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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.

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Preface

Breeding bird monitoring schemes in Europe are still expanding and in this issue we present you with some results of this positive development.

Nicolas Titeux and colleagues tell us more about the Common Bird Monitoring scheme in Luxembourg, which is in its pilot phase. Ainars Aunins presents the new Latvian monitoring scheme that started in 2005. In a summary of the SEED Bird Indicators Project, that finished this year and aimed at the development of common bird indicators in Eastern Europe, Sylvia Barova, the project coordinator, shows some of the most important actions and results.

Nowadays, a number of urban atlases exist already of cities in northern and southern Europe, but now also an important atlas project is running in the City of Moscow. Mikhail Kalyakin and Olga Volzit explain us how it started and developed.

The 18th EBCC Conference is only a few months ahead now. Don't forget to registrate!

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Implementation of the Common Bird Monitoring scheme in Luxembourg

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Introduction

Populations of rare, colonial or conservation-concern bird species (e.g. Black Stork, Peregrine Falcon, Eagle Owl, Black and Red Kites, Corncrake, Northern Lapwing, Red-backed and Great Grey Shrikes) have been monitored into detail for a long time in Luxembourg under the supervision of the Centrale Ornithologique Luxembourg (COL) of the Lëtzebuerger Natur- a Vulleschutzliga (LNVL – BirdLife Luxembourg), in collaboration with a number of volunteers and with financial support from the Ministry of Sustainable Development and Infrastructures (Department of the Environment). The conduction of species-specific monitoring programmes dedicated to those uncommon species has proven to yield valuable estimations of their trends in Luxembourg and has urged the need for the implementation of management and conservation strategies at a national scale.
Besides the documentation of the changing state of uncommon species, Europe has been increasingly demanding for information on the state of common bird species breeding in the wider countryside (Tucker & Evans 1997, Gregory *et al.* 2008, Vorísek *et al.* 2008). The Pan European Common Bird Monitoring Scheme (Skorpilová *et al.* 2009, PECBMS 2009) is based on the data contribution from a range of European countries (Klvanová & Vorísek 2007) and produces bird indicators for different habitat types. Some of those indicators are used to evaluate the implementation of European policies and decisions (Skorpilová *et al.* 2009). The recent report describing the conservation status of common bird populations in Europe (PECBMS 2009) is based on data from 21 annually operated national breeding bird surveys spanning the period 1980-2006, but demonstrates a lack of data contribution from Luxembourg to the calculation of headline bird indicators in Europe.

In the meantime, the government of Luxembourg has recently acknowledged the absence of a well-established basis for the development of indicators documenting biodiversity conservation status in the whole country and therefore decided to consider the implementation of a Biodiversity Monitoring scheme in Luxembourg as a priority objective for the period 2007-2011 (Ministère de l'Environnement 2007). In 2008-2009, the Public Research Centre – Gabriel Lippmann has been charged with the task of developing this Biodiversity Monitoring scheme (Titeux *et al.* 2009) with financial support from the Ministry of Sustainable Development and Infrastructures (Department of the Environment). In addition to the preparation of a monitoring programme focusing on species and habitats of community interest (i.e. species from the annexes of the European Habitats Directive 92/43/EEC), the Public Research Centre – Gabriel Lippmann was responsible for the development of sampling procedures and standardised field methods to document the changing state of biodiversity across the wider countryside, using vascular plants, freshwater invertebrates, butterflies, breeding birds and bats as indicator species groups.

Sampling strategy of the Biodiversity Monitoring scheme in Luxembourg

The sampling strategy used for the field survey of the Biodiversity Monitoring scheme in Luxembourg was based on a stratification system to ensure that the main environmental regions of the country will be sampled appropriately (Carey *et al.* 1995, Bunce *et al.* 1996, Barr 1998, Sheail & Bunce 2003, Hill *et al.* 2005, Gregory & Greenwood 2008). Using the Gauss-Kruger projection system in Luxembourg, the national 1 km-resolution grid was used as a basis for the sampling procedure. According to a series of environmental attributes, which are believed to influence biodiversity (i.e. topography, geology, soil and climate), a k-means clustering procedure separated the 2401 grid squares of Luxembourg into a series of environmentally homogeneous strata (Figure 1). A random sampling procedure was then applied to select a number of squares within the strata in ratio to their spatial extent and in order to appropriately cover the main land cover types within each stratum. In addition to the stratified random sampling procedure, a number of squares located within the Natura 2000 network in Luxembourg were randomly selected in order to achieve an acceptable coverage of this network, which will provide the opportunity to compare the changing state of biodiversity in the wider countryside and in the network of protected areas.
In the present state of development of the monitoring programme and leaving aside the comparison with the Natura 2000 network, the number of sampling squares needed to achieve an acceptable coverage of the wider

countryside was approximated to 210 (Figure 1). This estimation was based on the variability of the area covered by the different types of broad habitats in the squares. However, the amount of sampling effort that is required depends on the variability of the field measurements, which most likely varies among species groups. A power analysis is therefore to be implemented for each species group separately in order to evaluate the number of sampling squares needed to detect a given rate of change with a predetermined power and significance level. Nevertheless, indications on the variability of the field measurements will only be available after the collection of a considerable amount of data. Accordingly, a retrospective power analysis will be performed at the end of a three-year long pilot survey programme (2009-2011) based on the sampling strategy described above.

The Common Bird Monitoring scheme in Luxembourg

The Common Bird Monitoring scheme in Luxembourg (COBIMOLUX) is integrated into the overall Biodiversity Monitoring programme. A three-year cycle of data acquisition was determined as a compromise between the number of available fieldworkers for the COBIMOLUX scheme and the importance of maintaining a sufficient number of sampling squares, i.e. an acceptable geographical coverage across Luxembourg. A small number of sampling squares (30 out of 210) were, however, randomly selected for yearly sampling and were scattered all over the country in order to control for year-to-year variations in the field measurements. The remaining sampling squares (180 out of 210) were then divided into three groups, so that each group is composed of 60 sampling squares scattered all over the country (Figure 1). Accordingly, a total of 90 sampling squares are to be surveyed each year on the basis of a one- or three-year interval in order to document the trends of common bird species in the countryside.
Within the 1 km-resolution sampling squares, transects were delineated to serve as a basis for bird data collection along walked itineraries during the fieldwork (Figure 2). Transects are ca. 2.5 km in length and are designed so as to be representative of the diversity of broad habitats in the squares, i.e. the length of the different sections crossing the variety of habitats is proportional to the area covered by those habitats in the squares (Gregory & Greenwood 2008). In addition, particular attention was paid to locate transects along small roads, trails of public access or any easy-to-locate landmarks in the squares (Schmid *et al.* 2004, Herrando *et al.* 2008).

