

The Corncrake (*Crex crex*) in The Netherlands

Kees Koffijberg

1. Introduction

According to the numerous local names known in various parts of the country, corncrakes once probably bred in high numbers in The Netherlands.

2. Development of knowledge about the corncrake in The Netherlands

Now, as in all of its breeding areas (GREEN et al. 1997), numbers have decreased due to the impact of earlier and more frequent mowing and habitat loss. First reports on declines were already made in the 1920s (BRAAKSMA 1962). Figures on population size are only available since the 1960s. After Braaksma's review (1962), surveys in 1968 and 1969 revealed the first actual estimate of the Dutch breeding population of 875 calling males (VAN DER STRAATEN & VAN DEN BERGH 1970). In this period, an extensive ringing and survey programme was started up along the Rhine and Waal rivers (VAN DEN BERGH 1974, 1991), which at that time held the highest breeding densities. During the project (which terminated in 1985) nearly 500 individuals were trapped and ringed (VAN DEN BERGH 1991). In the meantime, a second important concentration was discovered in the Oldambt area in NE Groningen in the 1970s (VAN EERDEN 1983). This population has been studied from 1979 onwards (VOSLAMBER 1989). Besides, national atlas projects (1973-77, Teixeira, 1979; 1978-83, SOVON, 1987) improved the knowledge on distribution and population size. Since 1985, corncrakes are included in annual breeding bird surveys, coordinated by SOVON Vogelonderzoek Nederland (Bird Census Work The Netherlands).

3. Distribution and important areas of corncrake population

At present, there are only four areas in The Netherlands which annually have corncrakes (Fig.1). Most of these are situated along the Rhine and Waal rivers, in the provinces of Gelderland and Overijssel. Apart from these, an important concentration is found in the Oldambt region, in the province of Groningen. These areas together, on average, hold more than 90% of the national population. However, during influxes (like 1998) corncrakes may also be found in other parts of the country.

4. Size and development of national corncrake population

4.1 Size of national corncrake population

As mentioned before, the first real estimate of the national population was made as late as 1969, resulting in an estimate of 875 calling males (Table 1). Since then, much lower numbers have been recorded - in the 1990s even below 100. Obviously, in 1997, and especially 1998, a marked influx occurred, with 250 and 525 calling males respectively.

4.2 Development of population

As in other parts of its range, corncrakes experienced a serious decline in the past 50 years. This development can be attributed to earlier and more frequent mowing, but also to major losses in wetland habitat and changes of agricultural practices. Due to inaccuracy of data, estimates of numbers formerly breeding in the country remain uncertain. The downward trend proceeded in the

1970s and 1980s and reached rock bottom in 1996 (>80% decline). This trend is shown by the numbers in two main corncrake areas, forelands of the Rhine and Waal and Oldambt rivers (Fig. 2). Both experienced a long-term decline - in the Oldambt area perhaps even 25% annually between 1984 and 1992. However, also large fluctuations occurred, with marked peaks in 1968-69, 1972-73, 1979 (both areas), 1984 (both), 1985 (Oldambt) and 1997-98 (again both areas). These peaks possibly are the result of influxes elsewhere from the breeding range.

5. Habitat

The most important habitat for corncrakes in The Netherlands consists of flood plain meadows, eg. in 1998 about 65% of all calling males were recorded in such habitats. Often these meadows are

part of nature reserves managed by the State Forestry Service or NGOs. Improved grassland without any protection hardly hold any corncrakes as they are already mown just before or during arrival of corncrakes in Spring (May). Another large share of the population is found in crops (in 1998, 30%). However, this only occurs in the Oldambt area in Groningen, where corncrakes exclusively breed in crops, reaching highest densities in lucerne (alfalfa) *Medicago sativa*, caraway *Carum carvi* and grass-seed (2.5-3.5 calling males/100ha). According to numbers, also Autumn-sown wheat *Triticum aestivum* and barley *Hordeum vulgare* serve as a favourable habitat (35% and 28% of all territories respectively, N=792 (Voslamber 1989; Koffijberg & Voslamber in prep.). However, densities in these crops are much lower (0.5-1 calling male/100 ha) compared to the crops mentioned above. Especially during an influx, small numbers may also inhabit young forests and even small uncultivated areas along the edge of villages and cities.

