



# Songbirds and birds of prey

This leaflet is supported by 21 organisations and addresses concerns about the impact of predation by birds of prey (raptors) on songbirds. It explains that the principal cause of songbird declines is more likely to be changes and intensification of land-use than predation by sparrowhawks or other birds of prey. It suggests policies and practices which are needed to reverse songbird declines.

- Overwhelming evidence suggests declines in some songbird populations are caused by a reduction in food supplies or the quality and extent of habitat: problems that could be addressed through changes in land-use management.
- There is some evidence to suggest sparrowhawks may limit densities of some prey species, under some circumstances, at a local scale. However, this does not mean that sparrowhawks have caused declines in songbirds.
- Calls for legalised control of birds of prey simply detract attention from the major underlying problems facing some songbirds.

## The concerns about bird of prey predation

Many people, including our organisations, are concerned about declines in the numbers of some songbirds. Some people blame the declines on the increase in numbers of birds of prey, particularly sparrowhawks. Some find it upsetting to see garden birds being killed by sparrowhawks and a few have called for legalised control of birds of prey to protect songbirds.

## Analysis

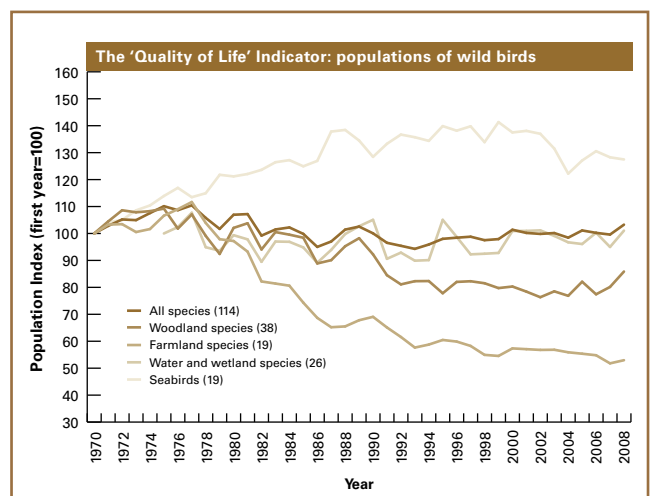
The populations of several common songbird species are declining across western Europe.<sup>1</sup> The Government's UK Sustainable Development Indicator shows that a "basket" of 19 farmland species have declined by nearly 50% since 1970. Some species have declined even more seriously: skylark (-53%), yellow wagtail (-71%), song thrush (-49%), corn bunting (-89%) and tree sparrow (-93%).<sup>2</sup> Several woodland songbird species have also shown declines over the same period: spotted flycatcher (-85%), marsh tit (-67%) and willow tit (-89%). During the last 40 years, substantial changes to songbirds' environment have occurred in many parts of the UK. Helped by production subsidies and enhanced technology, farming, for example, has become more intensive. At the same time, populations of some predators – foxes, crows and some birds of prey – have increased.

During the 1970s and 1980s, numbers of sparrowhawks – the principal avian predator of adult songbirds in the UK – increased as the species recovered from the effects of organochlorine pesticide poisoning in the 1960s. However, the sparrowhawk population cannot increase indefinitely, because the availability of food, nesting sites and territories limits its expansion. Indeed, the British Trust for Ornithology (BTO) Integrated Population Monitoring Programme shows that the UK sparrowhawk population has been stable since the mid-1990s.<sup>3</sup>



Sparrowhawk

Mark Hamblin (rspb-images.com)



## Can sparrowhawks affect songbird populations?

Sparrowhawks eat large numbers of songbirds and can account for up to half of the juvenile deaths of their main prey species each summer.<sup>4</sup> Most songbirds have large broods or several breeding attempts precisely because most young birds will not survive to the next breeding season. Predation pressure has shaped the evolution of their breeding strategy. There is some evidence to suggest winter counts of house sparrows in UK gardens declined after sparrowhawks became re-established, though this may reflect a behavioural response to an increased predation threat.<sup>5</sup> Importantly, no studies show a sustained long-term decline in the national population of any songbird as a consequence of predation by sparrowhawks.