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Field methodology of the Common Bird Monitoring scheme

The field procedure of the COBIMOLUX scheme was jointly developed by the Public Research Centre-Gabriel Lippmann and the LNVL-BirdLife Luxembourg and is based on a review of existing monitoring programmes abroad with a particular focus on those operating in UK (Wilson & Fuller

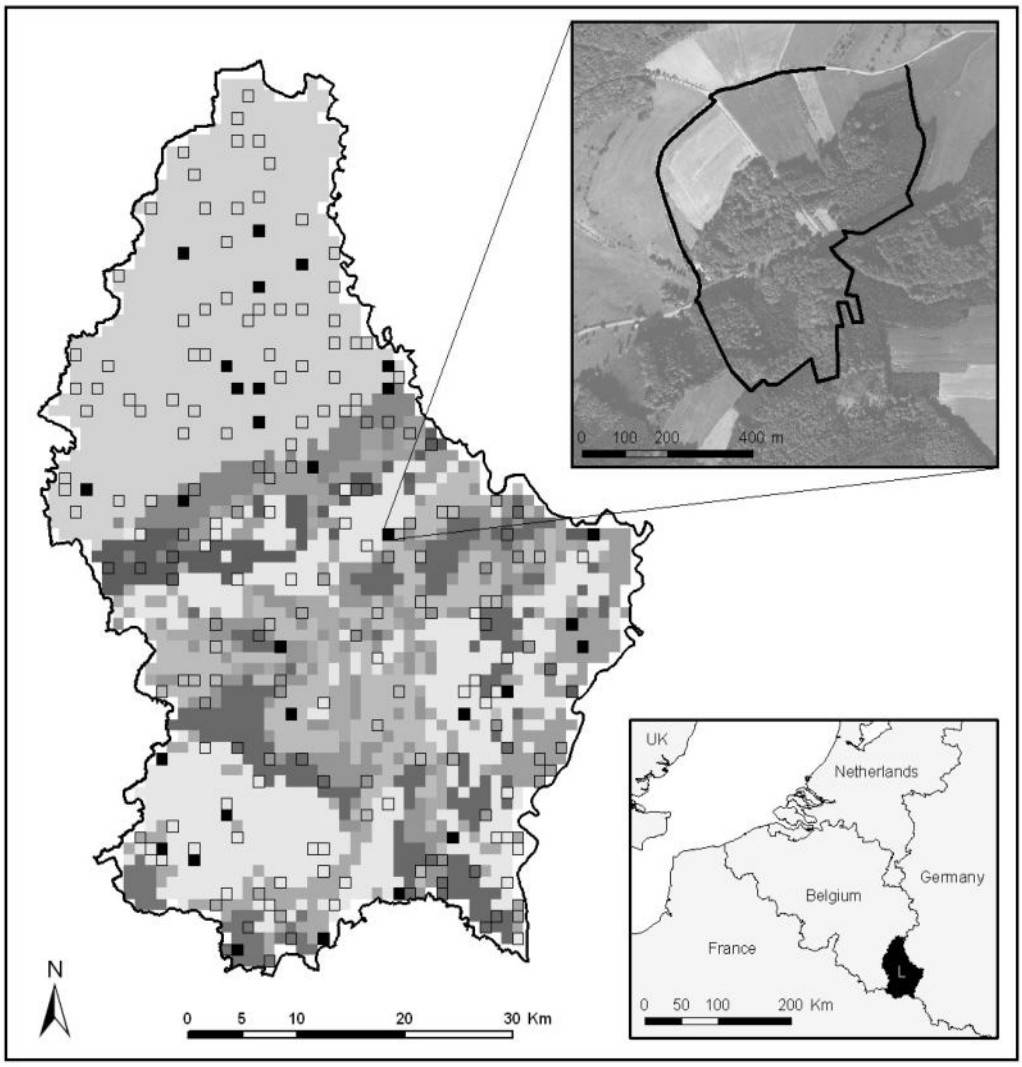

Figure 1. Location of the sampling squares for the Biodiversity Monitoring scheme in Luxembourg: squares randomly selected for sampling on a one- (black) and three- (uncoloured) year basis in the countryside. The main environmental regions of Luxembourg used in the stratification system are shown in the background. The route for a walked itinerary within a 1 km-resolution square of the COBIMOLUX scheme is illustrated with aerial photography in the background (©Origin Administration du Cadastre et de la Topographie - All rights reserved to the State of the Grand-duchy of Luxembourg).

2001, Baillie *et al.*, 2007, Raven *et al.* 2008), in Switzerland (Schmid *et al.* 2004, Schmid 2008) and in Catalonia (Herrando *et al.* 2008, Herrando & Gargallo 2009).
Luxembourg is amongst the most fragmented countries in Europe (European Environmental Agency 2002), exhibiting a fine-scale alternation and interspersion of contrasting habitat types in the landscape. Bird counting along walked itineraries (i.e. along transects or along predefined sections of transects) would therefore mix together pieces of information relating to several habitats, which runs the risk of mistakenly or confusingly documenting the changing state of a species in case this species demonstrates opposing trends in different habitats (Schmid 2008). For this reason, bird counting appeared to be a procedure that is less suited to the landscape patterns of Luxembourg. Accordingly, a transect-based simplified territory mapping procedure was retained, focusing on the visual or acoustic detection of individuals (males or females, juveniles or adults) along walked itineraries and on their subsequent location on 1:4.000 field maps with as much precision as possible. Using available GIS-layers, this territory mapping procedure will enable us to establish indices and trends for species

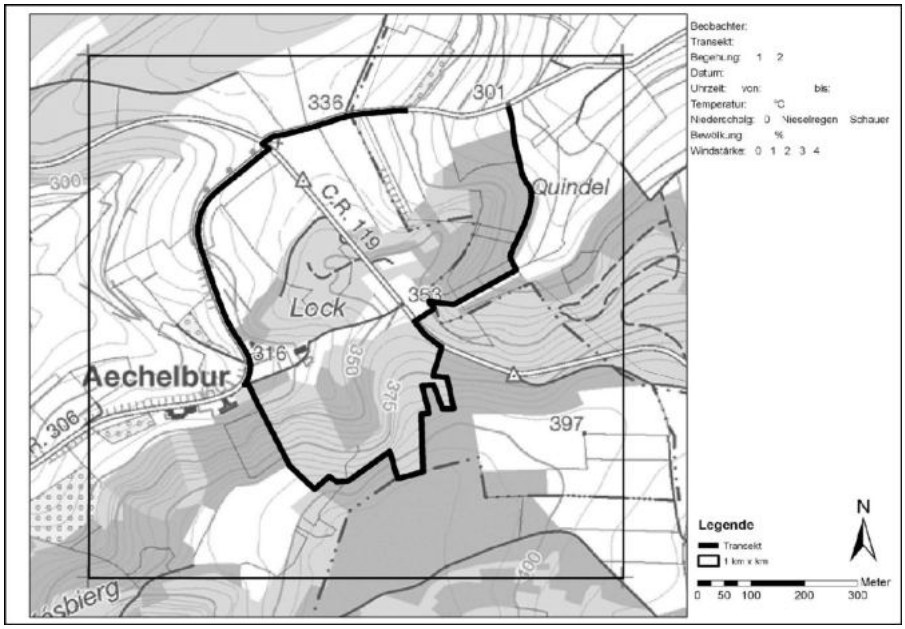

Figure 2. Illustration of a field form, showing the topographical map (© Origin Administration du Cadastre et de la Topographie - All rights reserved to the State of the Grand-duchy of Luxembourg).of the sampling square and the route of the field transect. Bird individuals contacted along the walked itinerary are located on the map using species codes. The right side of the field form is used to report additional information (e.g. specific comments, meteorological conditions, reliability of the survey).

