



BUILDING NEST BOXES FOR THE SWIFT *INTO CEMENT BLOCK, BRICK AND EXTERNALLY INSULATED WALLS*

GUIDANCE ON BEST PRACTICE





An adult Common Swift exiting nest site at Castlebar Leisure Complex

Written and Compiled by Lynda Huxley

www.swiftconservation.ie

swiftconservationireland@gmail.com

NOVEMBER 2021

Cover Image: Swifts flying past the nest entrances at Castlebar Leisure Complex

All photos by Lynda Huxley unless otherwise credited.

Whilst every care is taken in compiling this document, no responsibility can be taken for errors or omissions.

© Swift Conservation Ireland

Production of this leaflet was made possible by a grant from
National Parks and Wildlife Service of the Department of Housing, Local Government and Heritage



An tSeirbhís Páirceanna Náisiúnta
agus Fiadhúlra
National Parks and Wildlife Service



An Roinn Tithíochta,
Rialtais Aitiúil agus Oidhreacht
Department of Housing,
Local Government and Heritage



BUILDING NEST BOXES FOR THE SWIFT INTO CEMENT BLOCK AND BRICK WALLS

CONTENTS

GENERAL INFORMATION ABOUT THE SWIFTS AND NEST BOXES	<u>4</u>
WHAT IS A SWIFT?	4
WHY DOES THE SWIFT NEED OUR HELP?	4
WHY INCORPORATE NEST BOXES IN THE WALL OF A BUILDING?	4
ARE THERE GOOD EXAMPLES OF NEW BUILDINGS WITH BUILT-IN NEST BOXES?	5
HOW WILL THE SWIFTS FIND THE NEST BOXES?	5
WILL THE BIRDS LEAVE ANY MESS?	5
 PROVIDING NEST BOXES FOR SWIFTS	 <u>6</u>
WHICH NEST BOX MODEL SHOULD BE USED?	6
WHAT IS THE IDEAL LOCATION FOR NEST BOXES BEING BUILT INTO A WALL?	6
CAN THE NEST BOXES BE PLACED ONE ABOVE THE OTHER?	7
 ABOUT THE WOODSTONE BUILD-IN SWIFT NEST BOX DEEP	 <u>8</u>
INSTALLING THE WOODSTONE SWIFT NEST BOX DEEP	9
INSTALLING THE WOODSTONE SWIFT NEST BOX DEEP cont.	10
PROTECTING THE ENTRANCE HOLE	10
 ABOUT THE SCHWEGLER 17A TRIPLE ENTRANCE/CAVITY NEST BOX	 <u>11</u>
INSTALLING THE SCHWEGLER 17A	12
INCORPORATING NEST BOXES INTO BLOCKS OF EXTERNAL INSULATION	13
PROTECTING THE ENTRANCE HOLES	14
 APPENDIX 1: WHERE TO BUY SWIFT NEST BOXES	 <u>15</u>
WHERE TO BUY THE WOODSTONE SWIFT NEST BOX DEEP	15
WHERE TO BUY THE SCHWEGLER NEST BOXES	16
 APPENDIX 2: ATTRACTION CALLS	 <u>18</u>
ABOUT THE ATTRACTION CALL SYSTEM	18
WHERE TO LOCATE THE CALL SYSTEM	18
 NPWS LURE LICENCE	 <u>19</u>

GENERAL INFORMATION ABOUT THE SWIFTS AND NEST BOXES

WHAT IS A SWIFT?

- Swifts are a family of birds that look similar to Swallows and Martins
- The Common Swift is the only one of the Swift family that comes to Ireland to breed. They are gregarious and colonial nesters
- They arrive in Ireland in late April/early May and leave in late August when the chicks have all left the nest
- They go to Africa for the winter months
- The Swift is unique because they eat, drink and sleep on the wing
- They only land to breed between May and August each year so the rest of the year they are flying
- They feed on airborne insects such as midges, aphids and tiny spiders

Find out more about swifts at www.swiftconservation.ie and in the Swift Conservation Ireland booklet '*We are Swifts, We are in Trouble*'.

WHY DOES THE SWIFT NEED OUR HELP?

