

Guidance for fitting rings to the Common Swift, *Apus apus*



The Common Swift (hereafter: Swift) is the only representative of its genus breeding within the United Kingdom. Its antecedents go back a long way, the earliest Swift fossil is dated at 49 million years old. The Swift is a highly successful “design” in terms of its survivability; many of the creatures with which it shared the world that long ago have disappeared.

That success depends wholly on the Swift’s abilities in flight. A high speed, highly agile hunter of insects, it never lands on the ground and is incapable of perching. It even drinks in flight by skimming ponds and pools. That ability in the air depends on an amazingly refined and delicate structure and feathering, and the use of what we would call “high-tech” aerodynamic features, such as a high aspect ratio “swing” wing and leading edge vortex creation, to achieve velocities, agility and turning ability that few other flying creatures can match.

But survival of this amazing bird now hangs in the balance. For a bird of its size, the Swift has a very low reproduction rate, of the order of 1.5 chicks per pair per year. A Swift, and its breeding regime, are so precise, so dependent on aerodynamic perfection and exact timing, that any disruption of the nesting process, and / or damage to the feathering, can wreck a Swift’s ability to breed or fly successfully.

Nest place loss and rapid decline:

Swifts probably used to nest predominantly in old woodpecker holes in ancient woodlands, as well as in crevices in cliffs, but long ago, as the woodlands were removed, they moved into our built structures to breed. However, in the past century changes in our building styles, techniques and materials have created buildings that are devoid of gaps or cracks where Swifts might build a nest. It seems more than plausible that this, together with the widespread and ever-increasing use of agricultural insecticides throughout their breeding and now wintering areas, is the cause of their recent and alarming decline.

BBS surveys show declines in the UK’s Swift population over the past 15 years varying from some 30% to over 50% in some areas. As a result the Swift gained “Amber” conservation status in 2009. Efforts to draw attention to the plight of the species may have had the unintended consequence of increasing its attraction for ringers. But poorly conducted ringing has, we believe, increased the pressure on an

already beleaguered species and contributed in some cases to prejudicing Swift breeding and survival.

Is ringing an outdated technique?

“Using geolocators we have learned more about (Swift) migration routes, wintering areas, timing of migration, travel rates and migration strategies of this species than from a century of bird ringing. For example, not a single (Swift) ring recovery is known from any European ringing schemes from the Liberia region, which appears to be a major stopover area in spring.”

Susanne Åkesson, Dept of Biology, Lund University, Lund, Sweden

One can summarise the results of ringing some thousands of Swifts over many years thus. We know that the adults return to the same nest every year. We know that the young hardly ever return to the natal area to nest. We know that UK-ringed Swifts fly during our winter over central southern and eastern Africa, but knowledge of their migration routes and duration of stop-overs has not been aided by ringing.

The very meagre number of ring recoveries from the supposed wintering areas has not only been statistically insignificant, but positively deceptive.

(See <http://www.commonswift.org/2880Pedersen.html>)

So ringing has to be evaluated in context; it may have some value when associated with recording fidelity to nest places and partners within a managed colony, and in providing data on age, but it's use otherwise is likely to be a wholly wasted effort, capable of contributing very little more to our knowledge, especially when compared with the results now being gained from using geolocators.

Some examples of bad ringing practice:

- Trapping breeding Swifts to ring them at dusk, and releasing them into the dark, may result in losses as the birds may fail to find their nest holes, will cling to any structure to rest, and may then die of hypothermia.
- Keeping breeding Swifts caught at dusk in bags overnight then releasing them the next day exposes their chicks to cold and starvation, as the parents invariably spend the night with their un-feathered chicks.
- Trapping Swifts in cold and wet conditions (when because of a shortage of high-flying insects they fly low and are thus accessible) exposes birds that are already on the brink of starvation to further trauma, delays the supply of food to their similarly starving chicks, and exposes the chicks to hypothermia.
(Swift chicks may survive a short period of starvation by becoming torpid, but this must not be taken for granted when conducting ringing exercises.)
- Using a kinetic form of catching such as “flick netting” may by its very nature inflict injuries on a creature that flies at very high speeds (40 to 60 km/h) and is as accurate and refined as a Swiss watch, and is not something that can be treated as a tennis ball.

Ringling techniques and timing:

The generally-acknowledged world expert on the breeding behaviour of the Swift, Erich Kaiser, maintains a colony of some 90 birds in nest boxes at his home near Frankfurt. This colony has been monitored and studied for some 40 odd years.

Swifts have an instinctive fear of intrusion into their nest spaces, probably linked to the well-recorded fact that rodents (rats, mice, dormice, squirrel dormice) will kill Swifts if they come across them. Consequently, Swifts will all too often desert their nest place should there be any intrusion by humans.

So Erich never rings adults in the nest, nor does he ever handle them in the nest. Instead he uses a fixed clap net system outside the nest area to trap incoming or outgoing birds for ringling.

By only ringling outside the nest, the birds do not associate the capture with the nest itself.

