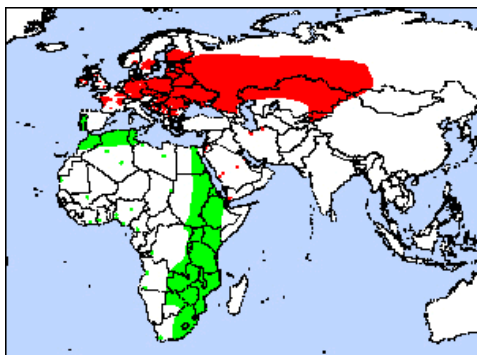


## Corncrake *Crex crex*

*Birds Directive – Annex I*



*Crex crex* breeds in Europe and central Asia, as far east as western China, and winters in sub-Saharan Africa.\*

	AT	BE	BU	CY	CZ	DE	DK	EE	EL	ES	FI	FR	HU	IR
Present														
	IT	LV	LT	LU	MA	NL	PL	PT	RO	SL	SV	SE	UK	
Present														

### SPECIES INFORMATION

#### ECOLOGY

- Corncrakes breed in Europe and Central Asia, but overwinter in Africa;
- Birds arrive at their breeding grounds in the EU from April onwards, they are rarely seen but the distinctive sound of the male calling can be heard at night during most of the breeding season;
- Corncrakes have a low adult survival rate which is why they must produce two broods a year;
- Nesting occurs between May and August;
- Incubation time is 18 days and the chicks are flightless until about 35 days;
- Corncrakes are generalised feeders, eating mainly invertebrates.

#### HABITAT REQUIREMENTS

- Corncrakes are birds of humid grasslands. They breed in alluvial meadows, lowland marshes, and drier parts of fens and bogs as well as in grasslands where vegetation is removed annually by mowing. A large part of the EU population is therefore strongly associated with grasslands in agricultural use. The species can occur up to 1500-3000m above sea level;
- A key factor in determining suitable breeding habitat is the vegetation structure, which should provide enough cover for the birds (i.e. grass must be at least 20-40cm in height ) from April onwards, without being so dense that it is difficult for the birds to walk through;
- In many regions, the species seems to prefer a mosaic of humid meadows and areas of higher vegetation so that birds can use high vegetation early in the season and then move to meadows when grass is high enough;
- Ideally 150 ha or more of relatively contiguous suitable habitat should be available to sustain a viable local population.

\* Map and drawing courtesy of Birdlife: <http://www.birdlife.org/datazone/species/index.html>

## THREATS

The causes of decline in corncrake populations are relatively well known and are more or less the same across the species range in Europe (only the most critical threats are listed here):

- Loss of hay-meadows and wetlands: Many traditional hay meadows with late mowing regimes have been drained and intensified or ploughed up for conversion to arable crop cultivation resulting in significant loss of breeding habitat;
- Intensification of grassland management: Increased use of fertilisers, improved grass varieties, silage, fast and synchronous mowing as well as improved drainage of fields and control of winter flooding changes the vegetation structure to such an extent that corncrakes are no longer able to breed in these areas;
- Loss of habitat through land abandonment: Initially the lack of management may be favourable to corncrakes for a short while, but without regular mowing and grazing, shrubs and trees begin to invade the meadows rendering them unsuitable as breeding habitat for corncrakes;
- Early or repeated mowing: If mowing is done too early or too regularly nests are destroyed, chicks are killed and the habitat is no longer suitable for breeding;
- Increased chick mortality: occurs during fast and/or synchronous mowing. As the chicks are flightless for the first 35 days, they are unable to escape from tractors and are killed or injured during mowing.

