

Species Action Plan

House Sparrow



St James' Park, 1986 © David Goode

“The house sparrow, once more cockney than the cockneys, is now a rarity in London” (Tony Blair, 2000)

“ I call these my chickens, and I’m obliged to come every day to feed them,’ said a paralytic-looking white-haired old man in the shabbiest clothes, one evening as I stood there; then taking some fragments of stale bread from his pockets, he began feeding the sparrows, and while doing so, he chuckled with delight, and looked round from time to time to see if others were enjoying the spectacle.” (WH Hudson, 1898)

1. Aims

- Raise awareness of the need for biodiversity conservation by focussing attention on the decline in the house sparrow and its importance as a cultural emblem.
- Establish the cause(s) of decline in the population of house sparrows and, if possible, undertake measures to reverse the decline.

2. Introduction

Until about ten years ago, the house sparrow (*Passer domesticus*) was one of the commonest birds in London and was one of the most numerous and regular visitors to garden bird tables. The ‘Cockney sparrer’ has always been a firm favourite with

Londoners, reflecting its lively social behaviour and relatively tame nature. In Hudson's day, sparrows had been present by the thousand in the parks of central London. However, on 10 September 2000, a London Natural History Society 'Bird Walk' around Hyde Park and Kensington Gardens failed to find a single one.

The house sparrow's distribution is related to the pattern of human settlement. As a native species it extends from North Africa, throughout Europe and Central Asia and northwards beyond the Arctic Circle. It has also become established in a number of other countries as a result of introduction by man.

House sparrows have traditionally taken bread and scraps from garden bird tables as well as the seeds of flowers in parks and gardens, brownfield sites or road and railside land. When feeding young, insects such as aphids and caterpillars are a more important part of its diet.

The birds nest mainly in buildings – in roofs, cracks and crevices – or amongst creepers on walls and sometimes in dense shrubbery or trees. Under good conditions, sparrows can raise up to five broods per year, although two or three is more typical.

The house sparrow is generally regarded as sedentary, although some local movements occur. In rural areas, the birds traditionally move off to the cornfields after the end of the breeding season. Seasonal changes in London indicate similar dispersal, probably in search of autumn seed (Baker 1987).

3. Current Status

There is much evidence that this once abundant bird has declined dramatically in recent years – as outlined below. It is now common knowledge that house sparrows have disappeared, or become far less common, in many places where they were formerly abundant. This applies both in the centre of London and many of the suburbs, as well as some of the surrounding towns and indeed a number of cities in other parts of the country such as Bristol and Edinburgh. For many years, the house sparrow received rather little attention from the scientific community. It seemed to be so common, its survival could be taken for granted. Very few observers have maintained records over a long time scale, and these have usually been as part of more general bird monitoring programmes. Some of this data is now proving invaluable in tracing the species' decline.

The issue has attracted media attention and frequent inquiries from the general public. On 1 December 1997 a question was put in the House of Lords *"Whether there has been a reduction in the numbers of sparrows in London; if so, to what is this reduction attributed?"* The Independent (15.5.00) offered a £5,000 reward to anyone who could solve the mystery of the disappearing house sparrow.

3.2.1 Surveys based on London or other cities

- A series of late autumn bird counts has been carried out in Kensington Gardens, dating back to the 1920s (Nicholson 1995). In 1925, 2,603 birds were recorded, but by 1948 the count had fallen to 885; this first decline has been attributed to the withdrawal of horse-drawn traffic, with its associated grain supply. For the next 20-30 years, the records suggest a continuing although less clear-cut decline, but then

a far sharper decline from 544 birds in 1975 to just 81 in 1995, indicating a fall of around 85% at some time between 1975 and 1995. Just 8 birds were recorded in the October 2000 autumn bird count.

- A survey of house sparrows in gardens has been carried out by Helen Baker of the London Natural History Society since 1995, based upon weekly counts. The general trend is for a decrease in flock size, fewer gardens with ten or more fledglings and an increase in the number of gardens where no fledglings or indeed no sparrows at all have been seen.
- A recent study at Wimbledon Park in south-west London by Dave Dawson, based on 'Standard Walk' methodology, has documented a 95% decline in the birds since 1989.
- A decline of almost 98% has been observed in suburban Glasgow, from 4.9 birds/ha in 1959 to less than 0.1 per ha in 1997 (Summers-Smith 1999). A recent lack of large foraging flocks on ripening grain fields in late summer has been noted.

