Bird Census News

Journal of the European Bird Census Council

www.ebcc.info

2012
Volume 25 n°2

Bird Census News

2012, volume 25 n° 2 (published March 2014)
ISSN 1381-5261
Free download pdf from www.ebcc.info

Bird Census News is the Journal 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.

Bird Census News is supported by the **Research Institute for Nature and Forest, INBO**, Kliniekstraat 25, B-1070 Brussels, Belgium. The INBO is a scientific institution of the Flemish Community

Bird Census News
Volume 25/2, March 2014

EDITORIAL

Here, after a long time, we present you the second issue of Bird Census News in digital format. Due to a combination of lack of time and lack of copy we have now a substantial delay in the publishing of the journal, however, we have great hopes to catch up on that very soon. From now on we work with an editing team. Henning Heldbjerg from DOF-BirdLife Denmark and EBCC Board Member, and Mark Eaton from RSPB and observer from this NGO in the Board will assist me with the editorial tasks and Olga Voltzit (Zoological Museum of the Moscow Lomonosov State University) takes care of the lay-out. We are convinced that this joint effort will increase the efficiency of publishing and the chances to produce issues on a more regular base in the future! Thanks a lot all three for your unselfish involvement with Bird Census News!

In this issue, due to the delay, you will find some contributions that have been written some time ago, but this does not mean they are less interesting! Petr Voříšek and Jana Škorpilová threat the detectability in generic breeding bird monitoring schemes in Europe and report on the Pan-European Common Bird Monitoring Scheme workshop in 2012. Jaanus Elts gives the results of 25 years of winter counts in Estonia and Mikhail Kalyakin and co-authors present the first comprehensive Moscow bird atlas, which is an important milestone in atlassing work in Russia and no doubt an impressive example of successful development of a volunteer birdwatchers network.

The Books and Journals section offers short reviews of publications on monitoring population changes in Sweden, birds in winter in Spain, arctic breeding waders and breeding birds in the Russian city of Voronezh.
Since the formal start of the Atlas of breeding birds in Europe project at the very successful and well organised EBCC conference in Cluj (Romania) in September 2013, important progress has been made in various fields. In view of this and of catching up on the publishing delay, we have the intention to dedicate volume 26 (as a double volume 1-2) to this important and challenging project. We will soon start to contact people for contributions! Be prepared!

Enjoy this issue!

Anny Anselin
Editor Bird Census News

CONTENTS

Bird Census News 2012, 25/2: 39-42

Detectability in generic breeding bird monitoring schemes. An overview of the situation in Europe.

Petr Voříšek & Jana Škorpilová

Pan-European Common Bird Monitoring Scheme (PECBMS), Czech Society for Ornithology, Na Bělidle 34, CZ-150 00 Prague 5, Czech Republic.

EuroMonitoring@birdlife.cz

Abstract. We explored whether and how detectability is addressed in European common bird monitoring schemes. We aimed to identify gaps and find good practice, which can be shared across the schemes and improve relevance of data collated by the schemes. The results show that information obtained in many monitoring schemes would allow detectability to be potentially addressed in most cases. However, routine production of population trends adjusted for detectability is still in its early stages. It appears that specific software, extending the capabilities of present tools to make use of additional information and account for detectability may greatly facilitate in the delivery of more robust population indices.

Introduction

It has been widely recognised that addressing detection probability (detectability) in monitoring schemes is desirable in order to get reliable estimates of species abundance or population densities. Detectability can be important also in cases when only relative index of abundance is the main aim of a scheme. Although many scientific papers have been published and the detectability and methods how to cope with it are addressed in textbooks and guidelines (e.g. Bibby *et al*. 2000, Voříšek *et al*. 2008), we know less how much and specifically how is detectability addressed in large-scale generic breeding bird monitoring schemes in Europe.

To compare to rather theoretical suggestions in textbooks, practical experience from monitoring schemes can help to implement the best approach for each scheme. Therefore, we decided to collate information whether and how the detectability has been addressed in existing common bird monitoring schemes, which have contributed to the Pan-European Common Bird Monitoring Scheme (*http://www.ebcc.info/pecbm.html*). By exploring a situation in European common bird monitoring schemes we aim to get information which would help us to identify gaps and find good practice, which can be shared across the schemes and improve relevance of data collated by the schemes.

Methods

General

Coordinators of all monitoring schemes contributing to the PECBMS have been asked to fill the simple on-line questionnaire in. For schemes delivering data see *http://www.ebcc.info/trends2012.html*. We did not ask the schemes which are in their early stages and do not deliver yet the annual population indices to the PECBMS. We asked the coordinators of monitoring schemes for information whether detectability is considered in a design of their schemes, in case it is, which method is used. We also asked those schemes, where detectability has been addressed, about the use in data analysis, especially in production of population indices. See Box for complete questionnaire.

Results of the questionnaire (by the end of June 2012)

We have received data from 25 countries on 25 schemes (one country reported on two schemes and one scheme in another country was reported twice). Among the schemes and countries, coop-

Box : Information asked in the Questionnaire

1. Name (please give a full name of a person who filled the questionnaire in)
2. Country
3. Scheme name (please give a full name and acronym of a scheme)
4. Is detectability addressed in a design of your scheme? – Yes/No/Do not know
5. What is a method for addressing detectability in data collation – Distance sampling/Other (please specify)
6. Do you assess the detectability in data analysis – Yes/No/Do not know
7. How do you assess the detectability in data analysis - please specify (e.g. population index is adjusted for detectability, or detectability adjusted counts are used for estimates of population densities only, etc.)
8. Is a population index you produce on routine basis based on assessed detectability? – Yes/No/Do not know
9. In case you published a paper using data adjusted for detectability, please give a full reference(s); in case you published more papers, please list three most important ones.
10. Comments – please add any comment.

erating within PECBMS, information from eight schemes and five countries was not received. Nevertheless, we believe the information from received questionnaires is 'representative' as these missing countries and schemes can hardly change the overall picture how detectability is addressed in common bird monitoring schemes in Europe.

Addressing detectability in schemes

Fifteen schemes are designed in a way that allows potentially to address detectability. Representative of one scheme did not know, but as there is repeated sampling in at least at a proportion of plots every year in that scheme, we can conclude the detectability could be assessed here as well. This is assuming that repeated sampling can potentially bring information which can be used for addressing detectability. Nine schemes reported that they did not obtain information related to detectability in their design, but a more detailed analyses of the available information on these schemes reveals two of them could be reasonably expected that the design addresses the detectability. In remaining seven schemes, there is probably some potential to cope with the detectability because of repeated visits per year and site in most cases but this would need further detailed investigations.

Methods of addressing detectability used in schemes

Distance sampling is the most commonly used method to address detectability in scheme's design – 11 out of 15 schemes use this method. Distance sampling appears to be used in schemes with point counts as well as in schemes with line transect, on the other hand this method is not used in schemes (2) with territory mapping (see the Table 1). Except of territory mapping, which is however least common field method used in generic monitoring schemes in Europe (Klvaňová & Voříšek 2007), it does not seem that a method of addressing detectability in scheme's design is affected by field method.

	DS	DS & O	O	T
line transect	5	0	1	6
point counts	5	1	0	6
territory mapping	0	0	2	2
line transect & point counts	1	0	0	1
Total	11	1	3	15

Table 1. Method of addressing detectability in scheme's design and field method used. DS = Distance sampling, DS & O = Distance sampling and others; O = Others; T = Total

Addressing detectability in data analyses

Out of 15 schemes obtaining data allowing to estimate detectability only five did so effectively in further analysis. This means that in remaining 10 schemes data allowing detectability estimates is gathered but not analysed yet. Furthermore, no scheme out of those five working on detectability uses the data adjusted on detectability for routine production of population index. Data accounted for detectability in these five schemes are used for estimation of population densities and population size instead. Only two schemes are working on further use of detectability in data analyses: A scheme in UK is exploring the possibilities of adjusting population index for detectability and a manuscript of a paper is under preparation. Similarly, a scheme in Switzerland is also experimenting with methods accounting for detectability, especially with models that use replicated counts without individual identification of territories. Thus, we can expect a progress in near future from these two schemes.

Publications

Scheme coordinators were also asked for supplying references of any scientific paper using scheme's data adjusted for detectability, and four schemes provided some: Carrascal & Palomino (2008), Davey *et al*. (2012), Herrando *et al*. (2008), Kéry *et al*. (2005), Kéry & Royle (2010), Newson *et al*. (2008), Quesada *et al*. (2010), Renwick *et al*. (2012), Royle *et al*. (2011). See the References for full citations.

Conclusions

The responses on the questionnaire confirm that detectability has the potential to be better addressed in the design of most of the bird monitoring schemes and in the data analyses. However, it seems that at least in some cases it is a result of using standardised design rather than intention to work further on this issue.

A fact that some coordinators either respond that did not know whether the scheme design was able to account for detectability or replied that they did not address detectability at all while other information on the scheme suggested the contrary, indicates that further training in understanding the issue of detectability is desirable.

Since it is widely reported by coordinators that detectability is addressed in the schemes' design, but often data is not further used for calculation of e.g. population index controlled on detectability, we hardly can assess whether a design of a scheme is proper and really allows assessment of detectability.

The most important finding of the survey is a fact that detectability is not routinely adjusted for in computation of population indices in European generic breeding bird monitoring schemes. Although methods and also some free software (e.g. DISTANCE – Thomas *et al*. 2010) are available, it seems a development in this area is relatively slow. As coordinators of the scheme in Poland (P. Chylarecki and T. Chodkiewicz) pointed out in their comments to the questionnaire, a tool enabling accounting for detectability should be integrated in existing software tools for computation population indices. Similarly in a past, better methods than simple chaining index for calculation of population indices were not used widely in Europe until a user friendly software tool TRIM appeared.

Acknowledgements

Our thanks go to those who filled the questionnaire in: Ainars Aunins (Latvia), Elisabetta de Carli (Italy), Tomek Chodkiewicz (Poland), Przemek Chylarecki (Poland), Olivia Crowe (Ireland), Martin Hellicar (Cyprus), Henning Heldbjerg (Denmark), Sergi Herrando (Spain, Catalonia), Iordan Hristov (Bulgaria), Frederic Jiguet (France), Marc Kéry (Switzerland), Primoz Kmecl (Slovenia), Petras Kurlavičius (Lithuania), Aleksi Lehikoinen (Finland), Domingos Leitão (Portugal), Åke Lindström (Sweden), Juan Carlos del Moral (Spain), Renno Nellis (Estonia), David Noble (UK), Jean-Yves Paquet (Belgium, Wallonia), Danae Portolou (Greece), Jiri Reif (Czech Republic), Zoltan D. Szabo, (Romania), Tibor Szép (Hungary), Norbert Teufelbauer (Austria), Chris van Turnhout (The Netherlands), Zdeněk Vermouzek (Czech Republic).

This paper has been produced within a project 'Delivering European Bird Indicators' supported financially by the Royal Society for Protection of Birds (RSPB, the BirdLife International Partner in the UK) and by the European Commission. Sole responsibility of the contents of this paper lies with the authors; the European Commission is not responsible for any use that may be made of the information contained in this document.

References

Bibby, C.,J., Burgess, N.,D., Hill, D.,A. & Mustoe, S. (2000). Bird Census Techniques. Academic Press.

Carrascal, L., M. & Palomino, D. (2008). Las aves comunes reproductoras en España. Población en 2004-2006. SEO/BirdLife. Madrid.

Davey, C.,M., Chamberlain, D.,E., Newson, S.,E., Noble, D.,G. & Johnston, A. (2012). Rise of the generalists: evidence for climate driven homogenization in avian communities. Global Ecology and Biogeography 21: 568–578.

Herrando, S., Brotons, L., Estrada, J. & Pedrocchi, V. (2008). The Catalan common bird survey (SOCC): a tool to estimate species population numbers. Revista Catalana d'Ornitologia 24: 138-146.

Kéry, M., Royle, J. A., & Schmid, H. (2005). Modelling avian abundance from replicated counts using binomial mixture models. Ecological Applications 15: 1450–1461.

Kéry, M., & Royle, J.A. (2010). Hierarchical modelling and estimation of abundance in metapopulation designs. Journal of Animal Ecology 79: 453–461.

Klvaňová, A., Voříšek, P. (2007). Review on large-scale generic population monitoring schemes in Europe 2007. Bird Census News 20/2: 50-56.

Newson, S.,E., Evans, K.,L., Noble, D.,G., Greenwood, J.,J.,D. & Gaston, K.,J. (2008). Use of distance sampling to improve estimates of national population sizes for common and widespread breeding birds in the UK. Journal of Applied Ecology 45: 1330-1338.

Quesada, J., Guallar, S., Pérez-Ruíz, N., Estrada, J. & Herrando, S. (2010). Observer error associated with band allocation is negligible in large scale bird monitoring schemes but, how precise is using bands at all? Ardeola 57(special):23-32.