- The Common Swift *Apus apus* is a Red-listed bird of conservation concern in Ireland
- The population has declined in abundance by close to 50% in the past 30 years
- This decline is mostly due to loss of 'traditional' nest sites
- The majority of the 'traditional' nest sites are in old buildings in our urban areas
- When these buildings are renovated/demolished the nest sites are lost and the swifts are homeless
- They come here in May to breed
- They do not breed in Africa – where they spend the winter months
- We can help recovery of the Swifts by providing permanent nest sites where they can breed

WHY INCORPORATE NEST BOXES IN THE WALL OF A BUILDING?

There are several reasons:

- To help recover the declining Swift population
- Built-in nest boxes are the closest thing to the 'traditional' nest sites
- Built-in nest boxes will be there for the life of the building which is very important because the Swift is a long-lived bird and 100% faithful to its nest site
- Built-in nest boxes have proven to be very effective for attracting Swifts

ARE THERE GOOD EXAMPLES OF NEW BUILDINGS WITH BUILT-IN NEST BOXES?

There are several successful new build projects in public buildings in Ireland:

- **Westport Town Hall**, Co. Mayo where 4 triple cavity nest boxes installed in 2015 providing 12 nest compartments. By 2019 all 12 nest compartments were occupied by Swifts
- **Castlebar Leisure Centre**, Co. Mayo where 8 triple cavity nest boxes were installed in the winter of 2017. The attraction calls were switched on in May 2018 and within 5 weeks Swifts occupied 7 of the 24 nest compartments. This is an extremely quick uptake and suggests that built-in nest boxes are preferred over externally mounted boxes. In 2021, Swifts were observed using 17 of the nest compartments
- **Claremorris Mount St Michael Secondary School**, Co. Mayo where 8 triple cavity nest boxes were installed in 2019 providing 24 nest compartments. In 2021, Swifts were observed using 3 of the nest compartments

HOW WILL THE SWIFTS FIND THE NEST BOXES?

It is essential to play attraction calls. The set-up of the call system can be tailored to suit the building project. See Appendix 2 (*page 18*) for further information.

WILL THE BIRDS LEAVE ANY MESS?

Swifts are not messy birds and there will be no mess on the wall or on the ground below the nest boxes, see Picture 1.

BUT, the correct entrance size must be used.

Maximum 29.5mm high by 65mm wide.

Minimum 28mm high x 60mm wide. This is ideal for Swifts but too small for a Starling to enter. It is very important to use a hole that is too small for Starlings because a) they are aggressive to Swifts b) they bring in sticks and other nest material which makes the nest compartment unusable for Swifts.

The nest boxes are sealed units which do not require any maintenance and do not need to be cleaned out.



PICTURE 1.

Westport Town Hall built-in boxes (*all occupied by Swifts*) - no bird droppings on the wall

PROVIDING NEST BOXES FOR SWIFTS

WHICH NEST BOX MODEL SHOULD BE USED ?

We recommend these models for building into the fabric of a wall:

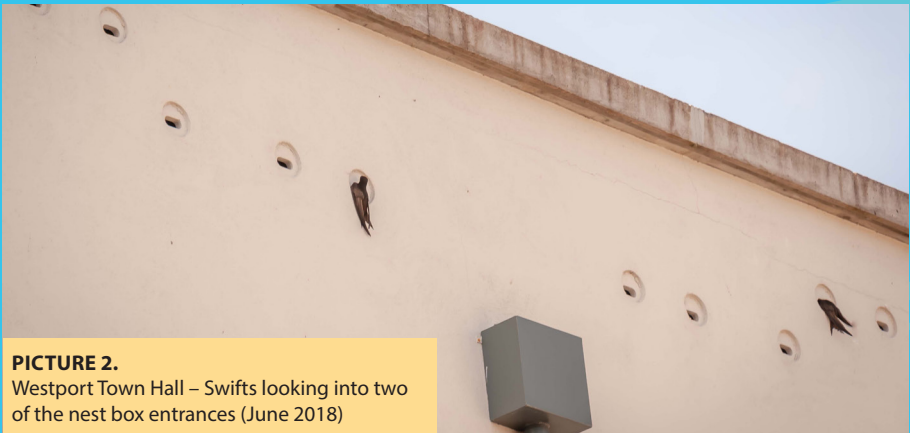
- Woodstone Build-in Swift Nest Box Deep – single entrance/compartment
- Schwegler 17A Triple entrance/compartment Nest Box

Details on where to buy them can be found in Appendix 1 (page 15).

