

## LANCASHIRE BAP TEMPLATE FOR SPECIES ACTION PLANS

### HOUSE SPARROW (*Passer domesticus*)

(Line Drawing of Species)

#### **Summary**

*House Sparrows nest mainly in buildings – in roofs, cracks and crevices – or amongst creepers on walls and sometimes in dense shrubbery or trees.*

*The average number of House Sparrows has fallen by approximately 50% between 1978 and 1993. In 2002, the House Sparrow was placed on the Red List of Birds of Conservation Concern.*

*The current breeding population in Lancashire is estimated at between 17,300 and 23,000.*

*Factors affecting the number of species can be attributed to the availability of food supply, predation, disease and changes in the availability of nesting sites.*

#### **Action Plan Aim**

**To understand the key factors influencing the population and distribution of House Sparrows and sustain a healthy breeding population as well as raise the awareness of people in urban Lancashire of House Sparrows.**

#### **Species Description:**

The male House Sparrow has a grey crown, chestnut-brown nape, dull white cheeks, dark brown and black-streaked back, grey underparts and rump, and black eye-stripe and bib. The beak is a yellow-brown in winter but black in summer.

The female is paler. She lacks the grey crown, white cheeks, black bib and eye-stripe, and chestnut brown nape.

Juveniles resemble the adult female.

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. Man has also established it in a number of other countries.

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.

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The House Sparrow is generally regarded as sedentary, although some local movements occur. In rural areas, the birds traditionally moved off to the cornfields and hayfields after the end of the breeding season.

House Sparrows feed primarily on seeds (and kitchen scrap where provided by feeding stations). However, insects such as aphids and caterpillars form an important part of the diet of young chicks.

#### **Main Habitat(s):**

Urban Parks, Gardens, Allotments, DUN Land, Built Structures; Urban Fringe Farmland (Species-rich Neutral Grassland, Arable Land and Hedgerows), Amenity Grassland and Scrub.

#### **National Status**

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 some local declines; for example, in Kensington Gardens and Wimbledon Park, London, or in suburban Glasgow.

Common Bird Census (CBC) data suggest a 58% reduction in House Sparrow numbers since 1975 and some surveys put this decline at closer to 90% in urban areas.

The national Breeding Birds Survey shows a statistically significant decline of 7% between 1994 and 1998.

The RSPB's Big Garden Birdwatch, which asks the public 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 – originally as a children's project.

In 2002, the House Sparrow was placed on the Red List of Birds of Conservation Concern on account of its estimated 62% population decline between 1970 and 1999 (RSPB *et al*, 2002).

#### **Regional Status**

Data has not been published or analysed on a regional basis.

#### **Local Status**

J. F. Walsh made the following observations in *The Atlas of the Breeding Birds of Lancashire & North Merseyside 1997-2000*:

Current studies in south Fylde (Lancashire) suggest average densities of at least 30-40 pairs per tetrad. This is in sharp contrast to the figures of 100-200

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pairs per tetrad reported in the Cheshire Atlas, 1978-84, and 300 pairs per tetrad reported in the Greater Manchester Atlas, 1979-1983. Furthermore, both Mitchell (1892) and Oakes (1953) refer to extensive nesting in the trees in the Fylde and near Southport (Merseyside), behaviour that is now uncommon. Anecdotal evidence for recent population decline is frequent; a feeding station at Heysham Nature Reserve (Lancashire) in the 1980s was inundated with House Sparrows but eventually abandoned. Since its re-establishment in 1993 none has been recorded. In a south Fylde suburban garden feeding station sparrows were numerous in 1980-81, but since the reintroduction of regular food provision in September 1997, only two House Sparrows were recorded there up to May 2001. Farmers in the Fylde regularly mention the decline of sparrows, sometimes with farmstead colonies having become extinct.

The current breeding population in Lancashire & North Merseyside is estimated at between 27,000 and 37,000 pairs, with 17,300 to 23,800 of those in Lancashire (including the two unitaries). However, detailed survey work – on a 25ha quadrat basis - has been carried out only in urban North Merseyside (White, 2002).

