Return of the native

Vilified by some but treasured by others, the Sparrowhawk is one of our most widespread and familiar birds of prey. The Sparrowhawk population has now recovered most of the ground lost as a result of earlier persecution and the effects of harmful pesticides.

Changing fortunes

Viewed as a threat by game-rearing interests, the Sparrowhawk has been persecuted throughout much of recent history. However, it was a very different threat that saw the Sparrowhawk nearly exterminated from large parts of its former range, notably across southern and eastern England. This came in the form of organochlorine pesticides, introduced widely after the Second World War. Pesticides like DDT, Aldrin and Dieldrin brought about increased mortality of adult Sparrowhawks and also made Sparrowhawk eggshells more prone to breakage. As a result the population crashed and it was only when these compounds were banned that the population began to recover. BTO studies have monitored the recovery, charting increased breeding success and a return to former haunts. This recovery has also seen birds increasingly reported from suburban and urban locations (Sparrowhawks were

reported breeding in inner London in 1993 for the first time in nearly four decades); it is this that has brought the Sparrowhawk into conflict with some garden birdwatchers.

Sparrowhawk numbers and their breeding success are linked to the availability of small birds – their favoured prey. In years or areas where small bird abundance is high, the Sparrowhawks do well, but in other years or areas, where the abundance of small birds is low, the Sparrowhawks themselves do badly, often failing to rear any young.

This interaction between predator and prey represents a delicate ecological balance but it also highlights the way in which predator populations may be limited by the availability of their prey species.

Sparrowhawk facts and figures



The Sparrowhawk is primarily a woodland bird, nesting within thick cover and hunting small woodland birds. Females are the larger of the two sexes, being roughly twice the weight of the smaller males. This is known as reverse size sexual dimorphism and comes about because of the conflicting roles of the two sexes. Males, as the main providers, need to be small and agile in order to catch their fast moving prey. Females need the extra body reserves required for successful reproduction and sacrifice some agility in order to carry these.

The Sparrowhawk as a predator of small birds

The Sparrowhawk is an efficient predator of small birds and, because of this, some people have suggested that the recovery of the Sparrowhawk population has brought about the declines seen in many small bird populations. However, such suggestions are not supported by the available scientific evidence.

A number of independent, scientifically rigorous studies have looked for potential interactions between Sparrowhawks and their prey. None of these studies has found any evidence that Sparrowhawk predation has had any long term effects on the breeding populations of songbirds, either at the national level (work published by Thomson *et al.* in 1998) or at individual sites (work published by Perrins & Geer in 1980 and by Newton *et al.* in 1997). Several studies carried out on tit populations in the non-breeding season, and looking at Sparrowhawk predation, demonstrate a reduction in the size of the post-breeding peak in tit numbers in the presence of Sparrowhawks, together with a change in the pattern of seasonal mortality. However, the size of the breeding population the following year remained unchanged, suggesting that Sparrowhawk predation is compensatory and that predation is just one of a number of different factors limiting the size of the tit population (other factors include starvation and competition). In the absence of Sparrowhawk predation, other factors exert greater influence and so the tit population the following year remains similar, with or without Sparrowhawks present.

If the available evidence suggests that Sparrowhawks have not had any long-term effects on their prey populations, why is it that so many people get very animated about the presence of a Sparrowhawk in their garden? While it is distressing to witness one living creature being killed by another, perhaps the disgust aimed at the Sparrowhawk (but not at the Song Thrush smashing open a snail shell) says more about the cultural values we attach to different organisms.

Should I continue to feed small birds even if a Sparrowhawk is present?

Sparrowhawks take small birds from garden feeding stations and are likely to respond to an abundance of prey regardless of where it occurs. We know, from studies that have been carried out, that small birds may modify their feeding behaviour in the presence of a predator. One particular study demonstrated that adult (socially dominant) tits occupied bird feeders positioned close to cover, forcing young (subordinate) individuals to feed on more exposed feeders where, presumably, the risk of predation was greater.

If small birds can weigh up the risks and gains from feeding in

If small birds can weigh up the risks and gains from feeding in a particular location then we would expect them to take into account the presence of predators when choosing to feed at a particular site. If you were to cease feeding altogether, then you would deter the Sparrowhawk from visiting your garden. However, the small birds would also disappear and be forced to feed elsewhere, almost certainly still in the presence of Sparrowhawks. Research actually supports the continuation of food provision at a

garden feeding station in the presence of predators. This is because the provision of a reliable food supply (such as that provided at most garden feeding stations) allows small birds to pick and choose when to feed. If the small birds are faced with an unpredictable food supply, then they will lose the flexibility in when to feed, something which actually increases the risk of being caught by a predator.

Can I tip the odds in favour of small birds?