WHAT IS THE IDEAL LOCATION FOR NEST BOXES BEING BUILT INTO A WALL?

- Any aspect is ok for built in nest boxes (N, S, E or W) but N, NE is best
- **Minimum** 5 metres above ground level – close to roof level is best
- **OPEN ASPECT** i.e. no large trees or walls and no roof directly below the nest entrance. The birds need to have direct flight in and out (these birds do not perch so must have direct flight path to swoop in and drop out of the nest entrance)
- **NOT** directly under or close to spotlights/floodlight because these would blind birds entering or leaving the nest boxes in the evening. They will enter and leave nest sites in the near dark
- **NOT** near flapping flags because birds could collide with these when leaving nest site
- **NOT** immediately next to clear glazed windows

Both models of nest box can be built into exterior cement block and brick walls. They can also be incorporated into walls fitted with blocks of external insulation.



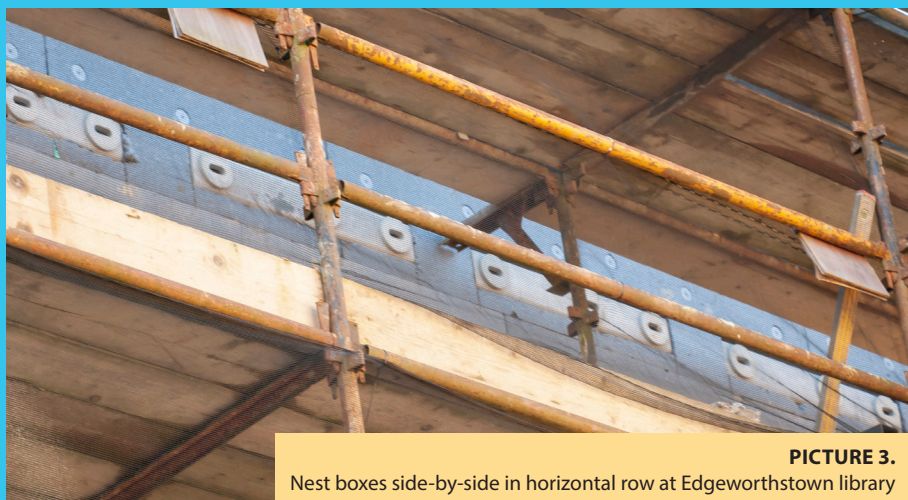
PICTURE 2.

Westport Town Hall – Swifts looking into two of the nest box entrances (June 2018)



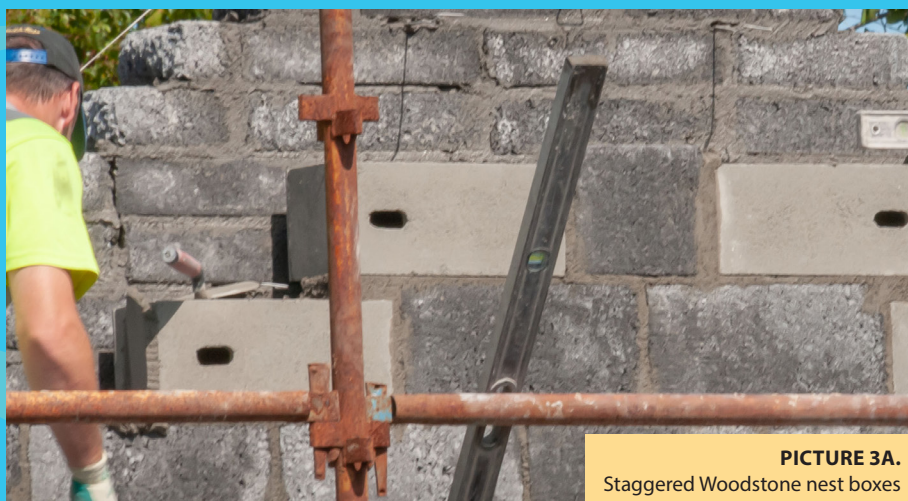
CAN THE NEST BOXES BE PLACED ONE ABOVE THE OTHER?