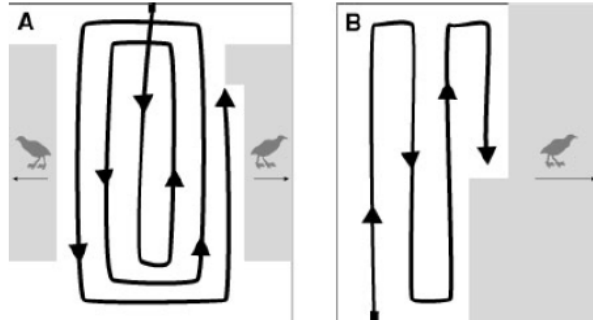
## FARMING PRACTICES FAVOURABLE TO CORNCRAKES

The corncrake has low populations and a very fragmented range in some countries but is more widespread in others, particularly in eastern Member States. Conservation measures and corncrake friendly farming techniques are therefore just as important, if not more important, in those areas where the species still has good population numbers. It is more efficient and cost-effective to maintain a secure population than to try to bring a species back from the brink of extinction once the population has collapsed. The following farming practices will help:

- Maintaining traditional management of meadows: Meadows that are still being managed in a traditional way (i.e. late mowing, no drainage, limited fertilizer use) should be supported so that they continue to be managed in this manner;
- Preventing further loss of humid grasslands: Further intensification should be avoided in humid grasslands that are suitable for corncrakes, both within existing SPAs and in the wider countryside so that there is a sufficient diversity and area of habitats to ensure a healthy population and distribution of corncrakes in Europe;
- Avoiding drainage and allowing winter flooding: Drainage and control of winter flooding pave the way for early mowing and other kinds of intensification of management or may lead to adverse changes in vegetation cover, including encroachment of trees, shrubs in the area. These should therefore be avoided wherever possible;
- Encouraging a large mosaic structure of fields and meadows: Wherever possible, large coherent mosaics of hay meadows and areas of higher vegetation should be created so that birds can use high vegetation in early season and move to meadows when grass is high enough. The ideal size of relatively contiguous suitable habitat needed to sustain a viable local population varies according to local conditions, areas of 150 ha -400 ha have proven to be appropriate in several countries;
- Postponing the date of first mowing: Across most of the region mowing should not take place before 1 August. In southern parts where breeding occurs earlier, postponement until 15 July may be sufficient whereas in mountainous regions where breeding is later, mowing should be delayed to 15 August or 1 September. In addition to reducing chick mortality, a postponement of first mowing also ensures that the vegetation is sufficiently high to allow a second breeding attempt after the first brood has fledged;
- Using corncrake friendly mowing techniques: If it is not possible to postpone mowing until the end of the breeding season, then measures should be taken to mow the fields in a manner that allows the corncrakes to escape from being killed by machinery. Whereas adults are usually fast enough to escape cutting

machinery, chicks are not. Also, the birds try to avoid open areas, as fields are usually mowed from the edge of the fields towards the centre, the birds do not want to get out into the open and become trapped and are killed. In the past hand scything was ideal for corncrakes, and to a lesser extent horse drawn mowing. If this is not possible then mechanized mowing should proceed from one edge of the field to another or from the centre out;

Fig. 1.2. Corncrake-friendly mowing patterns (from Anon. 2000).



- Staggering the mowing of large fields: over a two week period can also help reduce mortalities significantly;
- Leaving uncut areas: The retention of unmown refuge strips along the edges and/or unmown plots in depressions is also beneficial for the species;
- Providing early cover: Early cover with tall vegetation will provide the species with suitable breeding grounds early in the breeding season, the species can then move to the humid meadows once these have reached a sufficient height in order to start their second brood;
- Removing invading scrub and re-introducing corncrake friendly mowing on abandoned fields: Overgrown and abandoned fields containing habitats that were once used by corncrakes or that are nearby to, or contiguous with, existing breeding areas should be restored by supporting the removal of invading trees and scrubs and re-introducing annual late mowing as described above;
- Avoiding excessive grazing: to preserve sufficient vegetation cover, stocking densities should not exceed 0.25 LU per ha or should be limited to a period after the corncrake's breeding season.

