 25<sup>th</sup> August 2020.

The former cottage is constructed of stone with only the southern, western, and eastern elevations remaining (Photo 1). The cottage has no roof and the windows along the western and southern elevation have no glass. At some point a concrete block wall has been installed along the northern elevation of the cottage. Where the concrete blocks join the old stone walls crevices are present which provide suitable roosting areas for bats (Photo 2). The concrete block wall has a cavity between it with the top of the wall open. This cavity creates a roosting area for bats (Photo 3). An endoscope was used to check the cavity for bats, however not all areas could be surveyed due to the depth of the cavity. Nonetheless, no bats were seen in the sections checked.

Internally, along the western elevation of the cottage is an opening to a fireplace (Photo 4). This area provides a suitable roosting area for bats. In addition, along the western elevation area large crevices in the stonework which provide suitable roosting areas for bats (Photo 5).

Lintels are present above the windows on the southern and western elevation which also provide suitable roosting areas for bats.

Although no bats were observed during the survey, not all areas could be seen using an endoscope and torch. The survey has confirmed that the former cottage provides areas for roosting bats.



Photo 1: South-eastern corner of the cottage

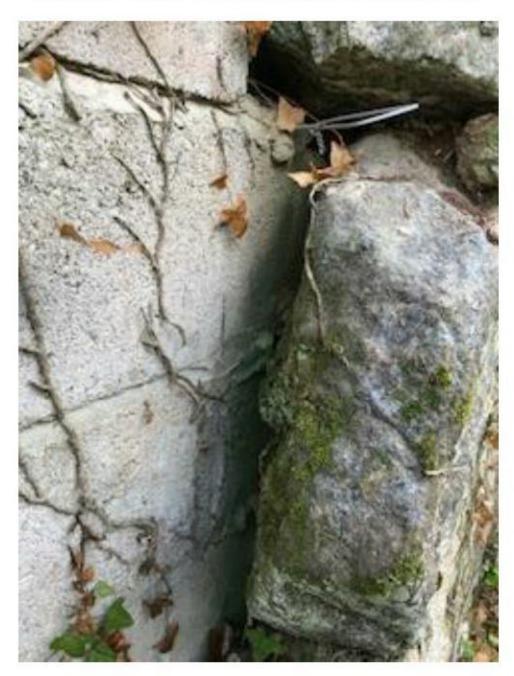


Photo 2: Crevices between the concrete block wall and stone wall



Photo 3: Cavity between the concrete blocks



Photo 4: Opening to a fireplace along the western elevation of the cottage



Photo 5: Crevices in the western elevation wall

## 5.3 Barn owl and Nesting Bird Survey Results

There were no signs of barn owls or any other nesting birds using the barn.

## **5.4 Emergence Survey Results**

During the emergence survey no bats were seen emerging from the cottage. Common pipistrelle bats were recorded frequently foraging around the cottage along the southern elevation. Table 2 provides the full results of the survey.

In addition, a night vision camera was positioned inside the cottage recording the chimney and crevices in the stonewall. No bats were recorded emerging from this area.

Surveyor One: watching the northern and western elevation		
19:23pm	Faint common pipistrelle call heard	
19:26pm	Common pipistrelle heard not seen	
19:27pm	Common pipistrelle heard not seen	
19:29pm	Common pipistrelle over the cottage from south to north	
19:30pm	Common pipistrelle foraging nearby, heard not seen	
19:31pm	Common pipistrelle heard not seen	
19:46pm	Myotis heard not seen along with a common pipistrelle heard not seen	
19:53pm	Common pipistrelle heard not seen	

# **Bat and Barn Owl Survey**

19:55pm and	Noctule heard
19:57pm	
19:57pm	Common pipistrelle heard not seen
Surveyor Two: Wate	ching the southern elevation
19:22pm	Common pipistrelle across the lane from south to north
19:27pm	Common pipistrelle heard not seen
19:29pm	Common pipistrelle heard not seen
19:30pm	Common pipistrelle from the main farmyard
19:37pm – 20:02pm	Common pipistrelle briefly foraging in the lane
20:05pm	Brown long-eared flew past from south to north
Surveyor Three:	Watching the eastern elevation
19:20pm	Common pipistrelle heard not seen
19:29pm	Common pipistrelle from south-east over the building.
19:31pm	Common pipistrelle heard not seen
19:45pm-20:00pm	Common pipistrelle heard not seen likely foraging to the east

## 6. RECOMMENDATIONS

#### 6.1 Bats

The survey has confirmed that the cottage does not support a bat roost. In the unlikely event that bat(s) are discovered during construction, they must not be handled, and works must stop immediately, and advice sought from Sophie Higgins (tel. 07921720550) or Natural England (tel. 0300 060 3900).