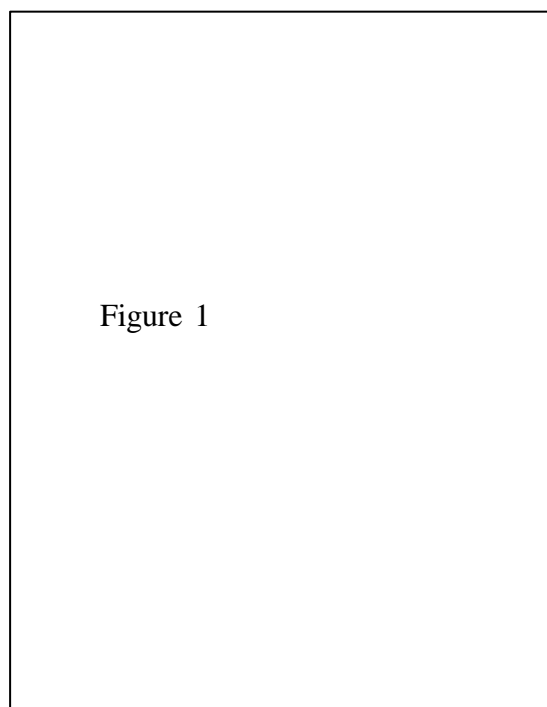


Figure 1

Figure 1: Situation of main Corncrake areas in The Netherlands, (1) Oldambt, Groningen; (2) forelands of river IJssel; (3) Forelands of river Rhine and (4) forelands of river Waal.

6. Conservation status and threats to corncrake population

Corncrakes are fully protected under The National Bird Act 1936, ie. shooting, collection of eggs and young and deliberate disturbance are prohibited. Moreover, since 1985 this species is included as *Endangered* and *Vulnerable* in the Red Data book (OSIECK & HUSTINGS 1994). Main threats to corncrakes still consist of mowing practices. Although many corncrakes breed in flood plain meadows with a protected status (especially aimed at meadow birds like the black-tailed Godwit), these meadows actually often are mown during corncrake presence, around the 15th or 20th of June.

7. Conservation projects

However, the high numbers present in 1997 and 1998 have stimulated many of the conservational bodies to undertake actions to prevent (part of) the reserves from being mown in June, and force a delay till 1st August. Thus, the situation with

respect to mowing may gradually improve in the years to come. Moreover, along the rivers, many corncrakes settle in areas which are currently subject to ecological restoration projects. These projects include abandonment of agricultural activities and restoration of the original river dynamics. At least in the initial stage they offer good

breeding opportunities for corncrakes as no mowing occurs. The crop-breeding population in Groningen only to some extent is endangered by mowing. Only birds which settle in lucerne are expected to fail almost completely (as this crop is mown 3-4 times in June-September). The large numbers which are found in Autumn-sown

Table 1 : Estimates of corncrake population in The Netherlands in 1969-98. Number refers to calling males. Note that figures for 1997 and 1998 are preliminary as not all data have been received yet.

Period	Number	Accuracy	Source	
1969		875	1	VAN DER STRAATEN & VAN DEN BERGH 1970
1973-77		100	2	TEIXEIRA 1979
1978-86	150-200/400-600		2	SOVON 1987
1989-91	50-150		3	OSIECK & HUSTINGS 1994
1992	70-90		3	VAN DIJK et al. 1994
1993	50-60		3	VAN DIJK et al. 1996a
1994	50-60		3	VAN DIJK et al. 1996b
1995	80-100		3	VAN DIJK et al. 1997
1996	40-60		3	VAN DIJK et al. 1998
1997	250		3	SOVON unpubl. (preliminary)
1998	525		3	SOVON unpubl. (preliminary)

Figure 2

Figure 2: Trend in Corncrake numbers (number of calling males) in the forelands of rivers Rhine and Waal (River District)(data van den Bergh, L.M.J. & SOVON) and in the Oldambt area in Groningen (data K. Koffijberg & B. Voslamber, see also Voslamber (1989), Koffijberg (1993)).

cereals are not subject to mowing until the end of July and the beginning of August, and thus will not be disturbed at all in the main part of the breeding season. However, actual differences in breeding success between various crops are at present not available due to a lack of field data.

