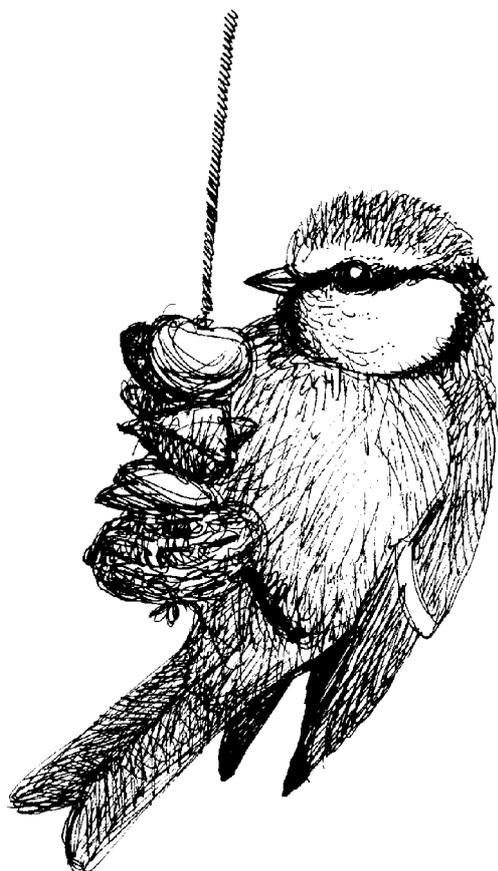


Bird Census News



Newsletter of the European Bird Census Council



2005
Volume 18 n°2

Bird Census News **2005, volume 18 n°2**

Bird Census News is the Newsletter of the European Bird Census Council or EBCC. The EBCC exists to promote the organisation and development of atlas, census work and population studies in all European countries; it promotes communication and arranges contacts between organisations and individuals interested in census and atlas work, primarily (but not exclusively) in Europe.

Bird Census News reports developments in census and atlas work in Europe, from the local to the continental scale, and provides a forum for discussion on methodological issues.

EDITOR:

Anny Anselin
E. Poetoustraat 13,
B-9030 Mariakerke, Belgium
email: anny.anselin@inbo.be

Illustrations by:

Cover, pages 51 & 59: Bruno Callebaut; page 1: from 'Atlas of Napels'.

SUBSCRIPTION: 2 issues/year: April-May and October-November

Standard rate: 1 year- 2 issues: + individuals: 10 Euro + organisations: 15 Euro

Special offer: 3 years- 6 issues: + individuals: 25 Euro + organisations: 40 Euro

ATTENTION: New Bank account number!!!

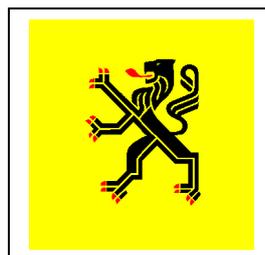
An extra 3 Euro for bank charges has to be added to the normal rate in case of transfer from abroad. Bank Transfer into **Bank account n° 4235670 of EBCC Treasurer at the Postbank** for 'Bird Census News'. Please indicate for which volume (s) you contribute.

Bird Census News is financially supported by the:

Research Institute for Nature and Forest, INBO

Kliniekstraat 25, B-1070 Brussels, Belgium.

The INBO is a scientific institution of the Ministry of the Flemish Community, Department of Environment and Infrastructure



Bird Census News

Volume 18 n°2, December 2005

Preface

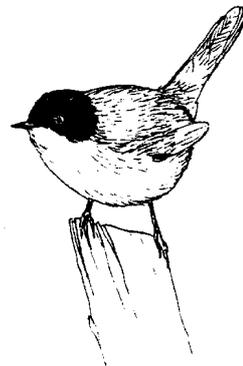
While our Turkish colleagues are working hard at the proceedings of the Kayseri meeting, Lorenzo Fornasari and his team are busy preparing next conference, which will take place in Chiavenna (Northern Italy) from **17th-22th of April 2007**. You find more details at the end of this issue. The Pan-European Bird Monitoring scheme workshop, held in Prague, Czech Republic last September, proved to be very successful. A report will appear in one of the next BCN's. The paper by Olivia Crowe and Dick Coombes presents the first results of a relatively recent but well functioning monitoring scheme in Ireland. In The Books & Journals section you find some interesting publications. This issue is rather thin but BCN 19/1 will compensate that by being a really fat one. Enjoy this issue!

Anny Anselin

BCN Editor

anny.anselin@inbo.be

Please note that I have a new email address: anny.anselin@inbo.be and don't forget that the EBCC Bank account number (and Treasurer) has changed (see inside of cover).



Monitoring breeding bird populations in the Republic of Ireland

Olivia Crowe & Dick Coombes

BirdWatch Ireland, Rockingham, Newcastle, Co. Wicklow, Ireland,
ocrowe@birdwatchireland.org

Introduction

Ireland's landscape is dominated by farmland, which comprises approximately 70% of terrestrial habitats. Of a total of 35 land-based wildlife habitats that have been identified in the Republic of Ireland (Fossitt 2000), 26 occur on farmland, most of which are maintained by farming practices (Jones *et al.* 2003). The remainder of the country is composed primarily of peatland and forestry. Breeding bird populations in Ireland are therefore heavily influenced by land management practices. Their distribution and abundance have been described in two breeding bird atlases; 1968-1972 (Sharrock 1976) and 1988-1991 (Gibbons *et al.* 1993).

In 1998, the Countryside Bird Survey (CBS) was initiated with the primary objective of monitoring breeding populations of common and widespread species in the Republic of Ireland. This paper summarises the results of the CBS over a seven-year period between 1998 and 2004.

Methods

Survey design & field methods

The CBS is based on a random stratified approach. The Republic was divided into eight regions, and 10 km squares (based on the Irish National Grid) were randomly selected within each, and allocated in sequence. For each 10 km square selected, the 1 km square at the extreme southwest corner is surveyed. Those with less than 50% land, e.g. coastal areas or lake shores, have been excluded, leaving some 700 possible survey squares. The survey aims to achieve coverage of the same 1 km squares every year, ideally by the same observer, although there is likely to be some changeover of survey participants.