#### 6.2 Nesting Birds and Barn Owl

No further surveys are necessary for barn owl or nesting birds.

#### **6.3 Enhancements**

There is potential to include enhancements into the converted cottage by including integrated bat boxes built into the external walls of the cottage. Refer to Appendix 1 for further details.

Appendix 1: Details of integrated bird and bat boxes (PDF)

Extracts from the full catalogue products of Schwegler nature conservation products



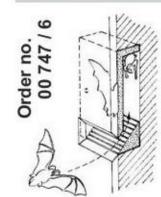
# **Nest Boxes for Birds & Bats** that Nest in or on Buildings

- **Bat Boxes**
- Swallow Nests
- **Sparrow Terraces**
- **Custom-made products**

- Swifts Boxes
- Multi-System for Birds
- **Bat Tubes**
- Special Designs e.g. for scientific projects

..... made from highly durable, air-permeable Schwegler WoodcretePLUS™ Standard external paints (air-permeable) can be applied to all these products to match the background surface

#### **Bat Access Panel 1FE**



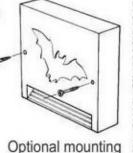
This is a maintenance-free access panel for installing on or in the surface of exterior walls. The open rear enables bats to continue to use existing nesting sites in walls. Bats prefer to remain in familiar nesting places and their survival can be supported by retaining their sites within walls. The 1FE is especially suitable for use during conversions, renovations or insulation work on older types of buildings and historic buildings.

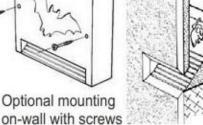
Dimensions: H 30 x W 30 x D 8 cm

Weight: 7,8 kgs

Material: WoodcretePLUS™

Positioning: Its depth of just 8 cm allows easy integration into insulation or masonry. If necessary it can also be attached to the underlying structure using screws/plugs and two eyes. Install at least 3m above the ground, ensuring unobstructed access for bats. Installation of multiple units is recommended. Suitable for: Bat species that inhabit buildings.







**Bat Roost 1FQ** 



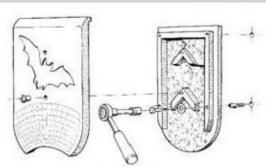
This box provides a home for those bat species that inhabit buildings and is ideal for encouraging the formation of a colony or nursery. It can easily be added to renovated

Material: WoodcretePLUS™ with fully galvanised fixing bracket Dimensions: H 60 x W 35 x D 9 cm Weight: approx. 15 kgs

Suitable for: Bat species that inhabit buildings.

Positioning: On all types of buildings whether of concrete, brick or timber construction. Suspend at least 3m above the ground, ensuring unobstructed access for bats. Also

suitable for use in roof spaces and on walls of historic buildings.



Easy installation with 4 screws

#### **Bat Tube 1FR**



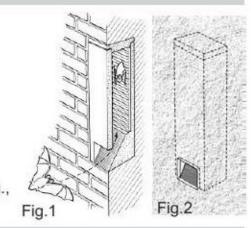
The tube system requires no cleaning or maintenance and meets the characteristic behavioural requirements of the types of bats that inhabit buildings. The durable wooden rear panel maintains excellent climatic conditions inside the tube and provides a surface onto which they can cling.

Suitable for: Bat species that inhabit buildings Material: WoodcretePLUS™ incorporating a wooden panel onto which the bats can cling

Dimensions: H 47 x W 20 x D 12.5 cm

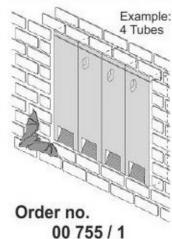
Weight: approx. 9.5 kgs

Positioning: Can be installed on external walls, either flush (Fig. 1) or beneath a rendered surface (Fig. 2), in concrete and, during renovation work, under wooden panelling or in building cavities (e.g., slab-type building structures, bridges, etc).



