

# NORFOLK BIODIVERSITY ACTION PLAN

## TREE SPARROW (*Passer montanus*)

A scarce relative of the house sparrow, best distinguished by its chestnut crown and black patch on the cheek.

Ref 2/S11	Tranche 2	Species Action Plan 11
Plan Author:	RSPB	
Plan Co-ordinator:	Farmland BAP Topic Group	
Plan Leader:	RSPB	
Date: January 2006	Stage: Final draft	

## 1. CURRENT STATUS

### National Status

- The tree sparrow is patchily distributed on farmland across Britain and Ireland, being scarcer in the uplands, and the far north and west. The main populations are now found across eastern England from Kent to Yorkshire, with the species now rare in south-east England and almost absent from the south-west, Wales and the north-west.
- The UK population of tree sparrows declined by 95% between 1970 and 1998, the largest decline of any bird species during this period. The tree sparrow also decreased in range by 20% over the same period, with particular losses in Wales and Scotland. (More details can be found at [www.bto.org/birdtrends](http://www.bto.org/birdtrends)).
- The tree sparrow is protected under the Wildlife and Countryside Act 1981, Wildlife (Northern Ireland) Order 1985 and EC Birds Directive.

### Norfolk Status

- Patchily distributed across the county with main concentrations in north and mid Norfolk and the Brecks (RSPB/EN/BTO/Defra Farmland Bird Database). Unobtrusive and easily over-looked.
- The 1986 Norfolk Bird Atlas recorded tree sparrow in 36% of 2km squares. It is not possible to measure tree sparrow population size or trends at a county level.

## 2. CURRENT FACTORS CAUSING LOSS OR DECLINE IN NORFOLK

- The recent decline in tree sparrow numbers has occurred at the same time as decreases in the numbers and/or ranges of other farmland birds which share its diet of grass, wildflower and cereal seeds, and also feed their young on insects. It is therefore likely that its decline is due to changing agricultural practices, particularly the increased use of herbicides; the shift from spring-sown to autumn-sown crops and the consequent loss of winter stubble fields; the more intensive management of grassland; and the general reduction of habitat diversity on farmland due to the loss of mixed farming and increased specialisation.
- RSPB research at Rutland Water suggests that the presence of wetland features near nest sites may be important during the breeding season as a source of invertebrate food for chicks.
- Anecdotal evidence suggests that the availability of seed food in late winter/early spring may also be a limiting factor.

### **3. CURRENT ACTION IN NORFOLK**

- Little direct conservation work for the tree sparrow has been carried out, although feeding and nest-box schemes in a number of areas, eg STANTA, have been implemented.
- Rotational set-aside will have benefited the species, although this has been significantly reduced in area in recent years.
- Tree sparrow has been targeted by the arable options in the Countryside Stewardship Scheme, encouraging the growth of spring-sown cereals, the retention of winter stubbles and the provision of wild bird seed crops.
- The Environmental Stewardship schemes will continue to provide management options that will be promoted and targeted in support of this species.

#### **4. ACTION PLAN OBJECTIVES AND TARGETS**

##### **National**

- In the short term, halt or reverse the decline in numbers of the tree sparrow by the year 2003 so that the Breeding Bird Survey index is at least at 1996 levels.
- In the long term, see a sustained recovery, so that the BBS index is at least 50% higher than 1996 levels, and a measurable increase in range is achieved, by 2008.
- Expand the range from that of 1996, as measured by the frequency in random BBS squares, by 2008.

##### **Norfolk**

- Maintain the current distribution of tree sparrow in Norfolk and by 2010 restore to any parts of the county that have lost breeding tree sparrow since 1986.

## Tree Sparrow - Norfolk Action Plan

NATIONAL ACTION		NORFOLK ACTION	ACTION BY:	PARTNERS:
<b>5.1</b>	<b>Policy and Legislation</b>			
<b>5.1.1</b>	Take account of the need to recover tree sparrow and other farmland bird populations when developing agricultural policy and CAP reform; consider how to extend the Arable Stewardship Scheme if the pilot is successful, and how to substitute for the benefits of set-aside, if this is further reduced or abolished. Retention of appropriately managed hedgerow trees and farm woodland should be encouraged.	Target Environmental Stewardship options which will benefit tree sparrows within the species' core range in Norfolk	NE	RSPB, FWAG
<b>5.1.2</b>	Where appropriate, incorporate new management prescriptions when reviewing agri-environment schemes, especially ESAs, Countryside Stewardship, Tir Cymen and Countryside Premium Scheme, in order to reverse some of the recent changes in farm management outlined in above.	None proposed.		
<b>5.1.3</b>	Seek uptake of a more cautious and targeted use of pesticides and fertilisers on farmland to reduce the impacts on potential food sources for the tree sparrow.	Promote the Voluntary Initiative to reducing the environmental effects of pesticides	NFU, NE	