populations in different types of habitats separately. Particular attention is to be paid to the distinction between simple contacts and territorial manifestations (e.g. singing, fighting or displaying individuals) following the EOAC classification (Melchior *et al.* 1987, adapted from Timothy & Sharrock 1974). In addition, birds seen only in flight are identified separately in an overflying category. The field form is also to be filled in with information on the meteorological conditions and with an evaluation of the reliability of the survey (Figure 2).
In order that early and late bird breeders can be recorded, the sampling squares will be visited twice a year. The first survey will be conducted between the 15th of March and the 30th of April and the second survey between the 1st of May and the 15th of June, with a minimum 1-month period between successive surveys in the same square. Within these general date restrictions, fieldworkers are also asked to give preference to earlier survey in forested squares over open-land squares.
The survey is to be conducted under appropriate meteorological conditions and within 5 hours after sunrise. Fieldworkers are asked to walk at low speed (ca. 2 kmph) preferring an East-to-West progression along transects as far as possible.

Volunteer-based collection of field measurements

A number of countries in Europe have experienced volunteer-based bird data collection for a long time and have demonstrated the usefulness and the effectiveness of volunteer involvement in bird monitoring schemes. For this reason, the Ministry of Sustainable Development and Infrastructure (Department of the Environment) decided to entrust the implementation of the programme to the LNVL – BirdLife Luxembourg because this institution brings together a pool of voluntary fieldworkers. The LNVL – BirdLife Luxembourg is therefore in charge of the coordination of the fieldwork and will return to the volunteers on a regular basis, which has been shown to be of great importance for the long-term conduction of a large-scale bird monitoring programme (Herrando & Gargallo 2009).

Pilot phase and further developments

The implementation of the programme in 2009-2011 is considered as a pilot phase, which will provide the necessary information on volunteer availability to evaluate the feasibility of the programme in the long term. The LNVL – BirdLife Luxembourg provided the fieldworkers with field forms, a methodology folder and detailed topographical maps showing the precise location of the sampling squares and the route of the field transects (Figure

2). In 2009, volunteers collected bird data in the 30 squares that were selected for yearly sampling and in 10 additional squares. In those 40 squares, the fieldworkers located on average ca. 100 bird individuals along the transects, but the number of mapped territories ranged from 50 to 150 according to the diversity of habitats within the squares.
From 2010 onwards, a total of 90 sampling squares should be surveyed each year on the basis of a one- or three-year interval as foreseen in the sampling strategy, which means that either more volunteer contribution or additional financial support will be required for the full implementation of the programme. In this respect, the LNVL – BirdLife Luxembourg will put fieldwork-training sessions into action in the next years with a view to instigating an increasing number of volunteers to play a part in different bird monitoring programmes, including the COBIMOLUX scheme.
An on-line data encoding system for the national Biodiversity Monitoring scheme is being developed by the National Museum of Natural History of Luxembourg to increase the speed of encoding and reporting. A preliminary version of the system will be developed for birds in early 2010 and used by the fieldworkers participating in the COBIMOLUX scheme to contribute their data.

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The new Latvian breeding bird monitoring scheme: sampling design, methods and first results

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Introduction

There is a long tradition of bird counting in Latvia. The first efforts on standardised counts date back to 1962 when Aivars Mednis established bird count routes in western Latvia as a part of his PhD work. However, the first long-term scheme involving many routes and bird counters started in 1983 when Janis Priednieks and Elmars Peterhofs organised the First Latvian common bird census (Peterhofs & Priednieks 1989). The scheme was active until 1994 (one route was counted until 1997).
A point count based farmland bird monitoring scheme was introduced in 1995 (Priednieks *et al.* 1999). The scheme covered the Latvian farmland well and provided data on main factors influencing distribution as well as the changes in population size of the farmland birds during the period of restructuring of the agricultural sector in Latvia and joining EU (Aunins *et al.* 2001, Aunins & Priednieks 2003, Aunins & Priednieks 2008). This scheme provided also data for the study of farmland bird communities and their interactions with landscape and farming intensity in the East Baltic region (Herzon *et al.* 2006, Herzon *et al.* 2008). The scheme generated annual population change indices for more than 40 bird species occurring in agricultural landscapes and provided data from Latvia to the PECBMS until 2006, which was the final year of this programme.

However, there were several drawbacks in the concept and organisation of this scheme. First, because the scheme started as a part of a project aimed at assessing biodiversity in the Latvian farmland (Priednieks *et al.* 1999) the sampling structure was designed based on the possibility to have professional support, including the use of a car. The count points were spread over large territories to increase their spatial independence, making it hard to extend the scheme by involving volunteers due to the travel costs. Although the sampling design was ideally suited for the needs of the two or three-year

project, it was cost ineffective for a longer run.

Secondly, the set of species, which the scheme could be considered as representative for, was limited. The population change indices (although available also for the generalist species that are not confined only to farmland) represented only the changes occurring in the farmland part of their populations and provided no information on changes in other habitats. As more than 50% of the country is currently covered with forests and the farmland occupies ca 40%, there was a clear need for collecting data on other habitats as well.

Finally, the scheme had very limited extension possibilities to cover other habitats as it was designed for agricultural land where the road network is extensive enough to justify counts in spaced out points (counting/accessing the point time ratio). Extending such a design to other habitats would result in spending too much time accessing the points.

Thus in the early 2000s a debate was started on the possibility to launch a volunteer based generic breeding bird monitoring scheme that would cover the whole country and would be representative for all the general habitat types. The debate resulted in a pilot scheme (2003-2004) and a new scheme (the Latvian Breeding Bird monitoring scheme) started in 2005 (Aunins 2005a). The new scheme is run by the Latvian Ornithological Society and has received financial support by the government since 2006. It has a two-year overlap with the farmland bird monitoring scheme. There were no possibilities to run the “farmland scheme” longer: with assigning the funding to the new scheme the old scheme was deprived of financial help. The last year of the farmland bird monitoring scheme was run as a separate project with the goal to ensure a backward compatibility of the two schemes and to provide a national reporting format using both schemes (Aunins 2006).

Methodology

Sampling design

Line transects were chosen as the counting method in the Latvian Breeding Bird monitoring scheme. Two parallel 2 km long lines located 1 km from each other constituted one route. The length and position were chosen as a trade-off between optimal count length for one morning and a need for the counter to return to his vehicle located close to the starting point. Thus both lines of a route fitted into a 2 × 2 km square.