#### **Current 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.

- Factors relating to food supply
- Predation
- Disease
- Changes relating to availability of nest sites

#### 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 that reduce the supply of aphids (Summers-Smith, 2000).

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*Changes in agricultural practice:* These may affect the urban Lancashire 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 urban birds disperse into the surrounding countryside. At this time, changes in agricultural practice may have some impact. The switch to autumn sowing of cereals and lack of stubble as autumn and winter-feeding habitat may be very significant elsewhere, but arable production is not a major agricultural land use in Lancashire. Pastoral agriculture is more widely practiced, and the switch from hay to silage production and more intensive levels of grazing on pasture may have reduced the availability of grass seeds. Additionally, if surplus birds from nearby rural populations have traditionally augmented the urban population from time to time, a fall in breeding success in rural populations could reduce the number of immigrants into urban areas.

*Reduction in seed supply in autumn:* There may have been a marked reduction in brownfield land in recent decades, as it is developed more quickly.

*Changes in horticultural practice:* In urban areas, increasing 'tidiness' and pesticide use both in gardens and public greenspaces may have reduced aphid and weed seed availability.

#### 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.

#### Disease

Declines on this scale have, in some other species, been attributed to disease. A viral or *Salmonella* bacterial epidemic has been suggested. 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 a disease of some sort already weakens the birds, 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.

#### 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

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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.

Apartment blocks are replacing large Victorian and Edwardian houses in coastal towns on the Fylde Peninsula. This has produced a local reduction in potential and actual nesting sites, as has the use of PVC soffit boards. This has led to the complete loss of some sparrow breeding colonies in Lytham St. Annes (Walsh, F., pers. comm., 2004)

#### **Current Action / Mechanisms**

- *Policy*

The House Sparrow, including its nest and eggs, is offered general protection under the Wildlife and Countryside Act 1981 (as amended). However, amendment to that legislation also provides for an annual review of a general licence to control a specified list of “pest” species, *with the relevant landowner’s consent* (Statutory Instrument (S.I.) no. 3010, 1992). The House Sparrow is currently on that list.

- *Site Safeguard*

There are no sites in Great Britain that are statutorily protected for their House Sparrow populations, and currently no criteria that have led to the selection of any Biological Heritage Sites in Lancashire for their House Sparrow populations.

- *Land Management*

None.

- *Advisory*

None.

- *Research and Monitoring*

In the spring and summer of 2000, the RSPB ran a UK-wide survey on House Sparrow nesting behaviour amongst its Wildlife Explorers (youth section). This investigated the relationship between nesting frequency and the age of houses, plus the location of nest sites and use of nest boxes. The Society, in conjunction with the BBC, has recently launched a public campaign seeking information on and raising the profile of house sparrows.

The BTO is carrying out a detailed study into urban and suburban populations of House Sparrow during 2003 and 2004, building upon previous work that it has recently completed.

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The Lancashire and Cheshire Fauna Society surveyed the distribution of all bird species in Lancashire and North Merseyside during 1997-99.

- Public Relations

#### Species Targets

Target	Area	Measure	Timescale
<b><i>To involve people in Lancashire and raise awareness of House Sparrows</i></b> <b><i>To understand the key factor(s) affecting the population and distribution of house sparrows in Lancashire</i></b>	Urban Lancashire	Publicity and Advisory	Ongoing
	Urban Lancashire	Research and Monitoring	Ongoing
<b><i>To sustain a healthy breeding population of house sparrows throughout urban Lancashire</i></b>	Urban Lancashire	Ongoing monitoring and raising awareness of habitat	Ongoing

