

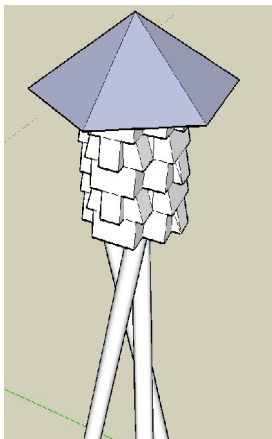


SWIFT CONSERVATION

KEEPING THE SKIES ALIVE

Spectacular Homes for an Epic Bird

Guidelines to building a successful Swift Tower



Dick Newell design



A pair of Swifts in their nest, with one on either side
Swift Tower concept designs: photo E. Kaiser



Dick Newell design

Why Swifts?

Swifts have been on the planet for 49 million years, longer than us! They used to nest in ancient forests, which started to vanish during the Roman Empire, now they are all but gone. So Swifts moved into our buildings to breed. Buildings from the time of the Romans to the Second World War offered the sort of open eaves and gables that gave Swifts nest places. But ever since the late 1940's our buildings have been increasingly sealed.

The result is that we have lost almost half our Swifts in just the last 10 years. The loss of existing nest sites through roof renovation and insulation, and the failure to create new nest spaces in new developments is excluding hole-nesting species like Swifts but also Starlings, Black Redstarts, and Sparrows. All four birds have been selected as London Olympics 2012 Biodiversity Species, all are in decline or very rare, and you are tasked to help them. Now you know why!

It can be done!

The North American Purple Martin is a very similar bird to our Swift and started to decline rapidly when the great forests were cut down for timber in the 19th Century. But the early colonists, like the Native Americans, liked the bird and wanted it around because it was invaluable in reducing biting insects, so today 20 million US homes have a Purple Martin colony house in their back yard.

But there is no such culture yet in the UK. If we are to save the Swift we have to create one. London 2012 is the very best place to start, especially as the Swift is the most exuberant, charismatic, acrobatic and athletic of our summer birds - truly a bird for the Olympics!

A Swift Tower concept

Here you can see the essential elements:

- sturdy construction for long life and security
- deep shade for the nest places, which are
- individual self-contained and separate for each pair of Swifts with
- no shared entrances
- creation of a colonial concept with multiple nest boxes
- rectangular entrance slits 65mm wide x 30mm high
- appropriate height from ground for Swifts (7m +)
- also needed – security against vandalism and
- audio systems to play Swift attraction calls



Dick Newell design

Why build a Swift tower?

Swift towers provide just one of a number of ways to slow the decline in the Swift population. The others are all nest-site related, and include the preservation of existing nests, and the creation of new ones in all new buildings of a suitable size. But a Swift Tower is a statement and a commitment too. It says “Here are Swifts, we’ve made a place for them and they are going to live here” - and it can be beautiful in its own right.

Attraction and Uptake – use of the Swift Calls CD

Swifts mate for life and are deeply faithful to their nest holes, so they can be difficult to attract into new nest-boxes. The chances are better if Swifts are already nesting in the vicinity. Time and patience are needed; success may well not come in the first or even second year. It is essential that a CD of Swift calls is played through speakers close to the nest entrances. This means a power supply and cabling conduit are required, and it is wise to design-in exterior quality loudspeakers into some of the nest boxes (which will need to be enlarged for this purpose). At the Bugs House at London Zoo, using Swift Call CDs, we managed within three years of installing the boxes, to get Swifts to nest in an area they had never used before.

Location, Location, Location!

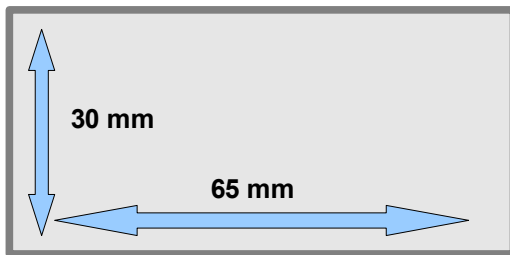
There should be a clear fly-way in front of the nest entrances, which means a gap of about 15 metres to the nearest major obstruction. Do not plant creepers beneath the nest places; predators like Squirrels and Rats may use them to reach the nests, and they will encourage House Sparrows, who may take over the boxes intended for the Swifts.

The nest boxes should be positioned so that they are not exposed to the sun, and are also sheltered from the rain. A location in the shadow of a large building would avoid any overheating problems. The lowest box should be at a minimum height of 7 metres, but Swifts can nest at heights considerably more than this, even up to 100 metres.