CBS fieldwork involves three visits to each survey square per year. During a reconnaissance visit, the transect routes are planned and habitat information recorded. The ideal survey route comprises two parallel lines, each 1 km in length about 500 m apart and about 250 m

from the edge of the square. Habitat information is recorded using codes from an established hierarchical system common to a range of bird surveys in the UK (Crick 1992). Bird counts are carried out on the second and third visits. Visits are timed so that the first is in the early part of the breeding season (April to mid-May) and the second at least four weeks later (from mid-May to the end of June). This reflects the abundance of residents and early migrants, which tend to be more easily detected on the first visit, and later migrants, which are more abundant in the second visit. During bird visits, observers are asked to begin their counts between 06:00 and 07:00 hours to coincide with maximum bird activity, but to avoid concentrated song activity at dawn. Observers are also encouraged to record only adult birds they see or hear as they walk along their transect routes. Bird counts in heavy rain, poor visibility, or strong winds are discouraged.

Survey work has been carried out during all seasons since 1998, but was prevented in 2001 by foot-and-mouth restrictions.

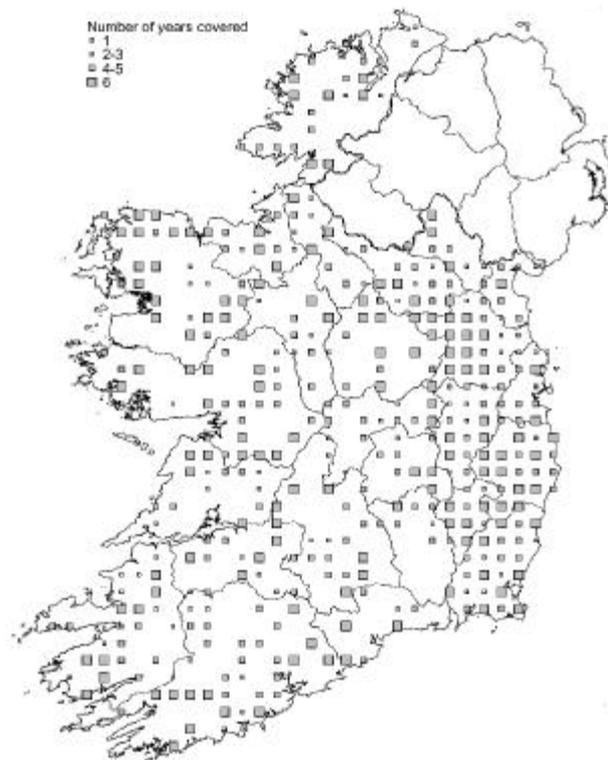


Fig.1: CBS coverage between 1998 and 2004, indicating the number of years in which each square was covered. All fieldwork was prevented in 2001 due to Foot and Mouth Disease.

Analytical techniques

The total numbers of adult birds of each species detected in each 1 km square were calculated for each year. The maximum of the two counts (from early and late visits) was used as the annual measure of relative abundance. Annual population indices were calculated using TRIM (Trends & Indices for Monitoring Data), a program used for the analysis of time series of counts with missing observations (Pannekoek & van Strien 1996). Counts are modelled as a function of square (site) and year effects, with interpolated estimates for site-year combinations with missing data. The stratified sampling design results in unequal representation of regions across Ireland, so annual counts are weighted by the inverse of the proportion of the area of each region that is surveyed that year. Population trends for species occurring on a mean of 20 or more squares over the duration of the survey were estimated by examining the overall rate of annual change, though caution is urged because of the low precision associated with sample sizes smaller than 30 (Joys *et al.* 2003).

Species		Mean number of squares	Mean number per square
Wren	Troglodytes troglodytes	285	14.1
Robin	Erithacus rubecula	279	10.2
Blackbird	Turdus merula	278	11.6
Chaffinch	Fringilla coelebs	268	8.3
Woodpigeon	Columba palumbus	261	11.0
Swallow	Hirundo rustica	260	10.4
Magpie	Pica pica	253	4.6
Song Thrush	Turdus philomelos	251	4.7
Rook	Corvus frugilegus	243	26.1
Blue Tit	Parus caeruleus	227	3.5
Hooded Crow	Corvus corone cornix	227	3.1

Pheasant	<i>Phasianus colchicus</i>	221	2.6
Jackdaw	<i>Corvus monedula</i>	216	9.4
Dunnock	<i>Prunella modularis</i>	212	3.1
Starling	<i>Sturnus vulgaris</i>	209	12.3
Great Tit	<i>Parus major</i>	195	2.1
Willow Warbler	<i>Phylloscopus trochilus</i>	194	4.1
Meadow Pipit	<i>Anthus pratensis</i>	187	6.1
Greenfinch	<i>Carduelis chloris</i>	169	2.7
Coal Tit	<i>Parus ater</i>	165	1.7

Table 1. Top 20 most widespread species recorded, also indicating the mean number recorded per square.

Results

Coverage and diversity

In total, 474 observers have participated in the CBS, 82% of which are volunteers, the remainder comprising professional staff. Some 391 squares have been covered (Fig. 1), 375 of which were covered in two or more years and included in trend analyses.

A total of 145 species has been recorded, 58 of which were widespread enough for trend analyses. Wren *Troglodytes troglodytes*, Robin *Erithacus rubecula*, Chaffinch *Fringilla coelebs*, Blackbird *Turdus merula* and Woodpigeon *Columba palumbus* were among the most widespread (Table 1), while Rook *Corvus frugilegus*, Wren, Starling *Sturnus vulgaris*, Blackbird and Woodpigeon were the most abundant.

Bird species diversity was considerably varied throughout the country. Some 26% of squares held between 26 and 30 species (Fig. 2), and over 80% of squares supported between 21 and 40 species. Typically, few species were recorded in upland peatlands in the west and southwest; in 1998, just one species, Meadow Pipit *Anthus pratensis*, was recorded in one such square situated in County Cork. Greatest diversity was recorded in squares with mixed habitats, especially those with wetlands, where a variety of waterbirds are also present. A peak of 52 species was recorded in one such square situated in the midlands.

