



# Global Re-introduction Perspectives: 2010

Additional case-studies from around the globe  
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## Re-introduction of corncrakes in the UK

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### Introduction

The corncrake (*Crex crex*, Linnaeus 1758) appears as Near Threatened in the 2009 IUCN Red List, following recent surveys in eastern Europe and new enhanced population estimates for Asiatic Russia. New information suggests that the introduction of intensive agricultural technologies in some areas will be compensated for by the reduction of agricultural production in other areas. In Asiatic Russia, where the bulk of the world population breeds, future moderately rapid declines are predicted on the basis of land abandonment, with meadows becoming overgrown by bushy vegetation and trees (Information from BirdLife International website). In the United Kingdom, the corncrake population was wiped out on the mainland by the late 20<sup>th</sup> century, owing to the mechanization of agriculture, and only survived on Scottish islands in the far west and north. Through strenuous conservation efforts aimed at promoting corncrake-friendly farming practices in these areas, the population doubled in just ten years, but is currently still only a little over 1,000 singing males, and is therefore on the Red List of *Birds Of Conservation Concern* in the United Kingdom. A re-introduction program at a site in eastern England began in 2001.

### Goals

- Goal 1: To establish a self-sustaining population of at least 50 calling male corncrakes at a protected and suitably managed site in eastern England
- Goal 2: This is a pilot project and, if successful, will provide the knowledge and experience to repeat the process elsewhere in the UK (subject to availability of suitable habitat), and so further the long-term objective of securing the future of the corncrake as a breeding bird throughout the UK.

### Success Indicators

- Indicator 1: To establish a captive-breeding population of corncrakes
- Indicator 2: To release at least 100 captive-bred juvenile corncrakes annually for a period of at least three years (possibly up to seven years, depending on the number of chicks bred in captivity)
- Indicator 3: An increasing number of calling males recorded at the release locality each year until the target figure is reached

### Project Summary

#### Feasibility Stage

**Habitat:** The RSPB and English Nature assessed the suitability of potential release sites, and concluded that the best site was the Nene Washes (Cambridgeshire). The total area of the Washes is 1,350 ha of which about 67% is grassland. Consultation with landowners and occupiers within the Nene

Washes were conducted by English Nature and RSPB wardening staff, and the response was favourable. The RSPB has control of grazing/cutting on its own landholdings. Other areas of the Washes are under EN management agreements with owners and occupiers. Late cutting is essential to prevent the destruction of nests, eggs, chicks and adults-the demise of corncrakes in much of Europe was due to earlier mowing of grasslands.

**Aviculture:** The original plan was to remove 10 chicks (5 males:5 females) from the wild in Scotland, rear them in captivity in Germany and attempt to breed from them the next spring. In the event, there was opposition in the Scottish breeding locality selected for collecting chicks, and this proposal was abandoned. Instead, EN and RSPB agreed to use 15 captive-bred juvenile corncrakes imported from the aviculturist in Germany, who had surplus stock derived from individuals collected in

Germany and Poland. It was felt that these birds were sufficiently similar genetically to the extinct English population for this to be successful and justifiable. These birds were housed at Whipsnade Wild Animal Park (Zoological Society of London) and the breeding program was under the supervision of ZSL staff. It was hoped that the captive breeding program would produce a surplus of at least 100 juveniles per year for a minimum of three years. These numbers were based on the fact that corncrakes are short-lived (few two-year old corncrakes have been re-trapped in the UK). Therefore, it was essential to release the maximum number of juveniles each year, with the expectation that a wild breeding population could become established fairly quickly (This is in contrast with experience with raptors - red kites and white-tailed eagles - which are long-lived and for which populations can be built up gradually over a period of several years).

**Implementation stage:** The breeding stock is kept in a purpose-built facility - the birds live in a communal aviary during the winter, but are split into individual breeding pens in spring. Males are assigned to females according to their genetics and breeding condition, and the pair remain together until a clutch is part-laid, at which time the male is removed. The eggs are transferred to incubators once the clutch is complete and the female has incubated for around 15 days. The chicks are hand-reared out of sight of the keepers, then transported to holding pens at the Nene Washes in batches, ideally at around two weeks of age. At that stage they can feed themselves, and are given a mixture of live insects and proprietary pellets. The juveniles are released into suitable habitat at around



**Corn crane (*Crex crex*)**  
© Andy Hay ([rspb-images.com](http://rspb-images.com))



Typical corn crake habitat  
© Andy Hay (*rspb-images.com*)

28 days old. Concerns over the poor return rate of released birds the following spring, in 2008-2009 a new technique was tried out. A proportion of the 2008 chicks were retained in captivity over the winter, and released as breeding-age adults in spring 2009. These birds were radio-tagged, and it was clear that some of the males established territories and females located themselves close to calling males.

**Post-release monitoring:** This is extremely difficult for corncrakes, which are highly

secretive and leave the release site soon after release on migration to unknown wintering areas. Satellite tags are not yet available for birds as small as corncrakes. However, in the first year of release, six birds had radio-tags attached, in order to check on their use of the habitats available after release, and to detect any major predation or other mortality issues. Two radios failed, two birds left the area the same night, but the remaining two foraged on the reserve for around two weeks before disappearing. As stated above, captive-bred birds released as adults in 2009 were also radio-tagged and shown to be remaining on the reserve and behaving as breeding birds. Each spring and summer, regular night counts of singing males are made over the whole release locality and surrounding potential areas. Trapping of males is also undertaken, to find out how many of these are captive-bred and how many of wild origin. Unfortunately, almost all of the trapped birds have been found to be released individuals, but checking the records has shown that the returning birds have tended to be among the heaviest individuals at the time of release.

### Major difficulties faced

- Difficulty in getting authorization to capture wild Scottish corncrakes for the captive-breeding population.
- Inbreeding among the captive-bred individuals imported from Germany to found the UK breeding population.
- Heavy losses of captive adults and chicks in the first breeding season due to predation by a weasel which entered the breeding enclosure.
- High mortality among adult males trapped in Poland for augmentation of the captive breeding population (due to abnormally hot weather).
- Low return rate of released birds each following spring (even lower return rate than for wild populations).

- Little observed recruitment of wild-bred birds into the wild breeding population (most trapped returning males found to be captive-bred individuals from the previous year).
- Disease issues at a subsidiary breeding facility.

### Major lessons learned

- Captive corncrakes have the ability to produce large numbers of chicks each season.
- Captive females tend to be poor mothers, so hand-rearing is important if the maximum number of chicks is to be reached fledging.
- The captive-breeding population needed to be supplemented regularly with young, healthy and not inbred individuals. Therefore a reliable source of supply needs to be identified.
- Corncrake chicks easily become tame, so should be reared in isolation from humans.
- There is a considerable risk of disease among the captive birds, so thorough screening is essential to minimize losses and ensure that exotic disease organisms are not released into the wild.

### Success of project

Highly Successful	Successful	Partially Successful	Failure
		√	

#### **Reason(s) for success/failure:**

- The project is not yet complete and will continue until at least 2010.
- Calling males return to the release site in increasing numbers each year, but many of these are still released rather than wild-bred birds.
- Breeding in the wild has been confirmed on one occasion, but an increasing proportion of un-ringed male corncrakes each year suggests that breeding in the wild is occurring regularly