Erich does ring juveniles in the nest, but only between the 10th and 14th day after hatching and only when the parents are absent.

Based on Erich's long term record of complete success in ringling Swifts without causing desertion or injuries, the following should be our guide.

Presence of breeding and migrating Swifts in the UK's airspace and advice on when ringling is permissible – N.B. *never ring adult Swifts in the nest*

April	May	June	July	August	September	October
Migrating in - may visit nests	Migrating in & breeding	Breeding & Migrating in (non-breeders)	Breeding & Migrating out (end of month)	Breeding (late)* & Migrating out	Breeding (late)* & Migrating out	Migrating out
Do not ring	Do not ring	Do not ring adults Pulli between 10 and 14 days old may be ringed in the nest with adults absent	Do not ring adults until end of month and at migration exit points Pulli between 10 and 14 days old may be ringed in the nest with adults absent	OK to ring Swifts on exit migration – ideally at exit points	OK to ring Swifts on exit migration – ideally at exit points	OK to ring Swifts on exit migration – ideally at exit points

*Highly dependent on the weather – cool wet summers = late breeding attempts so in a cold wet Summer, or an “Indian Summer” situation, August and even part of September may become important breeding months, in which case treat as July.

Ringling – Do's and Don'ts

Do's

1. Empathy – use it!

Birds feel pain, panic and fear just as we do.

Do not do to a Swift anything you would not do to your own child.

Never inflict suffering on them.

The welfare of the birds must always come first.

2. Always support their breeding efforts. Swifts' welfare and survival have to be more important than any scientific results that may be gained from the ringing exercise.

3. Only ring pulli (chicks) between 10 to 14 days after hatching, and only then in their nest boxes while the parents are away. This may be done in monitored and accessible colonies where the nest boxes have internal doors. The work is best performed from inside a building (so the adult birds don't see what is going on) using nest boxes where the exit hole can be closed briefly to stop birds getting in or out.

4. Nets can be used to trap Swifts while they are on their return migration, but not while they are incoming or breeding.

5. Ringling Swifts requires considerable expertise; it follows that trainee ringers should only ring Swifts under personal guidance from a fully qualified ringer experienced in ringling Swifts.

6. Use **only** the correct BTO specified rings for Swifts – see illustration below. The type description is "So" ("Special overlap") and they are designed in such a way that the internal diameter, when fitted, can range from 2.5 – 4.0 mm depending on the species.

When ringling Swifts the inner diameter of the closed ring should be 3.5 mm.



Don'ts

1. Do not trap and ring Swifts arriving from migration, or in the period of nesting. They are desperate to breed and may be carrying eggs (Swifts mate in the air and may be carrying eggs at any time during and after arrival in the UK). Swifts carrying eggs are highly vulnerable to having those eggs crushed in the oviduct by handling, an event which will usually be fatal.
2. Never trap adult Swifts inside their nest place. There is a very high risk that they will desert it.
3. Never attempt to ring Swifts breeding in natural or "wild" colonies, for example in ancient buildings or cliffs. The risk of causing injury within such difficult environments is far too high.
4. Do not cause the birds any serious delay; remember they are dependent solely on airborne insects for their food, are highly vulnerable to poor weather, and may be escaping from adverse weather conditions and may even be starving when you trap them, so do not delay them! It is thought likely that starvation is the major cause of Swift mortality, not predation.
5. Do not trap Swifts in rain, hail, snow or high winds, or when such conditions are approaching. Such adverse conditions will be placing a heavy strain on the Swifts already.
6. Do not trap or release Swifts at dusk or at night – they are not nocturnal birds even though they are always in flight, and this can terrorise and disorient them.
7. Do not keep trapped Swifts in bags for any length of time and certainly not overnight. Delay to Swifts' movements can prove fatal.
8. Do not trap Swifts in any form of "flick" net. Swifts are not tennis balls. The likelihood of injury to their highly developed and refined wing and bone structure is very great and the result is that newly ringed Swifts have been recovered injured or dead.
9. Do not ring pulli (chicks) in the presence of their parents. Adults have been known to desert their chicks in such circumstances.
10. Do not ring Swifts any later than 14 days after hatching. Pulli (chicks) can be nervous and ill at ease after this period, and for reasons we do not understand, may either alarm the adult birds or even leap from the nest to crash on the ground below, where they usually fall prey to cars, cats, crows, dogs and foxes.

Swift Pulli (Chicks) – photo guide to age and development

This is a only an approximate guide, as if food is plentiful they will grow much more quickly, so a 10% variation in both weight and growth rate is possible.

NB If a Swift chick is significantly below the indicated weight for its age, it should not be ringed – a seriously emaciated Swift can be half the ideal weight!

				
23g approx 6 days old	35g approx 10 days old	40g approx 14 days old	42g approx 16 days old	50g approx 22 days old
				
52g approx 25 days old	48g approx 32 days old	46g approx 35 days old	45g approx 38 days old	43g approx 42 days old

*Thank you for following these guidelines.
Your cooperation is very much appreciated.*

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