



**83rd
Annual Report
& Accounts
2016/17**

**The British Trust for Ornithology
The Nunnery
Thetford
Norfolk IP24 2PU**

**Registered Charity No. 216652 (England & Wales) No. SC039193 (Scotland)
Company Limited by Guarantee
Registered in England and Wales Company No. 357284**

**The British Trust for Ornithology
Council and Management
2017**

Patron HRH The Duke of Edinburgh

Council

<i>President</i>	C G Packham	2014-2017
<i>Chairman of Council</i>	Professor J A Gill	2017-2020
<i>Honorary Treasurer</i>	I Packer	2017-2020
<i>Honorary Secretary</i>	Ms F M Hurst	2015-2018
<i>Chairman of Regional Network Committee</i>	Lt Col R C Dickey	2014-2017
<i>Chairman of Ringing Committee</i>	Dr I P Bainbridge	2017-2020
<i>Ordinary Council Members</i>	Dr F Barclay	2014-2017
	Professor S Bearhop	2015-2018
	A C B Henderson	2014-2017
	Dr S Hunter (co-opted)	2017
	D Jardine	2016-2019
	C P R Mills	2014-2017
	Dr D M Parker	2014-2017
	Dr D J Reynolds	2016-2019
	N A Sherwin	2016-2020
	Mrs J Spencer	2015-2018
Vice Presidents	K F Betton	2014-2021
	Professor T R Birkhead	2013-2020
	Professor J O'Halloran	2011-2018
	Professor I P F Owens	2016-2023
	Professor A R Watkinson	2012-2019

Regional Network Committee

Chairman Lt Col R C Dickey; R E Chapman; B Galpin; D Jardine; G R Kirk; Dr D M Parker; S W Petreck; Mrs P A Williams; Miss C M Young.

Ringing Committee

Chairman Dr I P Bainbridge; Professor S Bearhop; J Black; Dr R K Broughton; A V Cross; Dr S Hunter; Professor D Norman; Dr J Smart; Mr E Weston. Representatives: Mrs K Clarke; Miss E Marshall.

Management

Director Dr A Clements; *Director of Science* Dr J W Pearce-Higgins; *Director of Services & Company Secretary* A T Scott; *Associate Director Communications (Engagement)* Dr D I P Evans; *Associate Director Communications (Science)* M P Toms; *Associate Director Country Offices* Dr C V Wernham; *Associate Director Information Systems* Mrs K M W Wright; *Associate Director Science (Monitoring)* Dr A J Musgrove; *Associate Director Science (Research)* Dr R A Robinson.

Past Chairmen and Presidents

<i>Chairmen</i>		<i>Presidents</i>	
1935-39	The Right Hon. Earl of Mansfield	1958-60, 65-68	R C Homes
1940-41	The Right Hon. Malcolm MacDonald MP	1961-64	C A Norris
1942-47	Dr A Landsborough Thomson CB OBE DSc	1969-72	I J Ferguson-Lees
1948	Dr E M Nicholson CB CVO	1973-76	R A O Hickling
1949	A W Boyd MC	1977-80	J M McMeeking MBE
1950	Sir Norman Kinnear	1981-84	S M Taylor
1951-56	Major-General H P W Houston	1985-89	J A Hancock OBE
1957	R C Homes	1990-93	R P Howard
1988-91	G H Green	1994-96	Sir William Wilkinson
1992-96	I C Castle	1997-2001	Sir Frederick Holliday
1996-2000	Dr H P Sitters	2002-2005	Lord Blakenham
2001-2004	A J Martin	2006-2013	Baroness Young of Old Scone
2005-2008	Dr S Hunter		
2009-2013	Professor I Newton FRS OBE		
2014-2016	Professor A D Fox		

BRITISH TRUST FOR ORNITHOLOGY - STAFF LIST

DIRECTOR: Dr Andy Clements
PA to the Director P/T: Nicki Read

SCIENCE	COMMUNICATIONS	SERVICES
<p>Director: Dr James Pearce-Higgins PA / Senior Secretary P/T: Nicki Read Senior Secretary P/T: Jane Chase</p> <p>Associate Director – Monitoring: Dr Andy Musgrove (Secretary: Nicki Read) Associate Director – Research: Dr Rob Robinson (Secretary: Jane Chase) Senior Research Fellow: Dr Stephen Baillie (Secretary: Jane Chase)</p> <p>Terrestrial Ecology Head & Principal Ecologist Senior Research Ecologist Research Ecologist Research Ecologist Research Ecologist Research Ecologist Research Officer Secretary *based at Exeter University</p> <p>MONITORING Demography Head Secretary P/T</p> <p>Ringling Licensing and Sales Manager Licensing Assistant Ringling Sales Officer P/T</p> <p>Ringling Data Management Ringling Data Manager P/T Recoveries Officer Recoveries Officer P/T Ringling Officer</p> <p>Demographic Monitoring Projects Nest Records Organiser Ringling Surveys Organiser Secretary</p> <p>Surveys Head & National Survey Coordinator Secretary BirdTrack Organiser BirdTrack Support Officer BBS National Organiser <i>Wetland Bird Survey</i> WeBS National Organiser WeBS Low Tide Count Organiser WeBS Counter Network Org P/T</p>	<p>Associate Director Communications – Engagement: Dr Ieuan Evans Associate Director Communications – Science: Mike Toms Senior Secretary P/T: Sam Rider Secretary P/T: Sandra Sparkes</p> <p>COMMUNICATIONS ENGAGEMENT Membership Manager Membership Administrator Asst. Membership Administrator Training Manager Customer Service Assistant</p> <p>Fundraising Head Fundraiser (Corporate & Trust) Fundraising Secretary P/T Major Giving Officer P/T Supporter Development Officer</p> <p>COMMUNICATIONS SCIENCE Garden Ecology GBW Organiser GBW Supporter Development Officer GBW Assistant P/T GBW Assistant P/T</p> <p>Marketing Head Media Manager Science Communications Manager Information Services Librarian P/T</p> <p>INFORMATION SYSTEMS Associate Director P/T: Karen Wright Senior Secretary P/T: Jane Chase</p> <p>Senior Database Officer Senior Software Developer Website Manager Computer Support Officer Database Developer Database Developer Database Officer Software Developer Software Developer Systems Engineer Website Developer Business Analyst</p> <p>COMBINED ECOLOGY Science Director Senior Research Ecologist Secretary</p>	<p>Accounts & Facilities Director: Andrew Scott Facilities / H&S Officer P/T Facilities / H&S Officer P/T Financial Accounts Officer / General Sales Officer / Admin. & Finance Assistant P/T Management Accountant P/T Receptionist P/T Admin. Assistant Human Resources Head Research Support Resource Manager Research Support Administrator P/T Research Support Officer</p> <p>Sam Massimino Pat Sparkes Mary Gray Sonya Calder Irene Bowles Christine Bloomfield Charmain Innes Diane Bragg Sian Knott Virginia Cates Sandra Sparkes Penny Mitchell</p> <p>Nunnery Lakes Site Manager P/T Chris Gregory</p> <p>BTO SCOTLAND Associate Director Country Offices P/T: Dr Chris Wernham Senior Secretary P/T: Rebecca Cranston</p> <p>Senior Research Ecologist P/T Data and Admin. Officer Development Coordinator Fieldwork, Training & Engagement Officer Research Ecologist P/T Research Ecologist Research Ecologist Scottish Raptor Monitoring Coordinator *PEM Team</p> <p>John Calladine Anne Carrington-Cotton Dr Ben Darvill David Jarrett Dr Liz Humphreys Dr Blaise Martay* Dr Mark Wilson Dr Amy Challis</p> <p>BTO CYMRU Senior Ecologist P/T Research Ecologist Development Coordinator P/T Dr Rachel Taylor Dr Katharine Bowgen Kelvin Jones</p> <p>BTO NORTHERN IRELAND Northern Ireland Officer Scientific Officer Shane Wolsey Dr Katherine Booth Jones</p>

**The British Trust for Ornithology
Council (Trustees') Report (Incorporating the Strategic Report)
For the Year Ended 31 March 2017**

For the purposes of Section 162 of the Charities Act 2011 and the Directors' Report for the purposes of Section 415 of the Companies Act 2006.

Company number:	357284
Charity number:	216652 (England and Wales) SC039193 (Scotland)
Principal Office and Registered Office:	The Nunnery, Thetford, Norfolk IP24 2PU
Principal Advisers:	
Auditor	Lovewell Blake LLP, Bankside 300, Peachman Way, Broadland Business Park, Norwich NR7 0LB
Principal Bankers	National Westminster Bank plc, 7 Cornhill, Bury St Edmunds, Suffolk IP33 1BQ Royal Bank of Scotland, 2 Blenheim Place, Edinburgh EH7 5JH
Solicitors	Birketts LLP, Kingfisher, 1 Gilders Way, Norwich, Norfolk, NR3 1UB
Pensions Advisers	Russell Ulyatt Financial Services Ltd, 1 The Triangle, ng2 Business Park, Nottingham NG2 1AE
Investment Advisers	Russell Ulyatt Financial Services Ltd, 1 The Triangle, ng2 Business Park, Nottingham NG2 1AE
Insurance Brokers	Uttings, 16 The Fairland, Hingham, Norwich, Norfolk NR9 4HN

The members of Council are directors of the charitable company for the purpose of company law and trustees for the purpose of charity law. Those serving during the period were as follows:

Dr I P Bainbridge (appointed 21 April 2016)	C P R Mills
Dr F Barclay	Dr T J Osmond (retired 31 December 2016)
Professor S Bearhop	C G Packham
Lt Col R C Dickey	I Packer (appointed 13 July 2016)
Professor A D Fox (retired 31 December 2016)	Dr D M Parker
Professor J A Gill	Dr D J Reynolds
A C B Henderson	N A Sherwin (appointed 1 January 2017)
Dr S Hunter (appointed 15 March 2017)	Dr K W Smith (retired 31 December 2016)
Ms F M Hurst	Mrs J Spencer
D Jardine	

Structure, Governance and Management

Governing Document

The British Trust for Ornithology (also known as the BTO) is a company limited by guarantee governed by its Memorandum and Articles of Association and subject to the Companies Act 2006. It is registered as a charity with the Charity Commission and the Office of the Scottish Charity Regulator. Membership is open to any person whose application is approved by Council upon payment of the requisite subscription. Members undertake to contribute up to £1 each in the event of an insolvent winding up.

Trustees

Trustees are nominated by Council or members and elected by the members at the Annual General Meeting in December each year, to serve from the following 1 January. The normal term of office is four years. New trustees receive a comprehensive information pack and undergo an induction day at The Nunnery to brief them on the BTO and their roles as company directors and trustees.

Organisation and Key Management Remuneration

The trustees make up the Council, which is the governing body of the BTO. Council meets four times a year and is supported by the Regional Network and Ringing Committees. The day-to-day management of the BTO is delegated to the Senior Management Team, led by the Director.

The salary of the Director is determined by Council, and was last set in 2007 when the post became vacant. The remuneration of all other staff is set according to a bespoke job evaluation scheme, benchmarked to the Croner Charity Rewards database.

The British Trust for Ornithology
Council (Trustees') Report (incorporating the Strategic Report) - Continued
For the Year Ended 31 March 2017

Related Parties

The BTO's wholly owned subsidiary, BTO Services Ltd, undertakes commercial operations in support of the BTO, and gifts its profits to the Trust.

The BTO co-operates with many other charities, with government agencies and other bodies in pursuit of its objectives, as illustrated in this report.

Volunteers

The Trust depends on the contributions of many thousands of volunteers participating in BTO surveys and other activities. We are greatly indebted to them, and especially to the Regional Representatives and other regional volunteers who organise so much BTO activity at local level. It is estimated that BTO volunteers contributed the equivalent of over 200,000 days of work in 2016.

Risk Management

A risk register is maintained which identifies the significant risks faced by the BTO and the measures in place to manage those risks. These are monitored by Management and reviewed biannually by Council.

Investments

The Memorandum of Association permits the Trust to invest monies not immediately required for its purposes as the trustees see fit. The trustees' investment policy is to maximise long term total returns by investing in a combination of 40% high quality short dated bonds and 60% globally diversified equities. The equities part of the portfolio is invested in a sustainable fund (see note 10). Investment performance against benchmark was as follows:

	Portfolio	Benchmark
Year ended 31 March 2017	17.71%	17.48%
Since inception (28 August 2014)	22.78%	21.66%

Objectives and Activities

Charitable Objects

The objects of the Trust, as set out in its Memorandum of Association are, for the benefit of the nation:

- (i) To promote, organise, carry on and encourage study and research and particularly field work for the advancement of knowledge in all branches of the Science of Ornithology.
- (ii) Permanently to preserve and protect lands and objects which by their natural features are suitable for the preservation and study of bird life and of fauna and flora generally.

Public Benefit

The trustees have complied with the duty in Section 17 of the Charities Act 2011 to have due regard to public benefit guidance published by the Charity Commission. The following paragraphs set out in detail the aims, activities and performance of the Trust, and the way in which they provide public benefit.

**The British Trust for Ornithology
Council (Trustees') Report (Incorporating the Strategic Report) - Continued
For the Year Ended 31 March 2017**

Objectives and Activities

The BTO's purpose and public benefit is to deliver objective information and advice, through undertaking impartial research and analysis about birds, other species and habitats, to advance the understanding of nature. We inform policies and evidence-based decisions that impact on the environment such that future generations can benefit from a healthy and wildlife-rich environment. The BTO does this by:

- Sustaining long-term extensive programmes and smaller scale intensive research to study the population trends, movements, breeding, survival, ecology and behaviour of wild birds;
- Encouraging, enthusing, training and supporting volunteers to take part in scientific studies;
- Bringing together professional scientists and volunteer birdwatchers in surveys of wildlife (particularly, but not exclusively, birds);
- Analysing the data gathered through these studies, making information available to Government and other bodies, and publishing the results in the primary scientific literature and via the internet, the birdwatching and conservation press and the media more generally.