3.2.2 Evidence from national surveys

- The BTO Garden Bird Feeding Survey shows that the average number of house sparrows has fallen by about 50% between 1978 and 1993. Though this is a substantial decrease, it is considerably smaller than the decline observed in Kensington Gardens, Wimbledon Park and suburban Glasgow.
- The RSPB Wildlife Explorers Big Garden Birdwatch, which requires children to report on birds in their garden each year in January, shows a 50% decline in house sparrow numbers since 1979, when the survey began.
- The National Breeding Birds Survey shows a statistically significant decline of 7% between 1994 and 1998. Within London, the BBS decline has been more substantial, with a fall of about 50% between 1994-1999. When the survey began in 1994 the house sparrow was the most numerous species in the London samples. By 1999 it had been overtaken by feral rock dove, wood pigeon and starling. However, there are evidently still some pockets with high numbers, especially in north-east London.
- House sparrow declines have been recorded from many other countries in western Europe, including Scandinavia, Netherlands, Belgium, Germany and Austria, although good numbers are still reported by casual observers visiting Paris and some other parts of France.

4. Specific Factors Affecting the Species

A number of factors have been put forward to account for the observed changes in the sparrow population. It is not yet been possible to identify what is causing the decline, although there are several theories. Some of the factors outlined below could have significant impacts in particular localities and it is possible that they are acting in combination. Research is needed to try to identify the most important factors – only then

will it be possible to put in place any effective remedial measures. A variety of factors other than those outlined below could be involved.

4.1 Factors relating to food supply

- **Reduction in insect food supply for the young:** A study in Hamburg has blamed a lack of aphids in early spring for a lack of breeding success in house sparrows in that city. (Mitschke *et al*, 2000). A decline in the availability of invertebrates (such as aphids) for feeding young is also suggested as a major factor in house sparrow decline by Summers-Smith (1999).
- **Impact of lead-free petrol on aphids:** There is a theory that lead free petrol might contain chemicals which reduce the supply of aphids (Summers-Smith, 2000).
- **Changes in agricultural practice:** These may affect the London house sparrow population especially in late summer/autumn, when birds leave their nesting territories in residential areas and move off in seed-feeding flocks. No doubt some London birds disperse into the surrounding countryside. At this time, changes in agricultural practice such as the switch to autumn sowing of cereals and lack of stubble as autumn and winter feeding habitat may have some impact. Additionally, if the London population has traditionally been augmented from time to time by surplus birds from nearby rural populations, a fall in breeding success in rural populations could reduce the number of immigrants into London.
- **Reduction in seed supply in autumn:** In both central London and the suburbs, there has been a marked reduction in brownfield land in recent decades, as it is developed more quickly.

4.2 Predation

Another theory relates to the recent increase in sparrowhawk and magpie numbers. A single species of predator is normally only likely to act as a major factor in population control of a given prey species if it is a broad-based predator, able to turn to other food supplies as a favoured prey species declines in response to predation pressure. Another significant predator is the domestic cat, and its numbers are of course not limited in the same way by natural population regulation. However, no evidence of a significant increase in the domestic cat population has been forthcoming.

4.3 Disease

Declines on this scale have, in some other species, been attributed to disease. A virus or *Salmonella* infection has been suggested. However, few, if any, diseased birds have been observed in this country, although any corpses would most probably be quickly disposed of by carrion-feeders. It is possible that if the birds are already weakened by a disease of some sort, they become more susceptible to predation. If so, an increase in the population of a given predator could have a greater impact on its prey.

4.4 Changes relating to availability of nest sites

Changes in roof design may be an issue in some areas of older housing undergoing renovation, as modern roof repairs may prevent access to the roof space for birds.

However, a decline has also been noted in areas where roof replacement is less widespread.

In addition to re-construction, roofs are often subject to pesticide treatment. Whilst it is recognised that certain pesticides are harmful to bats, no such issue has been recognised for birds.

4.5 Pest control

Although the house sparrow is still recognised as a pest species in some quarters and may be controlled legally (see below), there is not thought to be an appreciable amount of control undertaken in London at present.