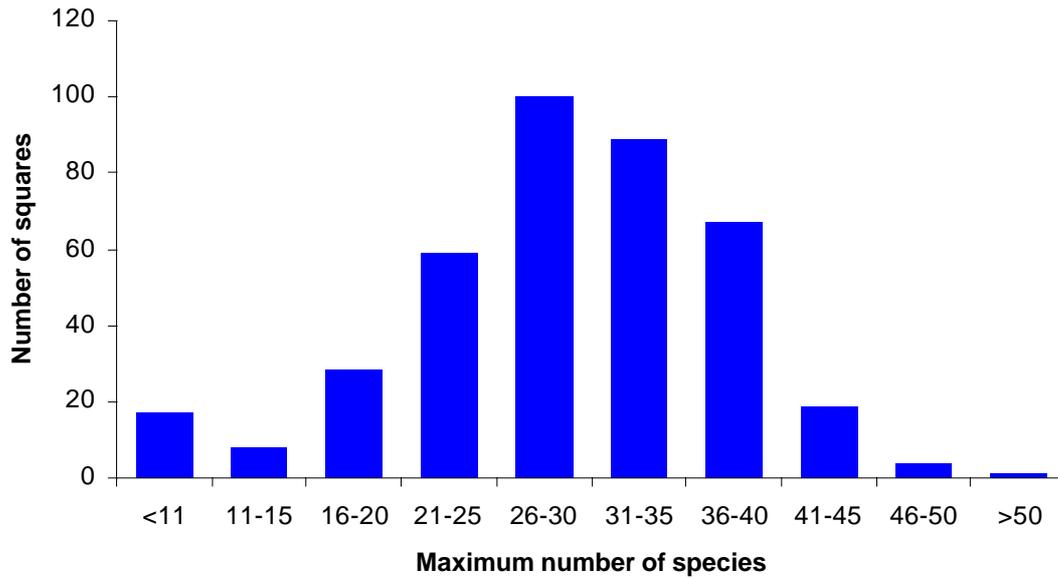


Fig. 2: Frequency histogram showing the number of species recorded per square.

Population trends

Trend analyses were carried out on 52 species which occurred in at least 30 squares, and also on a further six species which occurred in between 20 and 30 squares. There were significant increases in 18 species and declines in 10 (Table 2). Increases included three pigeon species, though a decline was seen in Stock Dove *Columba oenas*. Among the songbirds, Wren and Stonechat *Saxicola torquata* were shown to increase, while there were declines in Robin, Wheatear *Oenanthe oenanthe* and Mistle Thrush *Turdus viscivorus*. All finch species appear to have fared particularly well during the course of the CBS, with seven species showing significant increases and none showing declines. The remaining 25 species appear to have remained stable.

Increases were also seen in Curlew *Numenius arquata* and Cormorant *Phalacrocorax carbo*, and declines in Black-headed *Larus ridibundus*, Lesser Black-backed *Larus fuscus* and Herring Gull *Larus argentatus*. However, these colonial nesting species are not adequately monitored using the CBS methodology, and results should be treated with caution.

Table 2. Significant population changes between 1998 and 2004; n represents the mean number of squares in which a species was recorded, the annual change was calculated as the slope of the line of best fit, while a '+' or '-' indicates the direction of the trend.

Species		n	Annual change (1998-2004)	
Mute Swan	<i>Cygnus olor</i>	21	24.8	+
Kestrel	<i>Falco tinnunculus</i>	43	-6.9	-
Pheasant	<i>Phasianus colchicus</i>	221	2.8	+
Feral Pigeon	<i>Columba livia</i>	33	10.9	+
Stock Dove	<i>Columba oenas</i>	33	-4.5	-
Wood Pigeon	<i>Columba palumbus</i>	261	3.5	+
Collared Dove	<i>Streptopelia decaocto</i>	51	4.2	+
Swift	<i>Apus apus</i>	45	-8.1	-
Swallow	<i>Hirundo rustica</i>	260	-1.9	-
Skylark	<i>Alauda arvensis</i>	144	-3.9	-
Grey Wagtail	<i>Motacilla cinerea</i>	49	-3.3	-
Wren	<i>Troglodytes troglodytes</i>	285	1.7	+
Robin	<i>Erithacus rubecula</i>	279	-1.7	-
Stonechat	<i>Saxicola torquata</i>	66	18.1	+
Wheatear	<i>Oenanthe oenanthe</i>	35	-6.3	-
Mistle Thrush	<i>Turdus viscivorus</i>	137	-3.6	-
Sedge Warbler	<i>Acrocephalus schoenobaenus</i>	63	9.3	+
Blackcap	<i>Sylvia atricapilla</i>	54	23.5	+
Long-tailed Tit	<i>Aegithalos caudatus</i>	47	5.4	+
Jackdaw	<i>Corvus monedula</i>	216	2.8	+
Rook	<i>Corvus frugilegus</i>	243	-5.3	-
House Sparrow	<i>Passer domesticus</i>	126	3.4	+

Species		n	Annual change (1998-2004)	
Chaffinch	<i>Fringilla coelebs</i>	268	1.5	+
Goldfinch	<i>Carduelis carduelis</i>	108	19.9	+
Linnet	<i>Carduelis cannabina</i>	115	7.8	+
Redpoll	<i>Carduelis flammea</i>	43	9.7	+
Bullfinch	<i>Pyrrhula pyrrhula</i>	114	12.4	+
Reed Bunting	<i>Emberiza schoeniclus</i>	84	5.1	+

Discussion

The Irish landscape has had a long history of farming. In particular, there has been much emphasis on increased productivity and agricultural intensification since Ireland joined EEC in 1973 (Hickie *et al.* 1999). These changes are consistent among many European Union Member States (Chamberlain *et al.* 2000, Donald *et al.* 2001) and are presently driven by the European Union's Common Agricultural Policy (CAP). In Ireland, increased use of artificial fertilisers, an increase in silage production (formerly hay), and increased land drainage in particular have all impacted on plant and animal diversity (Jones *et al.* 2003).