## Tree Sparrow - Norfolk Action Plan

NATIONAL ACTION		NORFOLK ACTION	ACTION BY:	PARTNERS:
<b>5.2</b>	<b>Site Safeguard and Management</b>			
<b>5.2.1</b>	Consider implementing site safeguard measures for a small number of large tree sparrow colonies (ie those in excess of 20 pairs).	Consider implementing site safeguard measures for large tree sparrow colonies (ie those in excess of 20 pairs) – for example designation as County Wildlife Sites.	NWT	NE, RSPB
<b>5.2.2</b>	Undertake management measures for the tree sparrow within protected areas (especially nature reserves) and, where possible, promote them on adjoining farmland. Measures will include nest box schemes, retention of dead trees and provision of winter feeding habitat.	<p>Ensure effective implementation of the Hedgerow Regulations, TPOs etc</p> <p>Review the management of land owned/managed by BAP Partners for its suitability for tree sparrows (giving consideration to nest box schemes, retention of dead trees, provision of winter feeding etc).</p>	<p>LAs</p> <p>Norfolk County Council</p>	
<b>5.3</b>	<b>Species Management and Protection</b>			
<b>5.3.1</b>	See 5.2.2.			
<b>5.4</b>	<b>Advisory</b>			
<b>5.4.1</b>	Promote further advice to land managers on management for tree sparrows as one of a suite of farmland birds and update that advice in the light of new policies and research findings.	Promote tree sparrow specific management options, particularly nest box schemes, winter feeding and maintenance of wet features on key tree sparrow farms	NE, RSPB, FWAG, NFU	
<b>5.4.2</b>	Promote effective management of set-aside for breeding and wintering birds, including the tree sparrow.	Promote effective management of set-aside for breeding and wintering birds, including the tree sparrow.	NE, RSPB, FWAG, NFU	

## Tree Sparrow - Norfolk Action Plan

NATIONAL ACTION		NORFOLK ACTION	ACTION BY:	PARTNERS:
<b>5.5</b>	<b>Future Research and Monitoring</b>			
<b>5.5.1</b>	Carry out an historical review of the species, including analysis of existing BTO Nest Record Cards, in order to investigate the possible reasons for decline.	Encourage/initiate surveys of the numbers of tree sparrows (and/or farmland birds) to enable accurate monitoring of local populations, particularly where this can be related to habitats/land management practices/ agri-environment schemes.	BAP Partners	
<b>5.5.2</b>	Undertake an autecological study of the tree sparrow in order to determine its requirements and investigate the factors causing the population decline.	None proposed.		
<b>5.5.3</b>	Ensure appropriate monitoring of numbers through continuation of the BTO/JNCC/RSPB Breeding Bird Survey and consider setting up an equivalent survey to monitor winter populations.	Promote voluntary participation in the Breeding Bird Survey.  Encourage submission of tree sparrow records to BirdTrack ( <a href="http://www.bto.org/birdtrack/">/www.bto.org/birdtrack/</a> ) and participation in national breeding and wintering bird atlas project.	BTO, RSPB, Norfolk Bird Club, Norfolk and Norwich Naturalists' Society  BTO, RSPB, Norfolk Bird Club, Norfolk and Norwich Naturalists' Society	
<b>5.6</b>	<b>Communications and Publicity</b>			
<b>5.6.1</b>	As appropriate, use the tree sparrow as an example when highlighting the issue of declining farmland birds.	Promote the tree sparrow as a species of conservation concern.	BAP Partners	

## Tree Sparrow - Norfolk Action Plan

NATIONAL ACTION		NORFOLK ACTION	ACTION BY:	PARTNERS:
<b>5.6.2</b>	Promote a change in perception of wild plants on farmland as essential food sources for seed-eating farmland birds, rather than 'weeds'.	<p>Highlight the benefits, and change perceptions, of more traditional and conservation-friendly farming practices, using the tree sparrow as an example.</p> <p>Ensure local education establishments include management for the tree sparrow and other farmland birds in relevant courses.</p>	<p>BAP Partners</p> <p>Easton College, UEA etc</p>	RSPB
<b>5.7</b>	<b>Links with Other Action Plans</b>			
<b>5.7.1</b>	It is likely that the implementation of this action plan will also benefit the following UK BAP farmland birds: bullfinch, corn bunting, grey partridge, linnet, reed bunting, skylark, song thrush, turtle dove.	It is likely that the implementation of this action plan will also benefit the following UK and Norfolk BAP farmland birds: bullfinch, corn bunting, grey partridge, linnet, reed bunting, skylark, song thrush, turtle dove.	Farmland BAP Topic Group, Communities and Nature BAP Topic Group	
<b>5.7.2</b>	The plan should be considered in conjunction with those for cereal field margins, ancient hedgerows and other wooded priority habitats.	The plan should be considered in conjunction with those for cereal field margins, ancient hedgerows and other wooded priority habitats	Farmland BAP Topic Group, Woodland Topic Group	