8. Future prospects

Although the corncrake population in The Netherlands at present seems to be thriving, population developments over the past decades have shown that such peak-occurrences often terminated and were followed by steep declines (Fig. 2). According to this pattern, it seems that the annual population size has become highly dependent on population developments elsewhere in the breeding range (typical for a sinking population). On the other hand, the recent influxes in 1997 and 1998 have raised much concern about disturbance and mowing, which may subsequently result in adapted contracts concerning mowing in nature reserves in the near future. Moreover, more and more areas situated on the river flood plains (one of the main breeding areas) become part in the ecological restoration programme mentioned before. Both adapted mowing practices and establishment of nature reserves along the rivers hopefully will enhance breeding opportunities for corncrakes and provide a firm basis for restoration of the Dutch corncrake population.

Kees Koffijberg
Vogelbescherming Nederland
P.O. Box 925
NL-3700 AX
Zeist
The Netherlands

or:
SOVON Vogelonderzoek Nederland
Rijksstraatweg 178
NL-6573 DG
Beek-Ubbergen
The Netherlands
e-mailsovon@inter.nl.net

References

- VAN DEN BERGH, L.M.J. (1974): Resultaten van het Kwartelkoning-onderzoek in 1973 en voorgaande jaren. - Report, Vogelwerkgroep Grote Rivieren.
- VAN DEN BERGH, L.M.J. (1991): Status, distribution and research on Corncrakes in the Netherlands. - *Die Vogelwelt* **112**: 78-83.
- BRAAKSMA, S. (1962): Voorkomen en levensgewoonten van de Kwartelkoning (*Crex crex* L.). - *Limosa* **35**: 230-259.
- VAN DIJK, A.J., HUSTINGS, F. & VERSTRAEL, T. (1994): SOVON broedvogelverslag 1992. - SOVON-monitoringrapport 1994/03. SOVON, Beek-Ubbergen.
- VAN DIJK, A.J., HUSTINGS, F., SIERDSEMA, H. & VERSTRAEL, T. (1996a): SOVON broedvogelverslag 1993. - SOVON-monitoringrapport 1996/02. SOVON, Beek-Ubbergen.
- VAN DIJK, A.J., HUSTINGS, F., SIERDSEMA, H. & VERSTRAEL, T. (1996b): SOVON broedvogelverslag 1994. - SOVON-monitoringrapport 1996/06. SOVON, Beek-Ubbergen.
- VAN DIJK, A.J., HUSTINGS, F., SIERDSEMA, H. & MEIJER, R. (1997): Kolonievogels en zeldzame broedvogels in 1995. - SOVON-monitoringrapport 1997/06. SOVON, Beek-Ubbergen.
- VAN DIJK, A.J., BOELE, A., ZOETEBIER, D. & MEIJER, R. (1998): Koloniebroedvogels en zeldzame broedvogels in 1996. - SOVON-monitoringrapport 1998/07. SOVON, Beek-Ubbergen.
- VAN EERDEN, M.R. (1983): Kwartelkoning. - In: BOEKEMA, E.J., GLAS, P. & HULSCHER, J.B. (1983) (eds): *Vogels van Groningen*. - Bouma's Boekhuis, Groningen.
- GREEN, R.E., ROCAMORA, G. & SCHÄFFER, N. (1997): Populations, ecology and threats to the Corncrake *Crex crex* in Europe. - *Die Vogelwelt* **118**: 117-134.
- KOFFIJBERG, K. Verdwijnt de Kwartelkoning uit Oost-Groningen? - *Limosa* **66**: 31.

- OSIECK, E.R. & HUSTINGS, F (1994): Rode lijst van bedreigde soorten en blauwe lijst van belangrijke soorten in Nederland. - Techn. rapport Vogelbescherming Nederland **13**. Vogelbescherming Nederland, Zeist.
- SOVON (1987): Atlas van de Nederlandse vogels. - SOVON, Arnhem.
- VAN DER STRAATEN, J. & VAN DEN BERGH, L.M.J. (1970): Voorkomen van de Kwartelkoning (*Crex crex*) in Nederland in 1969. - *Limosa* **43**: 138-151.
- TEIXEIRA, R.M. (1979): Atlas van de Nederlandse broedvogels. - Natuurmonumenten/SOVON, 's Graveland.
- VOSLAMBER, B. (1989): De Kwartelkoning (*Crex crex*) in het Oldambt: aantallen en biotoopkeuze. - *Limosa* **62**: 15-24.