It is likely that these significant changes in agriculture alone were at least partially responsible for declines shown in many species in Ireland since the 1970s, particularly Cuckoo *Cuculus canorus*, Corncrake *Crex crex*, Grey Partridge *Perdix perdix*, Stock Dove, Yellowhammer *Emberiza citrinella* and Corn Bunting *Miliaria calandra* (Sharrock 1976, Gibbons *et al.* 1993). Since the last atlas (1988-1992), the decline in Corn Bunting has continued, and there have been no known breeding records in the Republic of Ireland since the early 1990s (Taylor and O'Halloran 2002). Additionally, there have been significant declines in Lapwing *Vanellus vanellus*, Snipe *Gallinago gallinago*, Woodcock *Scolopax rusticola* and Curlew (Stanbury *et al.* 2000, Tierney *et al.* 2002). Other farmland species declines, over roughly the same time period, became apparent in the UK through the Common Bird Census, a breeding bird monitoring programme in operation since the early 1970s (Fuller *et al.* 1995). These trends highlighted the need for a terrestrial breeding bird monitoring scheme in the Republic of Ireland.

The CBS is now entering its eighth season, and while still at a relatively early stage, many significant and interesting trends are already beginning to emerge. With current levels of coverage, the population trends of almost 60 species can now be adequately monitored. It is encouraging that most species have increased or remained stable in the past seven years. The consistent increases in seed-eating finch species may in part reflect suitable breeding conditions, but may also be a consequence of milder winters, allowing greater survivorship. It is likely that Stonechat is also benefiting from the recent milder winters. Declines in some aerial insectivores, such as Swift *Apus apus* and Swallow *Hirundo rustica*, and also Skylark *Alauda arvensis*, may be indicative of declining invertebrate availability during the breeding season, possibly due to increased use of fertilisers.

The Irish landscape continues to become modified by developments in agriculture and forestry. Environmental measures that link income support with environmental improvement, have been encouraged to alleviate some of the pressures caused by these practices. Additionally, Ireland is the least wooded country in the European Union, though there are measures to improve the status of native woodlands in Ireland in the next 25 years (McAree 2002). Continued monitoring of trends as part of the CBS will hopefully track how breeding bird populations respond to these changes. More recently, CBS data have been amalgamated with Breeding Bird Survey data from Northern Ireland, and used to assess the state of birds on the island of Ireland as a whole (Newson *et al.* 2004), and have also been included in the pan-European bird monitoring programme (Vorišek and Marchant 2003).

It is expected that the CBS will continue to monitor the fortunes of breeding bird populations in the Republic of Ireland, and may allow more informed decision-making on activities that will improve the environment for Ireland's biodiversity.

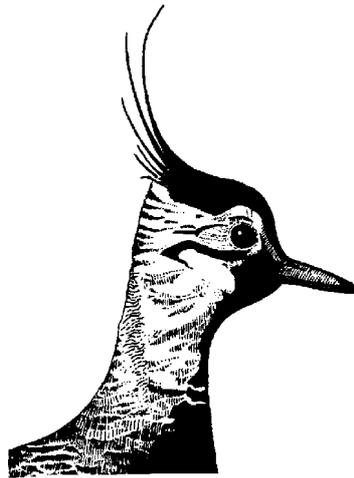
Acknowledgements

The CBS is a joint project of BirdWatch Ireland, the National Parks and Wildlife Service and the Heritage Council. It is coordinated by Dick Coombes (BirdWatch Ireland), and the Steering Group includes John Wilson and David Norriss (NPWS), Liam Lysaght and Dr. Simon Berrow (Heritage Council), Prof. John O'Halloran (University College Cork), Oran O'Sullivan and Richard Coombes (BirdWatch Ireland). We thank all observers who have participated in this survey.

References

- Chamberlain, D. E., R. J. Fuller, R. G. H. Bunce, J. C. Duckworth and M. Shrubbs. 2000. Changes in the abundance of farmland birds in relation to the timing of agricultural intensification in England and Wales. *Journal of Applied Ecology* 37, 771–788.
- Crick, H.Q.P. 1992. A bird-habitat coding system for use in Britain and Ireland incorporating aspects of land management and human activity. *Bird Study* 39: 1-12.
- Donald, P. F., Green, R. E. & Heath, M. F. 2001 Agricultural intensification and the collapse of Europe's farmland bird populations. *Proceedings of the Royal Society B*, 268, 25–29.
- Fossitt, J. 2000. *A Guide to Habitats in Ireland*. The Heritage Council, Kilkenny.
- Fuller R. J., R. D. Gregory, D. W. Gibbons, J. H. Marchant, J. D. Wilson, S. R. Baillie and N. Carter. 1995. Population declines and range contractions among lowland farmland birds in Britain. *Conservation Biology* 9, 1425-1441.
- Gibbons, D. W., J. B. Reid and R. A. Chapman. 1993. *The New Atlas of Breeding Birds in Britain and Ireland: 1988-1991*. T. & A. D. Poyser, London.
- Hickie, D., Smyth, E, Bohnsack, U., Scott, S. & Baldock, D. 1999. Impact of agricultural schemes and payments on aspects of Ireland's heritage. The Heritage Council, Kilkenny.
- Jones, D. G. L., E. Bignal, L. Lysaght, D. Baldock and J. Phelan. 2003. A review of the CAP Rural Development Plan 2000-2006: Implications for Natural Heritage. Heritage Council, Kilkenny.
- Joys, A.C., Noble, D.G. & Baillie, S.R. 2003. Evaluation of species coverage and precision using the BBS indexing method. BTO Research Report No. 317.
- McAree, D. 2002. The forest service biodiversity plan. *Biology and Environment* 102, 183-184.
- Newson, S.E., O. Crowe. and D. G. Noble. 2004. Scoping Study on Integrating Countryside Bird Survey and Breeding Bird Survey Data to Generate All-Ireland Trends. BTO Research Report No. 376.
- Pannekoek, J. & van Strien, A.J. 1996. TRIM – Trends & Indices for Monitoring Data. Research Paper No. 9634, Statistics Netherlands, Voorburg.
- Sharrock, J. T. R. 1976. *The Atlas of Breeding Birds in Britain and Ireland*. Poyser, Berkhamsted.

- Stanbury, A., M. O'Brien and A. Donaghy. 2000. Trends in breeding wader populations in key areas within Northern Ireland between 1986 and 2000. *Irish Birds* 6, 513-526.
- Taylor, A. J. and J. O'Halloran. 2002. The decline of the Corn Bunting, *Miliaria calandra*, in the Republic of Ireland. *Biology and Environment* 102B, 165-175.
- Tierney, T. D., J. Hudson and C. Casey. 2002. Survey of breeding waders on the River Shannon Callows, 2002. *Irish Birds* 7, 21-32.
- Vorišek, P. & Marchant, J. H. 2003 Review of large-scale generic population monitoring schemes in Europe. *Bird Census News* 16, 14-38.



