



Global Re-introduction Perspectives: 2016

Case-studies from around the globe

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IUCN/SSC Re-introduction Specialist Group (RSG)



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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

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The Great Crane Project - common crane re-introduction in South-West England

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Introduction

The common crane (*Grus grus*) has a current world population of 360,000 and is categorized as being of 'Least Concern' (www.iucnredlist.org). In Europe, the main breeding populations are concentrated through Germany, Poland, the Baltic States and Scandinavia with breeding in western European countries very low in comparison. There have been significant historical declines in the European population with the species categorized as 'Depleted' in Europe. In the UK, drainage of wetlands and hunting during the Middle Ages led to extinction by 1600 (Stanbury, 2011). A natural recolonization began in eastern England during the 1980s with the resident population growing to 44 birds by winter 2010, and around 14 pairs (5 year avg. 2008 - 2012) breeding annually (UK Crane Working Group). In 2006, plans began on a UK re-introduction to help secure this vulnerable population. A translocation feasibility study was carried out in 2007 and The Somerset Levels & Moors (64,000 ha of low-lying peat-dominated floodplain) in the South West of the UK was selected as the most suitable re-introduction location. The first birds were released in 2010 with the project more than doubling the total UK population by 2014. The ultimate success of the project will depend on successful breeding into the future.

Goals

- Goal 1: To help secure the UK crane population.
- Goal 2: To establish a sustainable breeding population of cranes on the Levels and Moors.
- Goal 3: To use the re-introduction to build support for wetlands in the local communities.
- Goal 4: To enhance and create wetland areas for breeding cranes and other wetland species.

Success Indicators

- Indicator 1: To rear and release 100 birds over 5 years.
- Indicator 2: To establish 60% survival to adulthood.
- Indicator 3: To establish a breeding population of 20 pairs in South West of the UK by 2025.
- Indicator 4: To ensure 10 existing potential breeding locations are made secure for cranes.
- Indicator 5: To create 10 new potential breeding locations through habitat creation works.

Project Summary

Feasibility: A feasibility study carried out in 2007 looked at the various habitat parameters that are pertinent to establishing cranes in the UK. An initial long-list of 11 potential sites was shortened to three after further assessment for their suitability. Availability of invertebrate-rich chick rearing habitat, presence of breeding zones, availability of winter feeding areas, likelihood of disturbance from people, disturbance by aircraft, density of potential predators, presence of



Common crane

powerlines, availability of suitable agri-environment schemes, and proximity to current areas used by cranes were all considered in this process. Following more detailed fieldwork and further analysis, the Somerset Levels & Moors was selected as the most suitable location in the UK for an introduction. During the feasibility stage, two of the project partners - The Wildfowl & Wetlands Trust and The Pensthorpe Conservation Trust, trialed rearing techniques for common crane chicks, with a 'crane-school' established at WWT Slimbridge, to costume-rear chicks from captive-sourced eggs.

Implementation: After funding was secured in the summer of 2009, a project manager was appointed and a project implementation group, consisting of specialists from the three conservation partners (RSPB, WWT & PCT) established to drive the project forward. A 'disease risk assessment' was commissioned (carried out by the Zoological Society of London); planning consent for building the rearing and release facilities was sought; and consent gained from the Dept. of Food and Rural Affairs (Defra) and Natural England for the release. This process included writing economic and biodiversity impact assessments, and a public consultation. Meetings were held with local landowners and a questionnaire survey was carried out to establish if this re-introduction was in the public interest and 95% of respondents wanted to see the common crane back in Somerset.

An agreement was drawn up with conservationists and the state authority for the Schorfheide-Chorin Biosphere Reserve in Brandenburg, Germany, to provide the project with up to 30 eggs per year for 5 years. Import licenses were secured for the transport of eggs to the UK, and CITES certification granted. The first eggs were collected in spring 2010, with up to 24 eggs transported back to the UK every spring each year until 2014 - a total of 121 eggs over 5 years. The eggs were taken to a purpose-built rearing unit at WWT Slimbridge, Gloucestershire, where they were hatched and hand-reared using a puppet/costume-rearing technique, developed from methods used in the whooping crane re-introduction in the USA (1984 to present). Strict biosecurity protocols were in place and targeted

pathogen screening and health examinations were implemented. At around 14 weeks old the cranes were driven in transportation crates to a pre-release, netted aviary in Somerset. Here they underwent a 'soft' release from their aviary into an adjacent predator-proof pen, and then out into the wider landscape. Supplementary feed was provided through the first autumn and winter to help 'anchor' the birds and to ensure they remained healthy. On release, the project team continued to work with the cranes in the rearing costumes to teach the birds to avoid predators and people. In total, 93 cranes were released between 2010 and 2014, with 74 currently known to be alive (November 2015). Despite some attempts in 2013 and 2014, breeding was not successful until 2015 where nine pairs bred and 4 chicks fledged and were recruited into the released population. Habitat creation works have been carried out to provide new crane breeding zones on five wet grassland sites on the Somerset Levels and Moors, with habitats enhanced on a further four and additional works planned for the summer of 2015. Community engagement activities have been carried out throughout the project including: involvement of local volunteers for rearing, monitoring and species protection work; an education program in local rural primary schools; collaborative creative arts activities; and the establishment of a stakeholder 'crane forum'. An interactive project website www.thegreatcraneproject.org.uk was set up and social media sites were established to tell the story of the project. Detailed reports were compiled annually and hosted on the website.

Post-release monitoring: All released birds were fitted with colored leg rings, to enable individual identification, and the majority were also fitted with leg-mounted radio tags. In combination, these have enabled 'on the ground' monitoring by project staff and a team of around 40 local volunteers from autumn release through to late Spring each year. Information has been recorded on the birds' general health and foraging habitats and entered into a purpose built database. Back-pack mounted GPS data-loggers, leg-mounted satellite PTT's, and leg-mounted GSM data-loggers have also been used during the project. These have enabled the remote gathering of detailed location and movement data which will

be analyzed over the next 3 years through a PhD project. In addition, project and research staff and volunteers have put particular effort into monitoring molting birds, and carrying out daylight hour species protection watches of nesting pairs.

Major difficulties faced

- Gaining initial consent from DEFRA/Natural England.



Researchers in the field © John Crispin

- Achieving the target of 20 released birds each year, from a maximum of 24 imported eggs.
- Achieving successful breeding of released birds.
- Finding landowners willing to create breeding areas on their land.
- Finding locations where creation works will not compromise other conservation interests.

Major lessons learned

- Having a well-defined Memorandum of Agreement and good relationship with the egg donor partner has made the potentially difficult process of egg collection each year a great success.
- Having adequate staffing during the rearing phase, to ensure, for example, that birds have an appropriate level of exercise and food intake, which are essential in achieving a healthy population fit for release.
- It was well worth investment in a dedicated rearing unit and incorporation of strict biosecurity protocols, to safeguard chick health and prevent infectious disease.
- Ensuring a high degree of consultation with the farming community prior to release has been important to ensure that the birds are accepted, and to allay any fears.
- The local community engagement/education program has been very beneficial in helping to achieve the project's habitat creation aims, and ensuring a 'sense of ownership' of the released birds.

Success of project

Highly Successful	Successful	Partially Successful	Failure
		√	

Reason(s) for success/failure:

- Survival rate of 80% to adulthood much higher than anticipated 60%.
- Target of 20 pairs by 2025 can not be assessed yet - but project on track.
- Successful fledging of four chicks in 2015 was a milestone for the project.

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IUCN Red List Website: www.IUCNRedlist.org



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