## **Bat Tube 2FR**

Order no. 00 750 / 6



This maintenance-free concept enables these units to be built into the masonry of a wall. A number can be placed next to one another in modular form to create much larger spaces incorporating transverse connecting pieces. Each tube includes 3 different types of internal partition. One of the special features is an optional passage through the rear panel: this enables existing cavities occupied by bats in the walls or structure of a building to be retained, providing an unobtrusive solution when conversion, renovation or insulation work is being carried out on older buildings.

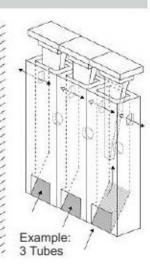
Suitable for: Bat species that inhabit buildings

Material: WoodcretePLUS™ with integrated internal partitions

**Dimensions:** H 47 x W 20 x D 12,5 cm

Weight: approx. 9.5 kgs

Positioning: Several tubes can be installed in listed buildings, industrial buildings, bridges and buildings of slab-type construction. We recommend connecting at least 3 together.





## Sparrow Terrace 1SP



A modern nesting aid for sparrows whose survival is threatened by a severe population decline. It can be installed as a single unit or preferably in groups to encourage the establishment of colonies.

Suitable for: House and tree sparrows and individual redstarts Material: WoodcretePLUS™

**Dimensions:** H 24,5 x W 43 x D 30 cm Weight: 15 kgs

Positioning: On buildings of all kinds in typical habitats including industrial and agricultural

buildings, barns, etc, at a height of at least 2m (e.g., under eaves).

Various recommended forms of installation:

a.) Attached to external walls of buildings using fittings supplied (see Fig. 1).

b.) Installed within brick or concrete walls using insulating material (not supplied) to protect against the transfer of cold

temperatures (Fig. 2).

## House Martin Terrace No. 11



Order no. 00 590 / 8

The House Martin Terrace helps house martins breed successfully on buildings with or without overhanging eaves. The unique modern design provides an attractive addition to any external wall. Cleaning is simple by removing the two individual nesting trays.

Suitable for: House martins

Material: WoodcretePLUS™ with stainless steel fittings

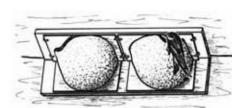
Dimensions: H 17,5 x W 43 x D 17,5 cm

Weight: approx. 5.5 kgs

Positioning: On unobstructed walls without eaves of residential, business or industrial buildings or directly beneath eaves at

heights of 2m and above.

## House Martin Nest No. 9A (Double Nest)



Order no. 00 310 / 2

Double nest made of WoodretePLUS™, ready for use. The nests can be individually removed for cleaning. Can be installed in groups to form larger colonies, e.g., along eaves.

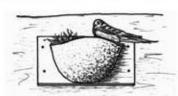
Suitable for: House martins

Material: WoodcretePLUS™ nests on a water-resistant, glued chipboard frame, containing no formaldehyde and suitable for Dimensions: L 46 x H 11 x D 14 cm painting Weight: 2.7 kgs

Positioning: With 2 screws, under eaves at a height of at least 2m on the sheltered side of the building.

Optional: Droppings Board for Nest No. 9A (Order no. 00320/1). Prevents droppings from soiling windows and doors. Easily Dimensions: L 46 x H 17 x D 26 cm and quickly fitted to the No. 9A using the screws supplied. Weight: 2.9 kgs

## Swallow Nest No. 10 (Single Nest)



Individual nest for the sociable swallow. Nests should be installed at a distance of 1m apart (minimum). Suitable for the interior of all kinds of buildings, porches, livestock sheds, barns, sewage plants, etc.

Suitable for: Common swallow Weight: 0.9 kgs Dimensions: L 25 x H 11 x D 14 cm

Material: Nest made of WoodcretePLUS™ with a water-resistant, glued, chipboard mounting panel, free of formaldehyde, which can be painted

Order no. 00 330 / 0 Positioning: On the inside of buildings, just beneath the ceiling, always ensuring a clear flight path out of the building.

## **Kestrel Nesting Box No. 28**



#### Kestrel Nesting Box No. 28

To encourage kestrels to nest on free-standing trees, on fringes of woodland, field barns, electricity poles, silos and other types of structures and buildings. The following sites are recommended in urban areas: larger buildings such as industrial buildings and churches, high walls and chimneys.