Books & Journals

In this chapter a selected summary review is given of the contents of journals and reports, and recent books are presented.

Birds in European Cities

A book by John G Kelcey & Goetz Rheinwald is ready and recently been published in GINSTER Verlag. Goetz Rheinwald presented most parts of the book during the last EBCC meeting in Kayseri and presents here a short summary.

The book has hardcover, 452 pages and is completely in English. The price will be c. 28.00 Euro. ISBN 3-9806817-2-6. It can be ordered directly from G. Rheinwald (goetz.rheinwald@t-online.de) or in every book store. The book has been published in October 2005.

Whereas most birdwatchers visit exclusively the wilderness of estuaries, lakes, swamps or woods, only few ornithologists deal extensively with urban birds. John Kelcey looked around Europe for those specialists and asked them to write about the history of their city, the habitats which have evolved there and to describe the bird communities in these habitats. The result is a fascinating book about 16 cities distributed across Europe - from Lisbon to Moscow and from Brussels to Sofia - which tells us much about a mostly neglected part of our avifauna.

Cities have only existed a maximum of 10,000 years. Most of the cities described in this book have existed for less than 1,000 years. However, even 10,000 years is not sufficient time to allow the evolution of significant genetic changes. Science tells us that for the establishment of a new species (of birds or mammals) a period of 100,000 to 1 million years is necessary. Because of the very short time (in evolutionary terms) since human beings first expanded their settlements into large urban areas with a unique structure never previously seen in the world, we cannot expect there to be a guild of 'town birds' like forest birds, meadow birds or mountain birds. But some bird species have in their biology - evolved in a rural habitat - one or more elements which are optimally realised in the urban habitat.

Cities with their urban habitat may appear like islands in a sea of rural habitat. The question is whether there is exchange between the urban bird populations and the birds in the rural environment or whether there is exchange between populations of different cities. What we know is that in many bird species there is exchange with the rural environment whereas an exchange with other cities is very unlikely. If

there should exist an evolution towards 'town birds' then each city evolves its own 'species'. The genetic exchange between cities and their rural environment makes it likely that cities are not 'islands' and a speciation towards 'town birds' is not on the way.

There are numerous scientific papers on urbanisation (or synurbanisation) of bird species. It means that these species have adapted some aspects of their behaviour and requirements to living conditions in urban habitats. What we can observe in many cases is that learned adaptations in the behaviour exist which are handed down from one generation to the next. Has urbanisation to do with tradition?

Within the urban habitat food is available in high quantities. The food is generally not of the same type they would eat naturally. In winter natural food resources become scarce resulting in the reduction of the bird population. However, the extra food provided by people not only allows the population to survive but results in a considerable increase. However, because some species and some birds within a species learn to exploit the resources of urban areas they cannot be described as 'town birds'.

Conclusions

Diversity

The appendix at the end of each chapter lists either the total number of species or only the breeding species observed in that city. An examination of these appendices shows that the species diversity of all the cities is very high. When the number of species in an equivalent area of the rural part of the same region is compared to the number recorded in the city it will be seen that the diversity in the city is much higher than in the countryside. The reason for this high species diversity lies in the large number of different habitats that is found in cities. However, these values change completely when the diversity of the individual habitats is assessed. All the contributions demonstrate that the species diversity in all the individual habitats is smaller or much smaller than in the equivalent habitat in the countryside. There are three exceptions to this general assessment:

1. The urban habitat in its strict sense (the centres of the cities), because it has no equivalent in the countryside. This is the habitat that is totally created by human activity. The land is dominated by buildings and hard surfaces such as roads, car parks and similar structures. Most of the soil is covered by concrete, tarmac and similar materials. Where soil is exposed it has generally been imported and/or severely altered. Watercourses have been canalised or

culverted and the banks of lakes have been re-enforced with concrete. The landscape areas contain nearly no native trees or shrubs and no semi-natural woodlands, scrub, grasslands or lakes. There is also a very high level of human activity. The dominant bird species in this strictly urban habitat are Feral Pigeon, House Sparrow and Swift. In addition, it is used by some species that make only a few demands on it, for example Blackbird, Collared Dove and Black Redstart. Although Swifts, House Martins, Kestrels and Peregrines use this habitat for breeding they feed, at least partially, outside it.

2. Unused land such as disused railway lines.
3. Specialised cultivations such as olive groves.

In the case of the last two, the total area of these habitats within the city is so small that they do not make a significant contribution to the overall avifauna.

All European cities, including those described, contain cemeteries and parks, some extending close to the city centre. These areas enable some forest birds to breed but the number of species is much smaller than in the semi-natural forests. Where forests extend well into the city they are always heavily used by people, nevertheless they support a rich avifauna, although some species that are typically found in forests in rural areas are missing, for example the Black Woodpecker and the Red Kite.

The centres of all the cities described are surrounded by a wide belt of housing, which can be conveniently described as 'garden cities.' The form and quality of these areas varies within and between cities. In some areas there are rows of multi-storied houses along the streets. In the inner quarters, the houses have extended gardens at the rear or they are one-family houses or flats with a small or large green area around them. The modern suburbs mainly comprise high-rise tower blocks with numerous apartments. The blocks are separated by relatively extensive areas of short mown grass and large areas of trees and shrubs. The avifauna of the green spaces of the 'garden cities' contains many more species than the city centres, although it is impoverished when compared with the rural equivalent of pastures and meadows with trees and bushes.

Those fields that border the edges of cities support fewer bird species than the fields farther away. Water bodies in the cities support a large number of species but when they are compared with lakes, ponds or rivers outside the urban area it is seen that the species-richness is caused by alien species. If alien water birds are disregarded then even water bodies have a significantly impoverished avifauna relative to water bodies in the countryside.