Renwick A.,R., Massimino, D., Newson, S.,E., Chamberlain, D.E., Pearce-Higgins, J.,W. & Johnston, A. (2012). Modelling changes in species' abundance in response to projected climate change. Diversity & Distributions 18: 121-122.

Royle, J.A., Kéry, M., & Guélat, J. (2011). Spatial capture-recapture models for search-encounter data. Methods in Ecology and Evolution 2: 602–611.

Thomas, L., Buckland, S.,T., Rexstad, E.,A., Laake, J.,L., Strindberg, S., Hedley, S.,L., Bishop, J.,R.,B., Marques, T.,A. & Burnham, K.,P. (2010). Distance software: design and analysis of distance sampling surveys for estimating population size. Journal of Applied Ecology 47: 5-14. DOI: 10.1111/j.1365-2664.2009.01737.x

Voříšek, P., Klvaňová, A., Wotton, S., Gregory, R.,D. (2008). A Best Practice Guide For Wild Bird Monitoring Schemes. First Edition, Cso/Rspb.Voříšek, P., A. Klvaňová, S. Wotton & R. D. Gregory (Eds). 2008. A best practice guide for wild bird monitoring schemes. CSO/RSPB.

Received: 2 November 2012
Accepted: 9 February 2013

Bird Census News 2012, 25/2: 43-52

A review of 25 years of mainland winter bird counts in Estonia

Jaanus Elts

Estonian Ornithological Society / University of Tartu, Veski 4, 51005 Tartu, Estonia
Jaanus.Elts@eoy.ee

Abstract. Estonia has a long-term monitoring programme for wintering land birds running since 1987. Permanent transect counts without using distance belts are conducted three times during the winter and 30-40 transects are counted annually. During the last 25 years nine species showed a stable trend, while five species were increasing and seven decreasing. In 2012 we calculated for the first time an Estonian winter farmland bird index (WFBI), using only those nine species of which an important part of the population has been observed in farmland and open landscape. The index shows a moderate decrease over the last 25 years.

Introduction

Winter conditions influence significantly bird nesting success and the condition of a population as a whole. The larger the number of birds that perish during harsh winters, the smaller the population that starts breeding in spring. After an exceptionally long and severe winter, many birds are in bad condition. Breeding starts later and clutches are in general smaller than usual. In particular early spring cold spells with heavy snowfall, occurring after the arrival of most migratory birds, have a severe effect on survival.

In order to examine the trends of wintering birds, several countries started to organise specific bird counts. In the USA, the so-called *Christmas Bird Count* is one of the oldest bird monitoring schemes in the world. It started in 1900 and is still widely used all over the country (National Audubon Society 2010). Finland has also a long tradition of winter bird counting, using transects. This started in 1956/57 (Koskimies & Rajala 1957). In Sweden wintering mainland birds are traditionally monitored by using a point count method (Vinterfågelräkningen 2012). In Finland, with time it became clear that the trend results obtained by one single winter count, could be substantially improved by additional counts in November and February. In Estonia we started similar winter bird counts in 1987 to get a better knowledge of the presence and abundance of terrestrial wintering birds. The winter of 2011/12 was our 25th season.

Combined breeding population trend indices of terrestrial birds are frequently used to provide general indicators for taxonomic species groups or habitat specific species groups, e.g. the farmland and forest birds indicators (Gregory *et al*. 2005; Gregory *et al*. 2008). We tried to test if producing a "winter bird indicator" was possible, using our long-term data on winter counts of farmland birds in Estonia. Here we present and comment the long-term trends of the 25 most common winter birds in Estonia and the first national Winter Farmland Bird Index for the period 1987-2011.

Material and Methods

We use transect counts without distance belts and a length of 10 km. All birds seen and heard are counted. Each transect is visited three times, during the Autumn Count (15 to 28 November), the Christmas Count (25 December to 7 January) and the Spring Count (15 to 28 February).

Observations are recorded on special forms and entered in a database (MS Access). This database contains now 42,660 records of the 56 most numerous winter bird species and a small number of occasionally wintering species: in total, 643,643 observed birds.

The observations collected during the winter bird counts are assigned to eight broad habitat categories:

a) Discharge sites: sites where waste has been disposed;

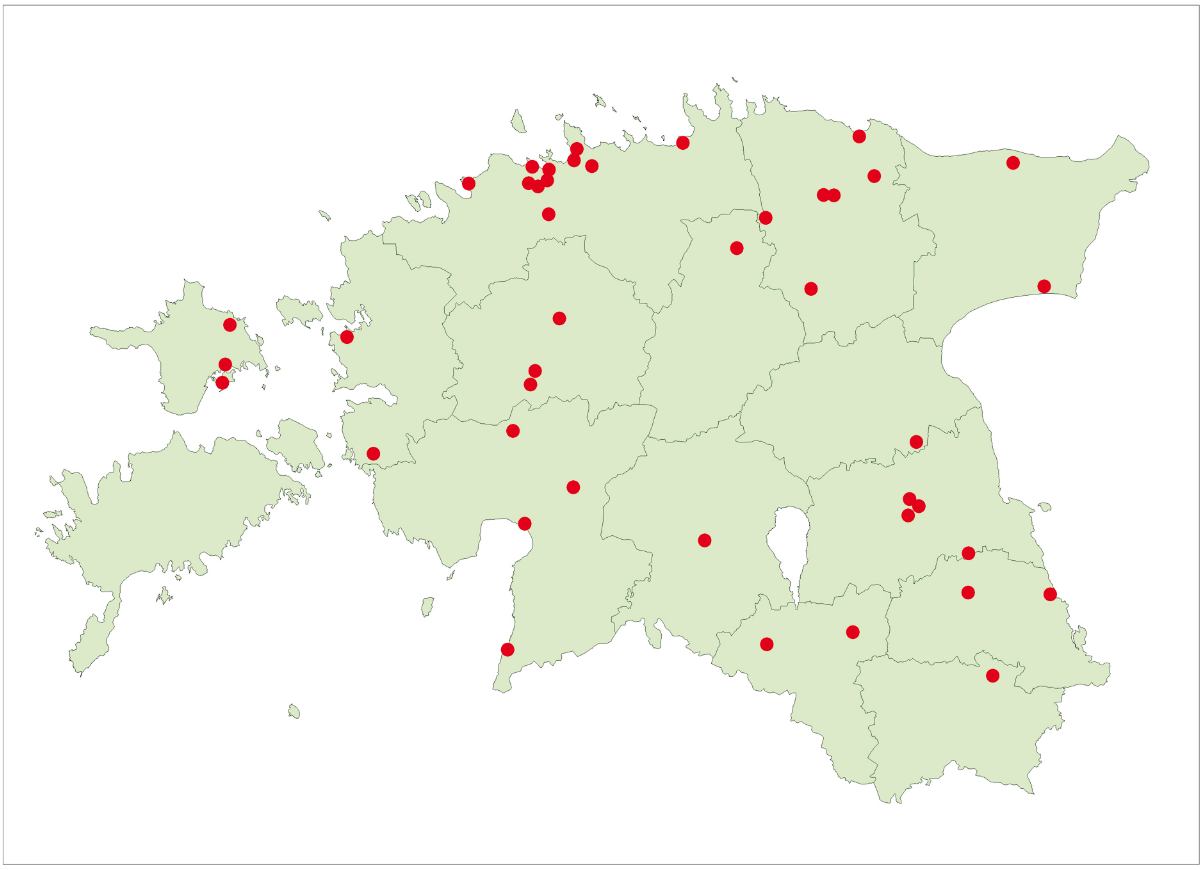


Figure 1. Location within each county of the terrestrial winter bird transects during the Christmas Count of 2011.

b) Urban landscape: densely urbanised areas, ports, railway stations, town parks, cemeteries, etc.;
c) Farm landscape: farmyards, gardens, barns;
d) Open landscape: all that is outside of gardens – meadows, fields;
e) Forest landscape: all kinds of forest areas (except the ones belonging to category g, see below);
f) Other landscapes, only covering small areas: e.g. water bodies, coastal meadows, bogs, thickets of reeds;
g) Clearings and young tree stands (less than 5 meters of height);
h) Shrubs (incl. juniper shrub).

We analysed the trends of the 25 most numerous winter birds. When assessing the changes in abundance, only the mid-winter or Christmas count data have been taken into account. In Estonia, weather conditions in mid-winter are more stable than in November and February when often important fluctuations in temperatures occur. For calculating the trends programme TRIM (ver. 3.53, van Strien *et al*. 2001) was used.

In general, we are satisfied with the spatial distribution of the transects, which occur all over the country (Figure 1). Still, for now there are no counting sites in the island of Saaremaa and in four counties, there is only one transect. During the last years, 30-40 transects were counted annually. In 2012 we calculated for the first time an Estonian winter farmland bird index (WFBI). To compile this index, we included only those species of which an important part of the population (more than 70%) was present in farmland and open landscape: Jackdaw *Corvus monedula*, Hooded Crow *Corvus corone cornix*, Magpie *Pica pica*, Feral Pigeon *Columba livia domestica*, Goldfinch *Carduelis carduelis*, Tree Sparrow *Passer montanus*, Great Tit *Parus major*, Greenfinch *Carduelis chloris*, Yellowhammer *Emberiza citrinella*. For Jackdaw and Great Tit we calculated the indexes for farmland only.

Results

General results

The species overviews presented here reflect only the data of the Christmas Count. Graphs of abundance index and trend evaluations (according to the classification of TRIM) are presented

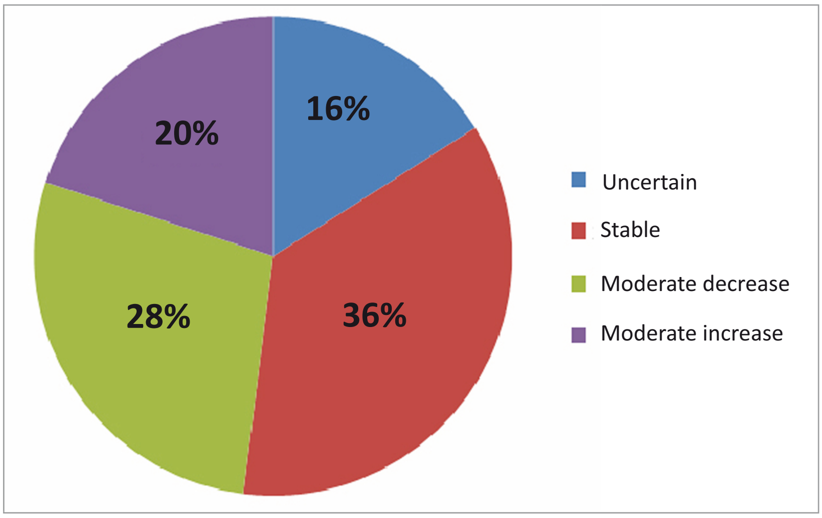


Figure 2. The trends of 25 mainland winter birds from 1987 to 2011.

in Appendix 1. It was possible to calculate these indexes for 25 species. Some of them, e.g. Long-tailed Tit *Aegithalos caudatus*, Bohemian Waxwing *Bombycilla garrulus* and Redpoll *Carduelis cabaret* are invasive species. Their abundance fluctuates greatly from year to year, which is reflected in the indexes. The long-term population trend of these species is unclear. Initially, we also tried to assess indexes for less numerous species, but for several reasons we were not able to find an appropriate model. At the same time, if the sample becomes larger, it might be possible to calculate indexes for several other species in the future.

During the last 25 years, the abundance of nine terrestrial winter birds could be determined as stable; the abundance increased for five species and decreased for seven species (Figure 2).

Species specific abundance trends

During 25 winters, the abundance of Greenfinch has moderately increased. The index reflects clearly also the disease outbreak among greenfinches (Lawson *et al*. 2011) that ended the increase in abundance that lasted for several years. During last winter, the abundance of this species has recovered again.

The abundance of Jackdaw has first moderately increased, but after its peak in 2008 it has constantly decreased. Also, the winter abundance of Eurasian Jay *Garrulus glandarius* has increased. This trend assessment is probably influenced by the last important invasion in the autumn of 2009. The winter abundance of Nuthatch *Sitta europaea* is not high, but this species can be sparsely found in many transects and therefore, the moderate increase of its abundance can easily be monitored. Also, the winter abundance of Blackbird *Turdus merula* has moderately increased, but was clearly higher around the turn of the century.

Treecreeper *Certhia familiaris*, Hooded Crow, Raven *Corvus corax*, Great spotted Woodpecker *Dendrocopus major*, Blue Tit *Parus caeruleus*, Crested Tit *Parus cristatus*, Great Tit, Tree Sparrow, and Bullfinch *Pyrrhula pyrrhula*, all show a stable abundance. The last species, showed a very strong invasion in the autumn of 2000. The abundance of the Hooded Crow has decreased in the last four years. The Raven increased for nearly ten years and reached its maximum during the Christmas Count of 2010, but it has significantly decreased during last winter. The reason for this is unknown. Great spotted Woodpecker is characterised by invasions during so-called cone years. This was clearly the case at the end of 2008 when the abundance index was three times higher than the results of the first counting years.