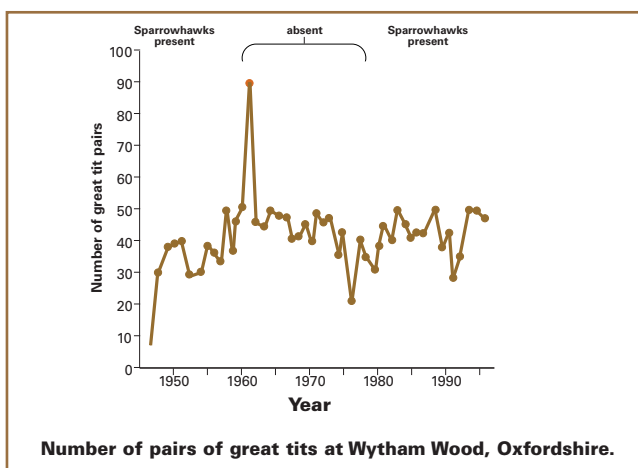
- The Government-led UK Raptor Working Group Report concluded “there is no scientific evidence that sparrowhawks or other birds of prey have had population effects on British songbirds.”<sup>6</sup>
- An extensive body of research, by the RSPB, BTO, Game and Wildlife Conservation Trust (GWCT) and many others, on declining farmland songbirds has provided no evidence that predation by sparrowhawks has driven population declines. Songbird numbers are determined by a combination of the abundance and availability of different food resources and availability of suitable breeding habitat.<sup>7</sup>
- A major analysis of long-term data sets, led by the BTO in collaboration with St Andrews University and GWCT, tested for correlations between a variety of predators, including sparrowhawks, and 29 prey species, mainly songbirds.<sup>8</sup> It concluded there is “little underlying evidence for large-scale impacts of widespread avian predators and grey squirrels on avian prey populations”. The study found negative correlations between sparrowhawks and a few prey species (eg tree sparrow) that may merit further attention. It is conceivable that sparrowhawk predation could have contributed to declines in numbers of a few species in the past. This broadly supports the conclusions of an earlier study carried out by RSPB and BTO.<sup>9</sup>



Corn bunting

Mark Hamblin (rspb-images.com)

- There is evidence to suggest that habitat degradation may increase the risk of predation.<sup>10</sup> This means that even where predation is identified as a local issue, improving habitat condition could address the problem without the need for predator control.
- In Wytham Wood, Oxfordshire, although sparrowhawks ate a large proportion of fledgling great tits and some adults, this caused no obvious reduction in breeding numbers from year to year.<sup>11</sup> When sparrowhawks were absent from Wytham Wood in the 1960s as a result of organochlorine poisoning, the breeding great tit population was about the same level as now, when sparrowhawks take large numbers of great tits.<sup>7</sup>
- If the recovery of sparrowhawks had caused songbird declines, we would expect populations of their main prey species to have decreased and those of non-prey species to have remained stable. However, of the 16 farmland birds whose populations have declined by more than half since the 1960s, only three – house sparrow, starling and song thrush – figure prominently in the sparrowhawk’s diet. In contrast, some of the sparrowhawk’s commonest prey species, including the woodpigeon, great tit and robin, are increasing in numbers.<sup>3,7</sup>
- The decline in songbirds began in the 1970s and is most significant in eastern counties of England.<sup>3,12</sup> This was the period when sparrowhawk populations were low and at least 10 years before sparrowhawks began to return to eastern England.



## What has caused the declines of songbird populations?

Many factors affect the life expectancy of songbirds and their ability to reproduce. To maintain a stable population, on average each adult bird must rear one chick to breeding age in its lifetime. For example, a pair of blue tits might have 10 young each year. To achieve population stability, only two of the 12 birds (10 young and two parents) must survive; the death of the remaining 10 will not affect the breeding population. If the number of predators in the countryside increases, a greater proportion of this “doomed surplus” may be

killed by predators, but this is not necessarily a conservation problem because fewer may die from other causes. This surplus of birds at the end of each breeding season is also the basis of sustainable shooting of wild gamebirds.

Many of the songbirds that have declined during the 40 years of the sparrowhawk's recovery are typical of lowland farmland. Farmland species have tended to show more severe declines than species of other habitats.<sup>13</sup> There is now overwhelming evidence from many studies that agricultural intensification and specialisation resulting from farming policies and technological changes have had numerous, and severe, negative impacts on food and habitat resources required by songbirds, and that these are the real causes of population decline for these and other farmland birds.<sup>14, 15, 16, 17, 18</sup> A wide range of land management changes on farmland has contributed to these declines, including the switch from spring to autumn sowing of arable crops, loss of over-winter stubbles, increased use and effectiveness of pesticides and fertilisers, intensified grassland management, and the loss of mixed farming.<sup>9</sup> There is also evidence to suggest that this habitat degradation and simplification increases predation risk.<sup>10</sup>

In addition, there are now several examples of where well-targeted remedial conservation action, using changes in land management only, has achieved local population recovery for farmland bird species that had shown major population declines. In all cases, including that of a songbird, the curlew, recovery has been achieved without any need to manage predation risk from birds of prey.<sup>20</sup>

The results of a large-scale repeat survey of woodland bird populations across Britain point to changes in woodland habitat being a key driver of the declines seen in some migratory and resident woodland songbirds. The factors driving these habitat changes need further investigation.<sup>21</sup>

## The way forward

The Government's Raptor Working Group, which included leading experts from the GWCT, British Association for Shooting and Conservation, the Royal Pigeon Racing Association, the Scottish Raptor Study Groups and the RSPB, concluded in 2000 that:

"There is no scientific evidence that sparrowhawks or other birds of prey have had population effects on British songbirds. In our view, there is overwhelming evidence that changes in agricultural practice over recent decades have caused the substantial changes we have seen in farmland bird populations."<sup>6</sup>

Research into declines in some woodland bird populations suggests that changes in woodland habitat are a key driver of population change.<sup>21</sup> Since there is little scientific evidence that sparrowhawks or other birds of prey have driven the decline of national songbird populations, there can be no justification for seeking or granting licences to kill protected birds of prey to conserve songbirds. Even if evidence were found, killing predators such as sparrowhawks would not necessarily

be effective. The lack of any substantial increase in prey populations when sparrowhawk numbers were low during the 1960s suggests that even a widespread and effective cull would not help the recovery of our depleted songbird populations. It could, however, add the sparrowhawk to the list of species of conservation concern. The recovery of most birds of prey, including sparrowhawks, should not be seen as a problem, but as a conservation success story. Reversing the declines in some songbirds remains a high conservation priority, demanded by the public, farmers and conservationists.<sup>22, 23</sup>

To do so requires policy decision-makers to address the fundamental causes of declines in food and habitat availability for songbirds. Calls for the legalised control of birds of prey simply distract from these underlying problems.