Abundance

Whereas the species-diversity in nearly all habitats in the city is impoverished, the abundance (individuals per km²) in the city is significantly higher when compared with an equivalent area in the countryside adjacent or close to it. This is especially true in the strictly urban habitat (for which there is no rural equivalent on the same scale) where the species-diversity is extremely low but the abundance of some species is very high, e.g., Feral Pigeon, Swift and in most cities the House Sparrow. When the total abundance of these species in the urban habitat is compared with agricultural areas it is found that the city has a significantly higher abundance of all three species.

Cemeteries and parks also support fewer species but in much higher abundances. The same is true for forest species and water birds. However, because people feed birds throughout the year the densities in these areas is much higher than those found in those habitats in the countryside where the species occur. In the 'garden cities' the situation is not as clear.

Alien species

Most alien species are related to cities. This is true for several species of the orders Psittaciformes (parrots) and Anseriformes (geese). For example, the Ring-necked Parakeet has about 40 populations scattered throughout Europe, all of which occur in cities. The Alexandrine Parakeet, too, lives only in cities (in Europe). There are more parrot species along the Mediterranean, but even these all are obviously connected with towns.

The main reason for the occurrence of parrots in the cities of western and southern Europe is not the provision of food by people but the mild climate, although the Ring-necked Parakeet lives naturally in areas where frost is possible in winter. Nevertheless mild climates in the cities are the main reason for its establishment of the urban populations. As the winters in Europe become milder the populations of the species are likely to continue to expand. Its favourite food are the buds of Plane trees and Poplars, both of which occur in cities. During the winter both the Ring-necked and the Alexandrine Parakeet will visit feeding tables in gardens and other places.

During the last 25 years the goose and duck populations have expanded in large parts of Europe, including cities. The Greylag, Canada and Barnacle Geese and the Swan Goose have multiplied extraordinarily in cities, where they occur mainly on lakes in parks. The Egyptian Goose, a species that has increased enormously and spread extensively in the

last few decades, has a weaker association with cities than the other four species.

Ducks also occur mainly on lakes in parks. The most common species in the cities is the Mallard. Although it is not an alien species, it frequently hybridises with domesticated ducks so that the urban populations are predominantly hybrids. Additionally, the lakes of many city parks support breeding pairs of Mandarin and Wood Duck as well as ephemeral populations of a wide variety of other alien ducks.

To successfully rear young the Mute Swan needs lakes with an abundance of aquatic plants, a habitat that is only occasionally found in cities and therefore it normally breeds outside the city. After the young have fledged the feeding possibilities at park lakes are significantly better and more attractive. As a result families of Swans are frequently found on the lakes and ponds of urban parks, especially in winter.

The main reason for the concentrations of many alien species in cities lies in the better food supply and possibly the milder winter climate. The reason for the very high numbers of waterfowl can be seen every day. Charitable people, who believe that they are looking after the welfare of the birds, visit the parks and feed the birds with large quantities of bread and corn. As a result the birds become fattened and occur in unnaturally high densities, much more than the lake and its surroundings can support naturally. In addition, there is a substantial increase in the amount of faeces that are deposited in the water, which in combination with the decomposition of uneaten food, causes an enormous increase in nutrients resulting in hyper-eutrophic conditions and a major decline in water quality (e.g. a high biological oxygen demand).

In countries of the western Mediterranean more parrot species have become established as well as two species of Glossy Starlings. The main reasons for the permanent establishment of the Glossy Starling species in western Mediterranean cities appears to be both the abundance of food and an equitable climate. In all parks and gardens alien trees and shrubs are planted which can be used by alien species.

The alien species are not evenly distributed across Europe. An analysis of the summary table at the end of the book shows that the eastern and south-eastern European cities of Moscow, St. Petersburg, Lublin and Sofia have virtually no alien species – only Mute Swan and/or Pheasant. Just the opposite is true for the cities in south-west Europe. For example, in Valencia ten alien species (seven are parrot species) breed or probably breed, this is 15% of the breeding birds of the city.

The City as a Habitat for Birds

The chapter 'Birds and their Urban Environment' briefly describes the process by which the Feral Pigeon evolved from the Rock Dove and how the genetic changes allowed it to colonise, expand and thrive in the urban environment. The adaptation has now reached the stage where the species is unable to survive outside the urban area except for a very short time. Nothing is known about the contribution that is made to the Feral Pigeon population as a consequence of its augmentation by the large number of 'Racing Pigeons' that escape and fail to return from 'training flights' and races. On the other hand these "lost" Racing Pigeons are easy to detect in villages because of the absence of Feral Pigeons. It is reasonable to assume that at least some Racing Pigeons integrate (at least temporarily) with flocks of Feral Pigeons. Studies have revealed that the amount of available food in the towns is limited and therefore it regulates the size of the Feral Pigeon population. Under these circumstances, it is questionable whether Racing Pigeons, weakened by long flights, will survive for long and therefore become part of the breeding population.

The city is also an indispensable habitat for the Swift. Its distribution in Central and Northern Europe is essentially dependent on cities. Although this species breeds in villages, in some forests and in individual trees, even when combined, these habitats make only a tiny (less than 10%) contribution to the size of the total population. In southern Europe the same is true for Alpine Swift and the Pallid Swift, which are also essentially dependent on cities.

A rather new development is the colonisation of the urban environment by Magpies and Crows. Both species were formerly typical dwellers of rural areas, the Magpie mostly breeding close to villages whereas the Crow preferred forests. The populations of both species decreased in large parts of rural Europe but greatly increased in cities. The reason clearly lies in the rich food supply in the suburbs during the winter. The Magpie has become so abundant in the cities of Central Europe that many people often ask for the population to be reduced, not at least because it is popularly accused of being responsible for the decrease of several small passerine species in the cities.

Some contributions report evidence of breeding by gulls of the Herring Gull group. In addition to the Mediterranean Gull hybrids between various combinations of Herring, Yellow-legged and Caspian Gull breed in cities, especially on flat roofs. When breeding, these gulls are inconspicuous, consequently evidence that they breed in a particular city may have been overlooked.