The abundance of Goldfinch, Feral Pigeon, Willow Tit *Parus montanus*, Marsh Tit *Parus palustris*, House Sparrow *Passer domesticus*, Magpie and Goldcrest *Regulus regulus*, has been decreasing. The latter species is very sensitive to harsh winters and its abundance decreased to a very low level during the winter of 2009/2010 (the abundance index was just 0.13). The abundance of this species was almost as low as in the winter of 2001/2002. The abundance of Goldfinch was at its peak at the beginning of 1990s, but it has been very low for the last four years. The abundance of

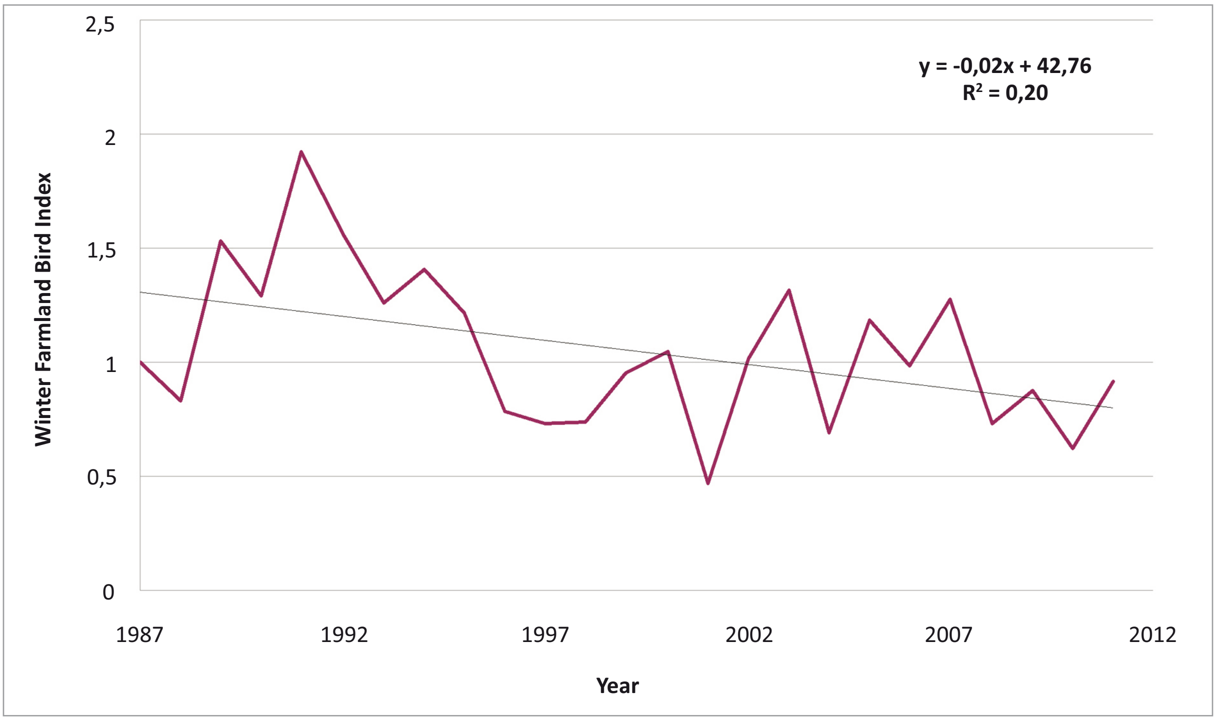


Figure 3. Estonian Winter Farmland Bird Index (See list of species in the text).

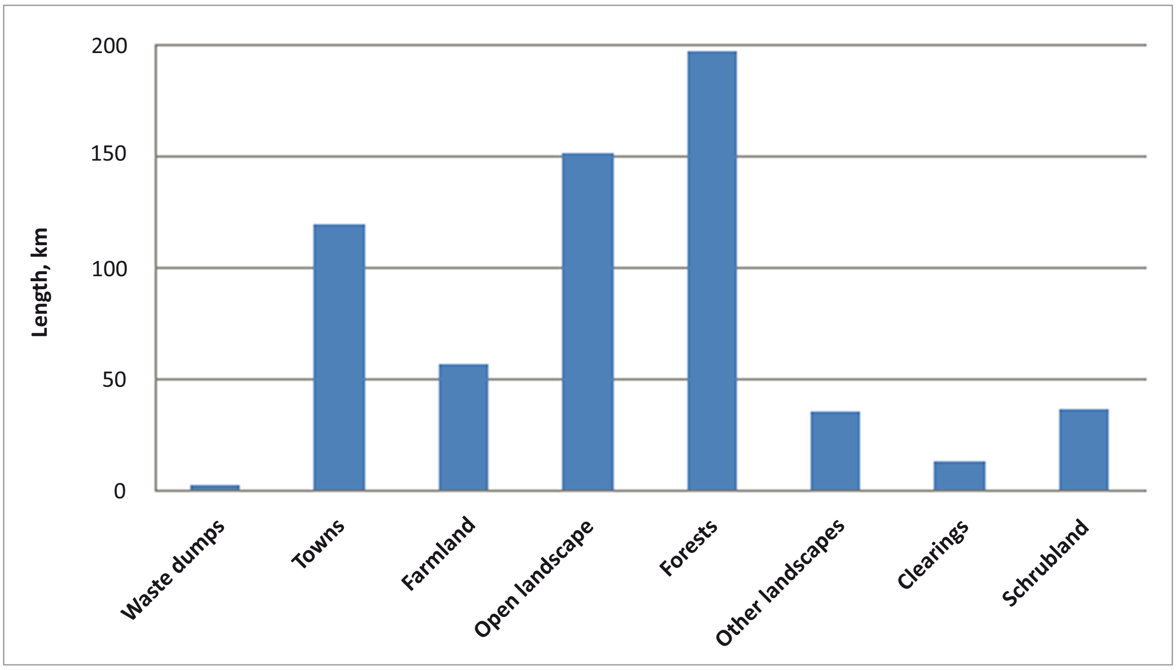


Figure 4. Average length of counted transects in different habitats during the last three years.

Feral Pigeon and Magpie was high during the first years of the winter bird counts and decreased significantly during the second half of 1990s, but has been quite stable for the last 10 years.

Our Winter Farmland Bird Index (Figure 3) shows first a clear increase, decreases between 1991 and 1998 and fluctuates in the following years. The overall trend shows a decrease. Hopefully it is possible to improve the quality of this index in the future, but therefore we need more transects and more counting years. For example, it is currently not possible to calculate habitat-based indexes even in the case of Greenfinch. For this species it would be interesting to find out if the observed increase in abundance is rather due to greenfinches that depend on sunflower seeds in feeders in urban environments, or to plentiful food supply related to rape-growing (and related weed-seeds) in agricultural landscapes.

During the last three years, the highest number of counts has been conducted in forest landscapes, but also urban and open landscapes are well covered by the scheme (Figure 4). In former years, urban areas were underrepresented, but forested areas were always best covered. Waste sites, clearings/young stands and shrubberies are mostly small habitat spots within other landscapes and not very useful candidates for additional transects.

In the future we would like to increase transects in farmland, but more counts in open landscape are also needed.

References

Gregory, R.D., van Strien, A.J., Vorisek, P., Gmelig Meyling A.W., Noble, D.G., Foppen, R.P.B. & Gibbons, D.W. 2005. Developing indicators for European Birds. Phil. Trans. R. Soc. Lond. B. 360: 269-288.

Gregory, R.D., Vorisek, P., Noble, D.G., van Strien, A.J., Klvanova, A., Eaton, M., Gmelig Meyling, A. W., Joys, A., Foppen, R.P.B. & Burfield, I. 2008. The generation and use of population indicators in Europe. Bird Conservation International, 18: 223-244.

Koskimies, J. & Rajala, P. 1957. The winter bird census of 1956/57. Arch. Soc. Vanamo 12: 41-51.

Lawson, B., Robinson, R.A., Neimanis, A., Handeland, K., Isomursu, M., Agren, E.O., Hamnes, I.S., Tyler, K.M., Chantrey, J., Hughes, L.A., Pennycott, T.W., Simpson, V.R., John, S.K., Peck, K.M., Toms, M.P., Bennett, M., Kirkwood, J.K. & Cunningham, A.A. 2011. Evidence of spread of emerging infectious disease, finch trichomonosis, by migrating birds. EcoHealth 8: 143-153

National Audubon Society 2010. The Christmas Bird Count Historical Results [Online]. Available http://www.christmasbirdcount.org [16.11.2012]

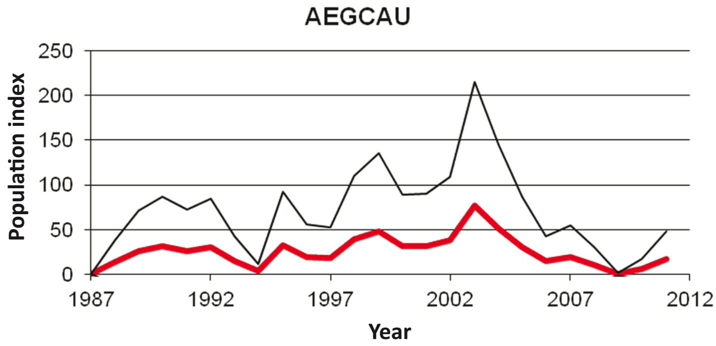
van Strien, A. J., Pannekoek, J. Hagemeijer, W. & Verstrael, T. 2000. A loglinear Poisson regression method to analyse bird monitoring data. In: Anselin, A. (ed.) Bird Numbers 1995, Proceedings of the International Conference and 13th Meeting of the European Bird Census Council, Pärnu, Estonia. Bird Census News 13: 33-39.

Vinterfågelräkningen 2012. http://zooekol.biol.lu.se/birdmonitoring/res-vinterfagel.htm

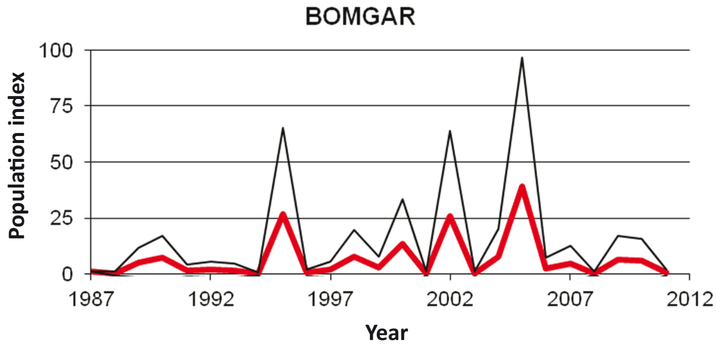
Received: 7 February 2013
Accepted: 15 March 2013

Appendix 1. Trends of 25 most common winter birds in Estonia in 1987-2011. Trends are calculated using the TRIM. N = number of counted birds, the red line indicates the population index and black lines 95% confidence limits. Species are ordered according to their scientific names.

