



Global Re-introduction Perspectives: 2016

Case-studies from around the globe

Edited by Pritpal S. Soorae



IUCN/SSC Re-introduction Specialist Group (RSG)



TURNER
ENDANGERED
SPECIES
FUND





The designation of geographical entities in this book, and the presentation of the material, do not imply the expression of any opinion whatsoever on the part of IUCN or any of the funding organizations concerning the legal status of any country, territory, or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The views expressed in this publication do not necessarily reflect those of IUCN.

Published by: IUCN/SSC Re-introduction Specialist Group & Environment Agency-ABU DHABI

Copyright: © 2016 International Union for the Conservation of Nature and Natural Resources

Reproduction of this publication for educational or other non-commercial purposes is authorized without prior written permission from the copyright holder provided the source is fully acknowledged.

Reproduction of this publication for resale or other commercial purposes is prohibited without prior written permission of the copyright holder.

Citation: Soorae, P. S. (ed.) (2016). *Global Re-introduction Perspectives: 2016. Case-studies from around the globe*. Gland, Switzerland: IUCN/SSC Re-introduction Specialist Group and Abu Dhabi, UAE: Environment Agency-Abu Dhabi. xiv + 276 pp.

ISBN: 978-2-8317-1761-6

Cover photo: Clockwise starting from top-left:
i. Bolson's tortoise, USA @ Turner Endangered Species Fund
ii. Wetapunga, New Zealand @ Richard Gibson
iii. Morelos minnow, Mexico @ Topiltzin Contreras-MacBeath
iv. *Silene cambessedesii*, Spain @ Emilio Laguna
v. Tasmanian Devil, Maria Island, Tasmania @ Simon DeSalis
vi. Agile frog, Jersey @ States of Jersey Department of the Environment

Cover design & layout by: Pritpal S. Soorae, IUCN/SSC Re-introduction Specialist Group

Produced by: IUCN/SSC Re-introduction Specialist Group & Environment Agency-ABU DHABI

Download at: www.iucnsscrg.org

Re-introduction of the ciril bunting to Cornwall, UK

Mary Davies¹ & Cath Jeffs²

¹ - Species Recovery Officer, RSPB South West Regional Office, Keble House, Southernhay, Exeter, EX1 1NT, UK Mary.davies@rspb.org.uk

² - Ciril Bunting Project Manager, RSPB South West Regional Office, Keble House, Southernhay, Exeter, EX1 1NT, UK Cath.jeffs@rspb.org.uk

Introduction

The UK is on the northern edge of the global range of ciril buntings (*Emberiza cirilus*), which is mainly found within Mediterranean countries in Europe, with the core of the population in France and Spain, and also Northwest Africa. During the 19th century, ciril buntings were recorded across England and Wales and were locally numerous, being most abundant in coastal areas (Holloway, 1996). The population subsequently went into steady decline sometime after the 1930s, and by the mid-1960s numbers had collapsed across the majority of its UK range. By 1989 there were 118 pairs (Evans, 1992) and birds were mainly found in one county, Devon (two pairs each were found in Cornwall and Somerset). Due to these declines the ciril bunting was the only farmland songbird to be included in the original list of Red Data Birds in Britain and has subsequently appeared on the 'Red List' of Birds of Conservation Concern in the UK since this was first published in 1996 (Eaton *et al.*, 2009).

A successful species recovery project has resulted in a substantial increase in the UK population (862 pairs in 2009 (Stanbury *et al.*, 2010)). This recovery has been hugely encouraging, both with the increase in population size and the modest expansion and consolidation of the current breeding range. However, due to the species' sedentary nature and a barrier of unsuitable habitat around its south Devon stronghold, significant range recovery into formerly occupied areas of southern UK would be unlikely to occur unaided, or at least would be very slow. It was felt that for the species to become secure, a geographically separate population was needed. RSPB and Natural England therefore assessed the feasibility of



Close-up view of male ciril bunting

establishing another self-sustaining population of cirl buntings through translocation to a new area.