The chapters do not show any particular 'urban trends' relating to migrating species through and/or over cities, except for short 'invasions' where there is a local abundance of food. On the other hand wintering birds are an important component of the avifauna of cities. Starlings, Rooks and Jackdaws are strongly associated with cities in Central and Southern Europe, where they form spectacular roosts. For the Starling the mild winter climate is the main reason for the increasing trend to over-winter closer to its breeding sites. For the two crow species the huge waste tips close to the cities were highly attractive sources of food. However, in recent years the management of these tips has changed for public health reasons, as a result the numbers of Rooks and Jackdaws have declined in some regions of Europe. It is a case of better management for people not being better management for birds. The Black-headed, Common and Herring Gulls and the Mute Swan also exploit the more abundant food supply in cities. In addition, cities generally have more open water (especially in winter when it does not freeze or does so for a shorter time) for gulls, swans and other waterbirds, especially where there are discharges of warm water from power stations.

Closing remarks

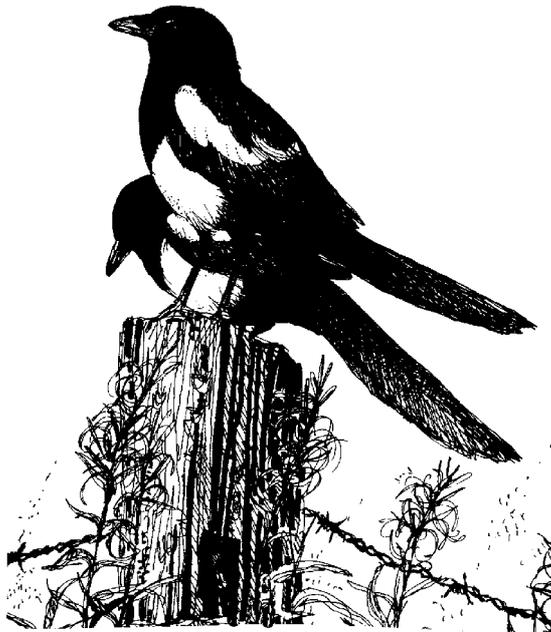
It is inappropriate to draw any further tentative conclusions. The editors believe that a second edition of the book is likely and that it will contain chapters on more cities. This will provide additional information from which more wide-ranging and definitive conclusions can be reached.

Many of the obvious questions that emerge from the contributions are outside the objective of the book. Some of the information may have been published elsewhere whilst some may not be known and require further investigations. For example, little, if anything, appears to be known about the population exchange between the different habitats of a given city, between the city and the countryside and between one city and another. It is not possible to conclude whether productivity in the city is enough to maintain the population of a given species. For example in Frankfurt a study in Great Tits revealed that productivity was so low that the population needed to be augmented from the 'surplus' of the countryside. We cannot conclude whether predation/mortality of young and/or adult birds is higher or lower than in the rural environment.

There also appears to be little (if any) published information that compares habitats in European cities with their equivalents in the countryside, for example the vertical and horizontal habitat structure, the species composition, the quality and quantity of food resources, the

micro-climates, substrates and the attitude of people etc.

Cities as a habitat for wild animals exist in large numbers throughout the world. One can predict with certainty that the existing cities will expand horizontally and vertically and that there will be many more of them. It is inevitable that as the human population and standard of living increase the urban habitat will expand, accompanied by rural depopulation, especially in the industrialised countries. It also seems inevitable that most other habitats will decrease, with some exceptions such as mountain tops, deserts and oceans. For the bird species of the world this will mean that those species that have adapted or are adapting to life in cities will have a secure future, at least for the foreseeable future. For nature conservation this is not necessarily or automatically beneficial. In the past and even now the design and management of cities has failed to take nature into account and to balance it with human aspirations. If a high quality environment is going to be created and maintained for people and 'nature' the design and management of cities will need to be directed by biologists. Achieving these aspirations requires several different approaches, for example education not only in the appreciation of nature but also avoidance of such well-meaning but undesirable activities as excessive feeding of birds with inappropriate food and the release of alien species. Controls are necessary to protect important sites and vulnerable species, prevent pollution and to ensure the wise use of natural resources. The renovation and restoration of buildings and green spaces should be sensitive to nature as should be the design and location of new buildings and roads.



Corvids of Poland (Ptaki krukowate Polski: in Polish), 2005.

Edited by L. Jerzak, B. Kavanagh & P. Tryjanowski.

Bogucki Wydawnictwo Naukowe, Poznań, 679 pgs.

ISBN 83-89290-92-8.

Each contribution has a short English abstract. Price not known.

email: bogucki@bogucki.com.pl; www.bogucki.com.pl

The book focuses on a fascinating group of birds – the Corvids (Corvidae). A considerable number of questions concerning corvid evolution, ecology and behaviour still remain unanswered. The range of many of the species has contracted significantly in the past century, resulting in changes in their abundance and distribution. This was one of the initial reasons for the first meeting of Polish researchers focused mainly on corvids, in addition to encourage regular contacts among people conducting studies on these birds.

In the book are chapters containing papers on fossil records of corvids in Poland, plus an extensive update on the current state of knowledge on corvids occurring in Poland. The first chapters contain reviews of single species, based mainly on Polish references, with new original papers on different aspects of corvid life-history.

Eight corvid species currently breed in Poland: the Jay, *Garrulus glandarius*, the Magpie, *Pica pica*, the Nutcracker, *Nucifraga caryocatactes*, the Jackdaw, *Corvus monedula*, the Rook, *Corvus frugilegus*, the Hooded Crow, *Corvus cornix*, the Carrion Crow, *Corvus corone* and the Raven, *Corvus corax*. Another two – the Siberian Jay, *Perisoreus infaustus* and the Alpine Chough *Pyrrhocorax graculus*- were only occasionally recorded.

The authors believe that the book will be an important tool for people working on corvids, and that the ideas and hypotheses contained within will make a contribution to our knowledge of the life strategies of this avian group, and also to their effective protection.

In conclusion, even though the production of the book is complete, the authors invite other researchers to join them in their efforts to better understand the problems and to prepare for the next book on corvids in Poland and in a wider international context.

Scripta Ornithologica Romaniaiae. Volume I 2004. (in Romanian with English summary).

This is the first volume of a new journal that publishes original articles and short communications from all fields of ornithology, by the members of Romanian Ornithologists' Clubs. It is a joint publication of the University of Cluj and the Romanian Academy. Editor in Chief is Dan Munteanu (email: Scripta_Ornithologica_Romaniae@clujnapoca.ro).