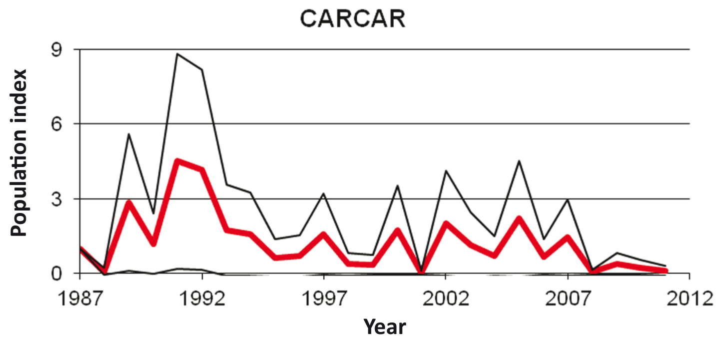
Long-tailed Tit
N=1017
Trend: Uncertain



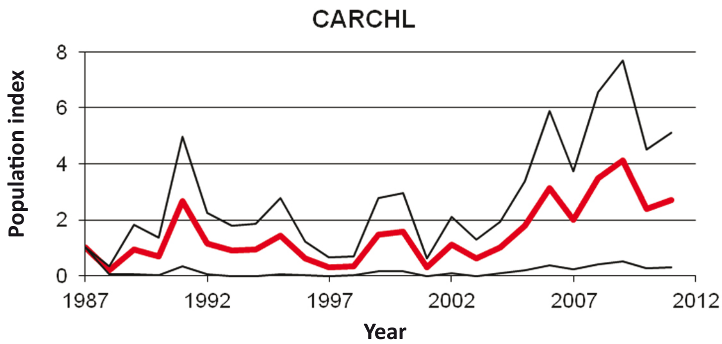
Bohemian Waxwing
N=1175
Trend: Uncertain



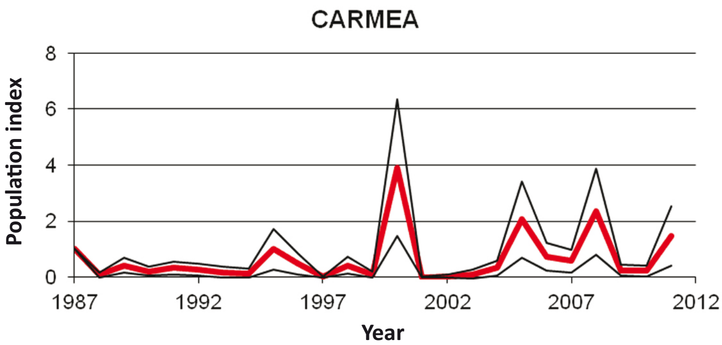
Goldfinch
N=1459
Trend: Moderate decline ($p<0.05$)



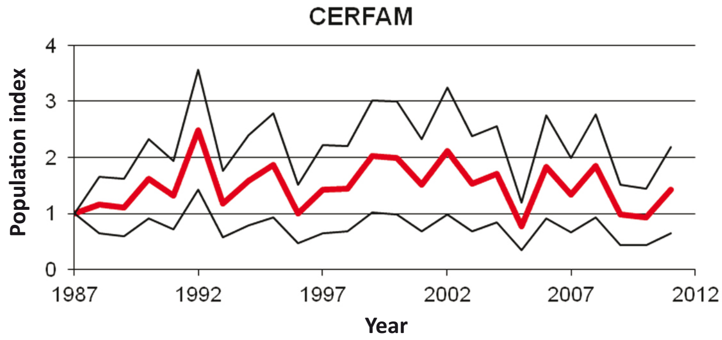
Greenfinch
N=4975
Trend: Moderate increase ($p<0.01$)



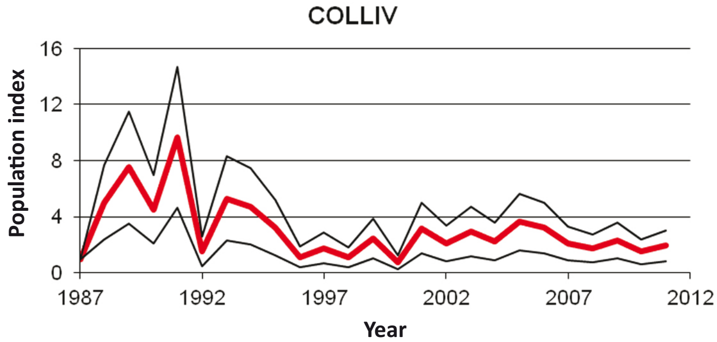
Common Redpoll
N=9286
Trend: Uncertain



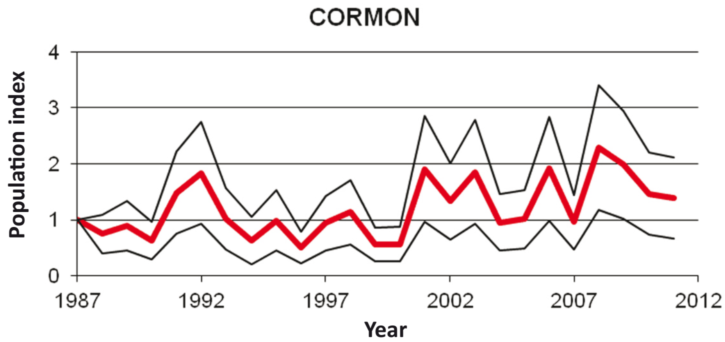
Eurasian Treecreeper
N=726
Trend: Stable



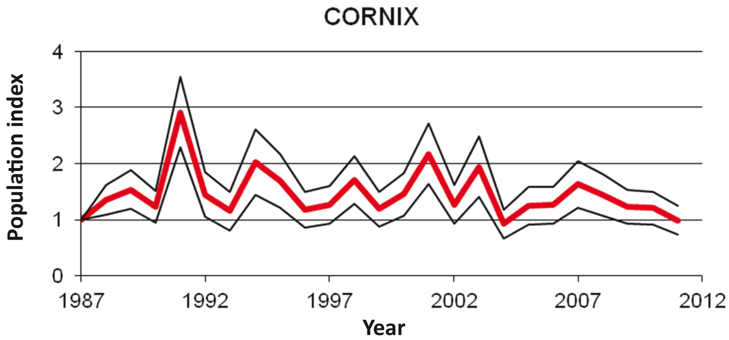
Feral Pigeon
N=6675
Trend: Moderate decline ($p<0.05$)



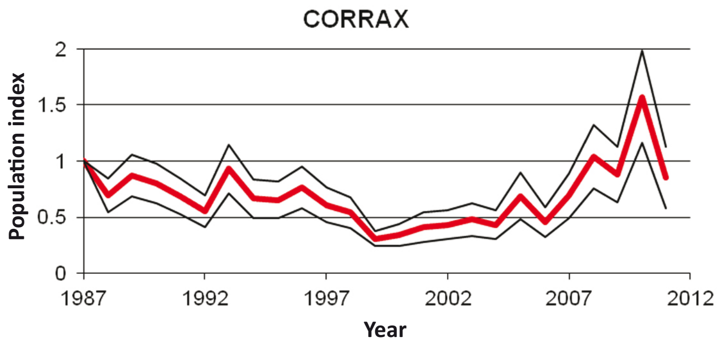
Jackdaw
N=16148
Trend: Moderate increase
($p<0.01$)



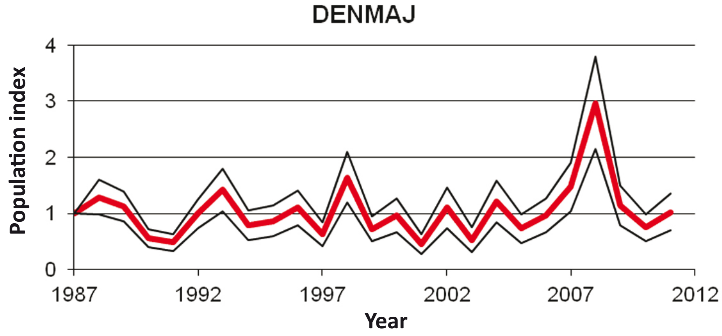
Hooded Crow
N=21003
Trend: Stable



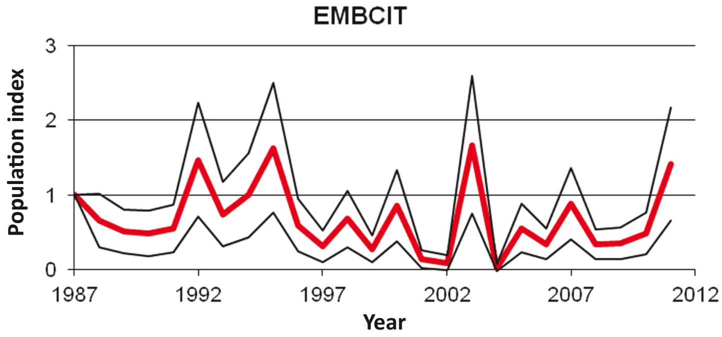
Raven
N=4161
Trend: Stable



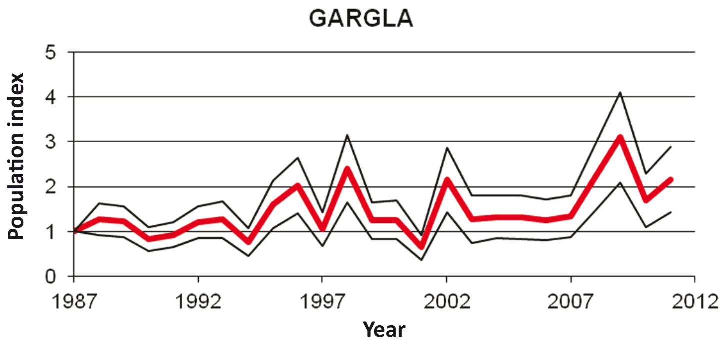
Great spotted Woodpecker
N=2208
Trend: Stable



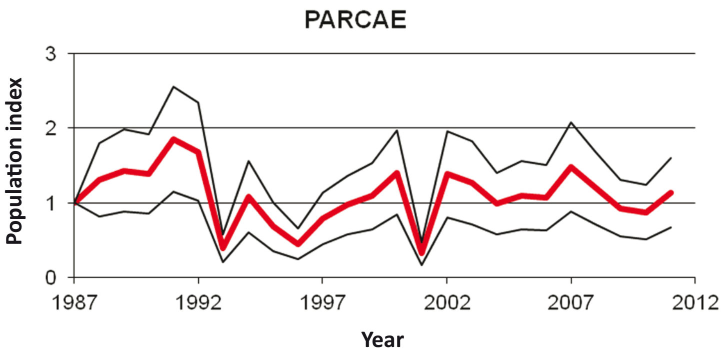
Yellowhammer
N=5844
Trend: Uncertain



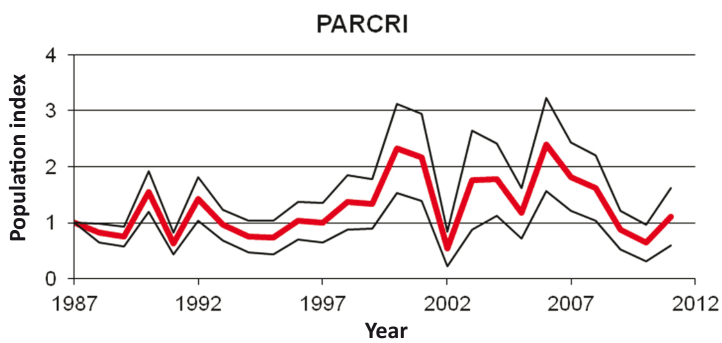
Eurasian Jay
N=1609
Trend: Moderate increase
($p<0.05$)



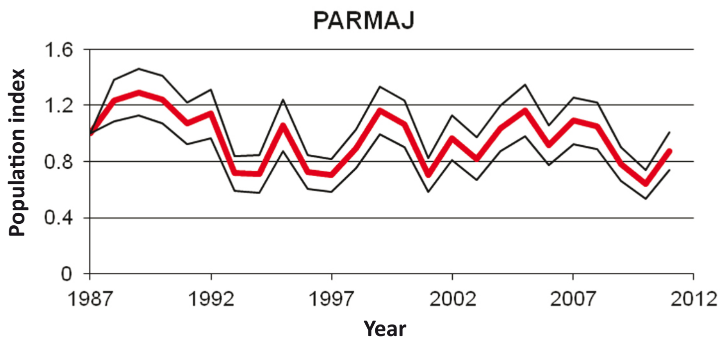
Blue Tit
N=3034
Trend: Stable



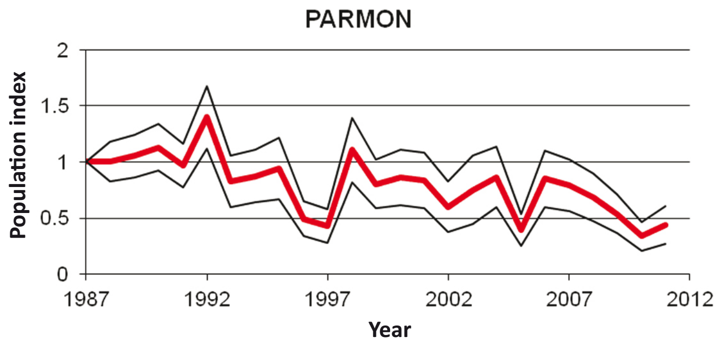
Crested Tit
N=1683
Trend: Stable



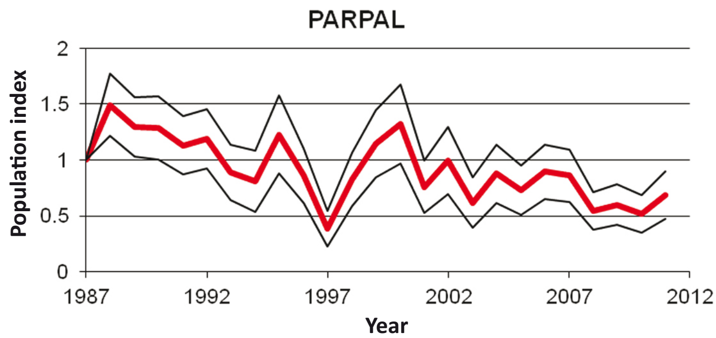
Great Tit
N=25167
Trend: Stable



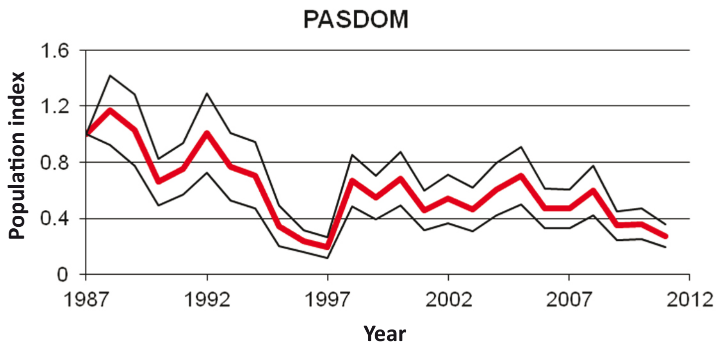
Willow Tit
N=3353
Trend: Moderate decline (p<0.01)