A combination of the systematic and random approaches was used to ensure objectiveness and a good spatial coverage of the scheme. A grid of predefined 5 × 5 km "monitoring square" locations was created based on the national map sheets allowing two such squares in a full map sheet with further extension possibilities until 4 squares (Figure 1). As there are no important regular geographic patterns known in the territory of Latvia we believe that no systematic bias is introduced using this approach. An exact position of the route is being chosen randomly from the 16 available positions of a 2 × 2 km square within the 5 × 5 km square (Figure 2). Thus the nominal set-up consists of 219 count routes with possible extension to more than 400 routes.

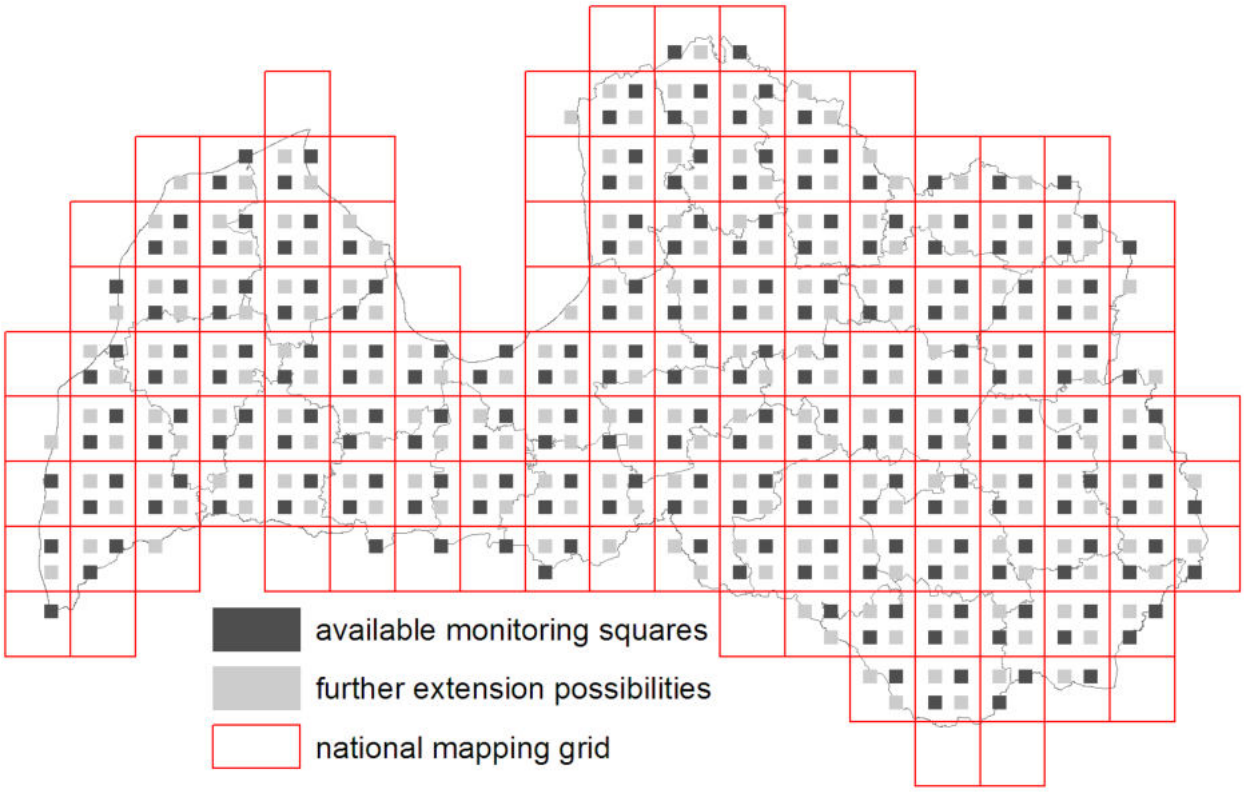

Figure 1. Distribution of available breeding bird monitoring squares and the squares that may become available in the future.

The bird count route is divided into eight 500m long sections (Figure 3) and the observer reports results for each section separately. The counts are carried out using three distance belts – up to 25 m, 25 to 100m and beyond 100m from the route to allow using distance sampling methods in data analysis (Figure 4).

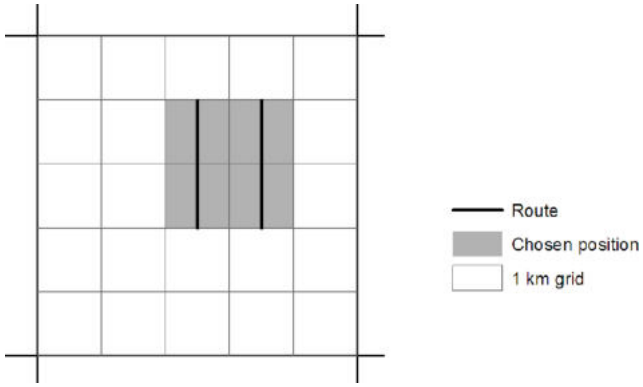

Figure 2. An example of a location of a bird count route in a monitoring square.

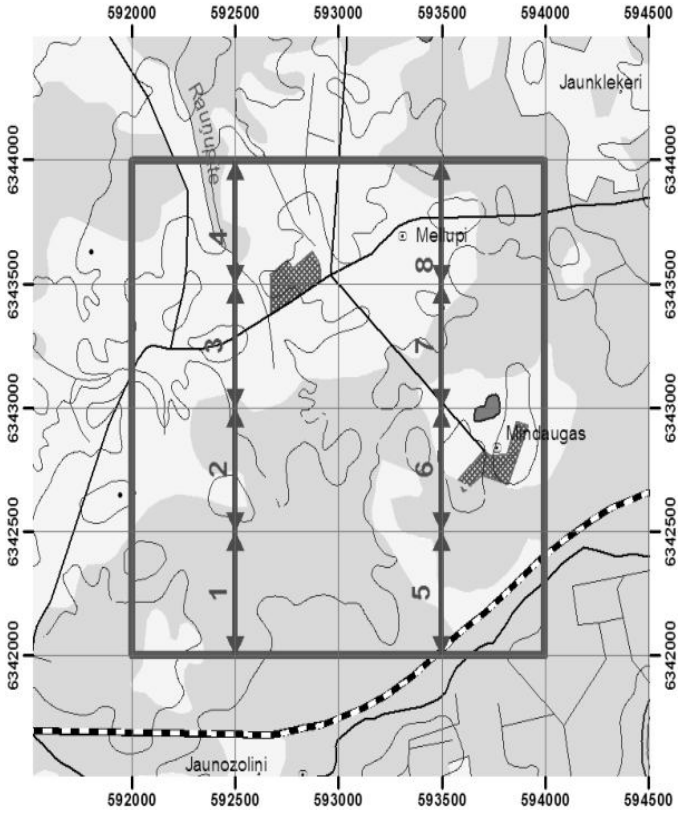

Figure 3. An example of a route overview map showing the division of route into sections.