#### Proposed Actions

Action (priority: H,M,L)	Area	Measure / Milestone	Partners	Timescale
<b><i>Research and Monitoring</i></b>				
Encourage public participation in Breeding Bird surveys and other monitoring activities <b>(M)</b>	Urban Lancashire	Number of activities	RSPB, TWT, EN, LCC, BBC, BDBC, BTO	Ongoing
Collate all available data for Lancashire House Sparrows <b>(H)</b>	Urban Lancashire	Collation of data	L&CFS, BTO, TWT, all bird clubs and local natural history societies, LCC	Ongoing
Carry out sample survey of breeding House Sparrows in urban areas to establish detailed distribution and population sizes – using North Merseyside methodology <b>(H)</b>	Urban Lancashire	Survey underway	L&CFS, RSPB, BTO, TWT, all bird clubs and local natural history societies	2010

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<b>Site safeguard and management</b>				
Enforce best practice in the construction and renovation of buildings. Develop appropriate policies (H)		Development of appropriate policies	LAs, LCC, RSPB, TWT, NE	Ongoing
Encourage the provision of House Sparrow nest boxes by householders and industrial building owners (H)		Number of nest boxes	RSPB, BTO, TWT, Bird groups	Ongoing
<b>Species protection and management</b>				
Identify and map areas of high concentration of breeding House Sparrow in urban Lancashire (H)		Existing data mapped to identify species hotspots.	LCC, L&CFS, RSPB, BTO, TWT	2008
Use available data to keep up to date the estimate of overall breeding population size for Lancashire (H)		Existing data collated.	LCC, L&CFS, RSPB, BTO, TWT, all bird clubs and local natural history societies	Before end 2006
Assess results of the above and formulate targets by which to increase urban House Sparrow population in Lancashire (H)		Population targets identified.		2008  Is Steve doing this?
<b>Advisory</b>				
Encourage lower levels of pesticides in gardens, parks etc (M)		Best-practise leaflet produced.	LAs, RSPB, TWT	2010
<b>Publicity</b>				
Publicise through leaflets, websites and other means, ways in which the public can assist House Sparrows and other urban birds through nest site provision and / or gardening practices (M)		Websites updated regularly with latest information	RSPB, TWT, EN, LCC, BBC, BDBC	Ongoing
Lobby for research on ecology of urban birds, especially House Sparrow (L)		Key organisations contacted (including 100%	Local universities – Central Lancashire,	2012

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		of educational establishments)	Edge Hill, Lancaster	
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**Related Action Plans** (List of other S/HAPs that need to be considered in conjunction with this plan).

#### UK Plans

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

#### Lancashire Plans

Song Thrush; People; all urban plans

#### Plans for adjacent areas

North Merseyside – Urban Birds

Greater Manchester – Urban Managed Greenspace

**References and additional reading** (List of a few key documents and any references made in the text).

Heidj, C. J. (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**

RSPB *et al* (2002). *Birds of conservation concern in the United Kingdom, Channel Islands and Isle of Man*. RSPB, Sandy

Sanderson, R. E. (2001). *Further declines in an urban population of House Sparrows*. British Birds **94**: 507-508

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

Summers-Smith, J. D. (2000). *The Independent*; London; 11th September 2000

Walsh, J. F. in "Atlas of the Breeding Birds of Lancashire and North Merseyside 1997-2000"; Pyefinch, R & Golborn, P. (eds.), Lancashire & Cheshire Fauna Society; 2001

White, S. *The distribution and population size of house sparrows in urban North Merseyside, 2001-2002*; Lancashire Bird Report 2002: 150 –153

Wotton, S.R., Field, R., Langston, R.H.W. & Gibbons, D.W. (2002), "Homes for birds: the use of houses for nesting by birds in the UK". British Birds **99** (11): 586-592.