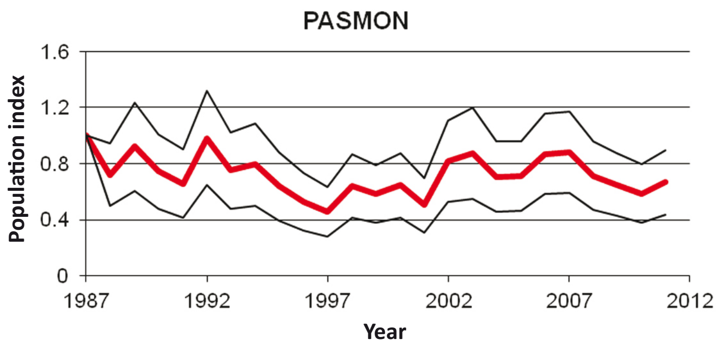
Marsh Tit
N=2710
Trend: Moderate decline (p<0.01)



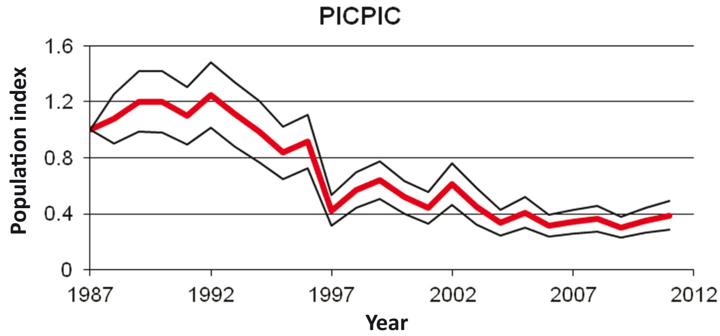
House Sparrow
N=6943
Trend: Moderate decline (p<0.01)



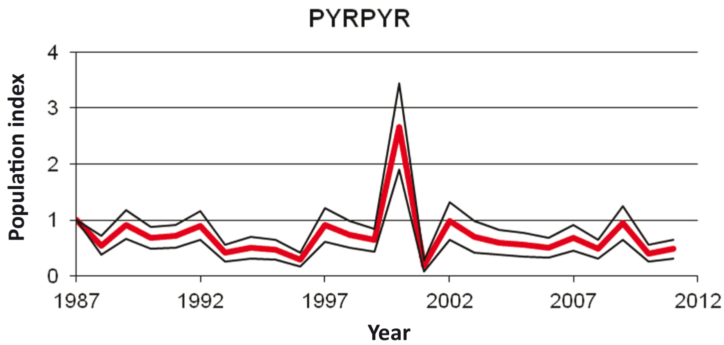
Tree Sparrow
N=7604
Trend: Stable



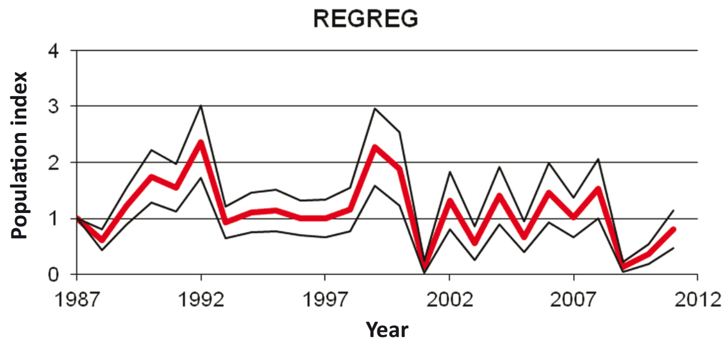
Magpie
N=3811
Trend: Moderate decline (p<0.01)



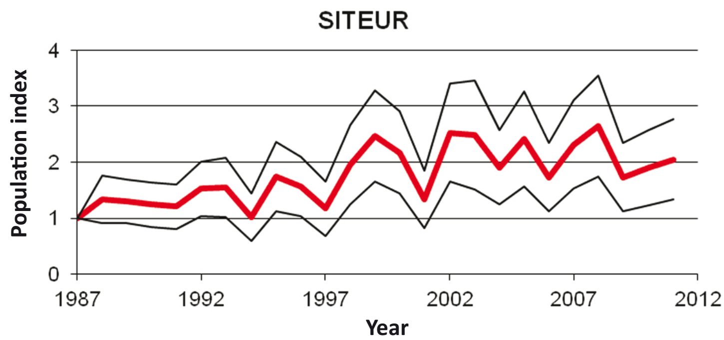
Bullfinch
N=4226
Trend: Stable



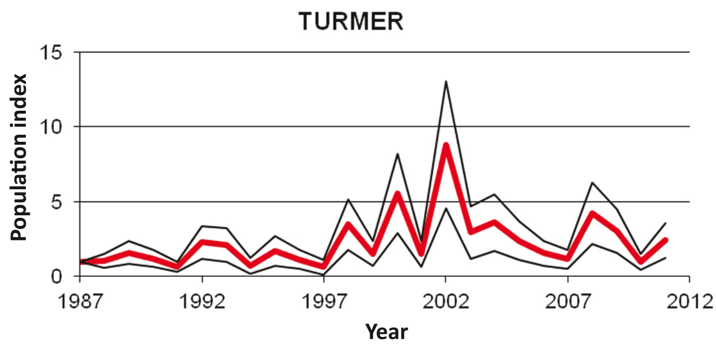
Goldcrest
N=3131
Trend: Moderate decline (p<0.05)



Nuthatch
N=1677
Trend: Moderate increase
(p<0.01)



Blackbird
N=734
Trend: Moderate increase
(p<0.05)



EUROPEAN ATLAS NEWS

The first comprehensive Moscow bird atlas

Mikhail V. Kalyakin[1], Olga V. Voltzit[1], Geert Groot Koerkamp[2]
[1] Zoological Museum of the Moscow Lomonosov State University;
[1] kalyakin@zmmu.msu.ru; voltzit@zmmu.msu.ru
[2] koerkamp@co.ru

Abstract. The Atlas of the birds of Moscow City was published in 2014. The main body of the atlas consists of the distribution maps for each of the 226 species found in Moscow during 2006–2011. These are accompanied by brief species accounts in both Russian and English. The texts should add, not duplicate the information contained in the maps. The map pages contain one larger and two smaller maps. The first of the three maps presents information on the distribution and abundance of the species during the breeding season, colours are used to indicate the level of evidence for breeding. Abundance of breeding pairs is indicated by varying diameters of the black dots inside the tetrads. The upper of the two smaller maps shows the tetrads (marked in blue) in which the species was found at least once during the winter period. The lower map shows the maximum estimates of the number of individuals of a species recorded in a tetrad during the year, regardless of the season.

Introduction

With a population of over 12 million, Moscow is the largest city in Russia and the northernmost megalopolis in the world. Only within the boundaries of the Moscow ring road it occupies around 887 km^2. Even though the birds of Moscow have been the subject of various studies for almost two centuries, a comprehensive atlas of the city's avifauna has never been published.

However, an important new project started in 1999 with the kick-off of the 'Birds of Moscow and the Moscow Region' (BMMR) programme. The programme brings together both birdwatchers and professional ornithologists, joining forces for the study of the birds of Moscow and the surrounding Moscow province, by sending in records of birds to a central data base and taking part in various projects. The data collected were summarized in the first bilingual (Russian/English) atlas of birds of Moscow and the Moscow region (Kalyakin & Voltzit 2006), a landmark publication and the first of its kind in Russia. The book presents maps for all species recorded, using dots for all individual records (including confirmed breeding) received during 1999–2004 from participants in the project.

These data, however, were largely collected during more or less casual trips to various parts of the city and the Moscow region, and they were not the result of any systematic research efforts. It was obvious that the maps were far from complete. To fill in the gaps it was decided to launch a new and more ambitious project, this time aimed at producing a complete and detailed atlas of the birds of Moscow city, within the limits of the Moscow ring road.

Methods

Field work was carried out during 2006–2011 by 67 participants. For the first time, the participants were asked to stick to a certain methodology for observing birds and reporting the results of these observations. The territory of Moscow inside the ring road was divided into 2×2 km squares, on the basis of the UTM (Universal Transverse Mercator) grid. All 242 squares were visited and described in detail, most of them throughout the year, with special emphasis on the breeding season: at least 25–30 hours of observations in each square were carried out from May to July. In the initial stages of the project taking part was a mere pleasure, since most observers focused on the more 'interesting' and 'promising' habitats, such as lush city parks, lakes and river valleys. As field work progressed, however, and more and more of the 'better' squares had already been suffciently investigated, extra efforts were required from the observers to take on even the most unattractive parts of the city, like seemingly endless industrial 'deserts', car parks and what appeared to be boring and monotonous apartment blocks. Still, even these less pleasant corners of the city often turned out to be quite rewarding and surprisingly rich in birdlife. That said, exploring these parts of Moscow sometimes proved a real challenge, not in the least because of roaming packs of street dogs, or simply because access to many areas is limited.

During the survey the observer kept a list of the species encountered and indicated their status with the help of criteria commonly used for this kind of work (e.g. Priednieks et al. 1989). Since during the course of the project all species were recorded throughout the year, in addition to the 'breeding' categories we have included the categories 'migrant', 'wintering bird' and 'accidental', the last one for birds that are very rarely and irregularly found both in Moscow and the Moscow Region.

Preliminary results of the ongoing field work were published annually in the course of the project in the *Proceedings* of the programme, under the title *Birds of Moscow, square after square* (Kalyakin & Voltzit 2007–2012), with detailed descriptions of progress in individual squares.

After the completion of field work in 2012, the data base was supplemented by other observations and published data from the same six year period. On the basis of the combined records, distribution maps for all 226 species found in the city during the project were compiled, based on their presence in the tetrads, and with brief species accounts.

The atlas

The main body of the atlas is made up of the distribution maps for each of the 226 species found

in Moscow during 2006–2011, together with brief species accounts in both Russian and English. The texts should add, not duplicate the information contained in the maps. They also provide information on the status of each species in the Moscow Region, which frequently differs from the status in Moscow. The map pages contain one larger (in 1 cm 286 m) and two smaller maps, which are half as large. The first of the three maps presents information on the distribution and abundance of the species during the breeding season, as well as the likelihood (evidence) of breeding in each tetrad, including those tetrads which are only partially inside the Moscow ring road (MKAD). Colours are used to indicate the level of evidence for breeding.

Abundance of breeding pairs (or 'breeding pairs', for those species which are not monogamous and do not form pairs) is indicated by varying diameters of the black dots inside the tetrads. Each map goes with a legend (two examples of atlas pages). The upper of the two smaller maps shows the tetrads (marked in blue) in which the species was found at least once during the winter period (from December to February). The lower map shows the maximum estimates of the number of individuals of a species recorded in a tetrad during the year, regardless of the season. Some species were most abundant during the migration period or in winter. Where necessary, this is indicated in the species texts.

Results

During 2006–2011 226 species were recorded inside the MKAD ring road. For half of these 113 species breeding was confirmed, seven species were considered probable breeders and another seven possible breeders. During the breeding season 43 species were recorded that showed no breeding indication. In comparison, during 200 years of ornithological observations in the whole of the Moscow Region, 318 species were recorded (judging from the literature and the data base of the BMMR programme), 210 of which have nested in the area (Varlygina *et al*. 2008).

The species list does not include species which have been deliberately introduced in the city (Barnacle Goose *Branta leucopsis* and Canada Goose *B. canadensis*) or its immediate surroundings (Common Pheasant *Phasianus colchicus*). Exotic species recorded during the atlas period like Mandarin Duck *Aix galericulata*, Rose-ringed Parakeet *Psittacula krameri* and Budgerigar *Melopsittacus undulates* and several other escaped or released cage birds have also been omitted from the list, as they can hardly be considered part of the city's avifauna. Moscow's harsh winters significantly reduce any chances of survival of a free-flying population of Rose-ringed Parakeets. It is therefore unlikely that a fast population increase, as has been observed in several other European cities, will occur in Moscow.

In some cases, the origin of the birds was unclear, e.g. of Whooper *Cygnus cygnus* and Mute Swans *C. olor* occurring on some of the city's ponds. They may have been either released from captivity or wild visitors from the surrounding region. During the past decade both species have been observed in Moscow province on migration as well as breeding . Records of Gyr Falcon *Falco rusticolus* and Eagle Owl *Bubo bubo* may also refer to either escapes or genuine wild birds. Various exotic and, for the Moscow area, very rare ducks like Red-crested Pochard *Netta rufina*, Ferruginous Duck *Aythya nyroca* and Common Shelduck *Tadorna tadorna* recorded in the city may originate from the Moscow Zoo, though here, too, their wild occurrence cannot be excluded.