## **NORFOLK DISTRIBUTION**

Between 1980 and 1985, tree sparrows were found in 36% of tetrads, the main concentrations being east and south-east of King's Lynn, north of Thetford, west of Norwich and around Sheringham.

In recent years, tree sparrows have been patchily distributed across the county with main concentrations in north-west Norfolk and the Brecks.

## **MANAGEMENT GUIDANCE**

**(This guidance is a general summary; for more detailed information or advice, please consult the references or contacts below.)**

### **What do tree sparrows need?**

- **Insects and spiders to feed to chicks in the spring and summer**  
Tree sparrow chicks are fed on insects for the first two weeks of life. These insects come from a wide range of habitats including hedges, crops and waterside vegetation.
- **Lots of seeds throughout the year**  
Adults feed mainly on seeds. They seek places where they can find lots of seed food. Such areas include rotational set-aside, winter stubbles, root crops, wild bird cover, weeds in the crop margins or areas of spilt grain.
- **Holes for nesting**  
Tree sparrows nest in colonies in holes in trees, farm buildings and nestboxes. Occasionally, they build nests in dense bushes. It would be easy to remove or destroy vital nesting habitats inadvertently without being aware of a colony.

### **Helping tree sparrows on set-aside**

- You can provide seed food throughout the winter at a low cost with small plots (eg one acre) of wild bird cover. Establish a seed-rich crop in the spring and maintain it for two years. Kale and quinoa are particularly useful components in the mix.
- The natural regeneration of rotational set-aside provides more seed food over winter than non-rotational set-aside.
- Delay the use of a broad-spectrum herbicide for as long as possible. This will prolong the benefits into the breeding season.

### **Helping tree sparrows on arable land**

- Only use pesticides when the infestation exceeds the economic threshold. Try to avoid using broad-spectrum insecticides after 15 March. These remove beneficial insects and spiders that move into the crops in the spring. The loss of this food source is particularly damaging to tree sparrows.
- Adopt conservation headlands. Avoid spraying the outer six metres of cereal fields with insecticides or herbicides targeted at broad-leaved weeds. This enables beneficial insects and chick food for tree sparrows to survive. You can get agronomic advice from the Game Conservancy Trust.
- Spray and cultivate stubbles as late as possible. This provides important winter feeding habitat.
- The set-aside and wild bird cover options described above are very important on farms where overwinter stubbles are not a viable option.



- Provide a food supply for tree sparrows by creating grass margins around arable fields. Select margins that have thick hedges.

### **Helping tree sparrows on grassland**

- Introduce arable fodder crops or small plots of wild bird cover to provide a seed-rich habitat in pastoral areas. Maize is probably not of value to tree sparrows unless it is undersown with a seed-bearing crop such as linseed.
- Fence off margins of up to six metres around improved grassland and leave these unfertilised, uncut and ungrazed. Graze or cut in September every two to three years. Select margins that have thick hedges.

### **Looking after nest sites**

- You could ask a local birdwatcher or your county bird club to find the nesting area of your tree sparrow colony. This will ensure the colony is safe from accidental damage.
- Maintain large thick hedges on the farm and retain any old bushes, trees or farm buildings that may contain nesting holes.
- Continue to manage old pollard trees and re-pollard neglected trees, as these provide nest sites.
- Use nest boxes to supplement the number of nest sites. Boxes should have 2.8 cm diameter entrance holes and an internal box depth of 20 cm. Tree sparrows nest in colonies, so place several boxes on each tree, close together and above head height.

## **CONTACTS**

RSPB  
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NR1 1UD  
Tel: 01603-660066 / Fax: 01603-660088  
[www.rspb.org.uk/farming](http://www.rspb.org.uk/farming)

Defra RDS (to become part of NE)  
122a Thorpe Road  
Norwich  
Norfolk  
NR1 1RN  
Tel: 01603-631033  
[www.defra.gov.uk](http://www.defra.gov.uk)

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