Report to EURING meeting from BTO

Organisation
The Ringing Scheme in Britain & Ireland is run by the British Trust for Ornithology (BTO). The Ringing Scheme forms part of the BTO's Populations Research Department. Staff primarily involved in the Ringing Scheme are as follows:

BTO Director Jeremy Greenwood
Director of Populations Research Stephen Baillie

RINGING UNIT
Head of Unit Jacquie Clark
Secretary Jane Waters
Recoveries & Licensing Team:
Leader Jeremy Blackburn
Recoveries Officers Mark Grantham, Kate Risely
Data & Sales Team:
Leader Bridget Griffin
Ringing Data Officer Sue Adams
Ringing Assistant (part-time) Brenda Read
Ringing Sales (part-time) Anne Trewhitt

DEMOGRAPHY UNIT
Senior Population Biologist Rob Robinson (Ringing)
Research Officer Dawn Balmer (Organiser of CES)

CENSUS UNIT
Team Leader John Marchant (Organiser of RAS)

BTO RINGING SCHEME OPERATIONS

Numbers ringed	Annual (2004)	881,889
	Ever (to end 2004)	32,816,778
Numbers recovered	Annual (2003)	11,554
	Ever (to end 2003)	605,393
Number of ringers	(2004)	2,116 (proportion professional less than 10%)

Computerisation
Recoveries of all BTO-ringed birds and all foreign-ringed birds received since 1979 have been computerised. Recoveries for all the foreign ringed birds received before 1979 are currently being input. Ringing captures for nearly 7 million birds have been received from ringers electronically. Data have been accepted electronically since 1996. For 2004, over 90% of ringing data were submitted electronically by ringers. The majority of the electronic data is received via email. Ringers have been supplied with a free programs (IPMR – based on Access) to allow input and submission of ringing and recovery data. The remaining data coming in on paper are now being computerised. Recaptures and biometrics are now also collected from ringers electronically.

Problems
None

Finance
Ringers pay towards cost of rings, pay for equipment and pay an annual permit fee. Other costs are met from a partnership between BTO and JNCC (Government) and by the BTO. Ring prices are based on current conservation concern of species being ringed. Where all, or most species, that have a particular ring size are of conservation concern the ring price is reduced. If only a few of the species taking a particular ring size are of conservation interest, a refund is given to ringers at the end of the year. Refunds are only given for data submitted electronically.

Publications

Annual Report	Published in BTO Ringing Scheme Journal *Ringing & Migration*.
Ringers' Bulletin	Published three times a year.
CES News	Published annually
RAS Newsletter	Published annually.
Ringer's Manual	New edition (with major revisions and additions) published December 2001.

BTO RINGING SCHEME RESEARCH - PROJECTS
CONSTANT EFFORT SITES SCHEME (CES)
This scheme monitors demographic changes for 25 widespread songbird species. The number of sites operated fell from a peak of 140 following the Foot & Mouth outbreak in 2001 when access was restricted. 122 sites were operated in 2004 (with good geographical spread). We have recently started work on the estimation of adult survival rates using data from all CES sites by taking advantage of the constant effort regime to simplify the modelling of re-sighting effort. In the near future, we plan to routinely produce annual estimates of adult survival rates alongside measures of abundance and productivity.

EURO-CES
This is a EURING collaborative project, lead by the BTO and CRBPO. We have received the results from a detailed questionnaire from most European schemes and produced a set of guidelines to facilitate greater comparability across CE schemes and to provide advice for new schemes; these are available on the EURING website. We have also updated the CES section of the EURING website.

RAS
This scheme was started in 1998 to collect mark–recapture data for monitoring adult survival rates in a range of species. Ringers choose their own study area and attempt to ring and retrap (or resight) all the breeding adults in the study area each breeding season. RAS concentrates on species not monitored well by CES or other types of ringing. In 2004, there were 114 active projects covering 44 species. Of these projects, more than half were for species of current UK conservation concern. Pied Flycatcher *Ficedula hypoleuca* (17 studies), Sand Martin *Riparia riparia* (16), Swallow *Hirundo rustica* (7) and House Sparrow *Passer domesticus* (7) were the most popular species. There were 26 projects with 10 or more years of data. An on-going appraisal of the scheme aims to identify the minimum requirements number of (re-)captures required to provide useful estimates of survival rates.

MIGRATION ATLAS
The Migration Atlas: movements of the birds of Britain and Ireland was published in 2002. It provides an account of bird movements and includes a variety of statistical analyses.

TIME TO FLY
In 2004 we published a 'popular' book on bird migration called '*Time to Fly'*. This has proved very popular with the public and has been an excellent tool for publicising the Ringing Scheme. Jacquie Clark has a copy at this conference if anyone would like to see it.

SWALLOW ROOST PROJECT

The BTO Swallow Roost Project (part of the EURING Swallow Project) started in 2002 and is due to finish after the 2006 season. Ringers have been catching Swallows as they come into post-breeding roosts from late July into October, taking measurements and recording fat reserves to look at the preparation the birds make prior to migration to their distant wintering grounds in southern Africa.

Ringers in 39 sites around the country have joined the project and have ringed over 30,000 Swallows as part of it. Most of the large roosts are found around the coast, at known migration points; inland roosts tend to be smaller and more transient in nature. Some of our smaller inland reed bed sites have had mixed fortunes, catching a good number of birds one year, with a few or no birds appearing the following autumn. The project has also highlighted the popularity of maize crops as a roosting habitat for our Swallows. These crops are being planted more and more by farmers to be used as winter fodder for cattle.

A preliminary analysis of the weights recorded at the roosts has shown that British birds gain an average of between 1 and 2g of fat before leaving to cross the English Channel for continental Europe. The data is similar for all three years, with males putting on slightly more weight than females, and juveniles less than adults.

BREEDING BIRDS IN THE WIDER COUNTRYSIDE: THEIR CONSERVATION STATUS 2004

This report on bird population trends is available on the BTO Website (**http://www.bto.org/birdtrends**). It includes abundance and productivity trends from CES as well as information from census schemes and nest recording.

BTO RINGING SCHEME RESEARCH – ANALYSES

The ringing scheme is a key component of the BTO's Integrated Population Monitoring programme (IPM). Major demographic analyses of Starling, House Sparrow (*Passer domesticus*) and Song Thrush (*Turdus philomelus*) have been carried out recently and papers have been published (or submitted). A major IPM analysis of Blackbird (*T. merula*) data is planned. Ringing data have also been used to assess the practicality of measuring breeding productivity of high-arctic breeding waders by monitoring the ratio of juvenile to adults in the wintering grounds; papers are in preparation. As part of this, guidelines for demographic monitoring of waders on the non-breeding grounds using ringing have been produced and published in *Wader Study Group Bulletin*.

An analysis of survival rates in a small range of common passerines in relation to various weather variables showed that winter weather is very important for survival, and that which variable is important is related to birds foraging strategy. With an increasingly computerised dataset, good amounts of biometric data are now available for analysis. A major study of mass gain strategies in Blackbirds has been completed and published. This shows patterns of weight gain (on a national scale) are highly dynamic in response to a number of factors, such as ambient temperature and predation risk. Further analyses investigating these trade-offs are being explored in a wider range of species.

An analysis of trends in reporting rates in the UK showed the number of birds being reported had declined markedly across a wide range of species. The greatest declines have been seen amongst hirundines and resident insectivorous passerines. Some reasons for this are being explored, but changes in reporting behaviour are likely to be a major influence.

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