As elsewhere in Europe, the Peregrine Falcon *Falco peregrinus* population is also increasing in European Russia. During the atlas period three pairs were found nesting on high buildings in Moscow city. These may be birds released here earlier from captivity as part of a reintroduction scheme. Another species, Ruddy Shelduck *T. ferruginea*, has recently become a typical element of the city's avifauna. It has a free flying population which has gradually colonized the city's parks and ponds from the population present in the Moscow Zoo. Common Goldeneye *Bucephala clangula* is back as a breeding bird, thanks to the availability of artificial nest sites in appropriate places.

The special observation efforts during the atlas period have led to a marked increase of the species list of Moscow. The following rarities were found during 2006–2011 some of them first observations not only for Moscow but also for the region as a whole: Dalmatian Pelican *Pelecanus crispus*, Yellow-legged Gull *Larus michahellis*, Little Auk *Alle alle*, Syrian Woodpecker *Dendrocopos syriacus* and Serin *Serinus serinus*. All belong to the category vagrants, though new data show that Serin now appears to breed in Moscow. Vagrants like Pallas's Gull *Larus ichtyaetus*, Great Black-backed Gull *L. marinus* and other rare migrants were already on the list of the Moscow Region, but have now been added to the list of the birds of Moscow.

Some species have seen a change in status. For Ural Owl *Strix uralensis* and Middle Spotted Woodpecker *D. medius* breeding was confirmed for the first time (Morozov 2009a, Morozov 2009b). Common Teal *Anas crecca* bred again in Moscow after a long absence, as did Common Sandpiper *Actitis hypoleucos*, European Nightjar *Caprimulgus europaeus*, Barred Warbler *Sylvia nisoria* and Azure Tit *Parus cyanus*.

We compared the present breeding bird species richness inside the MKAD ring road with the period before 1961, when this territory officially became part of the expanding city, even though many peripheral areas along the ring remained undeveloped for a long time after that. Some twenty species that were present as breeding bird at that time) have not been detected as breeding (or suspected breeding) during 2006–2011. These are Gadwall *Anas strepera*, Hazel Grouse *Tetrastes bonasia*, Redshank *Tringa totanus*, Marsh Sandpiper *T. stagnatilis*, Terek Sandpiper *Xenus cinereus*, possibly Ruff *Philomachus pugnax*, Common Snipe *Gallinago gallinago*, Little Gull *Larus minutus*, Wood Pigeon *Columba palumbus*, Collared Dove *Streptopelia decaocto*, Laughing Dove *S. senegalensis*, Short-eared Owl *Asio flammeus*, Little Owl *Athene noctua*, Hoopoe *Upupa epops*, Green Woodpecker *Picus viridis*, Grey-headed Woodpecker *P. canus*, Meadow Pipit *Anthus pratensis*, Common Myna *Acridotheres tristis*, Common Stonechat *Saxicola torquata*, Crested Tit *Parus cristatus* and Brambling *Fringilla montifringilla*. Some them disappeared as a breeding bird from the city in the 1990s, as a result of the development of residential areas at the site of a sewage area at Lyublino. This sewage works provided ideal conditions for aquatic and semi-aquatic species as well as birds preferring ruderal habitats. The majority of the species mentioned here were already rare in Moscow in the past. A decline in numbers of Crested Tit has been noted in the whole of the Moscow region during the past two or three decades.

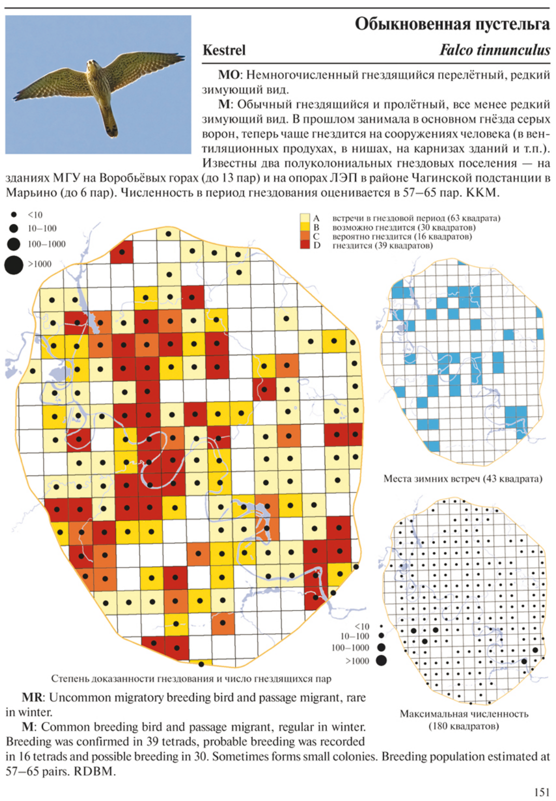
Trends

For some species, a comparison of published data with the results from six years of atlas work allows us to put forward some general population trends. An increase is apparent in the breeding populations of Ruddy Shelduck, Common Kestrel, Black Woodpecker *Dryocopus martius*, Blackcap *Sylvia atricapilla*, Black Redstart *Phoenicurus ochruros*, Robin, Thrush Nightingale *Luscinia luscinia*, Penduline Tit *Remiz pendulinus*, Blue Tit *Parus caeruleus*, European Greenfinch *Chloris chloris* and European Goldfinch *Carduelis carduelis*. On the other hand, Corncrake *Crex crex*, Sand Martin *Riparia riparia*, Common Redstart *Phoenicurus phoenicurus*, House Sparrow *Passer domesticus* and Eurasian Tree Sparrow *P. montanus* appear to have declined.

Acknowledgements

The coordinators of the project wish to express their sincere gratitude to all volunteers who have taken part in the exploration of the 242 squares of the city, and also to all other observers who have made their data obtained during the atlas period available to us. In some cases these observations have provided valuable additional information. We are also thankful to N. Kadetov for preparing the Moscow map used for showing the species' distribution, and to S. Eliseev for calculating the surface area for the various city habitats.

Examples of pages


Обыкновенная пустельга

Kestrel *Falco tinnunculus*

МО: Немногочисленный гнездящийся перелётный, редкий зимующий вид.

М: Обычный гнездящийся и пролётный, все менее редкий зимующий вид. В прошлом занимала в основном гнёзда серых ворон, теперь чаще гнездится на сооружениях человека (в вентиляционных продухах, в нишах, на карнизах зданий и т.п.). Известны два полуколониальных гнездовых поселения — на зданиях МГУ на Воробьёвых горах (до 13 пар) и на опорах ЛЭП в районе Чагинской подстанции в Марьино (до 6 пар). Численность в период гнездования оценивается в 57–65 пар. ККМ.

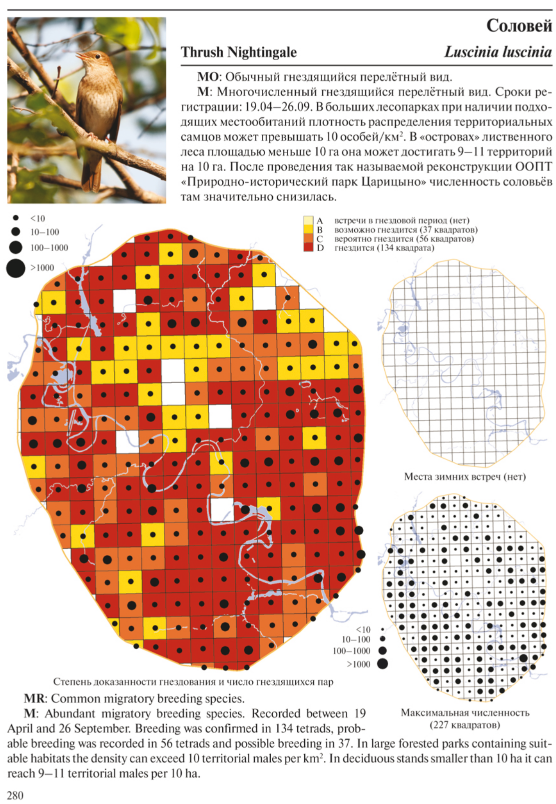
Степень доказанности гнездования и число гнездящихся пар

Максимальная численность (180 квадратов)

MR: Uncommon migratory breeding bird and passage migrant, rare in winter.

M: Common breeding bird and passage migrant, regular in winter. Breeding was confirmed in 39 tetrads, probable breeding was recorded in 16 tetrads and possible breeding in 30. Sometimes forms small colonies. Breeding population estimated at 57–65 pairs. RDBM.

151


Соловей

Thrush Nightingale *Luscinia luscinia*

МО: Обычный гнездящийся перелётный вид.

М: Многочисленный гнездящийся перелётный вид. Сроки регистрации: 19.04–26.09. В больших лесопарках при наличии подходящих местообитаний плотность распределения территориальных самцов может превышать 10 особей/км^2. В «островах» лиственного леса площадью меньше 10 га она может достигать 9–11 территорий на 10 га. После проведения так называемой реконструкции ООПТ «Природно-исторический парк Царицыно» численность соловьёв там значительно снизилась.

Степень доказанности гнездования и число гнездящихся пар

Максимальная численность (227 квадратов)

MR: Common migratory breeding species.

M: Abundant migratory breeding species. Recorded between 19 April and 26 September. Breeding was confirmed in 134 tetrads, probable breeding was recorded in 56 tetrads and possible breeding in 37. In large forested parks containing suitable habitats the density can exceed 10 territorial males per km^2. In deciduous stands smaller than 10 ha it can reach 9–11 territorial males per 10 ha.

280

References

Kalyakin, M.V. & Voltzit, O.V. 2006. Atlas. Birds of Moscow City and the Moscow Region. Sofia & Moscow. Pensoft: 1-372. [in Russian and English]
Kalyakin, M.V. & Voltzit, O.V. (eds.). 2007. [Birds of Moscow: 2006, square after square]. Trudy Progr. "Ptitsy Moskvy i Podmoskov'ya" 1: 1-178. [in Russian]
Kalyakin, M.V. & Voltzit, O.V. (eds.). 2008. [Birds of Moscow: 2007, square after square]. Trudy Progr. "Ptitsy Moskvy i Podmoskov'ya" 2: 1-228. [in Russian]
Kalyakin, M.V. & Voltzit, O.V. (eds.). 2009. [Birds of Moscow: 2008, square after square]. Trudy Progr. "Ptitsy Moskvy i Podmoskov'ya" 4: 1-332. [in Russian]
Kalyakin, M.V. & Voltzit, O.V. (eds.). 2010. [Birds of Moscow: 2009, square after square]. Trudy Progr. "Ptitsy Moskvy i Podmoskov'ya" 5: 1-298. [in Russian]
Kalyakin, M.V. & Voltzit, O.V. (eds.). 2011. [Birds of Moscow: 2010, square after square]. Trudy Progr. "Ptitsy Moskvy i Podmoskov'ya" 7: 1-286. [in Russian]
Kalyakin, M.V. & Voltzit, O.V. (eds.). 2012. [Birds of Moscow: 2011, square after square]. Trudy Progr. "Ptitsy Moskvy i Podmoskov'ya" 8: 1-180. [in Russian]
Morozov, N.S. 2009a. [Successful breeding of Ural Owl in Moscow]. Moskovka 10: 18-22. [In Russian]
Morozov, N.S. 2009b. [Successful breeding of Middle Spotted Woodpecker in Moscow]. Moskovka 10: 22-29. [In Russian]
Priednieks, J., Strazds, M., Strazds, A. & Petriņš, A. 1989. Latvian breeding bird atlas 1980-1984. Riga: 1-352.
Varlygina, T.I., Zubakin, V.A. & Sobolev, N.A. (eds.). 2008. [The Red Data Book of the Moscow Region]. Krasnaya kniga Moskovskoy oblasti. 2nd edition. Moscow: 1-828. [in Russian]

M.V. Kalyakin, O.V. Voltzit & G. Groot Koerkamp. 2014. Atlas of the birds of Moscow City (in Russian and English). N.S. Morozov (ed.). Moscow, Fiton XXI. 332 pp.
ISBN 978-5-906171-52-8

Received: 7 March 2014
Accepted: 13 March 2014

Bird Census News 2012, 25/2: European Monitoring News 58-60

EUROPEAN MONITORING NEWS

Report on the Pan-European Common Bird Monitoring Scheme workshop 2012

Jana Škorpilová & Petr Voříšek
Pan-European Common Bird Monitoring Scheme, Czech Society for Ornithology, Na Bělidle 34,
150 00 Prague, Czech Republic
skorpilova@birdlife.cz & EuroMonitoring@birdlife.cz

Abstract. A fourth workshop of the Pan-European Common Bird Monitoring Scheme (PECBMS) took place in February 2012 in the Czech Republic and brought together scheme coordinators and other monitoring experts of 38 countries cooperating within the network. The main objective of the workshop was to evaluate where we stand now after ten years running the scheme and where we aim at in the future. PECBMS workshops have always offered the opportunity to the participants to present new ideas and discuss past and future developments together with the PECBMS coordinators in a constructive and democratic way.