Nest chamber size, entrances and features

This is very important. Typical size for a nest chamber is a 200mm wide x 400mm long floor area by 200mm high. Other shapes, e.g. a square floor, say 275mm x 275mm, would also work well. With a folded wing-length of 175mm, Swifts cannot turn around in anything less without damaging their feathers.

The entrances to the nest places must be rectangular 30mm x 65mm in order to exclude larger birds like Starlings, Feral Pigeons and Jackdaws.



SWIFT NESTBOX ENTRANCE HOLE

The size of the entrance is 30mm high x 65mm wide. This lets Swifts in but excludes Starlings, Pigeons and Jackdaws.

The hole should be fitted either in the base of the box or in the front, no more than 25mm above floor level.

A “nest concave” may encourage Swifts to nest. A “Budgie concave” from a pet shop will suffice, or a round shallow depression like a saucer, about 100mm wide, can be created in the base of the nest box.

You can use horizontal or vertical facing entrances. Entrances should be near to or in the floor of the box, as Swifts launch into the air from a prone position (their short legs do not allow them to perch). Horizontal facing entrances should be sheltered from above with a roof or canopy. This stops rain entering, and protects the birds from predators such as Sparrow-hawks swooping down to seize a parent returning to feed the young.

Starlings and House Sparrows – competitor species

Starlings and House Sparrows compete for Swift nest places, and because they nest much earlier in the year than Swifts, they can prevent Swifts from nesting at all. Starlings will attack and fight with Swifts, they also fill their nest places with so much material that Swifts cannot use them in subsequent years.

Protection from these two species can be achieved in two ways. Starlings can be excluded by rigorous accuracy in the measurements and making of the entrance holes. They must be no more than 30mm high (see diagram above).

Sparrows are more or less impossible to exclude from the nest boxes, but siting the Swift nest places well away from bushes, creepers and hedgerows may put off Sparrows from occupation, as they rely on nearby green cover to provide feeding, socialising and resting places.

Materials and construction

- Swifts need rough surfaced materials, both on the exterior and interior, so they can get a grip with their claws. Always use long-lasting weatherproof materials as Swifts are long-lived; plan for a twenty year life at least, preferably fifty. Boxes must have tight joins and be wind and rainproof.
- Suitable materials are Marine and Exterior Quality Plywood, Timber, Stone, Moulded Concrete, Brick, and Steel or Aluminium sheet if lined with timber or plywood or rigid foam insulation panels.
- If the location proposed is in an urban area, the tower should be vandal-proof, and its supports fireproof and climb-proof. In Europe, towers have been built on a single sturdy steel pole. It may be easier and cheaper to use 2 or 3 poles, or to use off-the-peg lighting standards, such as the large tall types one sees at railway yards, airports and along motorways. We know that Swifts will use such structures as they have nested in the lighting control boxes of motorway light standards
- Another possibility is to build the nest place feature on or into the side of a building, avoiding the

need to build a tower. A well-designed Swift nest colony box or boxes integrated with the architectural design could enhance an otherwise boring façade.

FAQ's

Will bird droppings be a problem ?

No. Swifts usually eat a good proportion of the chicks' droppings, and do not usually defecate in or near the nest themselves. If the entry hole of the nest box is in the front, then the risk of debris falling out is minimised. Boxes with entry holes in the base may see small amounts of debris (feathers, egg shells, some droppings) fall out.

How do we stop Sparrows and Starlings getting into the nest boxes?

Be scrupulous when making the nest entrance holes; stick to the exact sizes, and Starlings will be unlikely to gain access. Installing boxes well away from vegetation may serve to discourage Sparrows.

Do the nest-boxes need to be cleaned out every year?

No. Swift nest boxes need no maintenance at all other than occasional safety checks of the integrity of the construction material and any fixings.

When should boxes be installed?

Ideally before Swifts return from Africa in early May, or, at the latest, before the end of May, in time for the young birds' return for their first nesting attempt. The birds you are trying to attract are the prospecting non-breeders.

When should the CD of Swift calls be played?

From the beginning of May to end July, most helpfully from dawn to 8 or 9am, then again from 4 or 5pm to dusk, or within those periods. Once the first Swifts are established, the need to play the CD is much reduced.

When can we inspect the nests?