Goals

- Goal 1: To help secure the UK cirl bunting population.
- Goal 2: To establish a geographically separate second secure breeding population in the UK outside its current range.
- Goal 3: To develop release techniques for potential implementation elsewhere.
- Goal 4: To ensure habitat suitability is maintained and improved.

Success Indicators

- Indicator 1: Rear and release at least 60 birds per year for 4 years.
- Indicator 2: Achieve post release survival of 33% (birds surviving to the following Spring).
- Indicator 3: No significant detrimental effect recorded on donor population.
- Indicator 4: Establish a self-sustaining breeding population of at least 30 pairs following releases.

Project Summary

Feasibility: Feasibility assessments began as early as 1997 and initially focused on release site suitability. Potentially suitable release areas across southern Britain were assessed by means of a desk based study and follow up site visits. The following factors were considered: suitability of farming systems, extent of suitable habitat (based on features of occupied territories in Devon), history of mild winter weather, recent history of cirl buntings, and proximity to the existing population. Site assessments were carried out at various points in the planning process and a final assessment in 2005 indicated that four sites were potentially suitable (Lock *et al.*, 2005). These were on the Isle of Wight, and in Dorset, Somerset and Cornwall. The current and potential extent of suitable habitat in each locality was mapped in order to be sure that a Minimum Viable Population of cirl buntings could be supported (estimated to be 40 breeding pairs in five contiguous tetrads). This assessment concluded that only the Roseland Peninsula in Cornwall was considered suitable to support cirl buntings immediately, with a good prospect of holding a sustainable population in the long-term.

Release techniques were also assessed during the planning phase and a number of possibilities were considered and trialed in partnership with Paignton Zoo. Following trials with birds in captivity in 2002 - 2003, the idea of setting up a captive population for the source of released birds was abandoned as the birds seemed prone to disease and stress in captivity. Rear and release trials therefore followed in 2004 - 2005. These trials, involving chicks being taken from nests in Devon, hand reared and released back into the population, proved successful with birds surviving the winter and going on to pair with wild birds and reproduce.

Veterinary staff of the Zoological Society of London (ZSL) carried out a detailed Disease Risk Analysis to guide the implementation of the planned translocation

project. Advice was sought to minimize disease risks and implement suitable health surveillance during hand rearing and prior to release. Population modeling suggested that releasing a minimum of 60 birds per year for 4 years into an optimal area would lead to the establishment of a self-sustaining population of 30 - 40 pairs.



Cirl bunting nesting site

Implementation: Following several years of planning, a translocation project began in 2006, with the RSPB, Natural England, The National Trust, and Paignton forming the project partnership, and Zoological Society of London acting as advisors. An exact release location was found by working with farmers and landowners, and release aviaries were constructed. Skilled nest finders were employed to locate nests within areas of healthy and productive cirl bunting populations. Young chicks were then translocated under license to hand rearing facilities near the release site in south Cornwall. To ensure that 60 birds could be released, the target number of chicks to be removed was 75 due to inevitable pre-release mortality. Skilled aviculturalists were employed by Paignton Zoo to carry out hand-rearing and soft release. RSPB staff carried out post release monitoring, worked with farmers on habitat provision, and provided supplementary feed.

Over the period of releases the protocol was adjusted and refined based on monitoring results and during this time 254 birds were released (average 63 per year). RSPB liaised closely with farmers to ensure optimal habitat at the release site and beyond. Although it had been hoped that 2009 would be the final of 4 years of releases, only 13 breeding pairs were recorded at this stage. It was thought that poor weather conditions during 2007 and 2008, combined with a predominance of inexperienced birds within the breeding population, had inhibited breeding productivity and, hence, population development. It was decided that two more years of releases would be carried out in 2010 and 2011 to give the population a chance of success. To improve post release survival, improvements to the release strategy included using different release sites to prevent predators becoming habituated to a site with naive released birds.