Material: WoodcretePLUS™ with fully galvanised metal parts

Dimensions: H 36 x W 33 x D 45 cm (No. 28) / D 38 cm (No. 29) Weight: 13,5 kgs

Positioning: At a height of 6-8m on an external, sheltered side of a building, using brackets and fixings supplied. Order no. 00 251 / 8

## Jackdaw Nesting Box No. 29

Jackdaw Nesting Box No. 29

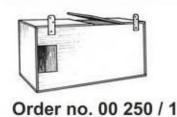




Order no. 00 252 / 5

Weight: 2,8 kgs

# Barn Owl Box No. 23 (also for Kestrels)



This nesting box is suitable for installation within all kinds of buildings such as industrial premises, church towers, roof spaces or barns. It should be attached with the entrance facing an existing opening in the outside wall of the building.

buildings, etc.

Suitable for: Barn Owl, Kestrel

Material: Water resistant, glued chipboard containing no formaldehyde, with fully galvanised metal fittings

Dimensions: L 100 x H 50 x D 50 cm

## Dipper and Pied Wagtail Box No. 19



This box is ideal for helping to ensure the continued survival of these species and can also be used when streams are being restored to their natural state. It is secure against small predators and is superior to natural nesting sites as a means of guaranteeing breeding success.

Suitable for: Dippers, pied wagtails, and redstarts when used on buildings Weight: 4.7 kgs

Material: WoodcretePLUS™ and vegetable fibre material (asbestos-free) Dimensions: L 37 x H 19 x D 19 cm Positioning: On natural streams, under bridges, on vertical surfaces, etc., at least 0,5m above the high water mark.

## **Brick Box 1HE**



A lightweight nesting box made of non-asbestos vegetable fibre material for installation in or on external walls of buildings of all kinds. Due to its special narrowing entrance it is safe against magpies, jays, cats and martens. When installing on a wall, this model is available with a mounting bracket (order no. 00632/5).

Suitable for: Black Redstart, Pied Wagtail, Common Flycatcher. Occasionally House and Tree Sparrow.

Material: Vegetable fibre material (asbestos-free) **Dimensions:** L 29,5 x H 15 x D 15 cm

Material: WoodcretePLUS™ Positioning: At least 2m above ground.

Order no. 00 631 / 8



#### Swift & Bat Box 1MF



With its two separate entrances this model can accommodate two pairs of swifts. In addition the recess in the rear panel creates a space between the wall of the building and the box, making it ideal for bats that inhabit buildings and use such environments to raise their young.

Suitable for: Swifts and species of bat that inhabit buildings Material: WoodcretePLUS™ with fully galvanised fixing bracket Dimensions: H 45x W 43 x D 22,5 cm Weight: 24 kgs

Positioning: On external walls using the mounting plate and three screws provided. At a height of 5m and above. Using the Bat Slope (order no. 00 616/5, see below) the 1MF can also be set into a wall.



1MF on external wall

## Bat Slope for the Swift & Bat Box 1MF



Best.Nr.: 00 616 / 5

Using the Bat Slope the 1MF (above) can be installed flush within the building wall. This may be necessary, for example, for an enhanced visual effect or on listed buildings.

Suitable for: see 1MF (order no. 00 615/8)

Material: WoodcretePLUS™

**Dimensions:** H 25 x W 43 x D 22,5 cm (overall height of Bat Slope and 1MF together is 70 cm)

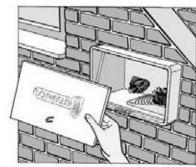
Weight: 13.5 kgs (plus 24 kgs for the 1MF itself)

Positioning: The Bat Slope is embedded in an external wall with the 1MF positioned above it.



1MF installed flush within wall

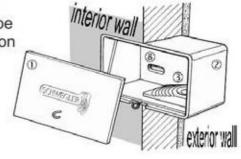
#### Swift Observation Box No. 15



This is inset or embedded in an external wall. The front of the box, which has the birds' entrance hole, is flush with the external wall surface (plastering is also possible). Activities in the box can be checked from inside the building by simply opening the observation flap. Supplied with observation flap and nest mould.

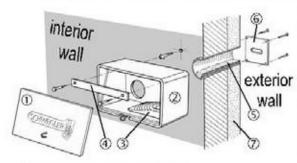
Suitable for: Common swifts

Material: WoodcretePLUS™ Dimensions: H 24 x W 43 x D 22 cm Weight: 13.6 kgs Positioning: The entrance hole should be at a height of at least 5m from the ground. Please ensure unobstructed access for birds entering or leaving the box. The installation of several of these nesting aids in a building will encourage the rapid formation of colonies of swifts.