Strategic Report

Achievements and performance

The objectives set for 2016/17 and the progress achieved against those objectives were as follows:

1. Enable and deliver high quality and relevant science.

Last year's trend towards more self-directed research has continued, with progress made in securing partial or full funding for half of the concept notes drafted in 2015 under the Strategic Research Programmes. The process was repeated in 2016 and is providing good engagement between Science and Fundraising, although greater clarity about organisational priorities is required, which will be a focus for the coming year. Our surveys and demographic monitoring have continued to deliver high quality and important information and data, with important new surveys on House Martins (nest monitoring study) and breeding waders (English Upland Farmland) being run successfully, and the majority of the development of Demography Online being completed (see 2. below: Share data, information and knowledge through excellent communications). An important measure of scientific output is the number of peer-reviewed papers published, which was up in 2016. Most pleasing was a large increase in the number of high impact papers, with BTO authored papers published in Ecology Letters, Nature, Nature Communications, Science and TREE, including important papers on the impact of rising temperatures upon phenology (Thackeray et al. 2016 Nature), climate change impacts on bird communities across Europe and North America (Stephens et al. 2016 Science) and results from BTO's cuckoo tracking that provided important clues for the potential cause of decline (Hewson et al. 2016 Nat. Comms.). More of the papers published were collaborative in nature than in previous years, although not as many were BTO-led as desirable. More detail about the individual work areas is reported below.

A key priority for the year was renegotiating the BTO's partnerships with JNCC, which fund many of the BTO's long term schemes; WeBS, BBS, Ringing and Nest Record Schemes, the communication of the resulting trend information through BirdTrends, and an associated programme of research and development. Through a single-tender, we successfully secured ongoing support for a new five-year agreement covering the long-term schemes and BirdTrends. A complementary programme of more analytical and development work (TSDA - Terrestrial Surveillance Development and Analysis) was competitively tendered for in collaboration with the Centre for Ecology & Hydrology.

As part of continuing to improve the standards of scientific practice across the organisation, a review of Good Scientific Practice guidelines and quality assurance processes was undertaken, leading to updated and refreshed processes and support for staff. In addition, a new post project appraisal process was instigated to provide a framework for improving the management and delivery of scientific projects through time.

Terrestrial Ecology

This area has traditionally relied more than most at the BTO on government contracts and the squeeze on public sector funding continues to cause severe pressures. Tight turn-arounds to produce competitively-priced project proposals and then short deadlines to complete work have led to difficult working conditions in recent times and have restricted opportunities to conduct self-driven work.

The British Trust for Ornithology
Council (Trustees') Report (incorporating the Strategic Report) - Continued
For the Year Ended 31 March 2017

Achievements and performance (cont'd)

The success of the team in continuing to secure such contracts, including major funding for agri-environment monitoring from Natural England/Defra through Common Agricultural Policy (Rural Development Programme, RDP) commitments, which have largely been protected from public spending cuts, is a testimony to the external reputation of the team. The resulting pressures have made it difficult to progress BTO and appeal funded work, including the Farmland Appeal, and this has restricted progress on turning report outputs into published papers.

The major new project is a collaboration with CEH to monitor the landscape-scale impacts of the Countryside Stewardship scheme in England on a wide range of biodiversity. This is a three-year project now, with the intention of a repeat three-year project after five years, although this is dependent upon the future of agri-environment and monitoring funding post-Brexit. This work is based on the recommendations of the scoping project for monitoring of agri-environment scheme impacts on biodiversity in England (funded by DEFRA) that we conducted last year.

Other agri-environment-related work continues through the framework funding agreement with Natural England, notably 2016's survey of breeding waders in upland (in-bye) farmland, which has been completed, apart from submission of a journal paper, which is planned for 2017. In Wales, the Glastir Monitoring and Evaluation Programme (GMEP) has finished, with a replacement scheme (which will be broader in scope and more restricted in funding, leading to less available resource for bird monitoring) due to be out for tender later this year. BTO will again join a bid led by CEH Bangor.

The 12-month project investigating data availability and conducting analyses of biodiversity responses to agriculture across Europe for the European Commission, for which BTO was the science lead, has been completed. The NERC project "Hydroscape", led by the University of Stirling, which is investigating the connectivity among freshwater systems and its influence on biodiversity and a range of other environmental parameters is continuing, with the BTO element set to begin properly in 2017.

In the urban context, the NERC 'Urban BESS' project has formally been completed, with papers in preparation, both led by BTO and in collaboration with partners from Cranfield, Sheffield and Exeter Universities. Garden BirdWatch analysis appeal funded work on butterflies in GBW is continuing, with papers being produced on community indices and population change, with two in 2016-17. This work promotes both BTO's multi-taxa credentials (which are increasingly important as funding becomes more competitive) and our urban interests, while also maximizing the value of our volunteer survey effort and data resources. Analytical work investigating patterns of bird community and abundance change from Bird Atlas 2007-11 with respect to urban land-use is also still ongoing, with paper submission expected soon. This work complements analyses of BBS data being undertaken under JNCC partnership funding and others for Luton, Bedford and Milton Keynes being undertaken using the urban BESS data. Each considers bird and landscape data at a different spatial scale. Kate Plummer's fellowship, examining garden feeding as a driver of change in bird populations, has largely been completed, with one manuscript currently in preparation.

In grassland and heathland, the PhD project with Lancaster University investigating survival and productivity as drivers of Whinchat population change on Salisbury Plain has been completed, and to date two papers are accepted for publication (*Ibis* and *Journal of Avian Biology*); a third is in the pipeline. We have also written local articles on this project for the MoD and the work contributes to the International Whinchat Working Group. Geolocators were attached to 20 Salisbury Plain Whinchats in 2016 to investigate migration patterns in this population. Nine of these tags were retrieved in 2017 which represents an excellent 45% return rate, exactly as we would expect for males at this site. The tag data are currently being analysed.

Research on Nightjar ecology and habitat use using GPS tagging has also continued into 2017, with growing collaborations with Natural England and groups in Sweden and Belgium helping this work to develop – now with one collaborative paper published in *Ibis*. More work is planned for Thetford Forest in 2017, and our forest GPS collaborative work with Natural England/Dersingham Bog is a top priority for analysis and write-up in 2017. BOU funded moth data in 2016 provided contrasts between forest breeding sites and heathland foraging sites.

**The British Trust for Ornithology
Council (Trustees') Report (Incorporating the Strategic Report) - Continued
For the Year Ended 31 March 2017**

Achievements and performance (cont'd)

In Thetford Forest, Forestry Commission funding is supporting a new volunteer survey of breeding bird populations, which will add to the two previous such surveys, and thus also analyses of the effects of forest management on population trends later in 2017-18. As always, Thetford Forest work relies heavily on voluntary effort by BTO staff, with new pilot work on Willow Warblers: habitat associations and population turnover (by colour-ringing), and prey selection. The latter is using sticky traps to sample foliage insects and to compare this availability measure to faecal samples and visual observations of what birds bring back to nests. Other ongoing projects have been supported by Sound Approach funding, including the Nightjar work referred to above, studies of Tree Pipit movements (which are yielding positive first results from geolocators retrieved in 2017) and tagging of Goshawk and Buzzard. We eventually received permission to tag five Goshawks and five Buzzards in Thetford Forest in 2017. The data will help us to understand dispersal characteristics of these species and identify their use and exposure to non-forest habitats, especially farmland. If some survive to breed we will have our first home range estimates for this population. The contrasting life styles of the two species will help us to interpret tag performance. Elsewhere in woodland, building on previous work examining the influences on breeding bird assemblages of different silvicultural systems in commercially managed Sitka spruce forests, a new study in Scot's pine forests identified likely long-term influences of 'low intensity' systems and the retention of snags among commercially mature trees to assess whether they can deliver the predicted biodiversity suggested by UK forest strategies. The results were published (Calladine et al. 2017 *Forest Ecology and Management* 397: 174-184) and found that many associations between forest structure/management and bird abundance were bird-species-specific, that the retention of some mature pines and snags were important for some species, and that species richness tended to be greatest in forests with a regenerating understorey.

Considering upland systems, work around the ecology of, and management for, breeding waders continues. This includes publication of studies around the impact of predation by introduced Hedgehogs on the internationally important wader assemblages of the Western Isles (Calladine et al. 2017 *Biological Invasions*, in press), the ongoing development of studies involving land managing stakeholders to best understand limitations to success by breeding waders (following on from the Understanding Predation project and resulting in pilot studies in Yorkshire in 2017 and potential future collaborations in the Cairngorms) and publication of a 25-year study of declining farmland waders in Perthshire by long-term BTO volunteer and RR, Mike Bell (Bell & Calladine 2017 *Bird Study* 64: 264-273). BTO's involvement in a three-year NERC-funded Valuing Nature Partnerships project led by Newcastle University to look at tipping points in peatland systems should provide significant opportunities for policy-relevant work to be published through time.

Other work still being finalised but mostly undertaken during 2016-17 includes assessing the evidence for an impact of releasing captive-reared gamebirds on the abundance and distribution of generalist predators across Britain (funded by the Sound Approach) and assessing the likely sensitivity of birds to changing land use in the uplands, the latter work using Curlew, Short-eared Owl, Redstart and Willow Warbler as contrasting case studies (under the JNCC partnership). Both these pieces of work have used extensive data sources of Bird Atlases and BBS.

Population Ecology & Modelling

Work on the BBS research programme includes the development of new trends for nine mammal species, supported by modelled maps of abundance and abundance change across the country, which are being written up for publication. A paper on drivers of Curlew decline, also part-funded by the Curlew appeal, has been provisionally accepted and should be published in *Bird Study* shortly. A paper exploring potential future projected changes in abundance of breeding birds as a result of climate change, using UK and French BBS data is being revised following constructive reviewer feedback. On the development front, work to understand the factors limiting coverage of remote and upland BBS squares has been completed and we are trialling a new "Upland Rovers" scheme to enhance coverage of these important squares.

Atlas work continues on four fronts. An overview paper assessing patterns of change for habitats, landscapes and regions has been drafted. An analysis of urban features and bird populations has been completed and a report provided to Natural England. Production of an accessible review of the status and importance of Scottish birds is nearing completion. Lastly, atlas data have been central to a JNCC-funded project aiming to map the risks and opportunities for different management options impacting bird species, initially focussing on four case study species (including the Red-Listed Curlew).

**The British Trust for Ornithology
Council (Trustees') Report (incorporating the Strategic Report) - Continued
For the Year Ended 31 March 2017**

Achievements and performance (cont'd)

The BTO Research Fellowship awarded to Stuart Newson has produced two peer-reviewed papers. The first, led by Jenni Border, concerns mitigating the effects of urban development on bats and was published in *Landscape and Urban Planning*. The second, led by Stuart Newson, concerns use of bat detectors to improve ecological knowledge for bush-crickets and was published in *Methods in Ecology and Evolution*. Other outputs include advice on the level of sampling needed for national bat monitoring schemes to produce robust population trends.

Our bioacoustics monitoring work is developing on several fronts. We are developing automated routines for identifying nocturnal birds from sound recordings, supported by the Sound Approach. Natural England funding has supported development of an upload system for the transfer of sound recording from volunteers. And a NERC Innovation Fund grant (with University College London, Oxford University and Bat Conservation Trust) is supporting the development of low-cost full spectrum bat detectors for use in citizen science. The South Scotland Bat Survey (funded by Scottish Natural Heritage) has been very successful with 250 volunteers covering over 330 1-km squares plus additional professional coverage. A report has been delivered to SNH and a paper assessing potential wind farm impacts has been submitted to *Biological Conservation*, with positive reviews received. The Norfolk Bat Survey completed its fourth year and is continuing to provide distribution information for bats and now also for Orthoptera (specifically bush-crickets).

A successful collaboration involving NABU (Germany), SOVON (Netherlands) and BTO reviewing the impacts of conservation management for breeding meadowbirds has culminated in a paper in review with the journal *Ecology & Evolution*. This work was funded by a LIFE+ grant with further support from the Curlew appeal. Further Curlew appeal work on breeding birds includes BTO representation on the UK & Ireland Curlew Action Group and developing partnerships for wader research and monitoring (e.g. in Wensleydale). We are half way through a joint RSPB/Cambridge Conservation Initiative (CCI)/BTO project to assess the benefits of land sparing versus sharing for conserving birds and carbon in lowland landscapes of England.

Demographic Research

This research theme underpins many of the other research areas at BTO, seeking to understand the mechanisms underpinning the changes that we see. Being able to quantify demographic processes is key to being able to assess the impact of developments and land-use change. It is important that such information is made available to decision-makers in an accessible way that facilitates informed choices, often in the face of imperfect knowledge. An area where this is relevant, currently, is in the development of offshore renewable energy infrastructure where there is the potential for substantial impacts on seabird populations. To facilitate the decision-making process, we have developed a framework that enables transparent choices between the different metrics of change used in environmental impact assessments and made recommendations as to which are best deployed in particular situations (Cook & Robinson 2017 *Journal of Environmental Management*).

Changing climates are one of the major environmental pressures that birds, and other animals, will have to adapt to in the coming years and a suite of published studies have used Nest Record Scheme data to explore the phenology of breeding, a key demographic parameter. A collaborative, NERC-funded, analysis involving a consortium of NGOs and conservation bodies led by CEH, investigated the influence of temperature and rainfall on the phenology of 812 species, using 10,003 datasets including NRS first egg dates for 37 species (Thackeray et al. 2016 *Nature*). As predicted, plants and herbivores advanced their timing at a much greater rate (4.1 days and 3.7 days per °C respectively) than insectivores or carnivores (1.9 days), increasing the potential for mismatch between predators and their prey. Parallel work, with researchers at the University of Edinburgh and the RSPB, explored potential mechanisms by which woodland passerines might be able to track these phenological advances exhibited by their invertebrate prey (Phillimore et al. 2016 *Global Change Biology*). It suggested that, for these populations at least, sufficient plasticity exists for populations to track changes in temperature, even where they are occurring at a relatively rapid rate.