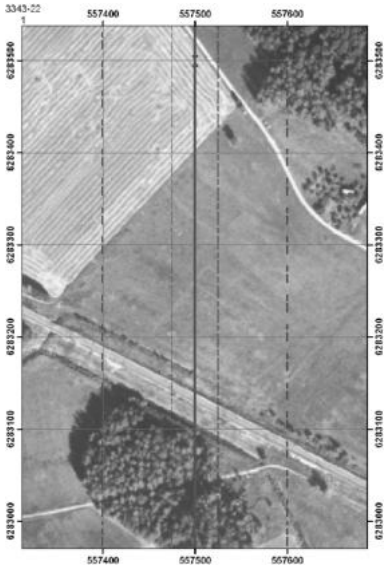

Figure 4. An example of a section map with marked distance belts.

Fieldwork

The initial setup of the Latvian Breeding Bird monitoring scheme aimed at three counts per season: late April, mid May and early June. However, since 2007 it had become clear that an additional early count (late March) was needed in order to obtain a better coverage of early species such as woodpeckers and tits. Since 2009 this early count ("count zero") has been included in the standard setup of counts.

The counting of birds usually starts at sunrise and is completed within the first 5 hours after the sunrise. The position of the observed breeding birds are indicated on the section maps. Although high accuracy of the mapping is not assumed, it is important that the birds are asigned to the correct distance belt. A bird belongs to the belt where it has been first observed. Non-breeding individuals (flocks of migrating birds, birds flying over, etc.) are also mapped but kept separately from the breeders. After the the count the information on the section maps is summarized in the field forms (one per section).

The birds are counted by volunteers. In the years when the scheme has a financial support the expenses of petrol needed to access the monitoring sites by car are reimbursed to the participants. No tests in bird identification skills have been required so far; however, each participant has to fill a self-

assessment form where he/she has to give a rating of knowledge for each bird species breeding in the country. Detailed description of the field methods used in the monitoring scheme (Aunins 2005b) is available to every participant in printed form. An electronic version (in Latvian only) can be downloaded from the web:
(http://www.lob.lv/download/Metodika_090808.pdf).

First results

Activity of participation

The number of occupied routes in the Latvian Breeding Bird monitoring scheme where all three counts per season ("full counts") have been carried out has increased from 12 in 2005 to 38 in 2008. There are 45 routes where "full counts" have been performed at least once and 36 routes where "full counts" have been carried out at least two years (Figure 5). Additionally there are several incomplete counts each year where counts have been made only once or twice per season.

Most of the occupied count routes are located in central Latvia where most of the active birdwatchers live. The south-eastern and western parts of the country are not covered. For a small country as Latvia with less than 500 km from the western to the eastern border such an uneven distribution of sampling plots does not rise concerns about the representativeness of data for the country. Even less so for the use of the data at a wider scale such as Europe-wide monitoring needs. Large areas without monitoring plots in some parts of the country are commonplace in the monitoring programmes

of the large countries such as Spain, Poland or France (del Moral 2004, Chylarecki *et al.* 2006, Jiguet 2009). However, the uneven distribution of routes does not allow regional analysis within the country which was one of the initial goals of the scheme.

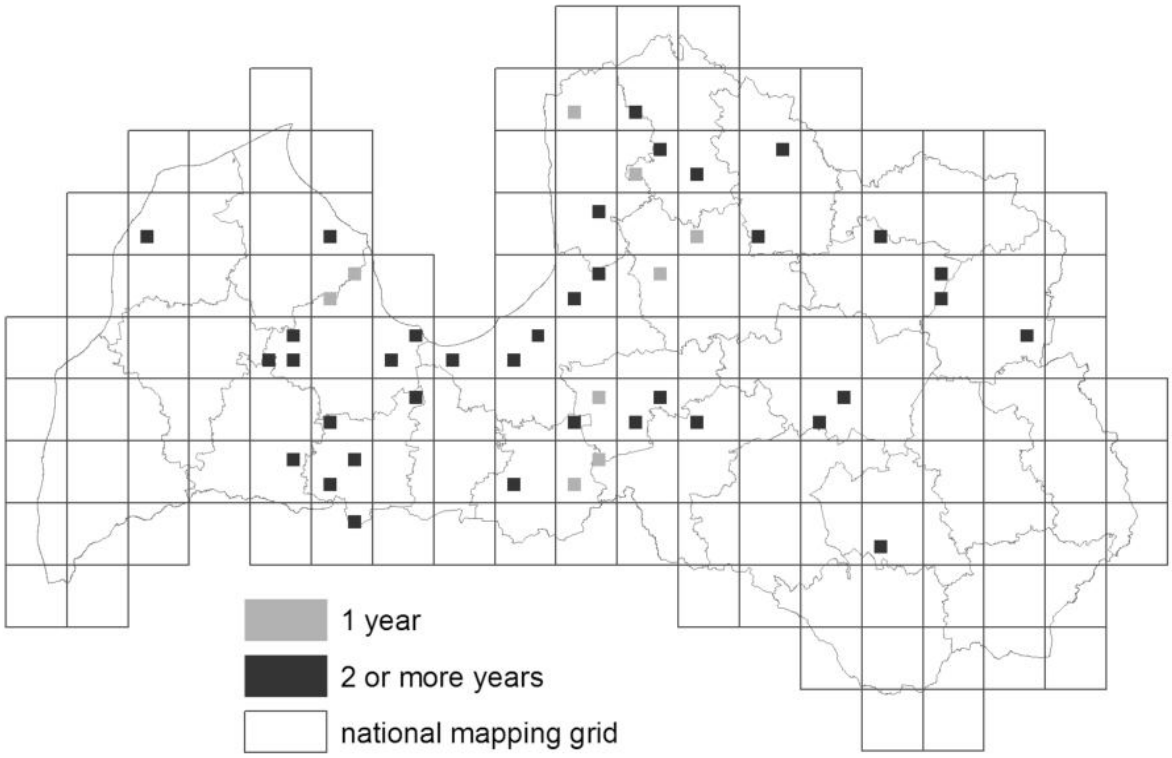

Figure 5. Distribution of bird monitoring squares where "full counts" (all the 3 counts per season as required by methods) have been carried out.

Habitat coverage

One of the initial concerns designing the scheme was whether the chosen sampling design will be representative enough and sampling plots will distribute evenly between main habitat groups in the country. The analysis of the habitat distribution within the 100m belts along the bird count routes that were occupied within the first three years of the scheme show that the proportions of the main habitat classes are roughly similar to those in the country (Table 1). Urban and residential areas is the only habitat group that is significantly overrepresented. However, as it occupies less than 2% of the counted area and only ca 1% of the country, its impact on population indices does not raise concerns. We also believe that with further increase of the number of active routes, the proportion of urban and residential areas in the 100m belts will decrease.