## OTHER SPECIES BENEFITING FROM THESE CONSERVATION MEASURES

Like every species, the corncrake has particular habitat requirements that are unique to its lifecycle and to its long-term survival. However, as the corncrake is essentially a species of semi-natural humid grasslands, several of the measures mentioned above would also benefit other protected species under the Birds Directive that are typical of humid grasslands. Some use this habitat for breeding and a greater number of species use the habitat as a hunting area, e.g.:

- |   |   |
|---|---|
| * Hen Harrier <i>Circus cyaneus</i>                               | * Great Snipe <i>Gallinago media</i>            |
| * Grasshopper Warbler <i>Locustella naevia</i>                    | * Short-eared Owl <i>Asio flammeus</i>          |
| * Greater Spotted Eagle <i>Aquila clanga</i> (hunting area only)  | * Barn Owl <i>Tyto alba</i> (hunting area only) |
| * Lesser Spotted Eagle <i>Aquila pomarina</i> (hunting area only) | * White stork <i>Ciconia ciconia</i>            |
| * Curlew <i>Numenius arcuata</i>                                  | * Common Snipe <i>Gallinago gallinago</i>       |

The particular corncrake-friendly mowing also benefits the huntable species Quail *Coturnix coturnix*, which shares the drier parts of the habitat with the corncrake.

In relation to species on the Habitats Directive, the measures implemented could also benefit habitat types hosting rare orchids depending on the region in question. Mammals like otter *Lutra lutra*, insects like large copper *Lycaena dispar* and amphibians like great crested newt *Triturus cristatus* would also benefit.

## OBLIGATIONS ARISING FROM THE BIRDS DIRECTIVE

The corncrake is protected under the EU Birds Directive 79/409/EEC. As a result, Member States must take the following measures to ensure its conservation.

### General requirements

Member States are required to take the requisite measures to maintain the population of the corncrake at a level which corresponds in particular to its ecological, scientific and cultural requirements, or to adapt the population of the species to that level (cf Article 2).

To achieve this, Member States are required to preserve, maintain or re-establish a sufficient diversity and area of habitats for the corncrake which should include primarily the following (cf Article 3):

- creation of protected areas;
- upkeep and management in accordance with the ecological needs of habitats both *inside* and *outside* protected area;
- re-establishment of destroyed habitats;
- creation of habitats.

### Protecting the species

Member States should take the requisite measures to establish a general system of protection for the corncrake throughout its natural range within Europe, and in particular to prohibit the following (cf Art 5):

- deliberate killing or capture by any method;
- deliberate destruction of, or damage to, their nests and eggs or removal of their nests;
- taking their eggs in the wild and keeping these eggs;
- deliberate disturbance of these birds particularly during the period of breeding and rearing, in so far as this would have a significant negative effect on the birds;
- keeping birds, the hunting and capture of which is prohibited;
- sale, transport for sale, keeping for sale and the offering for sale of live or dead birds and of any readily recognizable parts or derivatives of these birds (cf Article 6).

Member States may derogate from these provisions under a number of circumstances (e.g. in the interest of public health, or judicious use) where there is no other satisfactory solution and where the derogations do not affect the overall conservation status of the species (cf Article 9).

### Protecting core habitats for the species under Natura 2000

The corncrake is listed in Annex I of the Birds Directive in view of its vulnerable conservation state. This means that, in addition to the general provisions referred to above, Member States must also classify the most suitable territories in number and size as Special Protection Areas under Natura 2000 to ensure the survival and reproduction of the species across its entire area of distribution within the EU (cf Article 4). As of November 2008, 627 SPAs have been designated in the EU-27 where the corncrake is indicated to be present.

### Managing Natura 2000 sites

Within these SPAs, Member States must take appropriate steps to avoid the deterioration of habitats of the corncrake as well as its disturbance, in so far as such disturbance could be significant.