Introduction

The Pan-European Common Bird Monitoring Scheme (PEBMS) workshop was held on 6-8 February 2012 in Mikulov, Czech Republic. Some 75 national scheme coordinators and other experts from 38 European countries participated at the meeting. Besides the countries already cooperating with the PECBMS, representatives from several new countries such as Azerbaijan, Moldova and Iceland took also part.

The main aims of the workshop were:

* To report on developments of the project since the last workshop in 2009
* To discuss with national coordinators and other stakeholders the issues and usage of European and national indicators
* To outline possible new research directions for PECBMS data
* To discuss the potential addition of species and the extension of geographical coverage within the PECBMS project

This paper brings an overview of the workshop discussions and their conclusions. All presentions and workshop conclusions are freely downloadable on http://bigfiles.birdlife.cz/ebcc/PECBMS_workshop2012/PECBMS/.

Species indices and indicators

A discussion on different approaches as how to calculate the indicators resulted in various views and revealed some critical points. At present, in the PECBMS‘ outputs (i.e. supranational common bird indicators), only a geometric mean without weighting is used (with applying of chaining index in case of unequal time periods of indices). We consider this method as fully suitable and relevant for our data and no changes are desirable now. However, as widely agreed, there is always room for improvements such as producing indicators with standard errors, developing a method for sensitivity measures or considering scale (logarithmic versus arithmetic). Adding various types of extra information in relation to the indicators has been suggested as well. Examples are percentage of species declining/increasing, or total abundance and biomass of all species in the indicator. Single species trends included in the indicator could show the variation in trends, thus providing a better insight and helping to understand where the indicator really stands for. The participants agreed that we also need to harmonise species selection for national indicators and that we should consider using the national species classification for national farmland bird indicators. This has to be worked out in the future.

Following the general discussion on indicators, proposals for various types of additional indicators for other habitat types have come up. The pilot versions of the PECBMS indicators of Boreal Forest and Inland Wetland habitats, which had been drawn at the last workshop, have meanwhile been improved and were presented for discussion. Both indicators seem to be promising, however, they require further work on data collection of more species used in these habitat-specific indicators (e.g. including data from species specific schemes covering Inland Wetland birds) and in exploring possibilities of creating indicators of more distinct habitat sub-types (e.g. old-growth/boreal forest, broadleaf/coniferous forest in the Boreal Forest indicator). However, for both types we need to fully understand the driving forces behind the trends to explain the indicator. For both indicators and additional ones, the option to include more rare species in the indicators has been suggested. However, there was no clear conclusion nor consensus on this proposal.

Assessing the trends of urban birds is another possible topic to consider for future development. In this case, it would be valuable to use habitat-specific trends (calculate species trends only from urban sites) to investigate the level of urbanisation. Habitat-specific trends in general can be used for creating habitat-specific indicators and they present a potential for further research studies on the driving forces. Another suggestion was the development of indicators of processes – pressures or drivers of change (e.g. intensification of farmland, forest management, eutrophication, climatic change).

The main conclusions of the workshop topic on Species indices and Indicators were:

(1) that the current indicators fit the 2020 targets at global and European level,

(2) that producing multi-national indicators of farmland and forest birds is still considered to be relevant,

(3) that given the 2020 targets and focus on the value of biodiversity and ecosystem services, we will need to consider new directions of our activities too,

(4) that quantifying the value and services provided by common birds and measuring sustainability using common birds seem to be areas worth of exploring for further development,

(5) that proper communication of the indicators is always necessary. Although it is often ignored, it has been stressed that clarification of the purpose of each indicator is crucial to avoid misinterpretation. As the workshop participants requested guidelines on how to best communicate the indicators at national level, the PECBMS will consider the development of such guidelines in future.

Filling the gaps – increase in species and geographical coverage

Hand in hand with improvements in the presentation of the indicators and developing new ones, an improvement of the project in area and species coverage has been discussed.

So far the PECBMS has focused on the common bird species, however, there is an interest to produce trends of rarer birds including data from more specific monitoring schemes. This is often connected with developing new indicators which requires the inclusion of specific groups of birds which the PECBMS covers now only partly. Besides the already discussed Inland Wetland and Boreal Forest species indicators, we could think of producing European trends for other specific bird groups such as night birds (owls, nightjars, Corncrake *Crex crex*), birds of prey, alpine species, game birds (grouse and partridges) or colonial nesting seabirds. To collect data on these species a cooperation with other initiatives (e.g. EURAPMON) would be desirable and essential.

Up to now, the PECBMS uses data from 25 European countries with a potential to include two or three more countries in the near future. A large part of South-East and East Europe is still not covered by the scheme. Common Bird Monitoring schemes in some of these countries have either just started or are not running continuously. At the last workshop in 2009, the idea of Twinning was launched, which was based on the assumption that countries with well running schemes could assist and support those with less developed ones in mutual cooperation. However, after three years, the results were not as good as we had hoped for. Although countries which had already been in contact in the past have continued or renewed their cooperation, none of the newly established pairs of countries (schemes) had started such a cooperation, suggesting that the Twinning approach has its limitations and at least is very time consuming. Twinning, although a promising idea, does not seem to work well in practice without a considerable effort from both sides. Developing a sustainable Common Bird Monitoring scheme is generally quite demaning and requires constant funding and dedicated effort in the countries with no tradition of monitoring or birdwatching. It is clear that stimulating and promoting birdwatching in these countries is a first important step. This could be realised through developing online recording schemes for 'casual' records which can stimulate interested persons to practice bird identification. Alternatively, other monitoring projects such as mapping the priority species or IBA monitoring, or other 'short-term' projects such as national or regional atlases can help to create over time a pool of potential volunteers sufficient for running a CBM scheme. The PECBMS already assists such countries in various fields but so far with a limited capacity. More dedicated and continuous efforts are needed to start monitoring in the countries where it is still absent.

More research is desirable

As presented at the workshop by several case studies, PECBMS data are frequently used in research projects in co-operation with scientific institutes and universities. This aspect of PECBMS activities has been highly appreciated by the coordinators as it shows the potential and wide usage of these monitoring data. The workshop participants suggested to extend and expand research and cooperation with research institutions. The data access and co-authorship policy for the data use – until the next workshop – has been approved by the participants.

Conclusions

During the past ten years, the PECBMS project has proved to be able to produce European bird trends and indicators on a regular basis. It has also shown that such monitoring data can be used both in policy, nature protection and in research. However, all these items are open for improvement and it became clear from the workshop discussions that there is an expectancy from the PECBMS scheme coordinators that we should continue to work on the project enlargement and development. Main conclusions of the workshop stressed that we should broaden the information accompanying the indicators to improve their understanding and we should also focus more on the selection of species for national indicators (for both proper communication is needed). It is also desirable to enlarge the species coverage and develop new indicators. We should pay more attention to the countries lacking monitoring experiences and assist them in establishing sustainable schemes. Finally, we should continue promoting the PECBMS data for use both in policy and research and take into account new research cooperation possibilities.

Acknowledgements

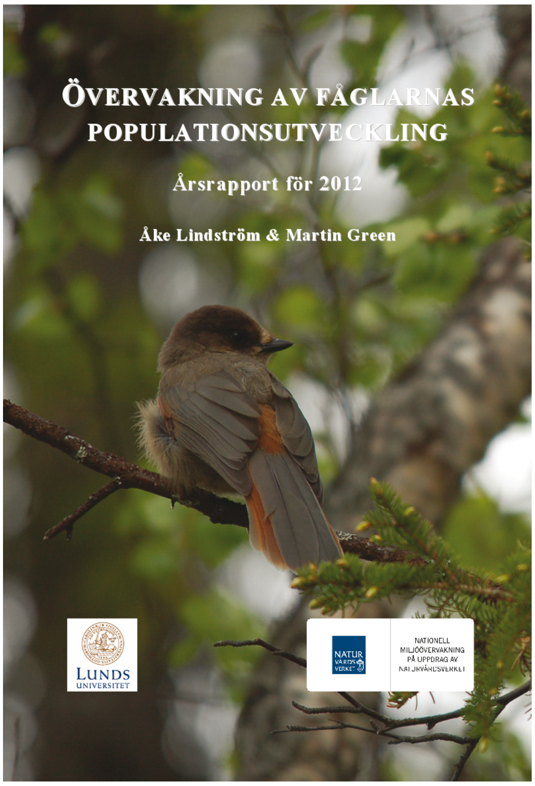
All of our work would not been possible without the efforts of many people, either as national scheme coordinator or involved in project coordination and development. Creating a network of such closely cooperating individuals from different countries and organisations, cooperating mainly on a volunteer basis is truly unique and we want to thank them all for their dedicated involvement and constant support.

The workshop has been organised thanks to the financial support provided within the project 'Delivering European Bird Indicators' by the European Commission, by the Royal Society for Protection of Birds (RSPB, the BirdLife International Partner in the UK) and by the Regional Council of the Region South Moravia.

BOOKS AND JOURNALS

Lindström, Å. & Green, M. 2013. Monitoring population changes of birds in Sweden. Annual report for 2012, Department of Biology, Lund University. 80 pp.
Contact: Å. Lindström, Ake.Lindstrom@biol.lu.se

We present the results of the Swedish Bird Survey, run by the Department of Biology, Lund University, as a part of the National Monitoring Programme of the Swedish Environmental Protection Agency. The results for 2012 include data from 625 winter point count routes in 2011/2012 (37th winter), of which 306 were carried out during the Christmas/New Year count and 263 summer point count routes (38th year). A third programme is running since 1996 with 716 Fixed routes, systematically (semi-randomly) distributed over Sweden (combined line transect and point counts). In total 481 Fixed routes were completed in the summer of 2012 (fourth best year). In the programme for covering night-active birds (3rd season), 112 routes were covered at three occasions each (March, April and June). Trends were analyzed using TRIM.



In the Christmas/New Year count 2011/2012, about 180,000 individuals of 134 species were counted by 247 observers, which was an increase compared to previous winters. Moderate to strong increases in winter populations over the last decade are present in 12 species. Declines over the same period are prominent in 32 species.

On the point count routes in summer 2012, about 96,000 birds of 205 species were counted by 164 observers. From the Fixed routes 138,000 birds of 217 species were reported by 247 persons. Trend graphs for a large number of species are presented. More graphs and indices can be found on the homepage (address below). Over the last 10 years, some of the most pronounced declines are found in Common Eider, Willow Ptarmigan, Rock Ptarmigan, Common Pheasant, Common Coot, Spotted Redshank, Great Black-backed Gull, Common Swift, House Martin, Sand Martin, Siberian Tit, Fieldfare, Redwing, Goldcrest, Meadow Pipit, European Greenfinch, Common Redpoll, Common Rosefinch, Lapland Longspur, Yellowhammer, Ortolan and Rustic Bunting. Some of the strongest increases during the same period are shown by Greylag Goose, Whooper Swan, Red Kite, White-tailed eagle, Western Marsh Harrier, Hobby, Great Spotted Woodpecker, Eurasian Wryneck, Mistle Thrush, Common Redstart, Eurasian Blackcap, Common Chiffchaff (both Swedish ssp.), European Goldfinch and crossbills.

The night routes showed high owl activity in the south but a dramatic low in the north, compared to 2011. A few trends from the first three year are presented. High numbers of Spotted Crake, Corncrake, European Nightjar and River Warbler were recorded during the night routes in 2012. The numbers of larger mammals counted were in most cases similar to the years before.

Bird indicators were calculated for Sweden based on summer point counts and the species selection and methods of the Pan-European Common Bird Monitoring Scheme. Farmland birds (14 species) show a more than 50% decline since 1975. Woodland birds (21 species) have declined with about 30%, whereas a group of other common birds (45 species) have declined with about 10%. We also present the corresponding indicators based on the new system with Fixed routes (indices since 1998). In the recent 5–10 years, the indicators based on the two schemes have become more and more similar within each habitat. Another set of indicators, official indicators of biodiversity within the national Environmental Objectives set by the Swedish Parliament based on data from the Fixed routes, are presented as well. Five indicators (lakes and streams, forest, mountain birch forest, northern wetlands and 'a rich diversity of plant and animal life') showed small positive changes between 2011 and 2012. The indicators for birds in southern wetlands, farmland and mountain tundra showed lower values 2012 compared to 2011. A new indicator for reduced climate impact is presented in this report.