Order no. 00 595 / 3

## Swift Observation Box No. 14



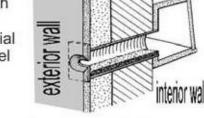
Order no. 00 592 / 2

Identical in size to the No. 15 (above) but attached by screws to the inside wall of the building (mounting bracket [4] supplied). The special hole [5] provides a passage through the wall (max. 35cm) and, if necessary, through any insulation [7] (e.g., in spaces under roofs, lift shafts, store rooms, etc). The access on the external wall is covered by a special panel [6], also supplied, which is made of vegetable fibre material. Alternatively this panel can be incorporated in the rendering. Supplied complete with observation panel [1] and additional nesting recess [3].

Material: WoodcretePLUS™

Weight: 15.7 kgs

Suitable for: Common swifts Dimensions: H 24 x W 43 x D 22 cm Positioning: Same as No. 15 (above).



Cutaway: Installation (View from outside building)

#### Swift Box No. 16



For installation in external walls (Fig. 1). Maximum insert depth is 17cm to prevent the entrance hole in the floor being blocked.

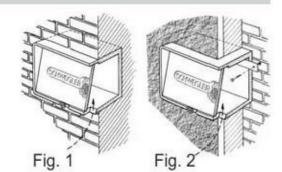
It can also be attached to the surface of external walls (or within render or an external insulation layer) using the additional retaining strip order no. 00614/1 (Fig.2). Suitable for: Common swifts

Material: WoodcretePLUS™

Dimensions: H24 x W 43 x D 22 cm

Weight: 11 kgs

Order no. 00 612 / 7 Positioning: Same as No. 15 (above).



## Swift Box No. 17 - Standard



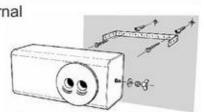
Order no. 00 610 / 3

A lightweight nesting box made of non-asbestos vegetable fibre material for installation on the external walls of buildings of all kinds, including houses, industrial premises, churches, roadside structures, walls or even cliffs. If required it can be painted using standard, air-permeable paint to match the background surface. A fixing bracket is included. Also deliverable as model "Sparrow" (twin hole).

Suitable for: Common swifts Weight: 3.1 kgs

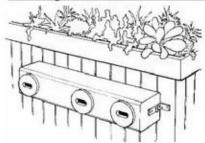
Material: Vegetable fibre material (asbestos-free) Dimensions: L 34 x H 15 x D 15 cm

Positioning: Under or close to roofs, at least 5m from ground. Please ensure unobstructed access for birds entering and leaving the box. The installation of several in a building will assist the rapid formation of swift colonies.



Installation example: Mounting with fixing braket (Model "Sparrow")

## Triple Swift Box No. 17



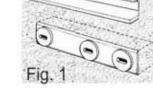
Order no. 00 613 / 4

Lightweight nesting box made of non-asbestos vegetable fibre material for installation like No. 17 on the external walls of buildings of all kinds (please see above). It is an extended version of the proven No. 17 Standard Swift Box and can accommodate three pairs of swifts in parallel. This nest box combines very good success in assisting the rapid formation of swift

colonies with convenient mounting effort. Also deliverable as model "Sparrow" (twin hole, see above). Installation: With two galvanized fixing brackets (included) or embedded in external wall (see Fig.1). Suitable for: Common swifts Material: Vegetable fibre material (asbestos-free)

Dimensions: H 15 xT 15 xL approx. 90 cm Weight: 7 kgs

Positioning: Identical to No.17 Standard (see above). Installation of several units is recommended.





#### Swift Nest No. 18



Order no. 00 611 / 1

Made from air-permeable WoodcretePLUS™, for installation under eaves in all kinds of buildings including residential and industrial buildings. If required standard, air-permeable paint can be used to match this nesting aid with the background surface. Individual nests can be removed from the supporting frame for cleaning.

Suitable for: Common swifts Dimensions: L 34 x H 15 x D 15 cm Weight: 3.1 kgs

Material: WoodcretePLUS™ nest with a water-resistant chipboard frame, containing no formaldehyde and suitable for painting. Positioning: Under or close to roofs, at least 5m from ground. Please ensure unobstructed access for birds entering and

leaving the box. The installation of several in a building will assist the rapid formation of swift colonies.

