The Corncrake *(Crex crex)* in the UK

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1. Introduction

The Corncrake has a long history of population decline and range contraction in the UK.

2. Development of knowledge

Surveys of the distribution of Corncrakes in Britain in the UK available from the late 19th and early 20th centuries, 1938-39 and 1968-72. Both numbers and distribution have been assessed by nearly complete counts in 1978-79, 1988, 1993 and 1998. There has been annual monitoring of numbers in core areas holding >90% of the total population since 1993. Studies of habitat selection, breeding success survival and movements began in 1985.

3. Distribution and important areas

In the 19th Century corncrakes were widely distributed in the UK and bred in almost all counties. They were more common in the north and west. Declines were noticed beginning in the late 19th Century in the south-east and spreading towards the north-west. By 1938-39 corncrakes had disappeared from many areas, occurred only in scattered areas in the north and west of the mainland of Britain and were thought to have unchanged populations only in the Hebridean and Northern Isles of Scotland and parts of Northern Ireland. The first formal survey (atlas) of distribution in 1968-72 found breeding corncrakes in 527 10-km squares in Britain and several other squares in Northern Ireland. A large area of mainland Scotland and Northern England held corncrakes at low population density, but the highest densities were in the Hebridean Islands, Northern Isles and in Northern Ireland. By 1978-79 the number of 10-km squares in Britain with corncrakes fell to 160 and further to 91 in 1988 and 83 in 1993. There was a small increase in range in 1998 to 93 squares. Two 10-km squares were occupied in Northern Ireland. Corncrakes have disappeared from most of their former range except in the Hebridean Islands of Scotland. The species is now very rare in Mainland Britain and Northern Ireland and scarce in the Northern Isles. The most important areas in 1998 are the islands, Islay, Tiree, Coll, Colonsay, Oronsay,Barra, South Uist, Benbecula, North Uist, Harris, Lewis, Skye, Iona, Orkney.

4. Size and development of national corncrake population

4.1. Size of national corncrake population

In 1998 a full survey of corncrakes found 589 singing males in Britain and 2 in Northern Ireland. The survey is beleived to be accurate to better than 10%; probably to within 5%.

There are no counts of corncrakes in Britain before 1978, but it was estimated from an atlas study that there were about 2,500 singing males in Britain in 1970. This was known from previous studies of distribution to be a large decline since the late 19th century. Best estimates from counts in the whole of Britain are as follows; 1978/79- 723; 1988- 574; 1993- 480; 1998- 589. The 1978/79 count is known to be an underestimate, but the other counts are thought to be of good accuracy and quite similar in methods. Night-time counts are used.

Hence numbers in Britain have decreased markedly for over 100 years, but shown a small (23%) increase from 1993 to 1998. The Corncrake population in Northern Ireland also showed a large decrease from thousands in the early 20th century to extinction in 1994. There were 2 males in 1998.

The most likely causes of the long-term decline are changes in the management of agricultural grassland and adjacent habitats on the breeding grounds. Comparison of Corncrake population density and trends among different regions in Britain and Ireland has shown that high densities and stable populations occur only in regions with substantial areas of suitable tall vegetation present throughout the breeding season and where the mowing of hay and silage meadows is late. Suitable vegetation for Corncrakes is present in hay and silage meadows, but, in Scotland, the grass in these meadows only grows sufficiently tall to act as cover for the birds in June and is removed by mowing in late summer. Therefore the birds also require areas of tall vegetation unaffected by grazing or mowing to be present in the spring and autumn. The date of mowing affects Corncrakes because of its effect on the availability of habitat and also because nests and chicks present in meadows are destroyed.

5. Threats to corncrake population

The most serious threats to the population are intensification of grassland management in some areas and abandonment of cattle farming and the production of hay and silage in other areas. Changes in the Common Agricultural Policy could have a large effect.

6. Conservation status

The corncrake is fully protected by law under the Wildlife and Countryside Act (1981). Illegal hunting and egg collection occur very infrequently. The corncrake has the highest threat status (red category) in the assessment of endangerment of UK birds.

7. Conservation projects

Delaying the date of mowing can increase breeding success markedly. The mowing method used also affects chick mortality. Mowing from the outside of the field towards the centre reduces the proportion of chicks that escape, but alternative methods (called Corncrake Friendly Mowing; CFM) allow most chicks to survive. These findings suggest that effective conservation measures should include increasing the area of suitable tall vegetation, ensuring that sufficient tall vegetation is present in spring and autumn as well as in mid-summer, delaying the date of mowing and using CFM.

The recent increase in the Corncrake population coincides with a period of special conservation efforts in the breeding areas mainly directed at increasing the area of suitable habitat and improving breeding success. Several nature reserves have been acquired by the RSPB during the 1990s and managed mainly for Corncrakes. The management of suitable habitat on some other reserves has been made more favourable. RSPB reserves now hold about 8% of the national population. Within these reserves, the area of suitable vegetation for Corncrakes has been increased and the impact of hay and silage mowing on breeding success has been reduced by delaying mowing until August and using CFM.

A programme of payments to farmers to delay mowing until August and to use CFM was first implemented in Scotland by RSPB in 1992. Payments are available to encourage changes in the mowing of meadows within 250 m of the singing place of a male Corncrake. The area for which payments were made in the first year was 582 ha and this rapidly increased to more than 1,000 ha. This voluntary scheme, the Corncrake Initiative, has been funded by RSPB with the help of the LIFE programme of the European Union (EU) and Scottish Natural Heritage.

Within the range of the Corncrake in Britain, the UK government has introduced Environmentally Sensitive Area (ESA) schemes under the EU agri-environment regulation 92/2048 in the Outer Hebrides (Machair of the Uists, Benbecula, Barra and Vatersay) and the Inner Hebrides (Argyll Islands). ESA prescriptions for managing hay and silage fields for ground nesting birds have attempted to incorporate Corncrake management requirements. The Machair ESA was designated in 1988, but at first it did little to influence the

mowing date of meadows. The prescriptions in this ESA were revised in 1993 and the Argyll Islands ESA was also created. Both ESAs now encourage farmers and crofters to delay mowing until after 31 July and to use CFM. The Argyll Islands ESA also requests the provision and safeguarding of tall vegetation suitable for Corncrakes in spring and autumn. Measures for grassland bird management are also available elsewhere in Scotland within the Shetland and Cairngorms Straths ESAs, but these are outside the core range of the Corncrake. Recently the Countryside Premium Scheme has expanded the potential availability of payments for grassland bird management to areas of Scotland not already covered by ESAs.

Conservation efforts for Corncrakes in the UK are now co-ordinated by the Biodiversity Action Plan Steering Group for Corncrakes, which is led by RSPB and the Scottish Office Agriculture and Environment Department (SOAEFD).

8. Ongoing or planned conservation or study projects

The coincidence of the Corncrake population increase between 1993 and 1998 with the development of the conservation programme suggests the possibility of cause and effect, but a longer period of implementation and monitoring is required to see whether the population recovery is sustained. Further analyses are in progress of recent changes in Corncrake populations in relation to spatial variation in the implementation of conservation measures.