Post-release monitoring: Post-release monitoring has shown that the project is now doing well. Following the two additional years of releases, in 2011 the population had increased to 28 breeding pairs. Significantly, the proportion of wild birds within the population had increased to 57%, and monitoring had showed that productivity of wild bred pairs was far greater than that of hand reared birds.

Birds

This meant that as wild birds were making up a higher proportion of the population, so the productivity of the whole population increased. This was proven in 2012 when the number of pairs increased to 44. In 2013 this had decreased to 28 pairs, but this has increased again to 39 pairs in 2014. A significant milestone has been reached in 2015 with 52 pairs being recorded. Monitoring effort will continue at a reduced level from 2016. It is hoped that the population will continue to follow this positive trend.

Major difficulties faced

- Hand-reared released birds were found to be less productive than their wild counterparts. This lower productivity level could be because wild bred birds benefit from the extra parental care they receive and are more aware of danger. This was not taken into account during planning stages.
- Funding for post release work was more difficult to secure than during the release phase.
- Adverse weather can have a very significant effect on breeding productivity and also the quality of chicks being harvested for release. This is unavoidable but the effect needs to be factored into models. A run of poor summers (something which could not be predicted) had a major effect on the project.
- Making a partnership work can be challenging. There can be conflicts about what is essential and what is practical.



Cirl bunting re-introduction project staff discussing habitat & farm management with a local farmer

Major lessons learned

- Making sure the plan was adaptable saved the project. The initial plan was well informed but flawed in some places. By making some adjustments, difficulties which could have meant the failure of the project were overcome.
- Trialing techniques can be vital in developing strategies. The initial release strategy involved captive rearing which was found to be too difficult during trials.
- Understanding the ecology of cirl buntings was invaluable in developing and adapting the project plan, as was employing dedicated and specialist staff.
- Robust management and faith in the project when things were going wrong helped keep the project on track.
- Habitat management and close liaison with the farmers providing the habitat was fundamental to the success of project.

Success of project

Highly Successful	Successful	Partially Successful	Failure
	√		

Reason(s) for success/failure:

- There was a good initial plan, with evidence based understanding of the species.
- The project was well resourced, with dedicated and highly skilled staff.
- The release strategy, once developed, was highly successful, with release targets being met in most years.
- Continued monitoring and results were able to be fed back and the project plan could be reviewed and adapted accordingly.
- Although the population is becoming sustainable, continued success is dependent on habitat provision and good breeding weather (warm, mainly dry summers). Habitat provision is dependent on farmers putting the right management in place. Government funding schemes to support the low intensity farming systems continue to be required.

References

Eaton, M.A., Brown, A.F., Noble, D.G., Musgrove, A.J., Hearn, R.D., Aebischer, N.J., Gibbons, D.W., Evans, A. & Gregory, R.D. (2009) Birds of Conservation Concern 3. The population status of birds in the UK, Channel Islands and Isle of Man. *British Birds*. 102: 296-341.

Evans, A.D. (1992) The numbers and distribution of Cirl Buntings breeding in Britain in 1989. *Bird Study*. 39: 17-22.

Holloway, S. (1996) *The Historical Atlas of Breeding Birds in Britain and Ireland 1875-1900*. T & AD Poyser.

Lock, L., Jeffs, C. & Evans, A. (2005) Cirl Bunting translocation - release site review. RSPB internal report.

Stanbury, A., Davies, M., Grice, P., Gregory, R. & Wotton, S. (2010) The status of the Cirl Bunting in the UK in 2009. *British Birds*. 103: 702-711.



INTERNATIONAL UNION
FOR CONSERVATION OF NATURE

WORLD HEADQUARTERS
Rue Mauverney 28
1196 Gland, Switzerland
Tel +41 22 999 0000
Fax +41 22 999 0002
www.iucn.org