Table 1. Habitat proportion of the main CORINE Landcover habitat classes (level 1) within the country and 100m zones around bird count routes where "full counts" have been performed at least once in between 2005 and 2007.

Classes	Proportion (%)		
	All routes with complete counts	Country (total)	Country (except open water)
Urban and residential areas	**1.85**	**1.04**	**1.06**
Farmland	**42.63**	**44.20**	**45.04**
Forests	**53.31**	**50.50**	**51.46**
Wetlands (bogs and marshes)	**2.20**	**2.40**	**2.44**
Open water	**0.00**	**1.86**	**–**

Bird population changes 2005 - 2008

Population indices and trends were calculated using TRIM software (Pannekoek & van Strien 2005) for those 92 species that were recorded in 20% or more of the routes in at least one of the counting years. As expected, most of the species had "uncertain" tendencies due to yearly fluctuations of indices and wide confidence intervals during the short period of monitoring. However, there were 27 species with significant change – 3 species declined while 24 increased in numbers (Table 2).

Table 2. Bird population changes (2005 – 2008). Only species with significant trends have been included.

Species	Trend (S)	Standard error (SE)	Tendency	Significance of change
Anas platyrhynchos	1.3077	0.1551	Moderate increase	p<0.05
Bonasa bonasia	**0.6402**	**0.0818**	**Substantial decline**	**p<0.01**
Apus apus	1.8636	0.4311	Moderate increase	p<0.05
Dendrocopos major	1.1914	0.0729	Moderate increase	p<0.01
Lullula arborea	1.3849	0.1303	Substantial increase	p<0.05
Alauda arvensis	1.1033	0.042	Moderate increase	p<0.05
Troglodytes troglodytes	1.1505	0.0552	Moderate increase	p<0.01
Erithacus rubecula	1.1039	0.0421	Moderate increase	p<0.05
Turdus merula	1.115	0.0417	Moderate increase	p<0.01
Turdus pilaris	1.4342	0.1973	Moderate increase	p<0.05
Locustella fluviatilis	**0.7574**	**0.0853**	**Substantial decline**	**p<0.05**
Sylvia borin	1.1644	0.0633	Moderate increase	p<0.01
Parus cristatus	1.2374	0.1195	Moderate increase	p<0.05
Parus ater	1.3088	0.1359	Moderate increase	p<0.05
Parus caeruleus	1.6329	0.1241	Substantial increase	p<0.01

Species	Trend (S)	Standard error (SE)	Tendency	Significance of change
Parus major	1.3022	0.0523	Substantial increase	p<0.01
Oriolus oriolus	1.2055	0.0942	Moderate increase	p<0.05
Garrulus glandarius	1.1709	0.0765	Moderate increase	p<0.05
Pica pica	1.2729	0.1192	Moderate increase	p<0.05
Corvus corone cornix	1.3412	0.0903	Substantial increase	p<0.01
Sturnus vulgaris	1.202	0.0615	Substantial increase	p<0.05
Passer domesticus	1.3989	0.1655	Substantial increase	p<0.05
Carduelis chloris	1.3199	0.1309	Substantial increase	p<0.05
Carduelis spinus	**0.7799**	**0.0573**	**Substantial decline**	**p<0.01**
Pyrrhula pyrrhula	1.3917	0.1627	Substantial increase	p<0.05
Emberiza citrinella	1.1193	0.053	Moderate increase	p<0.05

Most of the increasing species are residents, partial or short distance migrants and many of these species are very common and can be described as habitat generalists. There are two possible causes for so many increasing species. First, the winters of 2006/2007 and 2007/2008 have been extremely short and rather mild in Latvia and other countries in the region. That might have allowed survival of a larger number of wintering individuals. The fact that most of the increasing species have large wintering populations in the region supports this assumption. In this case we may expect a negative change in the populations of these species after more severe winters. The second cause is associated with the increasing experience of bird counters and which increased detection probability of birds during the counts (see sub-section below). In this case the actual populations have not increased or increase has not been as large as indices show. This effect should first show up in the very common species having population indices with narrow confidence intervals. Most increasing species in table 2 match up this description. We may expect that population indices in the next few seasons will show similar or even more increased population levels if this assumption is true.

Two of the declining species are forest specialists. Hazel Grouse is resident and Siskin is partial migrant. Obviously, these species have not benefited of the mild winters. Changes in their numbers can neither be explained by changes in experience of bird counters. The most probable explanation is changes in the area of suitable habitat available for these species. The rates of forest cutting are very high since 1990-ties compared to the previous decades and there has been no representative forest bird monitoring during most of this period.

The possible cause of decline of River Warbler most likely is the situation in its wintering sites in Africa or on migration route as there have been no obvious changes in the habitats of the species in Latvia. The population

decline of River Warbler has been recorded already in the farmland bird monitoring starting with late 1990-ties (Aunins 2006).

Experience of bird counters

Despite that fact that several bird monitoring schemes had been carried out during the last decades, the vast majority of Latvian birdwatchers had no experience in standardised bird counting when the new Latvian Breeding Bird monitoring scheme was launched in 2005. Although a detailed description of methods (Auniņs 2005b) was available to the participants, it cannot replace a real-life experience. This means that the lack of experience might have affected the results of the programme. As noted above this is a possible cause to the large number of species showing significantly increased population indices during the first 3 years of the scheme.

The following areas of possible imprecision have been identified:
1. Reading the maps and sticking to the route. Although all participants received both route overview map (1:50000 scale) and detailed section maps (orthophoto maps 1:3000 scale) there may be problems with orientation, especially in larger forest areas where the maps are of limited use. Thus it is possible that a slightly different route is taken each year by some of the observers. Colour marking the route and usage of GPS receiver units has been recommended. The later has increased during the last years though.

2. Precision in judging the distance of observed birds. Although the training before counts has been recommended, there is a high probability that variation between the observers is very high in this regard. During the first years there may be also some inconsistency in distance judgement in the same observer too. This is the reason why distance sampling methods have not been used in data analysis so far.

3. Detection and identification of species, treatment of unidentified birds. We are aware that with gaining experience of the observers the bird detection rate will possibly grow during the first seasons of their participation. This may have a significant impact on the calculated population indices in the first years of the scheme when experience of the majority of participants is changing. Later, if turnover of the participants is not large and is kept constant, this impact will lose its importance. Special training camps have been organised for less experienced volunteers before their participation in the scheme and each participant has to fill yearly self-assessment forms. To control for changes in proportion of unrecognized birds they have to be recorded.

4. Individual differences in species specific bird detection rates. This is an unavoidable bias due to different visual and auditive abilities of the participants. They can have an impact on precision of calculated density estimates, however, they should not affect detection of change as long as these individual differences in bird detection rates are random and do not change in some direction.