A key aim of our recent demographic research has been to apply the integrated population modelling techniques we are developing to investigate the reasons underlying the declines in Afro-Palaearctic passerines. One strand of this work has been carried out in collaboration with Professor Jenny Gill and Dr Cat Morrison at the University of East Anglia and follows on Dr Morrison's work at BTO. This is a good example of how BTO can successfully engage with the academic community to build joint work programmes of common interest. This work has centred particularly on understanding the regional pattern of decline in Willow Warblers as a model species to understand declines in the wider suite of migratory species, and resulted in two pieces of work published during the year.

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For the Year Ended 31 March 2017

Achievements and performance (cont'd)

The first (Morrison et al. 2016 *Journal of Animal Ecology*) undertook a mark-recapture analysis of CES data to show that, in many areas of southern Britain, populations of Willow Warblers are male-biased resulting in reduced productivity. There was little evidence that this was due to a difference in survival rates between the sexes, but rather that recruitment of young females was reduced. More generally, reduced productivity in recent years seems to have played a major role in the decline of Willow Warblers (and presumably other, similar, migratory species), especially in the south of Britain (Morrison et al. 2016 *Proceedings of the Royal Society, Series B*). Had southern populations experienced the productivity levels achieved by their northern cousins then populations would not have declined, suggesting that conservation measures targeting improvements in breeding conditions could improve the conservation status of these species. Not all species, though, appear to be declining for reasons of reduced productivity, for example, survival of adult Cuckoos appears to differ according to the autumn migration route taken and which is strongly associated with population status (Hewson et al. 2016 *Nature Communications*).

Wetland & Marine Research

During the past year, there has been further development of BTO's wetland and marine research programme, in parallel with developments in monitoring.

BTO scientists have been working with JNCC and other partners in developing a new database for the national Seabird Monitoring Programme (SMP). BTO has also provided further support to the progression of the national Seabird Census, which is running from 2015 to 2019. Associated work to develop survey methods for urban gulls has been undertaken on behalf of Natural England. A fourth annual Northern Ireland Seabird Report, for 2016, was produced through the work of the Northern Ireland Seabird Network, coordinated by the BTO, working in close collaboration with the JNCC's SMP team, and funded by the Northern Ireland Environment Agency.

Results from the Non-Estuarine Waterbird Survey (NEWS-III) were published in *Waterbirds* in the UK 2015/16. NEWS complements WeBS by contributing to updated population estimates for waterbirds and monitoring of protected sites, and providing data for researching the effects of climate and other environmental change on these populations. In addition, NEWS has provided additional data on the availability and use by birds of strandline 'wrack' deposits that will be the subject of further research.

Our marine research programme has had a continuing focus on renewables. Data collection for our second project for the Department of Energy and Climate Change (DECC) Offshore Energy Strategic Environmental Assessment research programme, undertaken in collaboration with the University of Amsterdam, assessing the interactions of Lesser Black-backed and Herring Gulls from Special Protected Areas (SPAs) with offshore wind farms through GPS tracking was completed in 2016. The DECC projects have produced exceptionally high quality information about how birds from three SPAs use the offshore environment, throughout the year. A fifth paper from the project, modelling seabird flight heights using a Bayesian approach, has been published (Ross-Smith et al. 2016 *Journal of Applied Ecology*) and a further paper, based on research supported by the RWE Group, has also been accepted for publication (Thaxter et al. in press *Journal of Wildlife Management*). Work at South Walney (Morecambe Bay and Duddon Estuary pSPA) and adjacent urban Barrow is continuing through funding from DONG Energy, in relation to their recently consented offshore wind farms sites. Related tracking work on Lesser Black-backed Gulls at the Bowland Fells and Ribble and Alt Estuaries SPAs has been funded by Natural England. A PhD building on these tracking studies being led by the University of Exeter and in conjunction with Natural England began in autumn 2016.

Our advisory work in relation to offshore wind farms has continued, through work on behalf of NIRAS on the Offshore Renewables Joint Industry Project assessing the avoidance behaviours to turbines of key marine bird species, and on behalf of Marine Scotland Science quantifying the sensitivity of bird species to offshore wind farms and other marine activities in Orkney and the Western Isles. A paper based on work on behalf of JNCC on the sensitivity of metrics used to assess population impacts of offshore wind farms was also published this year (Cook & Robinson 2017 *Journal of Environmental Management*). Aonghais Cook was invited to present at a Wild Bird Society of Japan symposium in December to discuss our work on the effects of offshore wind farms and also attended a meeting with the Japanese Ministry of Environment. The BTO also hosted the annual ICES joint working group on birds at the Nunnery in October, considering the development of indicators and key issues affecting marine bird populations including offshore wind farms and fishery discards.

The British Trust for Ornithology
Council (Trustees') Report (incorporating the Strategic Report) - Continued
For the Year Ended 31 March 2017

Achievements and performance (cont'd)

Further work on the impacts of global renewables has been achieved through a BTO-led CCI-funded project on the biodiversity cost of climate change mitigation, that was collaborative with RSPB, International Union for Conservation of Nature and Natural Resources (IUCN), BirdLife and Cambridge University. One paper undertaking meta-analyses of the traits associated with bird and bat collision with wind turbines has received positive reviews from Proceedings of the Royal Society B, with a further paper reviewing potential global impacts of different future renewable energy scenarios upon birds and bats in preparation. James Pearce-Higgins presented this work to a new Convention of Migratory Species initiative focussed on renewable energy – the Energy Task Force – which BTO has now joined, providing significant opportunities to steer the programme of work and communicate the results of our research internationally.

Our wetland research has been varied, from the applied, through advisory to species-focussed work. On behalf of Tidal Lagoon Power, through Combined Ecology, we have undertaken a second winter of gap-filling of WeBS Core (high tide) and Low Tide Counts in 2016/17 to inform the assessment of proposals for a tidal power lagoon in the Severn Estuary. On behalf of Natural England, the BTO has developed existing methods to provide a weighted assessment of the status of waterbird features of SPAs using WeBS data. The BTO's Curlew appeal has helped to support a multi-faceted research programme aimed at better understanding the factors behind the species' decline that can be used to inform conservation action. This will encompass work to assess the determinants of Curlew breeding and wintering abundance and distribution in Britain and Ireland, assessment of habitat use by breeding and wintering Curlew through GPS tracking, analysis of Curlew survival rates using ringing data and work with local stakeholders to develop and support bespoke research programmes on local breeding populations.

Monitoring Research

The Scottish Terrestrial Breeding Bird indicator was updated in November (the UK and English indicators being postponed until April 2017). The second State of Nature report was published in autumn 2016 and contained analyses of data from BTO as well as from many other taxonomic recording schemes.

The 2015 House Martin Survey was followed up with a further House Martin Nest Monitoring Study in 2016; this was popular but a little hampered by poor weather and will be repeated in 2017 to increase the available dataset; it is hoped this will help us understand more about regional differences in the trends of this species.

Analysis of the Winter Thrush Survey was finalised and submitted for publication to Bird Study during the year; this contains the most robust estimates to date of numbers of thrushes wintering in the UK (22-37 million birds).

A very significant piece of work was undertaken to develop methods of accounting for spatial biases in the BirdTrack dataset, and to use this knowledge to understand the extent to which BirdTrack data can be used to generate reliable distribution maps; this work, which was funded by the BirdTrack appeal, will be submitted in early 2017/18.

Work to support the Non Native Species Information Portal continued, with updates of the species registry and factsheets, responding to alerts on non-native species of concern, and development of improved procedures for assessing environmental risk across taxa.

International Research

The International team continues its research on the migration and movements of Afro-Palaearctic migrant birds using a variety of tracking technologies and supporting higher education at the Universities of Cape Coast in Ghana and the A P Leventis Ornithological Research Institute in Nigeria.

The highlight of the year for the migration project was the publication of a landmark paper on Cuckoo migration in the journal Nature Communications in July 2016. This was a major step forward for the Cuckoo tracking project and showed for the first time just how migration routes from birds in different parts of the UK varied and also how this impacted on mortality. Scottish and Welsh birds all took the shorter south-westerly routes to the central African wintering grounds, whereas southern and eastern breeding birds varied their strategies with some taking a 3,000km longer south-westerly route via Iberia and West Africa to the same wintering areas. Mortality on the longer route was higher in autumn and the choice of route was linked to population change in the breeding areas. In areas where more of the population of tagged birds took the riskier south-western route, local population decline was higher and this may well be the answer to why Cuckoos in the south and east of the UK are declining, whereas they are increasing in Scotland.

**The British Trust for Ornithology
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For the Year Ended 31 March 2017**

Achievements and performance (cont'd)

Trying to understand where our migrants move in both space and time is extremely important basic information that is essential to their conservation and this has been lacking for many smaller species. GPS devices now weigh under a gram and a sample of Nightingales was tagged with this new technology. Geolocators were also put on Tree Pipits, Wood Warblers and Spotted Flycatchers. These three are amongst the most poorly known African-Eurasian migrants and any information these birds provide will make a large contribution to understanding their migration.

Two papers, in addition to the Cuckoo paper mentioned above, were published. These included a paper that did not find any short- or long-term effects of geocator attachment in Pied Flycatchers and one which looked at changes in migration phenology of UK breeding birds from the 1960s using an old data set from a previously largely forgotten survey 'Inland Observation Points' and its current equivalent, BirdTrack.

BTO's collaborative Masters programme with the University of Cape Coast in Ghana and the A P Leventis Ornithological Research Institute (APLORI) continues. Students spend a year at APLORI on a taught one-year MSc course and then return to UCC to undertake a one-year research project which will allow them to upgrade to an MPhil degree. Our first student has completed his research project into the role of sacred groves in providing habitat for forest birds in the wider agricultural landscapes of southern Ghana, and two students started their research projects in Ghana. The number of students applying for the two annual places at APLORI has risen markedly.

Combined Ecology

It was a year of finishing off two major projects and the commercial launch of Movetech, a collaborative tag-making venture with the Universities of East Anglia, Lisbon and Porto. We have worked closely with ERM on a project in Sierra Leone which finally came to an end in 2016. Completion of fieldwork was delayed due to the Ebola epidemic but all the work was completed. The biodiversity surveys were successful in that several species of fish new to science were discovered and, with partners NatureMetrics, we piloted a novel way of surveying fish by taking water samples and determining what species of fish were present by filtering out DNA from the water. This has the potential to revolutionise the sampling of fish in remote, difficult to reach areas, and will be an invaluable monitoring tool in the future. Other projects that finished in 2016 included biodiversity surveys for a wind farm project in Ghana and a project looking at the movements of Greylag Geese around Belfast City Airport.

During 2016, we complete our work to make tracking tags commercially. BTO, with the Universities of East Anglia (UEA), Lisbon (UL) and Porto (UP), are developing high efficiency global positioning system (GPS) / Global System for Mobile Communications (GSM) solar powered devices for animal tracking. The Movetech telemetry devices remotely transmit archived data via the mobile phone network and are currently offering tags from 18 grams upwards, ideal for gulls upwards. We have been investing in research and development and have come up with a product we are very happy with. Using very high efficiency solar cells, our devices can operate in low light conditions and provide GPS data as well as accelerometer data to infer behaviour and include a temperature sensor. We are looking to develop new and existing products and are currently working on a new long-range wireless device.

2. Share data, information and knowledge through excellent communications

The BTO continues to be one of the world leaders in creating rigorous but engaging and popular citizen science initiatives, leading to the generation and onwards use of millions of biological records. The scale and range of our surveys and schemes mean we need to maintain excellence in our approaches to both data capture and data provision.

Our key system for collating birders' observations and lists, BirdTrack, continued to be prominent during the year, amassing another seven million observations, including over 150,000 that were submitted for 116 countries outside the core area of Britain and Ireland. The new version of the BirdTrack mobile phone app – allowing data entry anywhere in the world – was released for Android and has proved very successful, being recognised by winning the BirdWatch Product of the Year award. About 20% of BirdTrack data is submitted via the phone apps. Meanwhile, on the core BirdTrack website, work has continued on a range of exciting new data visualisations giving a wealth of options to explore the dataset (for example, allowing comparison of reporting rate graphs between species or between regions). BirdTrack remains a core source of data for feeding into exciting international projects such as EuroBirdPortal and the 2nd European Breeding Bird Atlas.

**The British Trust for Ornithology
Council (Trustees') Report (incorporating the Strategic Report) - Continued
For the Year Ended 31 March 2017**

Achievements and performance (cont'd)

Existing data management systems around our core schemes (BBS, WeBS, etc.) remain reliable and heavily used, with the WeBS Online report now incorporating the results of the Non-estuarine Coastal Waterbird Survey (NEWS), as carried out in winter 2015/16.

The BTO continued its close working relationship with the National Biodiversity Network (NBN). The launch of the new NBN Atlas at the end of the year saw a system containing 215 million records, of which an incredible 156 million (73%) were from BTO. We look forward to continuing to work with the NBN and related organisations in the coming year to understand how best to make the most of the opportunities afforded by the new Atlas system.

Several major projects got underway in the year 2016-2017. Work began on the replacement membership system based on CiviCRM; Veda Consultancy has been contracted for this project, and is doing much of the data migration and set up. Because of the particularly complex requirements of the BTO, close integration with the scientific database and with the BTO website, this project has also involved most of the IS team and also staff in other teams. The work is on schedule and the first rollout of the system is planned for October 2017.

During the year, a number of agencies were asked to tender for the BTO website renewal and the company Headscape were appointed to assist with the re-design of this. Additionally, the technical development of the first phase of a new Intranet was completed and will be rolled out during 2017-2018.

Preparatory work for the replacement Project Management System, which had been delayed, began towards the end of the year.

A new application was built and released to collect data for the Breeding Waders of English Upland Farmland (funded by NE), as was the House Martin Nest Study application. We were unable to make much headway with the data collection tool for Seabirds (for JNCC) which was scheduled for development this year, but progress has now been made in finalising the requirements and it is expected to be released in the year 2017-2018.