## **Built-in Multi-System (Main Cavity)**



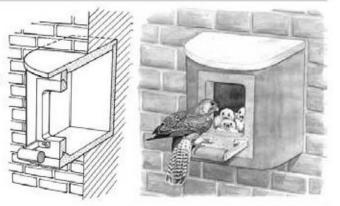
This nest box can be installed in all types of buildings whether constructed of concrete, brick or timber. Examples include bridges, industrial buildings, houses, church towers and sheds.

To meet the needs of various bird species, different types of front panel are available (see below) for inclusion at a later stage. This Main Cavity is supplied without a front panel which should be ordered separately (please see below).

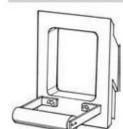
Suitable for: Dependent on the type of front panel chosen

Material WoodcretePLUS™ Dimensions: H41,5xW44,5xD41,5cm Weight: 28kgs

Order no. 00 290 / 7 Positioning: At heights of 5m or more on a sheltered external wall.



## Front Panels for the Built-in Multi-System



**Kestrel** front panel including organic nest material

Material: WoodcretePLUS™ with fully galvanised fittings and treated wooden perch

Weight: 2.0 kgs

Order no. 00 295 / 2



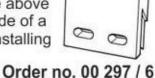
Jackdaw

Material: WoodcretePLUS™

Weight: 2.0 kgs

**Positioning:** 6-8m or more above ground, on the sheltered side of a building. We recommend installing several for jackdaws on

Order no. 00 296 / 9 each building.



#### Common Swift

Supplied with a partition to provide 2 separate brood compartments.

Material: WoodcretePLUS™

Weight: 2.0 kgs

**Positioning:** At heights of 5m or above. Please ensure unrestricted entry and exit.

## **Cavity Panel for Swifts**

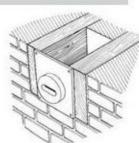


Ideal as a facing for cavities and niches in walls to provide breeding spaces for swifts.

**Suitable for:** Common swift **Weight:** 0.6 kg **Material:** Vegetable fibre material (asbestos-free)

Order no. Order no. 00 618 / 9 Dimensions: 20 x 20 cm x thickness 6 mm, thickness of entrance hole insert 2,5 cm Positioning: Can be used for any hollow spaces, niches in walls, etc. Has four screw holes (screws not included). The entrance-hole insert is removable for easy cleaning and inspection.





## **Brick Boxes**



Type 24 Entrance hole 32mm

Suitable for: Great, blue, marsh, coal and crested tits, redstarts, nuthatches, tree and house sparrows

Material: WoodcretePLUS™ Dimensions: H 24 x W 18 x D18 cm

Order no. 00 710 / 0 Weight: approx. 7.3 kgs



Order no. 00 720 / 9

#### Type 25 oval

Entrance hole 29 x 55mm Suitable for: Common swifts Material: WoodcretePLUS™

Dimensions: H 24 x W 18 x

D18 cm

Weight: approx. 7.3 kgs



Order no. 00 730/ 8

Type 26 Open-Fronted Suitable for: Species that nest in recesses, such as redstarts, pied wagtails and spotted flycatchers

Material: WoodcretePLUS™
Dimensions: H24xW18xD18cm
Weight: approx. 7.3 kgs

## **Bat Brick Box Type 27**



Similar to our other Brick Boxes but with a fully removable front panel and internal additional, roughened wooden panel.

Oval entrance hole: 55 x 26 mm
Suitable for: Bats Weight: 9.5 kgs
Material: WoodcretePLUS™ with wooden insert

Order no. 00 740 / 7 Dimensions: H 26,5 x W 18 x D 24 cm Positioning: Within external walls



**Bat Box 1FF** 

Flat, maintenance-free bat box for use on trees and on buildings of all kinds. Cleaning is not necessary because droppings can fall through the apertures in the box (please see our main catalogue for a detailed description).

Suitable for: Bats Weight: 9.9 kgs

Material: WoodcretePLUS™ Dimensions: H43 x W 27 x D 14 cm

**Positioning:** On buildings, masts, roadside structures, etc, at heights of 3m and above. Hanging bracket supplied.

#### **CONTACT ADDRESS:**

For further information, prices and sales please contact:

Or visit the SCHWEGLER website: http://www.schwegler-natur.de

All designs are subject to technical modifications without notice. Errors excepted.