Orzata, N. (claudia21@post.ro): 1-5. Ornithological observations at the confluence of the Olt River with the Danube. The study focuses on the confluence of the Olt and the Danube, an area not well studied by ornithologists. The purpose is to get a scientific base to propose inclusion of this area in the list of Important Bird Areas. Several endangered, vulnerable and declining species occur as e.g. *Pelicanus crispus*, *Falco naumanni*, *Aythya nyroca*, *Coracias garrulus* and *Phalacrocorax pygmaeus*.

David, A., I. Coroiu & E. Seviianu (adavid@biolog.ubbcluj.ro): 11-16. Contribution to the knowledge of the breeding birds from the central Argeş River basin. A breeding bird inventory has been conducted for the whole zone in 2000-2002. A total of 128 species have been detected, 27 as probable breeders.

Ioncio, F. (no email): 34-37. The White Stork population from the Crisul Repede River basin in 1996. The paper analyses the size and structure of the breeding population in 1996 which was formerly studied in 1958 and 1972. There is a decreasing trend. An increasing amount of nests are now constructed on pilons of electrical lines, and less in trees or on buildings.

Sike, T. (sike@datec.ro): 38-42. The distribution of the Barn Owl (*Tyto alba*) in Satu Mare county. The aim of the survey was to study the distribution of the species in the area, hitherto not well known, and to assess the possible threats. The majority of the 57 nesting pairs were found in churches.

C. Munteanu (munteanuclaudia@hotmail.com): 66-76. Research on Rook colonies in Cluj-Napoca between 2001-2004 compared with the situation in 1977-1995. The colony increased until 2003 but is now decreasing, probably by human influence: shooting and destruction of nests.

Other articles treat aspects of wintering and migration, behaviour and morphology.



Bird Numbers 2007



Monitoring for Conservation and Planning

17th International Conference of the European Bird Census Council

17th-22th of April 2007, Chiavenna (Italy)

Registration deadline:

Website: www.faunaviva.it

The European Bird Census Council (EBCC), the Centro Italiano Studi Ornitologici (CISO), and the Associazione FaunaViva are pleased to invite you to attend the 17th International Conference of the EBCC, which will be held in Chiavenna (Sondrio), Italy, from April 17th to 22th, 2007.

We foretell the presence of ornithologists and interested participants from many European countries. The conference promises to be a diverse, stimulating, and resourceful meeting. We aim to share knowledge of many current aspects of bird monitoring across Europe and are open to those with interests in the following related issues:

- v SPA monitoring
- v European indicators
- v New topics on Atlas studies
- v Spatial modelling
- v Use of presence/absence data
- v Citizen science
- v Setting conservation responsibilities
- v Indicators, umbrella and flag species
- v Population dynamics in bird monitoring
- v Long distance migrants dynamics
- v Turning knowledge into policy
- v Forest bird monitoring and conservation
- v Farmland bird monitoring and conservation

Organization of the scientific content of the conference is undertaken by the Scientific Committee with help from the Local Organizing Committee.

Proceedings of the conference will be published as a special issue of **Avocetta**. Avocetta is the Official Journal of the Italian Center of Ornithological Studies - CISO Centro Italiano Studi Ornitologici.

SCIENTIFIC COMMITTEE

Member of the committee will include: EBCC ExCo Members and all the people involved in the organisation of the sessions.

LOCAL ORGANIZING COMMITTEE

Dr. Lorenzo Fornasari, Chairman

Pierandrea Brichetti

Lia Buvoli

Elisabetta de Carli

Mauro Fasola

Toni Mingozi

Guido Tellini Florenzano

Vittorio Vigorita

THE ITALIAN CONFERENCE

Chiavenna is situated in the Northern part of Italy, in Lombardy (333 m). It is a commercial center and transportation junction. Historically a strategic point, it commands both the Splügen and Maloja passes between Italy and Switzerland. The city has a population of about 7,200 residents.

There are three international airports which can be used to reach the north of the region. Once arrived another trip by car (about 150 km from Milan) or by train (about 2 hours from Milan) will be necessary to arrive in Chiavenna.

Some links about Chiavenna:

<http://www.valtellina.it/English/Home-Page/index.htm>

<http://www.valchiavenna.com/2005/prima.php?lingua=en>

<http://www.valchiavenna.net>

Mid and post conference Bird-watching field trips will be organized to several Important Bird

Areas (IBAs) such as Natural Reserve "Pian di Spagna e Lago di Mezzola". The conference will take place during peak migration time when a high diversity and abundance of birds will be travelling through the region, and with a little fortune you can see nearly everything!

The official language of the conference will be English.

Postal Address For Correspondence:

Bird Numbers 2007

Associazione FaunaViva

Viale Sarca 78

20125, Milano - ITALY

Phone: +39 02 87386213

Fax: +39 02 87386214

e-mail: ebcc2007@faunaviva.it

We are short of original drawings to illustrate our Newsletter. Who can help us? Are there artists who are willing to send us their bird drawings for free? Names of artists are always mentioned at the inner cover.

Thank you in advance!

Your text in the next issue?

Bird Census is meant as a forum for everybody involved in bird census, monitoring and atlas studies. Therefore we invite you to use it for publishing news on your own activities within this field:

- you have (preliminary) results of your regional or national atlas,
 - you have information on a monitoring campaign,
 - you have made a species-specific inventory,
 - you are a delegate and have some news on activities in your country,
 - you are planning an inventory and want people to know this,
 - you read a good (new) atlas or an article or report on census and you want to review it.
- Do not hesitate to let us know this!

Send text (in MSword), figures and tables (and illustrations!) by preference in digital format.

✉ By preference by email to:
anny.anselin@inbo.be

✉ or by mail on CD to:
**Anny Anselin,
Research Institute for Nature and Forest,
Kliniekstraat 13,
B-1070 Brussel,
Belgium**

You will receive your article in pdf-format to use for reprints

Bird Census News
2005 Volume 18 number 2

Contents

Preface	
<i>Anny Anselin</i>	41
Monitoring breeding bird populations in the Republic of Ireland.	
<i>Olivia Crowe & Dick Coombes</i>	42-51
Books & Journals	
.....	52-61
17 th International Conference	
of the European Bird Census Council	62-64