The International Common Bird Monitoring application developed for RSPB/BirdLife International went fully live in January 2017. Historical data from Botswana, Kenya and Uganda were loaded up, and Botswana and Kenya have been actively using the system for the current year.

Further developments for the Garden Wildlife Health initiative improved reporting functionality and provided closer integration with Garden BirdWatch. Additionally, work began on updating the Garden BirdWatch data input interface.

New work for the Bat project began, providing a facility to allow volunteers to upload their data directly to the BTO systems, and so reducing time and costs in processing this data.

Work continued on the final phases of the Demography Online (DemOn) project, integrating Nest Record data input with Ringing data. Several rollouts with increasing functionality were released to increasing numbers of testers. The final release is expected to be in early summer 2017.

A new application to show the gaps in coverage for the European Breeding Bird Atlas was developed in the early spring and released in March 2017. Data from several sources such as BirdTrack, Ringing, Nest Records, Heronies, RSPB, and RBBP were incorporated.

The Systems team upgraded all desktops and laptops to Windows 10, which ensured that the BTO was well placed to deal with the recent global security threats. A new internet provider was identified allowing the BTO to upgrade from a 30Mbps line to 100Mbps with a considerable cost saving.

Two BTO Research Notes, published during the year, demonstrate the breadth of BTO work in two key areas. The first, produced for a conference on marine renewables, brings together our research on wind energy and its potential impacts on birds, underlining the leading role that the BTO has taken in tracking technology and modelling methods.

**The British Trust for Ornithology
Council (Trustees') Report (incorporating the Strategic Report) - Continued
For the Year Ended 31 March 2017**

Achievements and performance (cont'd)

The second research note provides an overview of the range of work that BTO is doing on taxa other than birds, highlighting how the data collected by BTO volunteers is being used by partner organisations and revealing how BTO expertise and experience, drawn from the organisation's work on birds, is being used to support and develop the monitoring of other taxa.

Following on from the work done last year to evaluate the audiences reading our core publications, we have refreshed BTO News, Volunteer and our Annual Review. All three have seen substantial changes in content, design and layout, with initial feedback suggesting that these changes have been very well received. Similar work, to develop and refresh the Garden BirdWatch participant magazine Bird Table, will see a new look magazine in 2017/18.

Being able to present information from our extensive BTO datasets in new and increasingly accessible ways is an important component of our strategic development. Two new publications, Garden Birds and Other Wildlife, and Identification of European Non-Passerines, underline how we have been able to do this for different audiences. Data from Garden BirdWatch, the Nest Records Scheme and Bird Atlas 2007-11 feature prominently in Garden Birds and Other Wildlife through a series of simple infographics, maps and tables. Identification of European Non-Passerines delivers highly technical information for ringers and birders in an equally accessible manner.

Continuation of the BTO/SWLA (Society of Wildlife Artists) Flight Lines project has realised further opportunities to promote our work on declining summer migrants to new audiences, with presentations at Nature Matters 2017, run by New Networks for Nature, and the Cambridge Festival of Ideas. These involved collaborations with Getty Images photojournalist Toby Smith and storyteller Malcolm Green, additionally delivering spin-off opportunities through other media channels – with, for example, Toby's work featuring on the front page of the New York Times international edition. A book showcasing the artwork from the project alongside the story of BTO's work on migrant birds will be launched at BirdFair 2017.

Media communications continue to play a key role in promoting the BTO and its work, the organisation punching well above its weight (in relation to the size of its media communications team) and securing significant coverage in print and broadcast media. Social media has also been an important communication channel, particularly during the periods when BTO work features in print or broadcast media.

3. Enthuse and encourage our people

Our Twitter following continues to grow, with more than 11,500 new followers in 2016/17 bringing our total to nearly 64,000 followers at the end of the financial year. Our tweets during 2016/17 were retweeted more than 40,000 times and had a potential reach of 174,412,602. We engaged regularly with a number of high profile users including BBC Radio 4, BBC SpringWatch, Nature, BBC Earth, and Chris Packham, along with many scientific journal accounts. We also achieved a 30% increase in the number of people 'liking' our Facebook page compared with the previous financial year, bringing our total to over 22,000 fans by the end of the financial year. Our Facebook posts reached approximately 2,000,000 users and achieved around 4,000,000 impressions. Our growing list of Bird ID videos has helped push the total number of views of our YouTube channel to 2,000,000. Our two most popular videos - Song vs Mistle Thrush and the 'night singers' video have received more than 225,000 views each. The Demog Blog and the Migration Blog continue to be regularly updated and are successful both in terms of followers and in providing great content for our social media and web presence. During 2016/17 the BTO e-newsletter was circulated to over 50,000 people each month and achieved an average open rate of 45% and an average click-through rate of 9.2%. These figures compare favourably with the industry average published by e-news supplier MailChimp of 25% and 2.8% respectively for non-profits. Two science-enews issues were published during the year and provide an additional means of communicating relevant work to more academic and policy-oriented audiences.

In 2016, volunteers contributed approximately 1,587,283 hours of time to BTO work at an estimated monetary value of £32.2 million. BirdTrack and GBW volunteers contributed over 300,000 hours to each scheme while volunteers undertaking ringing and nest recording contributed almost 700,000 hours. Without the thousands of people who support and donate to BTO we would not be able to deliver our world class research to inform conservation priorities for birds and the habitats on which they depend.

The British Trust for Ornithology
Council (Trustees') Report (incorporating the Strategic Report) - Continued
For the Year Ended 31 March 2017

Achievements and performance (cont'd)

Thirty-six training courses were delivered as part of our core one-day and residential training programme covering Bird Survey Techniques and Bird ID. These courses were delivered by our Training Manager and a team of eight external trainers and were attended by 339 people. The first BTO Bird Camp was held at the Nunnery and was attended by 20 young birdwatchers. This new annual event, which is made possible through funding from the Cameron Bespolka Trust, aims to inspire young birders about birds and ornithology.

Thanks to a grant from the Heritage Lottery Fund, we began work with staff from the Cass Business School Centre for Charity Effectiveness to conduct an organisational review and a review of our governance. This transformational project aims to secure BTO's long-term future by analysing our current position and supporting our staff and volunteers to make the adjustments we need to respond to the ever more challenging external funding environment.

Membership continued to grow in 2016 with an increase in total membership of 3.4% such that by the end of the year total membership just tipped over 19,000 (18,386 2015). The loyalty of our members is extraordinary with, on average over the last five years, over 92% staying with us through renewal. This year retention was again exceptionally high at 93.5%. Our highest areas of growth are in Joint Memberships and in Young birders – increasing by 6% and 50% respectively. The number of GBW participants was 12,020. 818 new participants were recruited in 2016, around the same as the previous year.

At BTO Northern Ireland, Shane Wolsey continued as BTO NI Officer and Kerry Leonard as NI Seabird Coordinator, funded by the continuation of a grant from the Environment Fund. Provision within this grant package for recruitment of a NI Scientific Officer, who will be half-funded by the grant, was confirmed in 2016-17, with our new staff member, Katherine Booth Jones, starting in June 2017. The annual NI programme of training opportunities for volunteers continued, with four BBS courses, two Garden BirdWatch days, WeBS and Henronries Survey training events and two field-based seabird training days on the Gobbins (with a total of 50 participants). The NI Seabird Network of volunteers continued to grow (70+ participants) and a new Facebook page for the network attracted 400+ followers. The number of volunteers involved in the NI Heronries Survey increased to 52, with Ian Enlander taking on the role of voluntary NI coordinator. Volunteer coverage of BBS squares unfortunately dropped slightly in NI in 2016, because the Northern Ireland Environment Agency (NIEA) staff could not put in as much volunteer contribution, but take up of new squares from the training days was very good and an initiative to ask existing volunteers to take on additional squares led to an encouraging response. The Annual BTO NI Conference was popular (145 delegates; 30% from the Republic of Ireland), attracting many volunteers, members and other supporters, as well as biodiversity professionals. Ards and North Down Borough Council (ANDBC) funded the purchase of new high-definition camera equipment for use in the Cackle Island Seabird Centre (a partnership project with National Trust, BTO and ANDBC) to raise awareness of environmental issues (seabirds) and the BTO with more of the general public. The greylag geese satellite tagged in Victoria Park, Belfast on behalf of Belfast City Airport continued to generate interest and a talking point around which to engage the public with BTO's work. It was with much regret that BTO had to turn down (due to heightened exchange rate risks) the award of major funding from the EU INTERREG VA programme for the SeaFate partnership project.

BTO Cymru continued to provide strong support and opportunities for engagement and training to the Regional Network and birdwatchers in Wales. The strong ties with the Welsh Ornithological Society continued to bear fruit with a very successful joint conference being held in November at Myddfai near Llanymddyfri. The Welsh Ornithological Society is highly motivated to encourage the greater uptake and use of BirdTrack, both by volunteers and by the county recorders. A workshop was held, taking advantage of the British Association for Shooting and Conservation's state-of-the-art IT suite, to mentor BirdTrack users. These workshops are being promoted at talks and events with a number being arranged for the winter period. A subsequent meeting/workshop with county recorders from across Wales was also popular. A meeting of Welsh Regional Representatives in February 2017 was well attended, and allowed plans for engagement for the following season. BTO Cymru staff provided volunteer training days for The Snowdonia Society (bird surveys, survey design and data management using BirdTrack) and for Dyfi Woodlands (CORWEB). Two Welsh volunteers ran a successful nest recording taster day and three combined bird song walks/volunteer and member meetings were held (Radnor Wildlife Trust Reserve, Rayader; Rhosesmor Community Centre, North East Wales; and Abergwyngregyn, North West Wales).

**The British Trust for Ornithology
Council (Trustees') Report (Incorporating the Strategic Report) - Continued
For the Year Ended 31 March 2017**

Achievements and performance (cont'd)

Members and volunteers were also updated through attendance of BTO Cymru staff at the Pembrokeshire Bird Conference and Gwent Ornithological Society meetings. A number of talks were provided across the length of Wales. BTO was promoted at a stall at the Royal Welsh Spring Show and by BTO Cymru staff at the Royal Welsh Main Event in July. The student ambassador initiative is showing its long term aspiration of giving students a taster of BTO activities whilst at college, with a return to BTO when they are in gainful employment.

BTO Scotland continued with its programme of volunteer training events, adopting an approach based on BTO's information needs and the difficulty of recruiting volunteers in some (remoter) areas. Low cost courses (£5) entitled Skills and Techniques for BTO Bird Surveys were held in priority areas (Lochinver; Breakish, Skye; Blair Atholl; Craignure, Mull; and St John's Town of Dalry; 77 participants) and are running in spring 2017 (Argyll; Glen Tanar; Uist; Lewis; Lairg; and Ayrshire). Full-cost courses were held, subject to demand, in lower priority areas and/or with a primary focus on bird identification (Waterston House, East Lothian; Caerlaverock, Dumfriesshire; and Kindrogan, Perthshire; 27 participants). Two training days entitled WEBS and Wetland Bird Identification were held at RSPB Lochwinnoch and Forfar Loch (providing training to 35 participants), and a bird song walk was run in partnership with the Scottish Wildlife Trust. Work by BTO Scotland to encourage the involvement in monitoring of new groups of volunteers continues, with meetings to set up partnership working over wader monitoring (e.g. with the Cairngorms National Park Authority) and to work in partnership with Scottish Waterways to get more of the public involved in recording birds on canals and other inland waters.

The Scottish Birdwatchers' Conference held in Dunfermline (organised jointly with the Scottish Ornithologists' Club (SOC)) attracted almost 200 participants. As usual, a team from BTO Scotland attended the SOC Annual Conference, leading guided walks and providing an information stall (encouraging BirdTrack recording in particular) and contributing to the talks programme. BTO staff from both Stirling and Thetford worked closely with colleagues from SOC and RSPB Scotland to deliver a rich programme of events at the Scottish Bird Fair, with BTO leading on bird songs and calls walks, workshops on nest recording and bird song, a birders' quiz and the ever-popular centrepiece of the show, the ringing demonstration. Volunteer 'bird guides' also positioned themselves at bird hides and along the sea wall to help visitors gain more from their experience whilst also promoting BTO and SOC. More than 20 new GBW members were recruited by staff and volunteers from BTO Scotland at our Gardening Scotland stand in June. Two volunteer training days for the new Scottish Raptor Monitoring Scheme Raptor Patch monitoring initiative were held by the Scottish Raptor Monitoring Coordinator with assistance from volunteers and BTO staff, together reaching more than 50 participants and encouraging them to take part in the pilot years of surveying in 2016 and 2017.

4. Grow our financial independence

Good progress was made in increasing both fundraised and commercial income in 2016/17, in line with our strategy. Voluntary funds raised, excluding legacies, increased by 7%, and although legacies were lower, 2016 was an exceptional year, and 2017 although less good was still well above average. Commercial trading income increased substantially, raising the proportion of total income generated this way from 18% to 22%.

As reported last year, Council set a target to bring the underlying budget shortfall, that is the result after legacies are normalised to the long term average, back into surplus within two years. This was achieved in one year during 2016/17, with the help of the planned cost savings and improved trading profitability. The focus is now on generating the surpluses required to restore reserves to target levels, fund pension deficit payments and secure long term financial sustainability.

The British Trust for Ornithology
Council (Trustees') Report (incorporating the Strategic Report) - Continued
For the Year Ended 31 March 2017

Financial Review

The principal sources of funds continued to be contract research, membership subscriptions, individual donations and legacies. A total of £6,219k was spent during the year on carrying out, supporting and communicating ornithological research. A marked improvement in science contract cost recovery and commercial work, together with cost savings and above average legacy receipts, resulted in a surplus before investment gains of £243k. Regrettably the reversal of last year's pension scheme valuation gains meant that the end of year balance sheet total remained negative, despite improved liquidity and reserves.