Sparrowhawks rely on the element of surprise to gain an advantage over the small birds on which they prey. As such, they will often follow a regular route through a garden, using the cover of a hedgerow or shed to get close to the feeding birds. This means that there are two things that you can do to tip the balance in favour of the smaller birds. The first of these is to position your feeders and bird tables close to cover, ideally thick evergreen bushes, into which the small birds can dive at the approach of a predator.

The second thing to do is to move the feeding station around the garden on a regular basis. This makes it more difficult for the Sparrowhawk to predict where the small birds will be feeding. Another benefit of moving the feeders around is that it helps to reduce the build-up of disease in a given location (see our leaflet on Hygiene and Disease for more information).

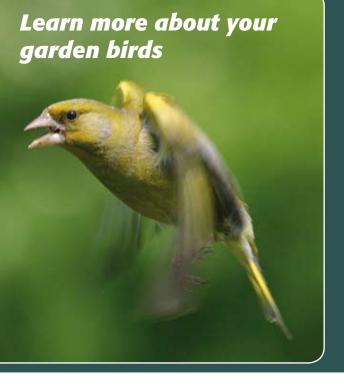
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Join Garden BirdWatch today for just £15 and get the acclaimed 'Gardening for Birdwatchers' free.

Gardens are great places in which to find out more about birds and their behaviour, making garden birdwatching a very pleasurable pastime. For example, did you know that some of your wintering Blackbirds will have come from Poland, Germany and even Russia!

The British Trust for Ornithology monitors the changing fortunes of those birds that use our gardens through the BTO Garden BirdWatch. The project involves more than 16,000 garden birdwatchers, all collecting simple information on the birds using their gardens throughout the year. This information also enables us to find out how birds use different types of gardens and how this use varies across Britain and Ireland.

Garden BirdWatch is the largest year-round study of garden birds (and other garden wildlife) anywhere in the World. Membership of Garden BirdWatch costs just £15 a year. Being a member of Garden BirdWatch offers you:

- The chance to find out more about the different birds that visit your garden.
- The opportunity to participate in an important national project and to contribute valuable information that can be used to help conserve the birds of Britain and Ireland.
- Access to expert advice to help you identify and look after the birds in your garden.
- A quarterly magazine on garden birds.

Identifying Sparrowhawks

The Sparrowhawk is by far the most common bird of prey to be encountered within the garden environment. The two potential confusion species, Goshawk and Merlin, are virtually never encountered visiting gardens and can usually be discounted on this basis alone.

General appearance: A small, broad-winged raptor, showing a long tail and appearing smallheaded. The upperparts are dark (sometimes with white patches present – see below) and the underparts finely barred. When perched, note the long, thin yellow legs.

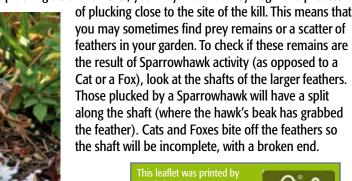
Adult male: Smaller (wingspan 58-65cm). Has slate-grey upperparts and white/off-white underparts. The underparts show rufous barring, which varies in pattern and extent between individuals. Some individuals are evenly barred while others are almost completely rufous on the cheeks, throat and flanks.

Adult female: Larger (wingspan 68-77cm). Has brownish-grey upperparts, with off-white underparts with barring that is less rufous in tone. The rufous colouration seen in males is usually much-reduced in females. The white supercilium (the line above the eye) is more prominent in females than in males and a white patch is often evident at the back of the crown.

Juveniles: Young birds have dark brown upperparts and the barring on the dirty white underparts is coarser than seen in adults - sometimes appearing more like spots towards the top of the chest.

Eye colour: In Sparrowhawk, the iris colour changes with age. Brownish-black at hatching, the iris becomes pale lemon-yellow within a couple of months. As the birds age, the iris goes from yellow to orange and, in some adult males, wine red.

Prey remains: Sparrowhawks pluck the breast feathers from their prey, usually preferring to do this in cover or at a favoured plucking stool. However, you may find that they begin the process







About the BTO – making your birdwatching count

The BTO (British Trust for Ornithology) is a partnership of birdwatchers and professional ornithologists, all keen to understand what is happening to birds within

the United Kingdom. By supporting the Trust financially and by contributing to national surveys, members provide valuable information on Britain's birds and their habitats: research that forms a basis for sound conservation. Thousands of BTO members and other volunteer birdwatchers are involved in this monitoring work, coordinated by local organisers and scientists based in offices in Norfolk and Stirling. To learn more please visit the BTO website at www.bto.org, write to BTO, The Nunnery, Thetford, Norfolk, IP24 2PU, telephone 01842-750050 or email info@bto.org. Registered Charity No. 216652.







Sparrowhawks and garden birds







