



Scottish Natural Heritage Dualchas Nàdair na h-Alba

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The Eurasian Sparrowhawk

Background

Sparrowhawks (*Accipiter nisus*) are small birds of prey belonging to the hawk family, with about six sub-species, the nominate occurring across UK, Iberia, and Fennoscandia and east to Siberia. It is predominantly a lowland bird of prey, largely frequenting wooded areas, where it hunts for small birds.



Where are they found and how many are there?

Sparrowhawks are widespread in Britain and Ireland, though they are often absent or at very low densities in upland areas of Scotland, as well as the Western Isles and Shetland. Its absence here may be largely due to absence of suitable breeding habitat rather than absence of prey. It is even found in many towns and cities, with Edinburgh alone supporting about 30-40 breeding pairs. Densities are highest in lowland & southern Scotland, and lowest in the north-west and some island groups.

The British population is about 32,000 breeding pairs with some 8,000-12,000 pairs in Scotland. Sparrowhawks breed in both conifer and broadleaved woods, but may hunt over open farmland, coastal habitats and in built-up areas. Sparrowhawks in Britain are largely sedentary, though the British population is joined in winter by birds from north-western Europe and Scandinavia.

Where and when do they breed?

Sparrowhawks breed in wooded areas, typically conifer plantations that are not too dense or too open, as well as broadleaved woodland. Conifer plantations about 20-40 years old are particularly suitable. Breeding sites are changed often despite the birds being sedentary. Nest building occurs in April and about 3 – 6 eggs are usually laid in May. Juvenile fledge in July typically, and will typically remain in the parental territory for some four weeks after fledging. Mean brood sizes are about 3.5 per breeding pair which may have declined slightly in recent years¹. Most birds do not move very far (most movements are within 20km of the natal territory), and once juveniles have dispersed, most remain and breed in that general location.

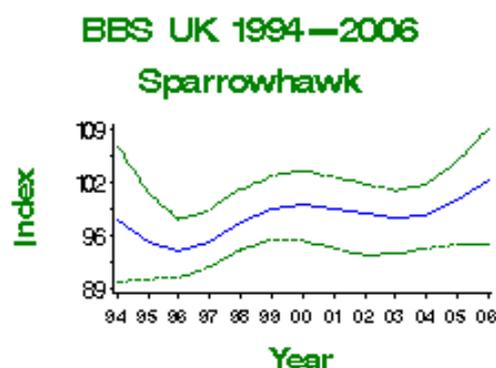
Sparrowhawks may start breeding at one year old, though they may delay first breeding until at least three years old occasionally. Age at first breeding largely depends on availability of suitable territories.

¹ Source: BTO at <http://www.bto.org/birdtrends2007/wcrsparr.htm>

Are Sparrowhawks increasing in number?

Sparrowhawk populations crashed in the 1950s and 1960s due to organochlorine pesticide contamination (such as aldrin and dieldrin), which saw birds fail to breed successfully over large parts of the UK, and resulted in local extinctions in some intensively farmed areas. Following restrictions of these pesticides, numbers have recovered to the point where, coupled with reduced persecution and increasing amount of forest habitat, numbers may be as high as they ever have been in recent times.

There is some indication from the BTO's Breeding Bird Survey that Sparrowhawk numbers are stable, though there have been some localised declines reported (possibly related to habitat change), so there is little reason to suppose that numbers are currently increasing and may therefore have reached saturation. Some authors suggest that recent declines mean that the Scottish population is nearer 8,000 breeding pairs (see above).



What do Sparrowhawks eat?

Sparrowhawks largely eat small birds and very occasionally, some small mammals are taken. There is considerable sexual dimorphism in size with females being bigger than males. That means that females can take bigger prey, which can mean that they can take woodpigeons whereas males being smaller, take predominantly smaller birds, although there is much overlap. Prey includes starlings, blackbirds and thrushes, chaffinch and robin. Predation of pigeons is a major cause for concern among racing pigeon enthusiasts (see below), especially around racing pigeon lofts.

Are Sparrowhawks protected, and what are the main threats they face?

Sparrowhawks are fully protected on the Wildlife & Countryside Act, 1981, though unlike most other raptors they are not specially protected from breeding disturbance through listing on Schedule 1.

While pesticide contamination is no longer the issue that it once was, other threats to Sparrowhawks still exist. In some areas this includes illegal persecution, but competition with other birds of prey (especially goshawk) can also be a factor, and species such as tawny owl, goshawk and pine marten can be significant nest predators, though most breeding failures are due to eggs failing to hatch (which may be linked to food shortages).

There are suggestions that breeding populations may decline further in Scotland, but the evidence for this is currently weak, mainly because Sparrowhawks are poorly monitored in Scotland now.

Sparrowhawks and pigeons

Sparrowhawks do take racing pigeons, and the extent of this predation may be particularly serious around lofts when birds are being exercised. Although research has shown that overall losses are relatively small, particular lofts may experience

higher levels of predation and loss. There are currently no widely accepted means of deterrence, although many methods have been trialled. Further work on this is currently being considered and there have been some recent trials.

In a study conducted in 2002-03 the maximum potential number of losses from the loft area attributed to sparrowhawks was an average of 0.91 birds per loft. Nationally, this represents around 1% of the Scottish racing pigeon population. At the level of the individual loft, reported losses ranged from zero to four though the majority of lofts (53%) reported no losses to sparrowhawks. Only 25% of study lofts reported multiple losses of two to four birds.

Are Sparrowhawks responsible for songbird declines?

Sparrowhawks are often blamed for songbird declines, but there is little evidence to suggest that this is so. There are several lines of reasoning that support this view.

1. Sparrowhawks predominantly take species that are common and have shown little or no decline (chaffinch, blackbird, and robin).
2. Population declines of many small birds have occurred in areas where Sparrowhawk numbers are either low or absent, and the timing of declines does not match increases in sparrowhawk numbers.
3. In a remarkable long running monitoring project, great tit numbers in one wood showed no changes when Sparrowhawks returned to breed in the wood after their eradication due to pesticide impacts. If Sparrowhawk numbers were responsible for woodland bird declines then a decline in great tit numbers would have been expected.
4. Recent declines in Sparrowhawk numbers in some areas have not been matched by increases in songbirds.

Where can I find out more about Sparrowhawks?

- BTO Bird Facts - Sparrowhawk <http://blx1.bto.org/birdfacts/results/bob2690.htm>
- **The Sparrowhawk** (1986) Ian Newton. T & A D Poyser.
- **The Birds of Scotland** edited by R. W. Forrester, I. J. Andrews, C. J. McInerny, R. D. Murray, R. Y. McGowan, B. Zonfrillo, M. W. Betts, D. C. Jardine, and D. S. Grundy, 2007. Scottish Ornithologists' Club, Aberlady
- Henderson, D. Parrott & N. Moore (2004) **Racing pigeons – Impact of raptor predation (R/AC3/B/01/96)** Report to Scottish Natural Heritage, Central Science Laboratory

SNH contact:

Dr. Andrew F. G. Douse

Policy & Advice Manager,
Scottish Natural heritage
Great Glen House
Leachkin Road,
Inverness
IV3 8NW

Tel.: + (44) 131 725241
E-mail: andy.douse@snh.gov.uk