Solutions need to be identified that will deliver richer biodiversity in the countryside. Conservation groups agree that the options for action by government and other bodies include:

- Agricultural policies, focused on well-targeted and adequately funded agri-environment schemes, to enable farmers to integrate wildlife and landscape enhancement with modern agricultural methods, including pesticide use that is compatible with the needs of farmland birds. Such management would aim to enhance food sources (through encouraging winter stubbles and mixed farming), nest sites and shelter (such as thick hedges) for birds.
- The coordination of up-to-date advice to farmers and their advisers on the needs of farmland birds, and to woodland owners and managers for woodland birds.
- Further research into the causes of songbird declines, especially woodland species.

In addition, for those who wish to minimise predation on birds that they nurture in their gardens, careful garden management can help protect songbirds from sparrowhawk predation. Simple practices can be quite effective, such as siting birdfeeders closer to thick bushes and using upright bamboo canes to make it more difficult for sparrowhawks to approach in a direct line.

## Conclusion

The continuing decline in numbers of many songbirds is of major concern. However, while predation may under some circumstances have a localised impact on prey numbers, there is little evidence that sparrowhawks or other birds of prey have driven national declines in songbird populations. Licensing the control of sparrowhawks or other birds of prey would not address the underlying causes of songbird decline and therefore not further their conservation. The conservation of wildlife on farmland depends on restoring features of the countryside on which songbirds depend and which have been lost as a result of modern agricultural practices. Birds of prey should not be treated as scapegoats for wider environmental problems.



## Further reading

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## Supporting organisations



### British Trust for Ornithology

Stuart Newson, The Nunnery, Thetford, Norfolk, IP24 2PU.

*The BTO, as an impartial scientific research trust, has provided critical review of the scientific evidence-base underpinning this document.*

### BirdLife International

Boris Barov, BirdLife International, European Division, Avenue de la Toison d'Or 67, B-1060, Brussels

### BTCV

Ron Fern, Sedum House, Mallard Way, Doncaster, DH4 8DB

### Countryside Council for Wales

Sian Whitehead, Cyngor Cefn Gwlad Cymr/Countryside Council for Wales, Maes y Ffynnon, Penrhosgarnedd, Bangor, Gwynedd, LL57 2DW

### Fell Runners Association

Chris Knox, [www.fellrunner.org.uk/committee.htm](http://www.fellrunner.org.uk/committee.htm)

### Hawk and Owl Trust

John Edwards, PO Box 400, Bishops Lydeard, Taunton, TA4 3WH

### Kennel Club

Emily Jeffrey, 1–5 Clarges Street, Piccadilly, London, W1J 8AB

### Manx BirdLife

Chris Sharpe, 35 New Road, Laxey, Isle of Man, IM4 7BG

### National Trust

David Bullock, Heelis, Kemble Drive, Swindon, Wiltshire, SN2 2NA

### National Trust for Scotland

Richard Luxmoore, Wemyss House, 28 Charlotte Square, Edinburgh, EH2 4ET

### Northern England Raptor Forum

Ian Court, [contact@raptorforum.org](mailto:contact@raptorforum.org)

### Northern Ireland Environment Agency

Richard Weyl, Klondyke Building, Cromac Avenue, Gasworks Business Park, Belfast, Antrim, BT7 2JA

### RSPB

Jeff Knott, The Lodge, Sandy, Bedfordshire, SG19 2DL

### RSPCA

Colin Booty, Wilberforce Way, Southwater, Horsham, West Sussex, RH13 9RS

### Scottish Ornithologists Club

David Jardine, Waterston House, Aberlady, East Lothian, EH32 0PY

### Scottish Raptor Study Groups

Patrick Stirling-Aird, Kippenross, Dunblane, Perthshire, FK15 0LQ

### Scottish Wildlife Trust

Jonathan Hughes, Cramond House, 3 Kirk Cramond, Edinburgh, EH4 6HZ.

### The Ramblers

Tom Franklin, 2nd Floor Camelford House, 87–90 Albert Embankment, London, SE1 7TW

### The Wildlife Trusts

Paul Wilkinson, The Kiln, Waterside, Newark, NG24 1WT

### Welsh Kite Trust

Tony Cross, Samaria, Nantmel, Llandrindod Wells, Powys, LD1 6EN

### Wildfowl and Wetlands Trust

Richard Hearn, Slimbridge, Gloucestershire, GL2 7BT

