Report to EURING meeting from BTO

ORGANISATION

The Ringing Scheme in Britain & Ireland is run by the British Trust for Ornithology (BTO). In 2009 we started discussions on the re-design of the Ringing & Recovery ORACLE database and the table design and validation code has now largely been written (See Database Restructuring Project below). The new structure will further enhance and streamline database operations, with the view to eventually moving to an online system.

Staff primarily involved in the Ringing Scheme are as follows:

BTO Director Andy Clements
Science Director Stephen Baillie
Principal Ecologist Rob Robinson (Modelling)
Senior Secretary Jane Chase
Secretary Hazel Evans

Demography:
Head Jacquie Clark
Research Ecologist Daria Dadam
Secretary Jane Waters

Ringing Licensing & Sales:
Manager Jeremy Blackburn
Sales Officer (part-time) Anne Trewhitt

Ringing Data Management:
Manager Bridget Griffin
Ringing Database Officer Dorian Moss
Recoveries Officer Lee Barber
Recoveries Officer Sabine Schaefer
Recoveries Officer Diana de Palacio
Research Officer (p/t contract) Mark Grantham

Demographic Monitoring Projects
Senior Research Ecologist Dave Leach
Research Ecologist Alison Kew (Organiser of CES & RAS)
Nest Records Organiser Carl Barimore

BTO RINGING SCHEME OPERATIONS

Numbers ringed	Annual (2012)	970,957
Ever (to end 2012)		40,328,260
Numbers recovered	Annual (2012)	18,693
Ever (to end 2012)		742,583

Number of ringers	(2012)	2,741 (Proportion professional less than 10%)

Computerisation

Recoveries of all BTO-ringed birds and all foreign-ringed birds have now been computerised. Data have been accepted electronically since 1996, and ringing captures for over 14 million birds have been received from ringers electronically. Over 99% of ringing data are submitted electronically by ringers, using the free program IPMR. The remaining paper submissions are being computerised annually. In addition, some of the larger ringing groups and individual ringers are computerising their historical ringing data for submission to BTO. In 2012 63% of all recoveries were received electronically.

Recoveries

In 2012 41% of recovery reports from members of the public were reported via the Web (www.ring.ac). The majority of recoveries to ringers and members of the public continue to be sent by email, as well as requests for ringing details of foreign-ringed birds to other EURING schemes and copies of recoveries of GBT-ringed birds reported from their countries to other EURING schemes.

Database Restructuring Project

The BTO Ringing database has been developed over more than 30 years, increasing in scope and evolving in storage capacity and technical sophistication as new hardware and software systems have come into use. We are currently restructuring the ORACLE database. Web forms for inputting, editing and correcting data have been designed and we are now close to a period of rigorous testing of the new system. Phase 2 of this project will be to implement an online system for BTO ringers to input and submit their data.

Finance

Ringers pay towards the cost of rings, for equipment and 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 ringing projects and species groups which BTO wishes to encourage to generate demographic data, with refunds at the end of the year for CES.

Publications

Annual Report	Published in BTO Ringing Scheme Journal *Ringing & Migration*
Ringing News	Published twice a year
CES News	Published annually
RAS News	Published annually
Ringers' Manual	Latest edition (with major revisions and additions) published 2001
Bird Ringing: A concise guide	Published 2008

BTO RINGING SCHEME RESEARCH – PROJECTS

Constant Effort Sites (CES) Scheme

The CES scheme ran for its 30th year in 2012, with data submitted from 125 sites. The principle habitats are dry scrub (30%), wet scrub (33%), reed bed (23%) and woodland (14%). It was the worst breeding season since CES began in 1983. The productivity of 17 of the 24 species monitored by CES was

significantly reduced compared to the five-year average and 11 species exhibited the lowest productivity recorded for 30 years. The most likely driver was the unseasonably high rainfall.

Abundance of returning migrants was significantly below average for many species eg Sedge Warbler *Acrocephalus schoenobaenus* were recorded in the lowest numbers in the history of CES and the species also exhibited a significant drop in survival rates, as did Willow Warbler *Phylloscopus trochilus*, Whitethroat *Sylvia communis* and Reed Warbler *Acrocephalus scirpaceus*. While this may reflect the stormy conditions faced during migration, rainfall in the Sahel region of Africa was also very low in 2011/12.

Abundance of some residents (eg Robin and Blackbird) fell in 2012, possibly due to the recent run of cold winters; there was some evidence of a concurrent fall in adult survival rates but this fall may have been due to reduced recruitment of first year birds.

Preliminary results from2012 are available at www.bto.org/cesprelim2012 and the most recent CES newsletter can be downloaded at www.bto.org/ces-news.

Retrapping Adults For Survival (RAS) Scheme

The Retrapping Adults for Survival (RAS) scheme, which started in 1998, monitors survival rates using capture-mark-recapture methodology. There were 163 projects in 2012 covering 54 species. The primary focus is species that are poorly represented by CES and are not caught in large numbers during the breeding season during general ringing activities. Volunteers generally use one of three techniques:

i) Territory-based catching, where individual breeding pairs are targeted within a defined study area (e.g. Dipper *Cinclus cinclus*)
ii) Static-point catching, where birds are intercepted when they congregate at fixed points (e.g House Sparrow *Passser domesticus*)
iii) Colony-catching, where birds are marked at breeding colonies (e.g. seabirds)

Species covered by the largest number of projects are: Pied Flycatcher *Ficedula hypoleuca* (20), Sand Martin *Riparia riparia* (14), and House Sparrow *Passer domesticus* (12). Of the projects that are currently active, 52 have been running for more than 10 years, with the oldest (Pied Flycatcher) dating back to 1968.

In 2012, we calculated annual estimates of survival for 44 species of which 34 species have produced moderate or good quality trends.

RAS newsletters containing results for a wider range of species than that included in the BirdTrends report are available at: www.bto.org/ras-news.

Breeding Birds In The Wider Countryside: Their Conservation Status 2012

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

Demographic Monitoring

During the year the Demographic Targeting Strategy supported through the JNCC/BTO partnership was finalised. A key aim is to ensure that data are gathered to support the targeting strategy adding survival trends for more species.

We have continued with a number of on-going analyses including a large-scale analysis of migrant warbler productivity and survival using CES from several countries throughout Europe. We have also worked co-supervised PhD students working on Willow Warblers and Long-tailed Tits.

We have been working closely with the Seabirds Team of JNCC to develop demographic monitoring for seabirds. For most species, estimating juvenile and immature survival is likely to rely on the analysis of recoveries of birds ringed as chicks requiring high numbers to be ringed at a range of colonies as immature survival is low. Colour mark studies will also play a role. The results of the current investigations will lead to a targeting strategy for seabirds.

Nest Record Data

Analysis of Nest Record data continues, with a current focus on addressing issues of timing of breeding and the issue of phenologcial disjunction, i.e. the measure of the potential mismatch between the food demand of nestlings and the availability of invertebrate prey due to their differential responses to climatic warming. These analyses have highlighted is the importance of brood reduction as this may be where the impact of disjunction is apparent.

Bridget Griffin, Jacquie Clark, Rob Robinson, Allison Kew and Dave Leech
September 2013