#### **Web Site Links**

**BTO**                      **House**                      **Sparrow**                      **Survey:**  
<http://www.bto.org/gbw/HOUSP/HOUSPINTRO.htm>

#### **Abbreviations**

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### HOUSE SPARROW (*Passer domesticus*)

BBC = *Blackpool Borough Council*

BDBC = *Blackburn with Darwen Borough Council*

BTO = *British Trust for Ornithology*

LAs = *Local Authorities*

L&CFS = *Lancashire & Cheshire Fauna Society*

LCC = *Lancashire County Council*

RSPB = *Royal Society for the Protection of Birds*

TWT = *The Wildlife Trust for Lancashire, Manchester & North Merseyside*

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**Objectives, targets and proposed actions for the House Sparrow in urban Lancashire**

<b>Broad Objective:</b>		<b>Objective A: To involve people in Lancashire and raise awareness of house sparrows</b>		
Operational Objective	Action Required (Priority)	Partners	Time-scale	Type
Promote the House Sparrow as a “flagship” urban species to highlight more general urban wildlife and urban/rural interface issues.	Publicise, through leaflets, websites and other means, ways in which the public can assist house sparrows and other urban birds through nest site provision and/or gardening practices. (Medium)	<b>RSPB</b> , TWT, EN, <b>LCC</b> , Blackpool BC, Blackburn with Darwen BC	O	PR
	Encourage public participation in Breeding Bird surveys and other monitoring activities. (Medium)	<b>BTO</b> , RSPB, C&LFS, all local bird clubs & natural history societies	O	PR, RM
	Stage 1 event promoting garden birds throughout Lancashire per year	?	?	

<b>Broad Objective:</b>		<b>Objective B: To understand the key factor(s) affecting the population and distribution of house sparrows in Lancashire</b>		
Operational Objective	Action Required (Priority)	Partners	Time-scale	Type
	Collate all available data for Lancashire house sparrows. (High)	<b>L&amp;CFS</b> , BTO, TWT, all bird clubs and local natural history societies	S	RM

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Support the development of a Biological Recording Network to enable the collation of House Sparrow data	Carry out sample survey of breeding House Sparrows in urban areas by 2005 to establish detailed distribution and population sizes – using North Merseyside methodology. (High)	<b>L&amp;CFS</b> , RSPB, BTO, TWT, all bird clubs and local natural history societies	S	RM
	Identify and map areas of high concentration of breeding House Sparrow in urban Lancashire. (High)	<b>LCC</b> , L&CFS, RSPB, BTO, TWT	M	RM
	Use available data to keep up-to-date the estimate of overall breeding population size for Lancashire. (High)	<b>BTO</b> , L&CFS, TWT, RSPB, all bird clubs and local natural history societies	M	RM
	Before end of 2006, assess results of above and formulate targets by which to increase urban House Sparrow population in Lancashire. (High)	<b>LCC</b> , L&CFS, RSPB, BTO, TWT, all bird clubs and local natural history societies	M	RM
Develop partnerships with local educational and research facilities	Lobby for research on ecology of urban birds, especially House Sparrow. (Low)	Local universities - Central Lancashire, Edge Hill, Lancaster	M	RM

<b>Broad Objective:</b>	<b>Objective C: To sustain a healthy breeding population of house sparrows throughout urban Lancashire.</b>			
Operational Objective	Action Required (Priority)	Partners	Time-scale	Type

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Enforce best practice in the construction and renovation of buildings.	Develop appropriate SPG (High)	<b>LCC; LAs</b>	M (2005)	P
Encourage the provision of House Sparrow nest boxes by householders and industrial building owners.	Seek local authority and/or commercial sponsorship to promote nest box production and installation in urban areas. (High)	<b>LAs, LCC, RSPB, TWT</b>	M 2005	PR, LM
Seek to secure sympathetic management of urban greenspace.	Work with urban greenspace managers to develop management plans that provide 'relaxed management' in appropriate areas of public greenspace and planting of native species to allow development of taller swards and scrub, where this does not conflict with other BAP targets.	<b>LAs, LCC, Groundwork, TWT</b>	M 2005	A
	Encourage lower levels of use of pesticides in gardens, parks <i>etc.</i> (Medium)	<b>LAs, RSPB</b>	M 2005	A