Measures must also be taken to manage, maintain or, if necessary, restore areas for the corncrake both within SPAs and outside so that the objectives of the Directive are achieved (cf Art 3). The Birds Directive does not elaborate how this should be done as this is up to each Member State to decide but, in practice, management plans are very often developed for each SPA within Natura 2000.

Management plans are useful documents in that they:

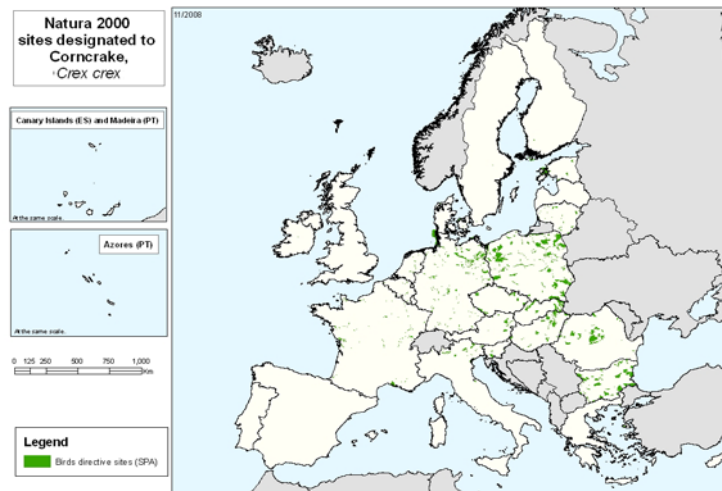
- identify the conservation needs of the habitats and species present in that site so that it is clear to all what is being conserved and why;

- analyse the socio-economic and cultural context of the area and the interactions between different land-uses and the species and habitats present;
- provide an open forum for debate amongst all interest groups and help build a consensus view on the long term management of the site;
- help find practical management solutions that are integrated into other land use practices.

Assessment and approval of plans and projects that may significantly affect Natura 2000 sites:

The EU Nature Directives support the principle of sustainable development. Their aim is to set the parameters by which the economic activities can take place whilst safeguarding Europe's biodiversity. Thus, any plans or projects that may affect the species and habitats for which the sites are designated must be first assessed to determine whether the project is likely to have a significant effect on the species and habitat types for which the site has been designated.

If the impact is not considered significant the project can go ahead. If the effect is expected to be significant then alternative less damaging options must be fully explored and selected. In exceptional cases, if no viable alternatives exist, projects with significant negative impact on Natura 2000 sites can still go ahead if they are considered to be of overriding public interest. In such cases, compensation measures will need to be taken in order to ensure that the ecological coherence of the Natura 2000 Network is not compromised (cf Articles 6 (3) & (4) of the Habitats Directive which apply to SPAs classified under the Birds Directive).



## CORNCRAKE CONSERVATION THROUGH MEASURES UNDER CAP/RDPs

The obligations arising under the Birds and Habitats Directives can be integrated into the CAP measures in the following manner:

### Cross compliance

Cross compliance is a horizontal CAP tool and applies to all direct payments (Pillar I), Pillar II payments (Less Favoured Area payments, Agri-Environment, Natura 2000 compensatory payments, and certain wine payments). The cross compliance requirements consist of 19 Statutory Management Requirements (SMR), and the requirements set to keep land in good agricultural and environmental conditions (GAEC).

In the case of the **Birds Directive** one of the 19 SMRs concerns the requirements resulting from the following articles that must be respected by farmers:

- Article 3 (1) & (2)(b): preserve and maintain a sufficient diversity of habitats for wild birds; in particular introduce measures for their upkeep and management in accordance with the ecological needs of habitats inside and outside of protected zones;

- Article 4 (1), (2), (4): special conservation measures in Natura 2000 sites and taking appropriate steps to avoid pollution or deterioration of these areas;
- Article 5 (a), (b) & (d): obligations under the general system or protection for all wild birds, and in particular prohibitions of the deliberate killing or capture by any method, the deliberate destruction of, or damage to, their nests and eggs or removal of their nests and/or the deliberate disturbance of these birds particularly during the period of breeding and rearing, in so far as disturbance would be significant.