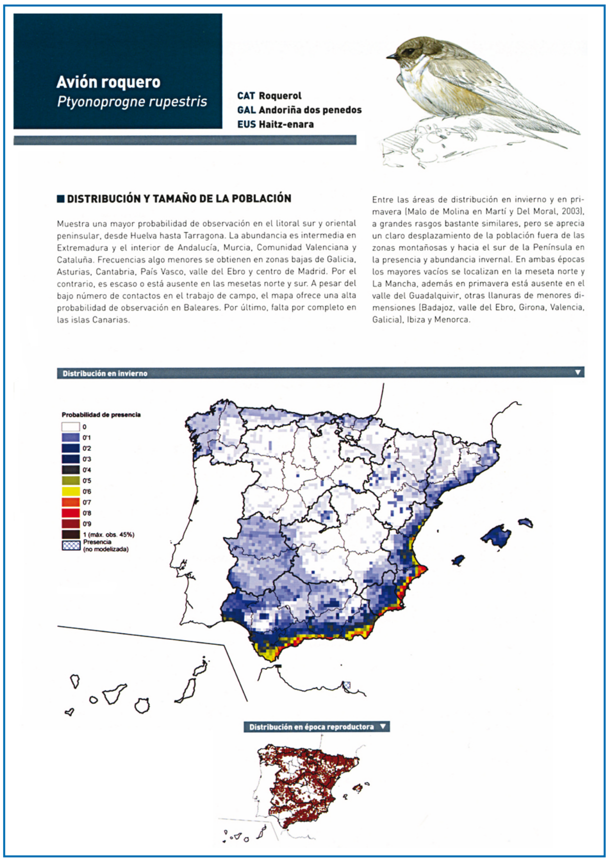
Åke Lindström

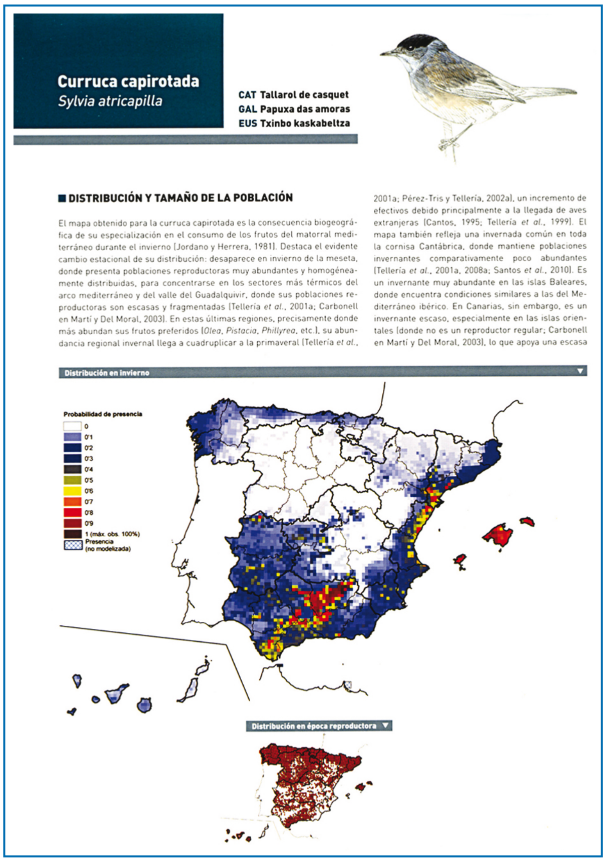
SEO/BirdLife 2012. Atlas de las aves en invierno en España 2007-2010. Madrid (In Spanish: Atlas of birds in winter in Spain 2007-2010). Ministerio de Agricultura, Alimentación y Medio Ambiente-SEO/BirdLife. 816 pages. ISBN: 978-84-8014-840-5
Order online: http://www.seo.org/tienda/, contact: censos@seo.org, The prize is 30 €.

The *Atlas of birds in winter in Spain (2007-2010)*, is a reference work which fills an important gap in the study of Spain's bird fauna. Traditionally, more effort has been devoted to understanding the distribution of wild birds in the spring, to coincide with the breeding season. To date, two atlases of breeding birds in Spain have been published, but work had never been carried out to understand bird distribution in winter, except in some earlier local studies. SEO/BirdLife took on this 'winter challenge' for the first time in Spain and today presents the results of work which began in 2007 and now offers important results which extend the understanding of bird ecology. This study places Spain at the highest level of ornithological study, as only a small number of developed countries have carried out similar studies on birds in winter in their entire territory.

The book is illustrated with sketches by the artist and biologist Juan Varela and has been produced with the support of the Ministry of Agriculture, Food and Environment and published with support of the National Parks Service. Amongst its 820 pages there are up-to-date data on 407 species, of which 238 are listed as 'common' and a further 76 whose presence is 'scarce' or 'occasional'. Finally, 34 are considered as rarities and 59 are non-native species.

This study sheds important new light on the distribution of birds in Spain. From comparison with the breeding atlases, it is possible to estimate the difference in distribution of bird species in the two different periods and to illustrate and understand their seasonal movements. For example, it has been confirmed that geographical differences in land use are a more important factor in explaining winter bird distribution than differences in climate. Areas with a greater variety of habitats are those with the highest species richness in winter.





The assistance of more than 1,000 fieldworkers has been fundamental in the compilation of the atlas; they carried out systematic field reconnaissance surveys in the 2007-2008, 2008-2009 and 2009-2010 winters. During this period 120,317 15-minute walked transects were carried out, which equates to 71,950 kilometres walked, or approximately 1.8 times round the Equator. During 30,079 hours of sampling the presence and abundance of all bird species was noted in those months considered to be 'winter' according to the biology of the majority of bird species (15 November-15 February). In addition, the atlas incorporates data from other bird monitoring programmes carried out by SEO/BirdLife, such as SACIN, Noctua or Sacre, in which a further 1,600 ornithologists collaborated. The atlas therefore brings together the work of 2,600 people.

The method employed is that used by modern wildlife atlases. From intensive studies in certain selected representative areas of Spain, and in response to no less than 75 function different variables: geographical, climatological, descriptors of habitat and land use, landscape and topography, the presence of bird species has been estimated in the remainder of the country. In its own right, this comparative framework breaks new ground in the environmental and geographical classification of Spain.

The *atlas* will from now on be regarded as a key reference point for new ornithological studies and an essential tool for the management of protected areas and the conservation of biodiversity. Furthermore, the recorded changes in short- and long-term distribution of birds give key clues to the possible effects of global change and other factors, such as land-use change, farming activity and other human pressures.

SEOBirdLife

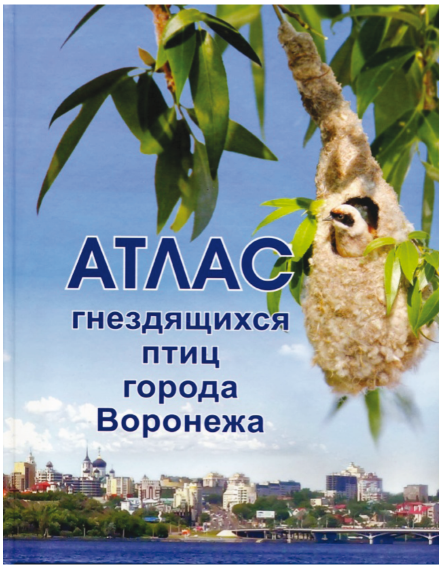
E. Lappo, P. Tomkovich & E. Syroechkovskiy, 2012. Atlas of breeding waders in the Russian Arctic (in Russian with some English summaries). Institute of Geography, Russian Academy of Sciences. 448 pages. ISBN 5-86676-072-X
Order: Pensoft, www.pensoft.net/product.php?p=12706., The prize is 89 €. Contact: ellappo@mail.ru

This Atlas presents a summary and analysis of distribution of breeding waders in the Russian Arctic, the region where begin almost all migration flyways of waders over-wintering on most continents.

The book had as its foundation an electronic database that contains and analyses breeding and abundance records of waders collected over 150 years of research, including the mass of information collected by the authors themselves. Comprehensive accounts for 51 wader species are supplied with three maps: the breeding records, the abundance and an extrapolated breeding distribution map. For the first time, we identify core (optimum) breeding areas for most wader species. The introductory chapters address the question of geographic boundaries of the Atlas region, discuss approaches to mapping breeding distribution, describe the methodology for surveying breeding waders and compare their results. The concluding chapter evaluates the historic trends in distribution and /or abundance of Arctic waders over the past 150 years. The atlas aims at a broad readership including researchers, biologists and geographers, birdwatchers and employees of wildlife and game management, nature conservation and protection agencies.

The Authors

A.D. Numerov, P.D. Vengerov & O.G. Kiselev, 2013. Атлас гнездящихся птиц города Воронежа (in Russian: Breeding Birds in the city of Voronezh). Voronezh: Scientific Book. 360 pages.
ISBN 978-5-98222-779-22.
Contact: anumerov@yandex.ru



Voronezh, one of the largest cities in the central part of European Russia (population one million, population density 1642.7 people/km²), is located 515 km southeast of Moscow in the ET2 (50×50 km) UTM square. The urbanised area of the city covers about 590 km². Research for the breeding atlas was carried out from 1998 to 2012 using the standard methods for atlassing. About 400 observers, both professional ornithologists and volunteers, took part in the project. The inventory took place in the area delimited by the former boundaries of Voronezh city (189 1×1 km squares). A total of 128 breeding bird species have been detected, with confirmed breeding for 112 species and probable breeding for 16.The majority of the species are Passeriformes (76 species, or 59.4 % of the overall number). The second largest group are the Charadriiformes (11 species, 8.6 %) and the third, Piciformes, with 8 species (6.3 %), followed by the Falconiformes with 6 species (4.7 %). Pelecaniformes, Cuculiformes, Caprimulgiformes, Apodiformes and Columbiformes are represented by 1-4 species. The most common species in the heavily urbanized areas are *Passer domesticus, P. montanus*, *Columba livia f. domestica*, *Apus apus*, *Phoenicurus ochruros* and *Delichon urbica*. A positive population trend was noted for 14 species, while 55 are relatively stable. For 31 species no trend could be detected. A clear negative trend was noted for 19 species. Species densities per 1×1 km squares varied between 0 and 59, with an average of 25. In the urban area (10 squares or 5.3 %), less than 10 breeding species were found. Areas with 10-30 species were the most common (122 squares, or 64.6 %). In 35 squares (18.5 %) 30-40 species were observed. Green suburb areas with an abundance of trees show the highest numbers with more than 40 species per square. Numbers of breeding territories per square vary between 0-1 and 1336 pairs, with 22% containing more than 600 pairs and 65% between 200-600. The average number of breeding pairs per square is 451.7±16.9.

A. Numerov

EVENTS

Conference dedicated to the 180th anniversary of the Botanical and Zoological Departments at the Taras Shevchenko National University of Kiev

A conference dedicated to the 180th anniversary of the Botanical and Zoological Departments at the Taras Shevchenko National University of Kiev, Ukraine, will be held in Kiev during the second half of September 2014. Among various topics a round table on the preliminary results of the White Stork Census Project in Europe is planned. People interested to attend the conference please send your contribution to bcssu2@gmail.com. Further details will be available in Spring 2014.

Prof. Valentin Serebryakov, Organizing Committee Member

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 articles and short reviews on your own activities within this field such as (preliminary) results of a regional or national atlas or a monitoring scheme, species-specific inventories, reviews or activity news of your country (as a delegate: see also below).

Instructions to authors

– Text in MS-Word.
– Author name should be with full first name. Add address and email address.
– Add short abstract (max 100 words).
– Figures, pictures and tables should not be incorporated in the text but attached as separate files.
– Provide illustrations and figures both in colour.
– The length of the papers is not fixed but should preferably not exceed more than 15 pages A4 (including tables and figures), font size 12 pt, line spacing single (figures and tables included).
– Authors will receive proofs that must be corrected and returned as soon as possible.
– Authors will receive a pdf-file of their paper.
– References in the text: Aunins (2009), Barova (1990a, 2003), Gregory & Foppen (1999), Flade et al. (2006), (Chylarecki 2008), (Buckland, Anderson & Laake 2001).
– References in the list: Gregory, R.D. & Greenwood, J.J.D. 2008. Counting common birds. In: A Best Practice Guide for Wild Bird Monitoring Schemes (eds. P. Voříšek, A. Klvaňová, S. Wotton & R.D. Gregory), CSO/RSPB, Czech Republic; Herrando, S., Brotons, L., Estrada, J. & V, Pedrocchi, V. 2008. The Catalan Common bird survey (SOCC): a tool to estimate species population numbers. Revista Catalana d'Ornitología, 24: 138-146.

Send contributions in digital format by email to: anny.anselin@inbo.be

National delegates are also invited to send a summary of the status of monitoring and atlas work for publication on the website of EBCC, see www.ebcc.info/country.html.
Contact: **David Noble**, British Trust for Ornithology, The Nunnery, Thetford, Norfolk IP24 2PU, United Kingdom, tel: +44 1842 750050, email: david.noble@bto.org

Please send short national news for the Delegates Newsletter to EBCC's Delegates Officer:
Oskars Keišs, Laboratory of Ornithology, Institute of Biology University of Latvia, Miera iela 3, LV-2169 Salaspils, Latvia, tel: +371 6794 5393, email: oskars.keiss@lu.lv