NO - they must either be placed side by side or staggered (see photos below)
This is so that the birds do not collide when approaching their nest boxes at speed – the usual approach speed is 50 kilometres per hour.



PICTURE 3.

Nest boxes side-by-side in horizontal row at Edgeworthstown library



PICTURE 3A.

Staggered Woodstone nest boxes

ABOUT THE WOODSTONE BUILD-IN SWIFT NEST BOX DEEP

Woodstone nest box products are made by VivaraPro. In 2012, following several years of research, development and trials, they launched the WoodStone® range.

They are made from a mix of concrete and responsibly sourced wood fibres
According to VivaraPro this mix of materials provides:

- Excellent insulating properties which give a more consistent internal temperature
- A very durable exterior which makes the boxes resistant to all weather conditions
- They are breathable, avoiding problems with condensation

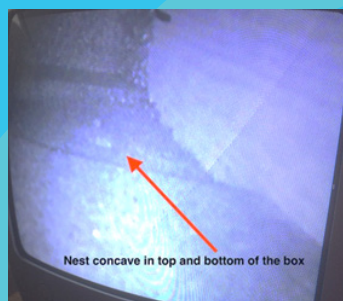
PROS:

- The nest compartment dimensions provide an adequate space for breeding Swifts
- The builders find it easy to work with because it is a similar size to a cement block
- It can also be installed in a brick wall
- It is readily available with delivery time usually in a matter of weeks
- Very cost effective

External Dimensions	Nest Compartment Dimensions
LENGTH: 42cm	LENGTH: 38cm
DEPTH: 15.5cm	DEPTH: 13cm
HEIGHT: 18cm	HEIGHT: 14cm

- **Weight:** 5.3kg
- **Entrance hole dimensions:** 29-30mm high x 60mm wide

The Woodstone Swift Nest Box Deep (image below) has a shallow nest concave in the floor and ceiling of the box which means there is no risk of installing the nest box the wrong way up.



See Appendix 1 (page 15) for information on where to buy the Woodstone Swift Nest Box Deep

INSTALLING THE WOODSTONE SWIFT NEST BOX DEEP



PICTURE 4.

The nest boxes can easily be incorporated into a block wall

The insulation in the cavity can simply continue behind the block, so there is no thermal bridge.

If insulation has to be cut away, it is important to cut the insulation around the circumference of the block.



PICTURE 5.

The nest box protrudes a few centimetres into the cavity but there is room for insulation



PICTURE 6.

Five Woodstone nest boxes incorporated in walls of Ballinrobe N.S.

INSTALLING THE WOODSTONE SWIFT NEST BOX DEEP CONT.

PROTECTING THE ENTRANCE HOLE



PICTURE 7.

A piece of foam insulation is placed in the entrance hole

Placing of a piece of foam insulation in the entrance ensures the hole is protected from being altered in size during the rendering process. **BUT** it must be removed once the rendering is finished.



PICTURE 7A.

Ballinrobe NS project completed in 2020



PICTURE 8.

Woodstone Swift Nest Box Deep installed in red brick gable wall at Partry NS

ABOUT THE SCHWEGLER 17A TRIPLE ENTRANCE/CAVITY NEST BOX

Schwegler is a company based in Germany.

The Schwegler 17A is made from a wood-concrete mix which, according to Schwegler gives them excellent insulation as well as breathability and longevity.

Their nest boxes are a high quality species-specific design, breathable and resistant to weather.

PROS:

- The Schwegler has been designed to be built into a wall
- It is a triple entrance/compartment nest box which can be built into a wall replacing cement blocks

CONS:

- This box is close to a metre long and so we recommend that nest boxes are capped with a lintel to provide additional strength
- Relatively expensive compared to Woodstone nest box
- Delivery time can take up to 4 months

External Dimensions of this triple entrance/cavity nest box	Nest Compartment Dimensions
LENGTH: 98cm	LENGTH: 30cm
DEPTH: 15cm	DEPTH: 14cm
HEIGHT: 15cm	HEIGHT: 14cm

Weight: approx. 7.1 kg.

Entrance hole dimensions: 29mm high x 65mm wide



See Appendix 1 (page 16) for information on where to buy Schwegler 17A nest boxes.