Reserves

The Council has an unrestricted free reserves target range of 9 to 12 weeks' operating expenditure. These reserves are held against any unexpected falls in income or other unforeseen circumstances. Unrestricted funds excluding tangible fixed assets and the pension fund liability at 31 March 2017 totalled £990k, equivalent to 7.9 weeks' expenditure. The Council plans to bring the reserves back to target by the end of financial year 2021/22, and thanks largely to buoyant legacies, we are well on course to achieve this.

Principal Risks and Uncertainties

The trustees consider that the principal risks and uncertainties which could affect BTO's ability to deliver its objectives in the next year and beyond are further public expenditure reductions leading to reduced contract, grant and partnership funding, and in the medium to long term, the final salary pension scheme deficit. Both of these are able to be coped with through the growth strategy, provided that the pace of growth remains sufficient.

Plans for future periods

We are at the mid-point of delivering the BTO Strategy 2015-2020. As part of a mid-term review of progress we are undertaking a programme of Modernisation and Development aimed at better unifying the whole organisation towards a common purpose, and ensuring our business model is fit for purpose in a changing world. We are investing in infrastructure systems and processes to assist delivery of the strategy.

Our four strategic objectives remain, which are to:

- Enable and deliver high-quality and relevant science;
- Share data and knowledge;
- Enthuse and encourage our volunteers, supporters and staff; and,
- Growing our financial independence;

We have created three high-level and unifying goals to integrate our effort across all the different areas of our strategy. These goals are to:

1. Enable more people to learn and grow through participation in environmental delivery;
2. Deliver impartial and impactful science;
3. Inspire and empower people with an understanding of birds and the importance of knowledge.

These three goals bring together the unique elements of BTO, our volunteers who collect the data that drives our scientific outputs, and the communication of our knowledge for wider societal benefit. We have been working with the Cass Business School Centre for Charity Effectiveness to ensure that these adjustments to our strategy help to make the BTO robust and resilient for the future.

The British Trust for Ornithology
Council (Trustees') Report (incorporating the Strategic Report) - Continued
For the Year Ended 31 March 2017

Statement of Council Members' Responsibilities

The Council members are responsible, as Directors of the Company, for preparing the Annual Report (including the Strategic Report) and the financial statements in accordance with applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

Company law requires the Council members to prepare financial statements for each financial year, which give a true and fair view of the state of affairs of the charitable company and the group at the year end and of the incoming resources and application of resources, including the income and expenditure, of the charitable company and the group for the year.

In preparing these financial statements, the Council members are required to:

- select suitable accounting policies and then apply them consistently;
- observe the methods and principles in SORP 2015 (FRS 102);
- make judgements and estimates that are reasonable and prudent;
- state whether applicable UK Accounting Standards have been followed, subject to any material departures disclosed and explained in the financial statements;
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the charitable company and the group will continue in operation.

The Council members are responsible for keeping adequate accounting records that disclose with reasonable accuracy at any time the financial position of the charitable company and enable them to ensure that the financial statements comply with the Companies Act 2006, the Charities and Trustee Investment (Scotland) Act 2005 and the Charities Accounts (Scotland) Regulations 2006 (as amended). They are also responsible for safeguarding the assets of the charitable company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

Council members are responsible for the maintenance and integrity of the corporate and financial information included on the Trust's website. Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

In so far as the Council members are aware:

- there is no relevant audit information of which the Trust's auditor is unaware; and
- the Council members have taken all steps that they ought to have taken to make themselves aware of any relevant audit information and to establish that the auditor is aware of that information.

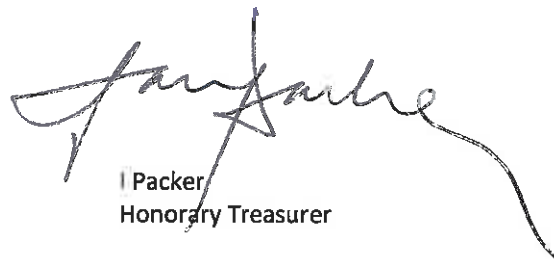
Auditor

Following a re-tendering process during the calendar year 2017 a proposal to appoint auditors will be made at the annual general meeting under section 485 of the Companies Act 2006.

The Council (Trustees') Report (incorporating the Strategic Report) was approved by the Council as Directors and Trustees and authorised for issue on 12 July 2017.



Professor J A Gill
Chairman



I Packer
Honorary Treasurer

Independent Auditor's Report to the Members of The British Trust for Ornithology

We have audited the financial statements of The British Trust for Ornithology for the year ended 31 March 2017 on pages 21 to 39. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice) including FRS 102 "The Financial Reporting Standard applicable in the UK and Republic of Ireland".

This report is made solely to the charitable company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006 and to the charitable company's trustees, as a body, in accordance with section 44(1) (c) of the Charities and Trustee Investment (Scotland) Act 2005 and regulation 10 of the Charities Accounts (Scotland) Regulations 2006 (as amended). Our audit work has been undertaken so that we might state to the charitable company's members and its trustees those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the charitable company, the charitable company's members as a body and its trustees as a body, for our audit work, for this report, or for the opinions we have formed.

Respective responsibilities of Council Members and Auditor

As explained more fully in the Statement of Council Members' Responsibilities set out on page 18, the Council Members (who are also the directors of the British Trust for Ornithology for the purposes of company law) are responsible for the preparation of the Annual Report and the financial statements and for being satisfied that the financial statements give a true and fair view.

We have been appointed as auditor under section 44(1) (c) of the Charities and Trustee Investment (Scotland) Act 2005 and under the Companies Act 2006 and report in accordance with regulations made under those Acts. Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Auditing Practices Board's (APB's) Ethical Standards for Auditors.

Scope of the audit of the financial statements

A description of the scope of an audit of financial statements is provided on the Financial Reporting Council's website at www.frc.org.uk/auditscopeukprivate.

Opinion on financial statements

In our opinion the financial statements:

- give a true and fair view of the state of the group's and the charitable company's affairs at 31 March 2017 and of the group's and the parent charitable company's incoming resources and application of resources, including the group's and the parent's income and expenditure for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Companies Act 2006, the Charities and Trustee Investment (Scotland) Act 2005 and regulations 6 and 8 of the Charities Accounts (Scotland) Regulations 2006 (as amended).

Emphasis of matter – going concern

In forming our opinion on the financial statements, which is not modified, we have considered the adequacy of the disclosure made in accounting policy note 'I' to the financial statements concerning the British Trust for Ornithology's ability to continue as a going concern. At 31 March 2017 the parent charitable company's net liabilities were £363,157, including the defined benefit pension scheme liability of £3,370,788. This condition, along with the explanation contained in accounting policy note 'I' to the financial statements, indicate the existence of a material uncertainty which may cast significant doubt about the parent charitable company's ability to continue as a going concern. The financial statements do not include the adjustments that would result if the parent charitable company was unable to continue as a going concern.

**Independent Auditor's Report to the Members of
The British Trust for Ornithology - Continued**

Opinion on other matter prescribed by the Companies Act 2006

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the Strategic Report and the Council Report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the Strategic Report and the Council Report have been prepared in accordance with applicable legal requirements.

Matters on which we are required to report by exception

In the light of our knowledge and understanding of the company and its environment obtained in the course of the audit, we have not identified material misstatements in the Strategic Report and the Council Report.

We have nothing to report in respect of the following matters where the Companies Act 2006 and the Charities Accounts (Scotland) Regulations 2006 (as amended) require us to report to you if, in our opinion:

- the parent charitable company has not kept proper and adequate accounting records or returns adequate for our audit have not been received from branches not visited by us; or
- the parent charitable company's financial statements are not in agreement with the accounting records or returns; or
- certain disclosure of trustees' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

Bankside 300, Peachman Way,
Broadland Business Park, Norwich NR7 0LB

Date: 8/8/17



Mark Proctor FCA DChA (Senior Statutory Auditor)
For and on behalf of Lovewell Blake LLP, Statutory Auditor

The British Trust for Ornithology
Consolidated Statement of Financial Activities (including Income and Expenditure Account)
for the Year Ended 31 March 2017

		Unrestricted Funds £	Restricted Funds £	Total 2017 £	Total 2016 £
Income and endowments from:					
Donations and legacies	3	2,071,806	399,087	2,470,893	2,574,819
Charitable activities	3	2,556,030	1,000	2,557,030	2,171,741
Other trading activities	3	1,432,858	-	1,432,858	1,076,985
Investments	3	1,031	-	1,031	1,671
Total income and endowments		6,061,725	400,087	6,461,812	5,825,216
Expenditure on:					
Raising funds	4	1,389,260	22,616	1,411,876	1,311,444
Charitable activities	4	4,319,204	389,793	4,708,997	4,437,789
Other – Net interest on defined benefit pension plan liability	21	98,000	-	98,000	117,000
Total expenditure	7	5,806,464	412,409	6,218,873	5,866,233
Net income before net gain/(loss) on investments		255,261	(12,322)	242,939	(41,017)
Net gain/(loss) on investments		96,470	-	96,470	(1,531)
Net income/(expenditure)		351,731	(12,322)	339,409	(42,548)
Transfers between funds	16,17	(31,372)	31,372	-	-
Other recognised gains/(losses):					
Remeasurement gain/(loss) on defined benefit pension plan	21	(571,000)	-	(571,000)	863,000
Net movement in funds		(250,641)	19,050	(231,591)	820,452
Reconciliation of funds					
Total funds brought forward		(909,582)	778,016	(131,566)	(952,018)
Total funds carried forward		(1,160,223)	797,066	(363,157)	(131,566)

The Statement of Financial Activities includes all gains and losses recognised during the year.
All income and expenditure derives from continuing activities.

The notes on pages 25 to 39 form part of these financial statements.

The British Trust for Ornithology
Charity Statement of Financial Activities (including Income and Expenditure Account)
for the Year Ended 31 March 2017

		Unrestricted Funds £	Restricted Funds £	Total 2017 £	Total 2016 £
Income and endowments from:					
Donations and legacies	3	2,698,411	399,087	3,097,498	2,942,317
Charitable activities	3	2,452,673	1,000	2,453,673	2,067,421
Other trading activities	3	458,906	-	458,906	490,432
Investments	3	1,031	-	1,031	1,671
Total income and endowments		<u>5,611,021</u>	<u>400,087</u>	<u>6,011,108</u>	<u>5,501,841</u>
Expenditure on:					
Raising funds	4	938,805	22,616	961,421	988,530
Charitable activities	4	4,318,966	389,793	4,708,748	4,437,328
Other – Net interest on defined benefit pension plan liability	21	98,000	-	98,000	117,000
Total expenditure	7	<u>5,355,760</u>	<u>412,409</u>	<u>5,768,169</u>	<u>5,542,858</u>
Net income before net gain/(loss) on investments		255,261	(12,322)	242,939	(41,017)
Net gain/(loss) on investments		96,470	-	96,470	(1,531)
Net income/(expenditure)		<u>351,731</u>	<u>(12,322)</u>	<u>339,409</u>	<u>(42,548)</u>
Transfers between funds	16,17	(31,372)	31,372	-	-
Other recognised gains/(losses):					
Remeasurement gain/(loss) on defined benefit pension plan	21	(571,000)	-	(571,000)	863,000
Net movement in funds		<u>(250,641)</u>	<u>19,050</u>	<u>(231,591)</u>	<u>820,452</u>
Reconciliation of funds					
Total funds brought forward		(909,582)	778,016	(131,566)	(952,018)
Total funds carried forward		<u>(1,160,223)</u>	<u>797,066</u>	<u>(363,157)</u>	<u>(131,566)</u>

The Statement of Financial Activities includes all gains and losses recognised during the year.
All income and expenditure derives from continuing activities.

The notes on pages 25 to 39 form part of these financial statements.

The British Trust for Ornithology
Consolidated Group and Charity Balance Sheets
at 31 March 2017

	Note	Group 2017 £	Group 2016 £	Charity 2017 £	Charity 2016 £
Fixed assets					
Tangible assets	9	1,170,153	1,189,726	1,170,153	1,189,726
Investments	10	634,827	538,357	634,927	538,457
		<u>1,804,980</u>	<u>1,728,083</u>	<u>1,805,080</u>	<u>1,728,183</u>
Current assets					
Stocks	11	189,399	164,584	-	-
Debtors	12	1,305,905	1,167,649	1,549,817	1,456,712
Cash at bank and in hand		1,340,010	1,186,021	1,140,312	1,013,177
		<u>2,835,314</u>	<u>2,518,254</u>	<u>2,690,129</u>	<u>2,469,889</u>
Creditors:					
Amounts falling due within one year	13	<u>(1,591,038)</u>	<u>(1,519,270)</u>	<u>(1,445,952)</u>	<u>(1,471,005)</u>
Net current assets		<u>1,244,276</u>	<u>998,984</u>	<u>1,244,176</u>	<u>998,884</u>
Total assets less current liabilities		3,049,256	2,727,067	3,049,256	2,727,067
Creditors:					
Amounts falling due after one year	14	<u>(41,625)</u>	<u>(37,633)</u>	<u>(41,625)</u>	<u>(37,633)</u>
Net assets excluding pension scheme liability		<u>3,007,631</u>	<u>2,689,434</u>	<u>3,007,631</u>	<u>2,689,434</u>
Defined benefit pension liability	21	(3,370,788)	(2,821,000)	(3,370,788)	(2,821,000)
Net assets including pension scheme liability	18	<u>(363,157)</u>	<u>(131,566)</u>	<u>(363,157)</u>	<u>(131,566)</u>
Represented by:					
Restricted funds	17	797,066	778,016	797,066	778,016
Unrestricted funds	16	2,210,565	1,911,418	2,210,565	1,911,418
Pension reserve	16	(3,370,788)	(2,821,000)	(3,370,788)	(2,821,000)
Total funds	18	<u>(363,157)</u>	<u>(131,566)</u>	<u>(363,157)</u>	<u>(131,566)</u>

Approved by the Council and authorised for issue on 12 July 2017 and signed on its behalf by:

Chairman  Professor J A Gill

Honorary Treasurer  I Packer

Company registration number 00357284.