Sustainability of the scheme

The Breeding Bird Monitoring scheme has been included in the Biodiversity section of the National Monitoring programme of Latvia since 2006. Due to this the scheme has received a financial support from the governmental institutions responsible for financing the biodiversity monitoring in the country: the Latvian Environmental, Geological and Meteorological Agency (2006–2007) and the Latvian Environmental Protection Fund (2008 – 2009). However, the future of the bird monitoring scheme cannot be considered as safe yet. There have been only one-year financing contracts so far and even these have always been signed late in the season when all the preparation work and sometimes even the first counts have already been completed. Due to the current economical situation in Latvia that has led to an international debt and severe cuts of the state budget, there is a high risk that implementation of the biodiversity monitoring may be suspended for some time period. If this period is not long, it should not lead to suspension of the bird monitoring scheme as it is based on volunteers. However, if such a period becomes long-lasting the activity of volunteers will inevitably decrease due to lack of qualitative feedback.

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The Atlas of the Birds of Moscow City Project: history, methods and first results.

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Introduction

Although the avifauna of the Moscow Region has been studied for already more than 200 years, since the beginning of 19th century, publications on the birds of Moscow City are from a much more recent date (Formozov 1947, Il'ichev *et al.* 1987, Konstantinov & Zakharov 2005). A first *Atlas of the Birds of Moscow City* has been published within the framework of the *Program Birds of Moscow City and the Moscow Region* several years ago (Kalyakin & Voltzit 2006) based on the first six years of fieldwork within this Program. The data were collected by approximately 400 collaborators. However, in this atlas the distribution maps for the city part were not presented using squares, but as the area comprising all observations of a species during the period 1999-2004.

The Project of the *Bird Atlas of the City of Moscow* started in 2006. The fieldwork period is planned to end in 2010 but could continue until 2011. The main aim is to produce a distribution atlas, of breeding, migrant as well as wintering birds in the city of Moscow, based on a 2×2 km square grid. It is one of the first urban distribution atlas projects in Russia of that a kind. A similar atlas of former Leningrad, now St-Petersburg, appeared in 1991 (Khrabry 1991), while a tetrad atlas project in Kaliningrad has been run until 2006 but has not been published yet (Lykov 2007). In this short note we provide some background on the history of the project and the methods used, and present some preliminary results.

The Atlas of the Moscow Region Program

The *Program Birds of Moscow City and Moscow Region* was established in 1999 as a personal initiative of the first author, who proposed to all

ornithologists of the Moscow area, both professional and amateurs, to join forces for a common goal: supply information on bird distribution, abundance, breeding biology etc.. for a new book on the birds of the Moscow Region. This initiative proved successful and this joint activity has not only improved the exchange of information among ornithologists, but also greatly stimulated the observation of birds. In general our *Program* is similar to activities of other Bird societies in Europe, but with the difference that we are not officially registered as a association or club, that we have no member fees and that we are 'just' a group of people who are interested in birds of the Moscow Region. All collaborators agreed to provide their observations to the centralized database at the Zoological museum of Moscow Lomonosov State University where the data are imported, checked and analysed. The results have been published in a series of annual reports from 1999 to 2005. The 2006/2007 report will appear shortly. Financial support during the first stages was provided by the Zoological museum of the Moscow University. However, after 2007 new publications were financed by the income generated from the sale of previous ones. More details about the Program can be found on our web-site http://www.birdsmoscow.net.ru/.

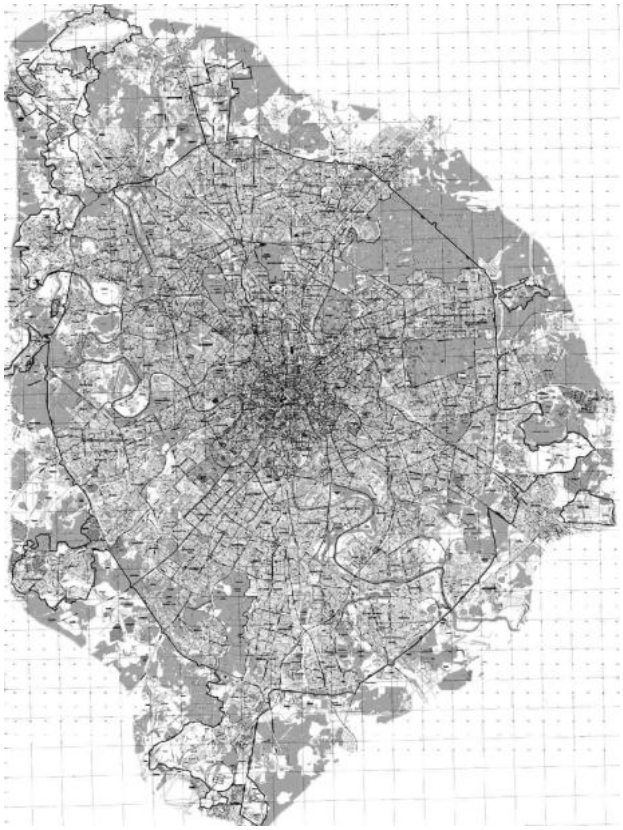

Figure 1:Moscow City with Ring Highway and outside areas which are also officially included within the town border (green areas in light grey).

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The Atlas of Moscow City Project

The method

This project is a continuation of the Program's atlas activity. Its main goal is to obtain detailed and complete distribution data of the breeding birds of the City of Moscow. Also information on species presence during migration and winter is collected, although less comprehensive. The main method used for data gathering is a survey of one (or more) 2×2 km squares –based on the Universal Transverse Mercator (UTM) projection- by one (or several) observers during a one-year period. An observer should spend at least 36 hours in a square during the breeding period (April-July). Visits outside this period are less restricted. The total survey time per month is registered as well as the degree of square coverage. In an ideal situation the whole square should be covered in a similar way. However, in some circumstances e.g. in squares with homogeneous residential areas where diversity and numbers of birds are usually very low, one or two short visits will suffice. Before the start of the survey the observer has to visit the whole square to get an idea of the different land-use and habitat types present. In each square a list of all observed bird species has to be compiled, including their breeding status (confirmed, probable and possible breeding following international atlas codes and after Priednieks *et al.* 1989). The non-breeding status of a species has to be documented with data on behaviour (e.g. using the square only as feeding or roosting area). For all species, breeding abundance (as number of pairs) or presence outside the breeding season (as number of individual birds) has to be estimated in every square, using four log scale categories: <10, 10-100, 100-1000 and >1000. Yearly, each observer provides a report with the results of his fieldwork (bird and habitat data) to the co-ordinators of the project for the compilation of the annual report.

The study area

Because the official territory of Moscow City includes several urban satellites located far from the central part of the town, we decided to study only the zone delimited by the Moscow Ring Highway. This is an oval-shaped area of about 40 km from north to south and 30 km from west to east. It includes a total of 240 squares of 2×2 km of which 56 are only partially located within the boundary.

Participation to the project

An important task before starting up this project was to find enough observers eager to work within a frame that requires the use of standardized methods, regular visits and a certain level of species recognizing skills, which was a totally new way of working. During the course of the Program contacts between participants had been rather informal and the only real obligation imposed on the fieldworkers was the use of a standardized observation form in order to facilitate data input in the centralized database.