In the case of SPAs another SMR based on the **Habitats Directive**, must be respected:

- Article 6: within Natura 2000 sites take the necessary conservation measures to restore and maintain the species and habitat types for which the site is designated and prevent their deterioration, destruction or significant disturbance.

The exact requirements of the above mentioned SMRs vary between Member States and depend on the way the requirements of the Birds and Habitats Directives are translated into their laws and administrative measures (e.g. management plans for Natura 2000 sites) applicable to farmers, and consequently cross compliance.

In addition to meeting the SMRs, farmers must also keep land in good agricultural and environmental conditions (GAEC) which sets a minimum level of maintenance through, for instance, compulsory standards for:

- Retention of landscape features including where appropriate, hedges, ponds, ditches, trees (in line, in group or isolated) and field margins;
- Avoidance of encroachment of unwanted vegetation on agricultural land;
- Protection of permanent pasture.

Member States can also voluntarily set standards, for example, for<sup>1</sup>:

- Minimum livestock stocking rates or/and appropriate regimes;
- Establishment and/or retention of habitats.

#### Measures under Rural Development Programmes funded from EAFRD:

The following measures could be used to benefit corncrakes:

- **Less Favoured Area payments:** (Article 37) linked to existing farming practices where they support upkeep of traditional low-input farming systems;
- **Natura 2000 payments:** (Article 38) in order to compensate for costs incurred and income foregone resulting from legal or administrative restrictions on farming within Natura 2000 areas. such as allowing continued winter flooding or not intensifying grassland management;
- **Agri-environmental schemes:** (Article 39) linked to voluntary measures such as delaying mowing until end of breeding season, introducing corncrake friendly mowing regimes, leaving strips of unmown land, creating large mosaics of suitable habitats, providing early cover, staggering mowing regimes, removing invading scrub, re-introducing corncrake friendly farming etc...
- **Reimbursement of non-productive investments:** (Article 41) can cover a range of investments from on-farm investments linked AE schemes or to measures identified in management plans for an SPA such as restoring the natural hydrology of humid grasslands or installing fences around areas used by birds for early cover, or which enhance the public amenity value of a Natura 2000 area;
- **Conservation of rural heritage** (Article 57): for instance to cover the cost of drawing up management plans for Natura 2000 sites hosting corncrakes, undertaking habitat restoration measures in areas currently or potentially suitable for corncrakes, launching awareness campaigns on corncrake conservation requirements amongst farmers.

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<sup>1</sup> These standards are however compulsory for those Member States who had already set a minimum requirements for these standards before 1 January 2009 or where national rules addressing the standard are applied in the Member State.

In addition the following could also be used:

- **Training and information** (Article 21): e.g. could help make AE schemes more effective and to train farmers and experts in the Farm Advisory Services on conservation and management requirements linked to wildlife such as corncrakes;
- **Farm Advisory Services (FAS)** (Article 24 of RDR): the cost of obtaining advisory services on how to meet the minimum cross compliance requirements, such as those under the Habitats and Birds Directives can be reimbursed to farmers, foresters and other land managers, which can be beneficial to, inter alia, for corncrakes;
- **LEADER** (Article 61): integration of corncrake conservation into area-based local development strategies and enhancement of dialogue and collaboration between farmers, conservationists and other rural stakeholders in the area concerned.

## EXAMPLES OF CORNCRAKE-FRIENDLY MEASURES UNDER RDP

The following provide some examples of how different countries have introduced support for corncrake friendly farming through the Rural Development Regulations for 2000-2006 and 2007-2013. Further details are provided in the outputs of the Wildlife and Sustainable Farming Initiative:

[http://circa.europa.eu/Public/irc/env/swfi/library?l=/species\\_reports&vm=detailed&sb=Title](http://circa.europa.eu/Public/irc/env/swfi/library?l=/species_reports&vm=detailed&sb=Title)

### THE CZECH REPUBLIC

In the **Czech Republic**, an agri-environment scheme under RDP 2000-2006 was specifically targeting the conservation of corncrake on grassland. Eligible farms are those that have meadows with breeding corncrake.