INSTALLING THE SCHWEGLER 17A



PICTURE 9.

The nest boxes can easily be incorporated into a block wall



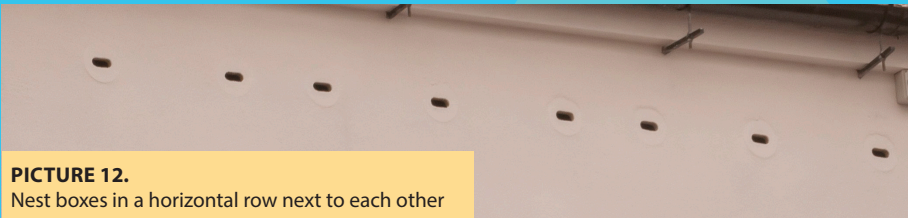
PICTURE 10.

Lintel is placed above the Schwegler 17A nest box



PICTURE 11.

Nest boxes staggered in two rows



PICTURE 12.

Nest boxes in a horizontal row next to each other

INCORPORATING NEST BOXES INTO BLOCKS OF EXTERNAL INSULATION

In 2021, Schwegler 17A nest boxes were incorporated into blocks of external insulation of the new library building in Edgeworthstown, Co. Longford.

The process of installing the nest boxes is laid out below :



PICTURE 13A.

The shape/dimensions of the nest box were marked out on the insulation blocks and the insulation removed from this space.



PICTURE 13B.

The nest box was slotted into the space and secured with adhesive.



PICTURE 13C.

Nest boxes incorporated with entrance discs in place in horizontal position.

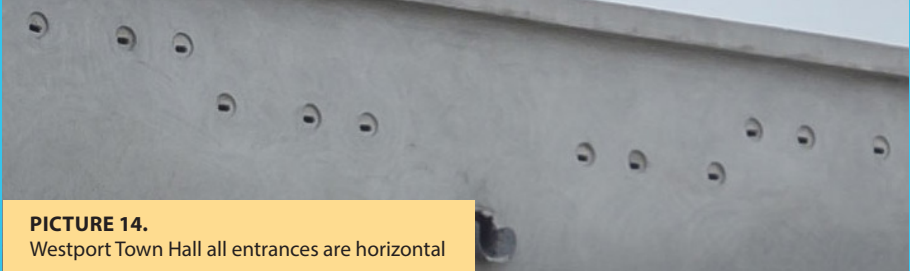


PICTURE 13D.

Edgeworthstown Library project rendered and painted.

PROTECTING THE ENTRANCE HOLES

The Schwegler entrance discs can be turned. ***Therefore, before the wall is rendered you MUST ensure the entrance discs of the Schwegler 17A are aligned so that the holes are horizontal.***



PICTURE 14.

Westport Town Hall all entrances are horizontal



PICTURE 15.

Nest entrance hole protected with piece of foam prior to rendering

The nest entrance holes can be plugged with a piece of foam pipe insulation.

1) This prevents render from getting inside the box

2) Helps retain the shape of the hole during the rendering process

This foam filler MUST BE REMOVED once the rendering is finished.

OR

The nest entrances can be protected with tape.



PICTURE 16.

Nest entrance holes protected with tape



APPENDIX 1: WHERE TO BUY SWIFT NEST BOXES

WHERE TO BUY THE WOODSTONE SWIFT NEST BOX DEEP

At the time of writing, there is NO supplier in Ireland but the following UK companies will ship to the Republic of Ireland and will accept payment in Euros:

- **NHBS**

NHBS is in the UK but has an EU office in Germany which allows purchase in Euros. We recommend phoning to request a quotation including Irish VAT rate of 23% and shipping costs.

www.nhbs.com/woodstone-build-in-swift-nest-box-deep

NOTE: you need to select the EUR icon on the top right of the toolbar (*cost per box ex-VAT and delivery at time of writing is approximately €40.00*). They usually deliver within a few weeks of payment of your order.

- **WILDCARE**

Wildcare is in the UK but has an EU office in France which allows purchase in Euros. We recommend phoning to request quotation including Irish VAT rate of 23% and shipping costs.

www.wildcare.eu/10736-nichoir-martinets-encastrer.html

NOTE: their EU website is in French but you can phone them using the UK phone number on their UK website <https://www.wildcare.co.uk/10736-vivara-pro-woodstone-build-in.html> (*cost per box ex-VAT and delivery at time of writing is €30.00*).