The notes on pages 25 to 40 form part of these financial statements.

The British Trust for Ornithology
Consolidated Statement of Cash Flows
For the Year Ended 31 March 2017

	Group 2017 £	Group 2016 £	Charity 2017 £	Charity 2016 £
	Note			
Net cash flow from operating activities	19	169,410	(218,092)	142,556
Cash flow from investing activities				
Payments to acquire tangible fixed assets	9	(16,688)	(35,685)	(16,688)
Receipts from sales of tangible fixed assets		236	300	236
Interest /dividends received		1,031	1,671	1,031
Net cash flow from investing activities		(15,421)	(33,714)	(15,421)
Net increase/(decrease) in cash for the year		153,989	(251,806)	127,135
Cash at bank and in hand at 1 April 2016		1,186,021	1,437,827	1,013,177
Cash at bank and in hand at 31 March 2017		1,340,010	1,186,021	1,140,312
		2017	2016	2017
Analysis of Cash at bank and in hand		£	£	£
Cash at bank and in hand comprises:				2016
				£
Cash in bank current accounts and in hand		217,363	195,995	17,665
Bank Instant access deposits		1,122,647	990,026	1,122,647
Cash at bank and in hand at 31 March 2017		1,340,010	1,186,021	1,140,312

Bank instant access deposits carry variable rates of interest.

The notes on pages 25 to 40 form part of these financial statements.

**The British Trust for Ornithology
Notes to the Consolidated Accounts
For the Year Ended 31 March 2017**

1. ACCOUNTING POLICIES

a) Basis of Preparation

The charity constitutes a public benefit entity as defined by FRS 102. The financial statements have been prepared in accordance with Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) issued on 16 July 2014, the Financial Reporting Standard applicable in the United Kingdom and Republic of Ireland (FRS 102), the Charities Act 2011, the Companies Act 2006 and UK Generally Accepted Practice as it applies from 1 January 2015.

The financial statements are prepared on a going concern basis under the historical cost convention, modified to include certain items at fair value. The financial statements are prepared in sterling which is the functional currency of the charity.

b) Group Financial Statements

These financial statements consolidate the results of the charity and its wholly owned trading subsidiary BTO Services Ltd on a line by line basis. A summarised profit and loss account of the subsidiary is given in note 10.

c) Income

Income from donations, gifts and legacies is recognised where there is entitlement, the amount can be measured reliably and it is probable that the income will be received.

Income from charitable activities includes income receivable under contract which is recognised as earned (as the related work is performed). Income from grant funding included in this category provides funding to support charitable activities and is recognised where there is entitlement, certainty of receipt and the amount can be measured with sufficient reliability.

Income is deferred when it is received in advance of the services it relates to. Life membership income is released to the Statement of Financial Activities in equal instalments over a ten-year period.

Income from the trading subsidiary and other commercial trading activities is recognised as earned (as the related goods and services are provided).

Investment income, sponsorship and royalty income and membership subscription income are recognised on a receivable basis.

d) Expenditure

Expenditure is recognised when a liability is incurred. Costs are allocated directly to activity cost categories.

Costs of generating funds are those costs incurred in attracting voluntary income, including membership subscriptions, in carrying out trading activities and those costs associated with royalties and sponsorship income.

Charitable activities include scientific research contracts, allocated fund research work and restricted fund research work. They also include volunteer surveyor support and science communication costs.

Governance costs include those incurred in the governance of the charity and its assets and are primarily associated with constitutional and statutory requirements.

Support costs include central functions and have been allocated to activity cost categories on a staff time basis.

The British Trust for Ornithology
Notes to the Consolidated Accounts - Continued
For the Year Ended 31 March 2017

d) Expenditure (continued)

VAT has been reclaimed on allowable expenses under the partial exemption rules. Where not reclaimable it has been included within expenses.

e) Tangible Fixed Assets

Individual assets costing £500 or more are initially capitalised at cost.

Tangible fixed assets are depreciated on a straight line basis over their estimated useful lives as follows:

Asset Category	Annual Rate
Computer Equipment	25%
Motor Vehicles	25%
Furniture and Equipment	25%

Freehold property is not depreciated as, in the opinion of the Council, any such depreciation charged will be immaterial. Annual impairment reviews are carried out on the property. Revaluations are performed every five years, or as the trustees consider necessary, by a qualified external valuer. The increase or decrease on revaluation is credited or charged to the fund holding the asset.

f) Investments

Investments are recognised initially at fair value which is normally the transaction price excluding transaction costs. Subsequently, they are measured at fair value with changes recognised in 'Net gains/(losses) on investments' in the Statement of Financial Activities if the investments are publicly traded or their fair value can otherwise be reliably measured. Other investments are measured at cost less impairment.

g) Stock

Stock is valued at the lower of cost and net realisable value. Net realisable value is based on estimated selling price less further costs to completion and disposal. Cost is calculated on a first in first out basis.

h) Debtors and creditors receivable/payable within one year

Debtors and creditors with no stated interest rate and receivable or payable within one year are recorded at transaction price. Any losses arising from impairment are recognised in expenditure.

i) Foreign Currency Translation

Monetary assets and liabilities denominated in foreign currencies are translated into sterling at the rates of exchange ruling at the accounting dates. Transactions in foreign currencies are recorded at the rate ruling at the date of the transaction. All differences are taken to the Statement of Financial Activities.

j) Funds Structure

The Trust has a number of restricted funds to account for situations where funds have been raised for a specific purpose. All other funds are unrestricted funds. The trustees intend to use part of the unrestricted funds to provide longer-term funding for BTO projects and core activities. Designated funds have been set up to reflect this. A Pensions reserve fund has been created so that movements and balances relating to pension fund valuations can be separately identified. The funds in each of these categories are disclosed in notes 16 and 17.

The British Trust for Ornithology
Notes to the Consolidated Accounts - Continued
For the Year Ended 31 March 2017

k) Retirement Benefits

The defined benefit scheme provides benefits for staff based on final pensionable salary. The scheme was closed to future accrual with effect from 1 April 2013. The assets of the scheme are held separately from those of the Trust, being invested with independent fund managers. Defined benefit pension liabilities are measured using the projected unit cost method and discounted at the current rate of return on a high quality corporate bond of equivalent term and currency to the liability. Under FRS 102, any net liability arising based on these valuations is the best estimate of the present value of the actual amounts to be paid out of the scheme, less the market value of the scheme assets. The net interest on the scheme liabilities is charged to the Statement of Financial Activities. Actuarial gains and losses are recognised in the Statement of Financial Activities.

The Trust also makes payments in respect of employees' own defined contribution schemes, through a group self-invested personal pension arrangement. For these schemes, the amount charged to the Statement of Financial Activities in respect of pension costs is the contributions payable in the year. Differences between contributions payable in the year and contributions actually paid are shown as either accruals or prepayments in the balance sheet.

l) Going Concern

The trustees have prepared the financial statements on a going concern basis. The FRS 102 valuation of the pension scheme has increased the liability at 31 March 2017 from £2,821k to £3,371k, increasing the balance sheet total deficit to £363k. These valuations continue to be very sensitive to rate assumption changes, in particular bond yields. Council have agreed with the pension fund trustees to make deficit repair contributions at an affordable level over an extended period.

m) Judgements and key sources of estimation uncertainty

No judgements (apart from those involving estimations) have been made in the process of applying the entity's accounting policies.

There are no key assumptions concerning the future or other sources of estimation uncertainty at the reporting date that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year.

2. MEMBERS' LIABILITY

Under the Memorandum of Association of the Trust, members are required to undertake to contribute to the assets of the Trust in the event of its being wound up while they are members, or within one year after they cease to be members, for payment of the debts and liabilities of the Trust contracted whilst they were still members and of the costs, charges and expenses of winding up such an amount as may be required, but not exceeding £1 each.

The British Trust for Ornithology
Notes to the Consolidated Accounts - Continued
For the Year Ended 31 March 2017

3. ANALYSIS OF INCOME

	Group 2017 £	Group 2016 £	Charity 2017 £	Charity 2016 £
Donations and legacies				
Membership subscriptions and donations	930,362	880,309	930,362	880,309
Individual donations	555,272	563,161	555,272	563,162
Corporate and trust donations and grants	223,550	147,569	850,155	515,066
Legacies	761,709	983,780	761,709	983,780
	<u>2,470,893</u>	<u>2,574,819</u>	<u>3,097,498</u>	<u>2,942,317</u>
Charitable activities				
Core surveys - JNCC Partnership	865,370	883,593	818,334	803,112
Core surveys - Other	43,444	46,384	43,444	46,384
Other surveys and research - Voluntary funded	21,932	10,438	21,932	10,438
Other surveys and research - Contract funded	1,317,173	988,516	1,317,173	988,515
Research communication	127,786	99,946	71,465	76,108
General volunteer survey support	94,433	88,272	94,433	88,272
Other – Library and Lakes Reserve	86,892	54,592	86,892	54,592
	<u>2,557,030</u>	<u>2,171,741</u>	<u>2,453,673</u>	<u>2,067,421</u>
Other trading activities				
Ringing and tagging sales	446,990	388,854	-	-
Publications and general sales	74,877	73,878	-	-
Corporate sponsorship and royalties	136,077	138,841	5,684	5,487
Consultancy	766,690	467,413	445,843	476,949
Other	8,224	7,999	7,379	7,996
	<u>1,432,858</u>	<u>1,076,985</u>	<u>458,906</u>	<u>490,432</u>
Investment income				
Bank interest receivable	<u>1,031</u>	<u>1,671</u>	<u>1,031</u>	<u>1,671</u>

The income from donations and legacies for the group was £2,470,893 (2016: £2,574,819) of which £2,071,806 was unrestricted (2016: £2,035,139) and £399,087 restricted (2016: £539,680). The income from donations and legacies for the parent charity was £3,097,498 (2016: £2,942,317) of which £2,698,411 was unrestricted (2016: £2,402,637) and £399,087 restricted (2016: £539,680).

The income from Charitable activities for the group was £2,557,030 (2016: £2,171,741) of which £2,556,030 was unrestricted (2016: £2,171,741) and £1,000 restricted (2016: Nil). The income from Charitable activities for the parent charity was £2,453,673 (2016: £2,067,421) of which £2,452,673 was unrestricted (2016: £2,067,421) and £1,000 restricted (2016: £Nil).

The income from trading activities for the group was £1,432,858 (2016: £1,076,895) all of which was unrestricted (2016: all). The income from trading activities for the parent charity was £458,906 (2016: £490,432) all of which was unrestricted (2016: all).

The British Trust for Ornithology
Notes to the Consolidated Accounts - Continued
For the Year Ended 31 March 2017

4. ANALYSIS OF EXPENDITURE

	Group 2017 £	Group 2016 £	Charity 2017 £	Charity 2016 £
Raising funds				
Membership subscriptions and donations	213,189	212,767	213,189	212,767
Individual donations	220,927	246,338	220,926	246,338
Corporate and trust donations and grants	88,944	64,549	88,944	64,549
Legacies	8,184	4,061	8,184	4,061
<i>Sub-total for Fundraising activities</i>	<u>531,244</u>	<u>527,715</u>	<u>531,243</u>	<u>527,715</u>
Ringling & tagging sales	279,390	230,470	49,272	58,217
Publications and general sales	72,648	75,766	65,571	57,766
Corporate sponsorship and royalties	9,145	7,086	9,145	7,086
Consultancy	517,213	467,348	303,953	334,687
Other	2,236	3,059	2,236	3,059
<i>Sub-total for Other trading activities</i>	<u>880,632</u>	<u>783,729</u>	<u>430,177</u>	<u>460,815</u>
	<u>1,411,876</u>	<u>1,311,444</u>	<u>961,420</u>	<u>988,530</u>
Charitable activities				
Core surveys - JNCC Partnership	1,234,845	1,280,774	1,234,845	1,312,685
Core surveys - Other	413,499	393,643	413,499	403,696
Other surveys and research - Voluntary funded	998,594	930,341	998,594	953,127
Other surveys and research - Contract funded	1,243,387	1,095,298	1,243,139	1,120,262
Research communication	545,550	509,833	545,550	532,948
General volunteer survey support	179,302	189,470	179,302	189,306
Other – Library and Lakes Reserve	93,820	41,430	93,820	42,304
	<u>4,708,997</u>	<u>4,437,789</u>	<u>4,708,749</u>	<u>4,554,328</u>

Expenditure on raising funds was £1,411,876 (2016: 1,311,444) of which £1,389,260 (2016: 1,269,279) was unrestricted and £22,616 (2016: £42,165) was restricted.

Expenditure on Charitable activities was £4,708,997 (2016: 4,437,789) of which £4,319,204 (2016: 4,082,920) was unrestricted and £389,793 (2016: £42,165) was restricted.

The British Trust for Ornithology
Notes to the Consolidated Accounts - Continued
For the Year Ended 31 March 2017

5.	NET INCOME / (EXPENDITURE)	2017	2016
		£	£
Net income for the year is stated after charging:			
Auditor's remuneration:			
	Fees payable for audit of the charity's annual accounts	13,000	16,570
	Audit of the charity's subsidiary	3,300	3,200
	Audit of the charity's final salary pension scheme	2,400	2,850
	Depreciation	36,261	38,193
	Profit on disposal of fixed assets	(236)	(300)
		36,725	63,313

6.	STAFF COSTS	2017	2016
		£	£
	Wages and salaries	3,095,387	3,216,010
	Social security costs	271,841	286,685
	Pension contributions and other pension costs	332,118	349,940
	FRS 102 charges	98,000	117,000
		3,797,346	3,969,635

	The number of employees whose emoluments exceeded £60,000 fell within the following bands:	2017	2016
	£70,001 - £80,000	1	1
	£60,001 - £70,000	1	-
		2	1

Pension contributions of £8,292 (2016: £8,763) were made in relation to one employee (2016: one) earning in excess of £60,000 who participated in the group self-invested personal pension arrangement. For details of pension contributions and other pension costs, see note 21.