Required management included the following:

- Application of fertilisers including farmyard manure shall be avoided on the identified areas;
- First mowing shall not take place before 15 August. After the first mowing the area may be used for grazing;
- Mowing shall be made from the centre to the edges. The mowed grass shall be removed from the parcel and used within the farm or shall be disposed of;
- There shall be no rolling and smoothing of the grassland from 15 March until 30 June;
- Mowing shall not be made by a group of mowers.

By 2006, 16,500 ha were being managed under this scheme. The rigidity of the management required under this scheme however meant that the full potential of the scheme was not realised (25,000ha). It has, nevertheless, introduced sympathetic management on these meadows and raised awareness about the plight of these species and how they can be helped.

In light of this the scheme has been maintained in the RDP (2007-2013) with the following additions:

- Grazing of grassland is no longer allowed;
- Rolling, smoothing, mulching, fast restoration and restoration of grassland could be possible with approval of the nature conservation body.

No official monitoring takes place to evaluate whether corncrakes are benefiting, but Birdlife Czech Republic has carried a series of surveys in some of the core corncrake areas such as in the Novohradské hory SPA which shows encouraging results.

## SLOVENIA

The **Slovenian** Agri-Environment Programme (SKOP) within the Programme for Rural Development was introduced in 2001 as a pilot programme, with the aim to promote and offer financial support for 22 different agricultural measures in 4 groups: (1) diminishing negative environmental impacts of agriculture; (2) maintenance of natural wealth, biodiversity, soil fertility and traditional cultural landscapes; (3) protection of protected areas; (4) education, training and promotion.

The government expected the agri-environment programme to be attractive for farmers and that gradually between 20 and 40% of all agricultural land will be covered by agri-environment agreements. Already at the beginning of the implementation of SKOP in 2001, more than 20% of applicants for subsidies decided to participate in agri-environment programmes.

Under the new RDP (2007-2013) three schemes are of particular interest for corncrake and its habitats:

- Submeasure 214 –III/5: **Bird conservation in humid extensive meadows in Natura 2000 areas:** the aim is to provide favourable population status of endangered bird species, such as corncrake, curlew and common snipe, and habitats in these humid extensive meadows. The main measures include first mowing only after 1 August, mowing to be done from meadow centre outwards, grazing is not possible. In addition it is recommended to use a scythe mower at reduced speed, to mow at minimum height of 10cm above the ground, to leave unmown strips 3-5m wide, to leave and maintain individual bushes and trees 5-15 m wide;
- Submeasure 214 – III/2: **preservation of special grassland habitats:** broader than the above scheme, this scheme which is focussed on ecologically important areas (i.e. broader than Natura 2000) aims to maintain and increase the area of grassland for endangered plants and animals (orchids, marsh gladiolus, meadow squill, amphibians and insects which provide food for white storks, less grey shrike and red backed shrike). It also especially targets nesting of endangered grassland bird species such as corncrake. The activities for wildlife are fairly broad, requiring adjusted mowing and grazing to match the requirements of the above mentioned species: i.e. grazing or mowing and gathering are to be performed after the flowering of grasses and raising of offspring of endangered birds (i.e. after 15 July). Green cover is also not allowed prior to flowering and raising of offspring (i.e. before 15 July). Stocking densities should be within 0.2 and 1.9 LU/ha of UAA;
- Submeasure 214 –III/4; **preservation of litter meadows:** similar in terms of objectives to the above measure, this measure aims at the preservation of litter meadows within ecologically important areas. These meadows are to be mown once a year in late summer or in autumn (i.e. not before 25 August) and the mown grass is used as litter for animals. Species expected to benefit area several species of butterfly as well as corncrakes and orchids.