5 Current Action

5.1 Legal status

The house sparrow is still classified as a pest species in relation to the Wildlife & Countryside Act (1981, as amended). It was originally listed as a bird that may be controlled at any time of year, but is now covered by legislation that provides for an annually reviewed general licence to control a specified list of pest species, with the land owner's consent (Statutory Instrument no 3010 1992).

5.2 Mechanisms targeting the species

These current actions are ongoing. They need to be supported and continued in addition to the new action listed under Section 7.

5.2.1 Survey and research

A number of on-going surveys have been summarised above under section 3. Contract work has been commissioned by DETR and The Independent newspaper's campaign has offered a £5,000 'reward'. In the spring and summer of 2000, the RSPB ran a survey on House sparrow nesting behaviour amongst its Wildlife Explorers (youth section), which investigated the relationship between nesting frequency and the age of houses, plus the location of nest sites and use of nest boxes. London Wildlife Trust's garden survey for 2000/1 includes data on House sparrows.

6. Objectives, Actions and Targets

Most of these actions are specific to this species. However, there are other, broader actions that apply generically to a number of habitats and species. These are located in a separate 'Generic Action' section which should be read in conjunction with this document. There are generic actions for Site Management, Habitat Protection, Species Protection, Ecological Monitoring, Biological Records, Communications and Funding.

Please note that the partners identified in the tables are those that have been involved in the process of forming the plan. It is not an exclusive list and new partners are both welcomed and needed. The leads identified are responsible for co-ordinating the actions – but are not necessarily implementers.

Objective 1 To understand the key factor(s) affecting the population and distribution of house sparrows in London through the completion of fundamental scientific research

Target: To have the results of scientifically valid research to explain the decline by 2010

| Action | Target Date | Lead | Other Partners |
|--|--------------------|-------------|-----------------------|
| Collate existing research information of the status of house sparrows and possible causes of decline, with emphasis on urban areas. | 2001 | GLA | |
| Identify the key issues which should be investigated in the research projects | 2001 | GLA | LWT, LNHS, |
| Establish links with other relevant research projects. | 2001 | GLA | |
| As a preliminary experiment, investigate the effect of increasing the availability of nest boxes on local populations through a small scale, controlled study. | 2003 | LWT | GLA |
| Fund and commission fundamental research into each of the key issues identified above | 2010 | GLA | LWT, LNHS |
| Review progress and outcome of other research projects on house sparrow decline annually and draw on the results of this review to revise the proposed actions if necessary. | Annually | GLA | |

Objective 2 To involve people in London and raise awareness of house sparrows

Target: Commission, complete and evaluate survey by the end of 2003

| Action | Target Date | Lead | Other Partners |
|---|--------------------|-------------|-----------------------|
| Draw up proposal for survey of house sparrow population and distribution in London involving public participation | 2001 | GLA | LWT, LNHS, LA |
| Commission survey, evaluate and publicise results | 2005 | GLA | LWT, LNHS, LA |

Relevant Action Plans

London Plans

Gardens; Wasteland; Farmland; Parks, Amenity Grasslands and City Squares.

National Plans

Cereal Field Margins; Ancient and/or Species Rich Hedgerows; Urban Habitat Statement.

Key References

Heidj, CJ (1985). *Comparative ecology of the House Sparrow, Passer domesticus, in rural, suburban and urban situations*. Thesis, Vrije Universiteit te Amsterdam.

Mitschke, A., Rathje, H. & Baumung, S. (2000). *House sparrows in Hamburg: population, habitat choice and threats*. Hamburg State Ornithological Protection Station. Hamburger Avifauna Beitr. 30.

Summers-Smith, J.D (1999). *Current status of the House Sparrow in Britain*. British Wildlife, 10: 381-386.

Summers-Smith, JD (2000). *The Independent* 11th September 2000.

Abbreviations

GLA - Greater London Authority
LA – Local Authorities

LWT - London Wildlife Trust
LNHS - London Natural History Society

Contact

The Lead for this species is the Greater London Authority.

Jan Hewlett
Strategy Directorate
GLA
Romney House
Marsham St
London SW1P 3PY

Tel 020 7983 4329
Email jan.hewlett@london.gov.uk
web www.london.gov.uk