Swifts are likely to desert their nest if disturbed before the chicks are well grown. So, on no account open the boxes during the breeding season (end April to early August). If you want to see what is going on, install a web cam before the birds return in late April / May.

Useful Links

Bird towers on the Internet:

Dutch Swift Tower (including a very useful slide show):

http://www.gierzwaluwbescherming.nl/bouw_voorbeelden.html

House Martin Tower:

<http://www.mertes-saegewerk.be/Pages/Fr/Hirondelles.html>

<http://www.beneluxnaturephoto.net/forumf/index.php/topic,14601.0.html>

Beijing Olympics Swift Tower:

(interesting design but unlikely to be suitable for Swifts, instead it will probably be taken over by Sparrows) <http://www.asla.org/2009awards/300.html>

Advice, examples and concepts:

www.swift-conservation.org/swift_tower_poles.htm

Dick Newell and Edward Mayer:

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Examples Old, New & Olympian

Swift Towers have been built since at least the 1500's. Here are four examples, from Renaissance Italy, Northern Ireland, the Munich Olympics site, and the Beijing Olympics.

Photo © Mauro Ferri

Torre il Castellaro, in the Regional Park of Sassi di Roccamalatina, Modena, Italy.

This 16th Century tower was created purely for Swifts. They were encouraged to breed here so the chicks could be harvested as a culinary delicacy.

Today the Tower houses some 300 historically restored Swift nest places as part of a protected breeding project.

Below: the interior of a nest place built into the wall showing the entrance hole. The interior aperture is blocked with a wooden plug (not shown) to prevent the swifts getting inside the rooms of the Tower.



Photo © Edward Mayer



Lough Neagh Industrial Park Northern Ireland Swift Group

A simple, low-cost and very basic scheme, four multiple nest boxes mounted on two telegraph poles. 18 nest places have been created at minimal expense, the poles were donated by the local power utility.

Such schemes need to face out of the sun, so that the eggs and chicks do not overheat. They also need to be out of high winds so they do not become too cold!

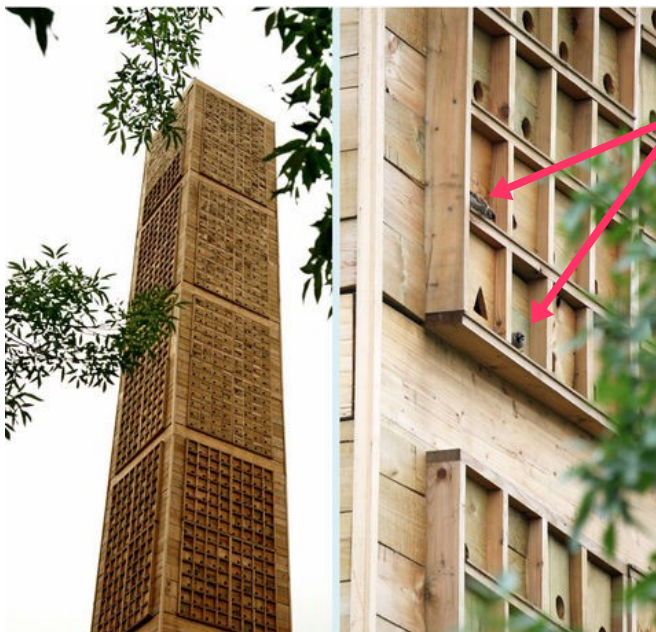


Photo: Northern Ireland Swift Group

2009, Munich, Bavaria. A Swift tower is erected on the site of the 1972 Munich Olympics.

Swifts had moved into the roof structure of one of the Olympic stadiums. When it was demolished earlier this year a replacement nest site, this new tower, was made available for them to move in to.

Below, the tower in more detail & its interior.



The 2008 Beijing Olympics Swifts Tower

A dramatic design, but the Tower has been taken over by Tree Sparrows, (see the two birds in the close-up photo) and so is less likely to be used by Beijing's Swifts.

There used to be a vast population of Swifts in Beijing; but many of their old nest sites under tiled roofs have been removed by recent redevelopment.

This tower was probably intended to redress the balance, but this is not the best way to do it.

The partitions give the Sparrows the perches they need to defend their nest places from intruders, and to establish clear territorial boundaries, which they need. Swifts don't need these features.

It might have worked if the Swifts' accommodation had been at high level, without perching ledges and with smaller entrance holes, with places made for Sparrows at the lower levels, and the areas between kept clear of bird boxes, but used instead for bats.