Council members receive no remuneration, and there were no related party transactions requiring disclosure. The total remuneration including pension contributions of the Senior Management Team of ten was £571,665 (2016: £553,587). The salary of the Director during the period was £75,381 (2016: £75,381), with the same pension and other benefits as were applicable to all staff. Expenses were reimbursed to 12 (2016: 12) Council members as follows:

		2017	2016
		£	£
	Travel & subsistence	4,684	4,480

Average numbers of staff and full time equivalents (FTE)

		2017		2016	
		No	FTE	No	FTE
	Permanent posts	114	103.4	116	107.8
	Seasonal fieldworkers	3	1.9	3	2.0
		116	105.3	119	109.8

7. TOTAL EXPENDITURE

		Direct costs	Support costs	2017	2016
		£	£	Total	Total
				£	£
	Raising funds	1,213,000	198,876	1,411,876	1,311,444
	Charitable activities	3,741,072	967,925	4,708,997	4,437,789
	Other	98,000	-	98,000	117,000
		5,052,072	1,166,801	6,218,873	5,866,233

The British Trust for Ornithology
Notes to the Consolidated Accounts - Continued
For the Year Ended 31 March 2017

8. SUPPORT COSTS

	Premises	IT & Office Services	Human Resources	Management & Finance	Governance	2017 Total	2016 Total
	£	£	£	£	£	£	£
Raising funds	27,342	70,584	26,082	69,100	5,768	198,876	185,406
Charitable activities	133,076	343,534	126,932	336,311	28,072	967,925	967,225
	<u>160,418</u>	<u>414,118</u>	<u>153,014</u>	<u>405,411</u>	<u>33,840</u>	<u>1,166,801</u>	<u>1,152,631</u>

All support costs are apportioned on a staff cost basis.

Governance costs include audit fees, Council meeting expenses, and the staff cost of servicing Council meetings.

9. TANGIBLE FIXED ASSETS - GROUP AND CHARITY

	Freehold Property	Furniture & Equipment	Computer Equipment	Motor Vehicles	Total
	£	£	£	£	£
Cost or valuation at 1 April 2016	1,107,445	224,993	409,515	117,375	1,859,328
Additions	-	-	14,288	2,400	16,688
Disposals	-	-	-	(7,386)	(7,386)
At 31 March 2017	<u>1,107,445</u>	<u>224,993</u>	<u>423,803</u>	<u>112,389</u>	<u>1,868,630</u>
Depreciation at 1 April 2016	-	216,024	360,216	93,362	669,602
Depreciation charge	-	4,379	22,473	9,409	36,261
Disposals	-	-	-	(7,386)	(7,386)
At 31 March 2017	<u>-</u>	<u>220,403</u>	<u>382,689</u>	<u>95,385</u>	<u>698,477</u>
Net book value at 31 March 2017	<u>1,107,445</u>	<u>4,590</u>	<u>41,114</u>	<u>17,004</u>	<u>1,170,153</u>
Net book value at 1 April 2016	<u>1,107,445</u>	<u>8,969</u>	<u>49,299</u>	<u>24,013</u>	<u>1,189,726</u>

The freehold property at The Nunnery, occupied by the British Trust for Ornithology, was valued by external valuers, Fenn Wright Chartered Surveyors, on 31 March 2012 on the basis of existing use value, at £1,100,000. Additions since that date of £7,445 have been capitalised at cost.

The trustees discussed the condition and value of the freehold property at their meeting on 12 July 2017 and agreed that there had been no material change in either since the last external valuation in March 2012.

On an historical cost basis, the freehold property would have been included at a cost and net book value of £2,284,365 (2016: £2,284,365).

The British Trust for Ornithology
Notes to the Consolidated Accounts - Continued
For the Year Ended 31 March 2017

10. INVESTMENTS

The Group

Investment Funds

	Market value at 1 April 2016 £	Disposals proceeds £	Additions at cost £	Gains /(losses) £	Market value at 31 March 2017 £
Birds in Trust Fund					
Dimensional Global Short Dated Bond	87,638	-	19,151	(1,238)	105,551
Dimensional Global Sustainability Core Equity	147,541	20,778	-	44,371	171,134
Wrap Cash	4,564	-	1,627	(171)	6,020
	<u>239,743</u>	<u>20,778</u>	<u>20,778</u>	<u>42,962</u>	<u>282,705</u>
General Funds					
Dimensional Global Short Dated Bond	109,158	-	23,407	(1,095)	131,470
Dimensional Global Sustainability Core Equity	183,772	25,395	-	54,781	213,158
Wrap Cash	5,684	-	1,988	(178)	7,494
	<u>298,614</u>	<u>25,395</u>	<u>25,395</u>	<u>53,508</u>	<u>352,122</u>
	<u>538,357</u>	<u>46,173</u>	<u>46,173</u>	<u>96,470</u>	<u>634,827</u>

The Charity

	2017 £	2016 £
Investment funds as above	634,827	538,357
Shares in Group undertaking - BTO Services Ltd	100	100
	<u>634,927</u>	<u>538,457</u>

The Trust owns 100% of the ordinary share capital of its unlisted subsidiary undertaking, BTO Services Ltd, which is incorporated in England & Wales, company registration number 02907282. This company operates to promote the work of the BTO by undertaking activities designed to raise funds in support of such work. The aggregate value of share capital and reserves at 31 March 2017 was £100 (2016: £100) and the company reported a nil result (2016: £nil) for the year after paying its net profit for the year of £626,605 (2016: £367,497) to the Trust under Gift Aid. The value of the Charity's investments in the subsidiary undertaking under the equity method of valuation is £100 (2016: £100).

The following is a summarised statement of income for the subsidiary for the financial year:

	2017 £	2016 £
Turnover	1,500,884	1,167,822
Cost of sales	(865,315)	(770,600)
Gross profit	<u>635,569</u>	<u>397,222</u>
Net operating expenses	(8,964)	(29,725)
Net profit before payment under Gift Aid	<u>626,605</u>	<u>367,497</u>

Turnover includes sales to overseas markets of £116,540 (2016: £32,231).

The British Trust for Ornithology
Notes to the Consolidated Accounts - Continued
For the Year Ended 31 March 2017

11. STOCKS	2017	2016
	£	£
The Group		
Finished goods and goods for resale	<u>189,399</u>	<u>164,584</u>

The Charity

The charity holds no trading stock.

12. DEBTORS	2017	2016
	£	£
The Group		
Trade and contract debtors	742,056	368,384
Taxes recoverable	217,556	193,135
Prepayments	70,077	80,247
Accrued income	<u>276,216</u>	<u>525,883</u>
	<u>1,305,905</u>	<u>1,167,649</u>

	2017	2016
	£	£
The Charity		
Trade and contract debtors	424,536	271,551
Amounts due from Group undertakings	622,210	615,328
Taxes recoverable	217,556	193,135
Prepayments	69,765	80,247
Accrued income	<u>215,750</u>	<u>296,451</u>
	<u>1,549,817</u>	<u>1,456,712</u>

The British Trust for Ornithology
Notes to the Consolidated Accounts - Continued
For the Year Ended 31 March 2017

13. CREDITORS – AMOUNTS FALLING DUE WITHIN ONE YEAR

	2017	2016
	£	£
The Group		
Trade creditors	249,992	222,373
Taxes and Social Security costs	213,661	143,746
Other creditors	59,882	43,626
Accruals	94,413	105,026
Deferred income	973,090	1,004,499
	<u>1,591,038</u>	<u>1,519,270</u>
	2017	2016
	£	£
The Charity		
Trade creditors	222,195	195,986
Taxes and Social Security costs	184,546	159,096
Other creditors	49,257	41,820
Accruals	91,113	101,826
Deferred income	898,841	972,277
	<u>1,445,952</u>	<u>1,471,005</u>

14. CREDITORS – AMOUNTS FALLING DUE AFTER ONE YEAR

	2017	2016
	£	£
The Group		
Deferred income	41,625	37,633
	<u>41,625</u>	<u>37,633</u>
	2017	2016
	£	£
The Charity		
Deferred income	41,625	37,633
	<u>41,625</u>	<u>37,633</u>

15. DEFERRED INCOME RECONCILIATION

	Group	Charity
	£	£
Opening balance at 1 April 2016	1,042,132	1,009,910
Amount released to income	(1,249,637)	(1,082,708)
Amount deferred in year	1,222,220	1,013,264
Closing balance at 31 March 2017	<u>1,014,715</u>	<u>940,466</u>

The British Trust for Ornithology
Notes to the Consolidated Accounts - Continued
For the Year Ended 31 March 2017

16. UNRESTRICTED FUNDS

The income funds of the charity include unrestricted funds comprising the following balances:

	Balance 1 April 2016 £	Income £	Expenditure £	Other Gains /(Losses) £	Transfers £	Balance 31 March 2017 £
General funds	(752,616)	5,291,278	(5,389,327)	53,508	500,863	(296,294)
Birds in Trust fund	2,664,034	770,447	(319,137)	42,962	(651,447)	2,506,859
	1,911,418	6,061,725	(5,708,464)	92,470	(150,584)	2,210,565
Pension reserve	(2,821,000)	-	(98,000)	(571,000)	119,212	(3,370,788)
	(909,582)	6,061,725	(5,806,464)	(474,530)	(31,372)	(1,160,223)

The Birds in Trust fund is to provide long-term funding for BTO projects. Income from legacies is credited to this fund unless the will provides otherwise. £36,591 was transferred to the Out of Africa Fund and £2,700 to general funds in respect of Cuckoo projects and £611,866 was transferred to unrestricted funds in respect of the JNCC contract contribution all from the Birds in Trust Fund. £7,403 was released to the Thrush Fund from the Autumn Appeal. £119,212 was transferred from unrestricted funds to the Pension reserve in respect of the pension deficit repair payment. £1,272 was released to the Northern Ireland Fund from designated donations received during the year.

17. RESTRICTED FUNDS

The income funds of the charity include restricted funds comprising the following balances of donations and appeal monies given for specific purposes:

	Balance at 1 April 2016 £	Income £	Expenditure £	Transfers £	Balance at 31 March 2017 £
Atlas Beyond the Maps	140,476	5,241	92,396	-	53,321
Northern Ireland Fund	-	130	-	1,272	1,402
Dilys Breese Fund	95,153	-	7,132	-	88,021
Boddy & Sparrow Fund	1,817	-	-	-	1,817
Migration Fund	10,581	10,013	20,885	291	-
Nightingale Appeal	-	30,496	14,737	-	15,759
Swallow Appeal	7,612	-	-	-	7,612
Young Scientists' Fund	26,404	10,687	20,866	-	16,225
Garden Research Fund	46,773	28,836	7,994	-	67,615
Out of Africa Fund	-	29,694	66,285	36,591	-
Thrush Fund	-	-	6,132	7,403	1,271
Farmland Birds Appeal	68,768	2,675	522	-	70,291
Curlew Appeal	149,458	39,949	40,401	-	149,006
Arctic Skua	-	29,020	-	-	29,020
BTO Wales Fund	49,053	4,174	7,777	(3,000)	42,450
BirdTrack Fund	-	70,648	51,482	-	19,166
Sound Approach Fund	153,425	96,365	69,996	-	179,824
Tasso Laventis Fund	21,876	41,129	5,804	6,990	50,211
Ringers' Bursary	1,933	1,000	-	-	2,933
Thorne Ringing	4,755	-	-	4,195	492
	778,016	400,087	412,409	31,372	797,066

The British Trust for Ornithology
Notes to the Consolidated Accounts - Continued
For the Year Ended 31 March 2017

17. RESTRICTED FUNDS (Continued)

The purposes of the funds are as follows:

Atlas Beyond the Maps Appeal continues to support research into Atlas data.

The Northern Ireland Fund has been set up to support BTO in Northern Ireland and £1,272 was transferred from designated donations.

The Dilys Breese Fund is for projects relating to nesting birds and £7,132 was expended for costs relating to the annual Dilys Breese Awards.

The Boddy & Sparrow Fund is for awards to the best amateur contribution(s) to either or both of the *Bird Study* and *Ringling & Migration* publications.

The Migration Fund is for research into migrating birds. £291 was received from Birds in Trust in respect of House Martin Project.

The Nightingale Appeal is to fund work on Nightingales and woodland birds

The Swallow Appeal is to fund work on Swallows and migration.

The Young Scientists' Fund is to support the career development of young scientists. £46,773 is shown in a separate fund in respect of Garden Research Donations previously shown within the Young Scientist Fund, to facilitate clarity.

The Garden Research Fund is to support young scientists work on garden birds (previously a sub-fund of the Young Scientist Fund).

The Out of Africa Fund is to fund work on African migrants. £36,591 was received from Birds in Trust in respect of Cuckoo work.

The Thrush Fund is to fund work on Thrushes. £7,403 was transferred from the Autumn Appeal to Support projects.

The Farmland Birds appeal is to support work on farmland ecology.

The Curlew Appeal is to fund projects on Curlews.

The Arctic Skua fund is to support work on Arctic Skuas.

The BTO Wales Fund is to support the BTO's presence in Wales. £3,000 was released to general funds in relation to staff costs in accordance with WCVA grants terms.

The BirdTrack Fund is to support the development of BirdTrack.

The Sound Approach Fund is to support a number of specific projects.

The Tasso Leventis Fund is to support a number of particular projects. A total of £6,990 was transferred to Unrestricted funds in respect of expenditure for these projects.

The Ringers' Bursary fund is to support ringing.

The Thorne Ringing donation is to support ringing. £4,195 was transferred to general funds in respect of a contribution staff costs in agreement with the funder.