- **VIVARAPRO**

VivaraPro are the manufacturers of the Woodstone Swift Nest Box Deep. They have a UK office and you can buy direct from them. There is free delivery to Ireland for orders over €1,500 but for orders between €500 to €1,499 there is a €75 pallet fee. Minimum order is €500 plus delivery.

NOTE: they cannot charge Irish VAT, therefore, you must ask for a quotation in Euros excluding VAT.

www.vivarapro.co.uk/quote/add?p_id=130&p_qty=1

You will then pay Irish VAT of 23% to the import agent prior to delivery. This item is exempt from customs duty (*cost per box incl. VAT and delivery for order over €1,500 at time of writing is €32.00*). They usually deliver within a few weeks of payment of your order.

NOTE: You have to supply them with an EORI number which you can obtain from Irish Revenue

www.revenue.ie/en/customs-traders-and-agents/customselectronic-systems/eori-system.aspx

ALTERNATIVELY: Swift Conservation Ireland usually holds some of each of these nest boxes and may be able to supply if there is an urgency to the project. For enquiries email swiftconservationireland@gmail.com



WHERE TO BUY THE SCHWEGLER NEST BOXES

NOTE: Schwegler nest boxes cannot be purchased from mainland Europe because the UK company Jacobi Jayne is the registered distributor for UK and Ireland, and they supply the companies listed below.

There are three No.17 nest box sizes:

- 1) **17A** with three nest compartments
- 2) **17B** with one nest compartment
- 3) **17C** with two nest compartments

It is important to be aware that Schwegler make 2 entrance hole sizes for the No.17 model:

- 1) **32mm x 65mm** – BUT this size entrance is too large for use in Ireland because it enables Starlings to access the nest compartment.
- 2) **29mm x 65mm** – Is used and recommended by Swift Conservation Ireland BUT has to be ordered by special request.

The following UK companies will ship to Ireland and will accept payment in Euros.

NOTE: it can take at least 4 months for delivery from the time of order.

• NHBS

NHBS is based in the UK with an office in Germany which means that you can purchase in Euros.

NOTE: their website states they do not ship this model outside of the UK but this is NOT the case. You must phone the UK office for a quotation including shipping to Ireland. Prior to delivery, an Irish Customs Agent will contact you for payment of the Irish VAT of 23% and Customs Duty of 1.7%.

NOTE: You must ask NHBS for unique Product Code 249572 ensuring you order the smaller nest entrance hole (29mm x 65mm) - as used by Swift Conservation Ireland.

www.nhbs.com/no-17a-schwegler-swift-nest-box-triple-cavity

NOTE: At the time of writing the cost of a Schwegler 17A nest box incl. delivery, VAT and Customs Duty is approximately €250.00. They usually take payment once items are in stock and deliver within a few weeks of payment.

• WILDCARE

Wildcare is based in the UK with office in France which allows purchase in Euros. We recommend phoning to request a quotation including delivery. Prior to delivery, an Irish Customs Agent will contact you for payment of the Irish VAT of 23% and Customs Duty of 1.7%.

www.wildcare.eu/schwegler-no17a-swift-box-10175.html

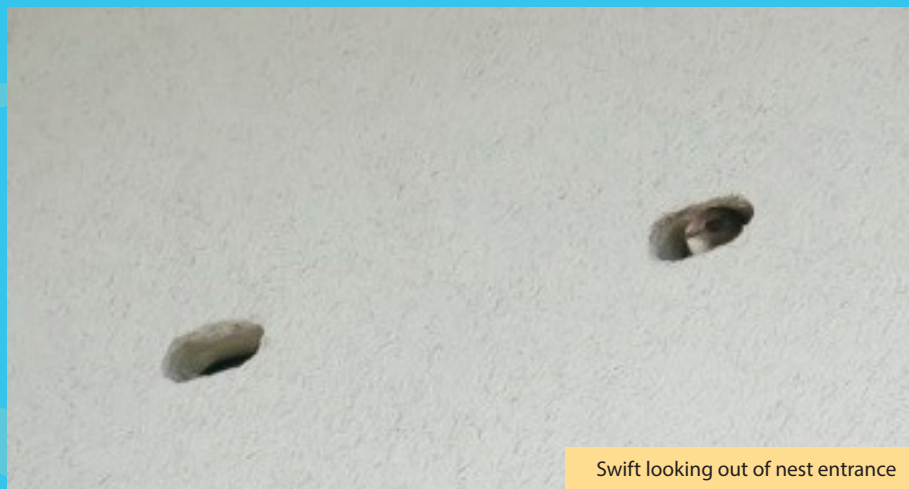
NOTE: their EU website is in French but you can phone them using the UK phone number on their UK website