18. ANALYSIS OF FUND BALANCES ACROSS NET ASSETS

	Fixed Assets	Investments	Current Assets less Total Liabilities	Pension Scheme Deficit	Total Net Assets
	£	£	£	£	£
Unrestricted Funds					
General funds	1,170,153	352,122	1,552,219	(3,370,788)	(296,294)
Birds in Trust fund	-	282,705	2,224,154	-	2,506,859
	<u>1,170,153</u>	<u>634,827</u>	<u>3,776,373</u>	<u>(3,370,788)</u>	<u>2,210,565</u>
Pension reserve	-	-	(3,370,788)	-	(3,370,788)
	<u>1,170,153</u>	<u>634,827</u>	<u>405,585</u>	<u>(3,370,788)</u>	<u>(1,160,223)</u>
Restricted Funds	-	-	797,066	-	797,066
Total	<u>1,170,153</u>	<u>634,827</u>	<u>1,202,651</u>	<u>(3,370,788)</u>	<u>(363,157)</u>

The British Trust for Ornithology
Notes to the Consolidated Accounts - Continued
For the Year Ended 31 March 2017

19. RECONCILIATION OF NET INCOME/(EXPENDITURE) TO NET CASHFLOW FROM OPERATING ACTIVITIES

	Group 2017 £	Group 2016 £	Charity 2017 £	Charity 2016 £
Net income/(expenditure) as per Statement of Financial Activities	339,409	(42,548)	339,409	(42,548)
Adjustments for:				
Investment income	(1,031)	(1,671)	(1,031)	(1,671)
Depreciation	36,261	38,193	36,261	38,193
Net interest on defined benefit pension plan liability	98,000	117,000	98,000	117,000
Net (gains)/losses on investments	(96,470)	1,531	(96,470)	1,531
Profit on disposal of tangible fixed assets	(236)	(300)	(236)	(300)
(Increase) in stocks	(24,815)	(34,484)	-	-
(Increase) in debtors	(138,256)	(134,746)	(96,105)	(240,501)
Increase/(decrease) in creditors	75,760	65,933	(21,061)	66,304
Pension deficit repair payment	(119,212)	(227,000)	(119,212)	(227,000)
Net cash provided by / (used in) operating activities	<u>169,410</u>	<u>(218,092)</u>	<u>142,556</u>	<u>(288,992)</u>

20. FINANCIAL INSTRUMENTS

The carrying amounts of the group's and the charity's financial instruments are as follows:

	Group 2017 £	Group 2016 £	Charity 2017 £	Charity 2016 £
Financial assets				
<i>Measured at fair value through net income/(expenditure):</i>				
Fixed asset listed investments (note 10)	<u>634,827</u>	<u>538,357</u>	<u>634,827</u>	<u>538,357</u>
<i>Debt investments measured at amortised cost:</i>				
Trade and contract debtors (note 12)	742,056	368,384	424,536	271,551
Amounts due from Group undertakings (note 12)	-	-	622,210	615,328
Accrued income (note 12)	276,216	525,883	215,750	296,451
	<u>1,108,272</u>	<u>894,267</u>	<u>1,262,496</u>	<u>1,183,330</u>
<i>Equity instruments measured at cost less impairments:</i>				
Fixed asset unlisted investments (note 10)	-	-	100	100
Financial liabilities				
<i>Measured at amortised cost:</i>				
Trade creditors (note 13)	249,992	222,373	222,195	195,986
Other creditors (note 13)	59,882	43,626	49,257	41,820
Accruals (note 13)	94,413	105,026	91,113	101,826
	<u>404,287</u>	<u>371,025</u>	<u>362,565</u>	<u>339,632</u>

The British Trust for Ornithology
Notes to the Consolidated Accounts - Continued
For the Year Ended 31 March 2017

21. PENSIONS

Defined contribution pension plan

The Trust operates a Group Self-Invested Personal Pension Scheme run by Aegon. Staff contribute to the Aegon scheme at a minimum rate of 5% of salary, and the BTO contributes at a flat rate of 11%. The Trust made contributions of £332,118 during the year (2016: £349,940).

Defined benefit pension scheme

The Trust's defined benefit pension scheme, a final salary scheme, is closed. A full actuarial valuation of the scheme was carried out at 1 April 2015. At that date there was a shortfall of £3,708,000 and a funding level of 72%. A deficit recovery plan was subsequently agreed between Council and the pension fund trustees, by which the shortfall would be made good by annual lump sum deficit repair payments spread over an 18 year period.

The amount recognised in these financial statements as expenditure for the year under Net interest on defined benefit pension plan liability was £98,000. The total amounts recognised in the statement of financial activities for the year were as follows:

	2017	2016
	£	£
Recognised in expenditure for the year:		
Interest income	321,000	302,000
Interest on liabilities	(419,000)	(419,000)
Net interest on defined benefit pension plan liability	<u>(98,000)</u>	<u>(117,000)</u>
Recognised in Other recognised gains/(losses):		
Gain/(loss) on assets	1,411,000	(411,000)
(Loss)/gain on liabilities	(1,982,000)	1,274,000
Remeasurement gain/(loss) on defined benefit pension scheme	<u>(571,000)</u>	<u>863,000</u>

The pension scheme net amount recognised in the balance sheet was as follows:

	2017	2016
	£	£
Fair value of pension scheme assets	10,897,000	9,210,000
Present value of defined benefit obligations	(14,268,000)	(12,031,000)
Pension scheme deficit at 31 March	<u>(3,371,000)</u>	<u>(2,821,000)</u>

Changes in the fair value of the pension scheme assets were as follows:

	2017	2016
	£	£
Opening fair value of pension scheme assets at 1 April	9,210,000	9,317,000
Interest income	321,000	302,000
Actual return on pension scheme assets (excluding interest income)	1,411,000	(411,000)
Employer deficit repair payment	119,000	227,000
Change in value of annuities	(9,000)	(88,000)
Benefits paid to members	(155,000)	(137,000)
Closing fair value of pension scheme assets at 31 March	<u>10,897,000</u>	<u>9,210,000</u>

The British Trust for Ornithology
Notes to the Consolidated Accounts - Continued
For the Year Ended 31 March 2017

21. PENSIONS (Continued)

Changes in the present value of the defined benefit obligations were as follows:

	2017	2016
	£	£
Opening present value of defined benefit obligations at 1 April	(12,031,000)	(13,111,000)
Interest on liabilities	(419,000)	(419,000)
Actuarial losses	(1,982,000)	1,274,000
Change in obligations secured by annuities	9,000	88,000
Benefits paid	155,000	137,000
Closing present value of defined benefit obligations at 31 March	<u>(14,268,000)</u>	<u>(12,031,000)</u>

The amount that each major class of pension plan assets constitutes of the fair value of the total scheme assets was as follows:

	2017	2016
	£	£
Bonds	4,251,000	3,386,000
Equities	5,995,000	5,533,000
Annuities	269,000	269,000
Cash assets	382,000	22,000
	<u>10,897,000</u>	<u>9,210,000</u>

The return on scheme assets was as follows:

	2017	2016
	£	£
Interest income	321,000	302,000
Actual return on scheme assets (excluding interest income)	1,411,000	(411,000)
Total return on scheme assets	<u>1,732,000</u>	<u>(109,000)</u>

The principal actuarial assumptions used were as follows:

	2017	2016
Discount rate	2.8%	3.5%
Rate of increase in pensions in payment	3.6%	3.5%
Rate of increase in pensions in deferment	2.3%	1.9%
Inflation assumption	<u>3.3%</u>	<u>2.9%</u>

Average life expectancy, after retirement at age 65:

	2017	2016
	No of years	No of years
Male - at the valuation date	22.5	22.8
Male - retiring in 20 years' time	24.2	24.9
Female - at the valuation date	24.0	24.1
Female - retiring in 20 years' time	<u>25.2</u>	<u>25.6</u>

**The British Trust for Ornithology
Supporters
For the Year Ended 31 March 2017**

We are very grateful for the generous support that we have received, both in time and money, in the past year. In addition to members and other fieldworkers, there are many other individuals and companies who support the work of the BTO with financial contributions. The Trust is particularly pleased to acknowledge the following corporate and other supporters.

Corporate Supporters 2016/17

Anglia Sports and Schoolwear Ltd, Anglian Water, Ark Wildlife, R & E Bamford Ltd, Biotrack Ltd, Bird Brain UK Ltd, BirdGuides, Birdseye, Canon Garth Ltd, Carl Zeiss Ltd, Cherish Wild Bird Food, C J Wildbird Foods, EDF Energy, Essex & Suffolk Water, From the Notebook, Gardenature, Garden Bird and Wildlife Company, Gardman Ltd, Grant Arms Hotel, John E Haith Ltd, Holidaycottages.co.uk, Jacobi Jayne & Co, Nature Guides, Naturetrek, The Nestbox Company Ltd, Northumbrian Water, Opticron, Park Hill Nurseries and Garden Centre Ltd, Porzana, Serenata Commerce Ltd, Soar Mill Seeds, Suffolk Secrets, Swallowtail Print, Swarovski UK Ltd, Sykes Cottages, Syngenta, Thames Water Utilities Ltd, Thetford Garden Centre, Videdressing.

Trusts 2016/17

The Benham Charitable Settlement, The Blakenham Trust, E G and M A Bousfield Charitable Trust, Clark Bradbury Charitable Trust, The Brendonridge Trust, British Birds Charitable Trust, The Brocklebank Trust, The A S Butler Charitable Trust, The Chapman Charitable Trust, The Downton Banister Trust, The Edinburgh Trust, Esmée Fairbairn Foundation, The Fulmer Charitable Trust, A G Leventis Foundation, The William Haddon Charitable Trust, The Harris Charitable Trust, The Raymond and Blanche Lawson Charitable Trust, The Lizandy Charitable Trust, The Marsh Christian Trust, The Michael Marks Charitable Trust, Lord Medway's Charitable Trust, The Mitchell Trust, The Newstead Charity, The Painshill Park Trust, The Jack Patston Charitable Trust, The Cecil Pilkington Charitable Trust, The Roger Raymond Charitable Trust, The John and Pamela Salter Charitable Trust, The Saxham Trust, The Scottish Forestry Trust, The Peter Smith Charitable Trust for Nature, The Spear Charitable Trust, The Tobit Trust, The Torrs Charitable Trust, The Alan Turner Charitable Trust, Udimore Charitable Trust, Emily Weircroft Charitable Trust, Garfield Weston Foundation, The Whaites Charitable Fund, The Whitaker Charitable Trust, Maldwyn Williams Charitable Trust, The J and J R Wilson Charitable Trust.

Legacies 2016/17

Ruth Valerie Abrahams, John Michael Butterworth, Keith Bradford, Diana Gay Carr, Errol Christopher Bernard Newman Childs, Avril Anne Critchley, Margaret Dempsey, John Rossford Edge, John Ellis, Beatrice Gillam, Norah Mary Goom, Maxwell Durno Hoggett, Monica Eileen Jones, David Musson, Mr George Bryan Patrick and Mrs Eileen Patrick, Susannah Holditch Read, Henry Robb, John Shephard, Joseph Alfred-Soddy, Margaret Watson, Margaret Worrall.

In Memoriam 2016/17

Ruth Agnes Oliver Bantock, John Benson, John Ernest Clifford Blundell, Raymond Anthony Bowman, Mervyn Brown, John Brucker, David Child, Helen Patience Cloote, Peter Evans, David Rolan Ford, Major Arthur John French, Brian Witter Forgham, Ian James Ferguson-Lees, Jamie Johnstone, Anthony Richard Lilley, V Mead, Alix Mullineaux, Professor John Owen, Marion Ramsay, Stephen Rayner, Malcolm Roe, B Rumsey, Pearson Silburn, Jean Simkins, Michael Summers.

Funders of BTO Work 2016/17

Alterra Vattenfall Aktiebolag, Amec Foster Wheeler Environment and Infrastructure UK Ltd., Anglian Water Group, Animal and Plant Health Agency, APEM Ltd, Belfast City Airport, BirdLife International, Bureau Waadenburg bv, Butterfly Conservation, Cambridge Conservation Initiative, Catalanian Forest Institute, Centre for Ecology & Hydrology, Dartmoor National Park Authority, Department of the Environment, Food and Rural Affairs, Department of Energy and Climate Change, Devon Wildlife Trust, DONG Energy, Ecological Planning and Research Ltd., eleQtra Ltd, Elliott Environmental Surveys Ltd., EMEC, Environment Agency, Environment Wales, Environment Resources Management, European Commission, FERA, Footprint Ecology, Forestry Commission, Forestry Commission England, Forestry Commission Scotland, Forest Research, Game & Wildlife Conservation Trust, High Speed Two Ltd. (HS2), Horizon Nuclear Power, Humber Nature Partnership, Hyder Consulting, Instinctif Partners, Institute for European Environmental Policy, James Hutton Institute, Joint Nature Conservation Committee (on behalf of the statutory nature conservation agencies: Natural England, Natural Resources Wales, Scottish Natural Heritage and the Department of the Environment Northern Ireland), Land Securities, London Borough of Bexley, Manchester Ornithological Society, Manx Bird Life, National Trust, Natural England, Natural Resources Wales, Natural Environment Research Council, The Nature & Biodiversity Conservation Union, Newcastle University, NIRAS Consulting Ltd., Norfolk Biodiversity Information Services, Northern Ireland Environment Agency, Northern Ireland Raptor Study Group, Ospar, People's Trust for Endangered Species, Rothamsted Research, Royal Society for the Protection of Birds, The Sandringham Estate, Scottish Government, Scottish Natural Heritage, Scottish Raptor Study Group, Scottish Renewables, Serco Ltd, Scottish Ornithologists' Club, SMRU Ltd., Sound Approach, Suffolk County Council, Sussex Ornithological Society, Stanny House Farm, State of Delaware (DNREC), Syngenta, Tidal Power Lagoon, University of Bristol, University of Cambridge, University of East Anglia, University of Edinburgh, University of Exeter, University College London, University of Stirling, University of York, Welsh Government, Wildfowl & Wetlands Trust, The Wildlife Trusts, Waste Recycling Environmental Ltd, Zoological Society of London.