www.wildcare.co.uk/schwegler-no17a-swift-box-10175.html

(cost per box incl. delivery, VAT of 23% and Customs Duty of 1.7% at time of writing is approximately €290.00)

NOTE: Wildcare don't have a product code for the smaller nest entrance hole. You must specify that you require the smaller entrance hole size of 29mm x 65mm.

Alternatively: Swift Conservation Ireland usually holds some of each of these nest boxes and may be able to supply if there is an urgency to the project. For enquiries **EMAIL:** swiftconservationireland@gmail.com.



Swift looking out of nest entrance

APPENDIX 2: ATTRACTION CALLS

ABOUT THE ATTRACTION CALL SYSTEM

An attraction call system must be used and calls played to help prospecting Swifts locate the nest boxes and ensure that the project is a success. They are played each season, May to end of August, until the Swifts have taken up residence in the nest boxes.

Specific advice on call systems and how and where to locate them can be obtained from Swift Conservation Ireland by emailing swiftconservationireland@gmail.com

Call systems can be purchased from Swift Conservation Ireland. The price varies from €60 - €90 plus postage (depending on model of speaker being used and current market prices).

The call system is made up of:

- waterproof marine speaker (white or black) mounted externally
- see project examples on page 19.
- amplifier, loaded with attraction calls, which plugs into a wall socket inside the building.
- speaker cable running from the externally mounted speaker to the amplifier inside the building.



WHERE TO LOCATE THE CALL SYSTEM

Location of the speaker and amplifier is unique to every project. However, the waterproof speaker **must** be located as close to the nest boxes as possible. In all instances the speaker cable runs from the speaker to where the amplifier is located inside the building.



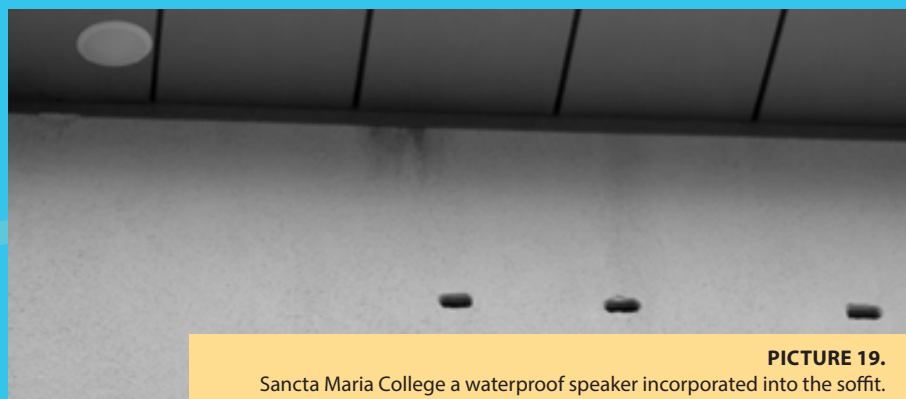
PICTURE 17.

Mary Robinson Centre a waterproof speaker installed in box above the nest boxes



PICTURE 18.

Mount St Michael Sec. School a waterproof speaker incorporated into fascia



PICTURE 19.

Sancta Maria College a waterproof speaker incorporated into the soffit.

NPWS LURE LICENCE

Attraction calls will require an annual lure licence from NPWS. You can find the application form in the section 'Decoys, lures and scarecrows' at www.npws.ie/licencesandconsents/hunting

For projects associated with Swift Conservation Ireland, the playing of attraction calls will be covered under their NPWS licence but full details of location of site and contact person must be supplied.