Moscow City and the Moscow Region are the area with the highest density of ornithologists and birdwatchers in Russia. However, it was not that easy to find many volunteers for this more time-consuming and standardized fieldwork as required by the new atlas project. Therefore, already from the beginning of the Project it was very difficult to predict its duration, and even now, at the the end of a four year fieldwork period, there is no clear idea how long it will take us to finish.

Preparation and evolution of the scheme
The first season was used to assess the method, to prepare the data forms, analyzing the data and writing and distributing a report not only to all participants but also on a wider scale. The first annual report (Kalyakin & Voltzit 2007) included data of 26 squares. The next two volumes (Kalyakin & Voltzit 2008, 2009) were compiled in the same style. Field activity increased in the second and third years: respectively 36 and 57 squares were covered in 2007 and 2008, which means that in three years, 50% of the area of the City had been covered (119 from 240 squares). But unfortunately in 2009 we could not count more than 58 squares, which means that (at least) another year of fieldwork (or even two) will be necessary, in particular to cover the less “attractive” squares or the ones more distant from the fieldworkers homes. Now a decision is necessary as to the continuation of the project: trying to cover all the remaining squares in 2010 (by assigning the distant squares to fieldworkers with cars, counting squares with several people) or continue to 2011. The second option could facilitate additional surveys in hitherto poorly covered squares.

Preliminary results

The detailed counts in about half of the squares of the City area have already improved our knowledge on their distribution. First of all, it is clear that many species formerly categorised as “rare” are not so rare at all (or have become common, in several cases), A good example is the Black Redstart, *Phoenicurus ochruros,* which was not mentioned for Moscow and neighbouring Regions forty years ago (Ptushenko & Inozemtsev 1968), but has now become more common in Central European Russia. The species was observed several times in Moscow City before 2006. The preliminary results of the Atlas Project show breeding evidence in 8 squares and observations in another 8 during the breeding period. Thus, most probably the Black Redstart is at present already breeding in 15-16 squares (c. 13% of the total covered). The species prefers rocky habitats and is mainly present in the former industrial zone of the City. After 1990 many of the factories closed down and the area is now a mosaic of open areas, bushes, groups of trees, new buildings and many ruins, as well as debris and some small ponds. In the past, such non-

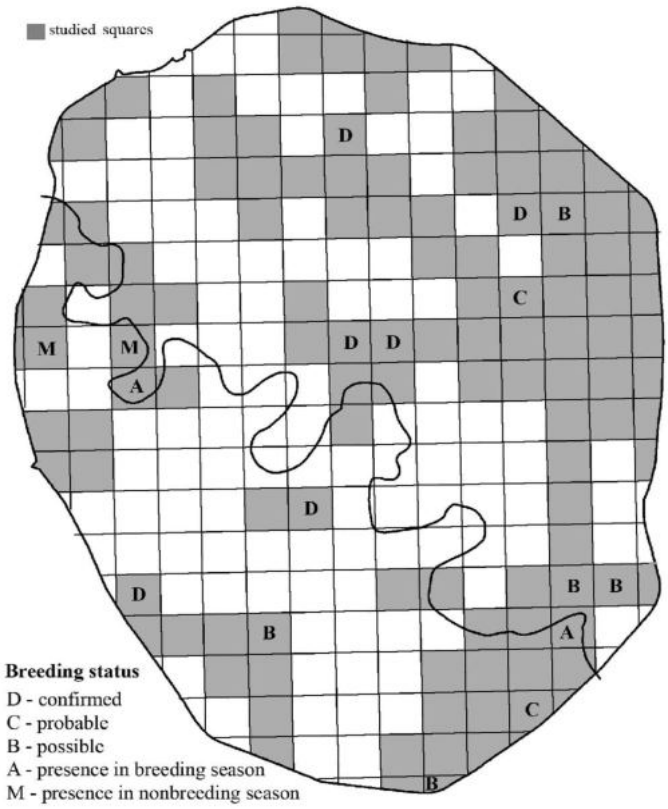

Figure 2:The distribution of the Black Redstart, Phoenicurus ochrorus in 119 Moscow squares studied in 2006-2008.

attractive areas (with difficult access and presence of stray and semi-wild dogs) were not popular amongst birdwatchers, but with the new Project, these interesting "town landscapes" are now visited and their avifauna counted.

As a result of the Atlas Project, we could add several new species to the list of the bird fauna of Moscow. Our knowledge of spring and autumn phenology and of wintering species has increased substantially. We also obtained many additional information on birds of protected areas, large parks, and other semi-natural areas. These data have already been included in a new edition of the Red Data Book of Moscow which is in preparation and should be published in 2010. We hope to present all this information in our new Atlas, which will most probably be published by 2012. At present we are still looking for possible sponsors. We are convinced that this Atlas will be a good base for future monitoring of the birds of Moscow City as well as a good tool for their protection.

Acknowledgements

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The SEED Bird Indicators Project: the development of common bird indicators in Eastern Europe

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Introduction

In the spring of 2009, the SEED Bird Indicators project finished after 2,5 years of capacity building involving 7 NGOs from Belarus, Bulgaria, Romania, Turkey, Poland and Lithuania, and the Macedonian Ecological Society. An important goal of the project was to successfully develop or improve national Common Bird Monitoring (CBM) Schemes in these seven countries, based on citizen science approach. Skilled volunteers collect data to be analyzed by scientists, who look for the short and long-term population trends of widespread birds and develop indices of the quality of the environment. One of them, used in EU policies, is the Farmland Bird Index, which is one of the ways to measure the progress towards the 2010 goal to halt the loss of biodiversity.

The SEED BI project was coordinated by the Bulgarian Society for the Protection of Birds (www.bspb.org) and funded by the GEF Small Grants Programme, the Royal Society for the Protection of Birds (UK) (www.rspb.org) and the Black Vulture Conservation Foundation. The project was implemented in close cooperation with the Pan-European Common Bird Monitoring Scheme, a joint initiative of the European Bird Census Council (www.ebcc.info) and BirdLife International (www.birdlife.org), who provided expertise and invaluable support.

The countries that participated were divided in 3 groups according to their level of experience with CBM schemes. Some of them were quite advanced like Poland and Bulgaria but countries like Belarus, Macedonia and Turkey just started with their scheme. Romania and Lithuania had their schemes already in place but with limited species and habitat coverage. Because of these differences, various levels of activities and approaches were used. New national CBM schemes were launched in Macedonia, Turkey and Belarus. Lithuania re-launched its scheme, while Poland, Romania and Bulgaria improved theirs and strengthened the links with policy and

conservation. Communication and coordination with other projects, programmes, sector agencies and organisations were enhanced and dialogues with governments about the use of bird indicators in sectoral policy formulation was initiated or improved.
In this overview we present in some more detail some of the main activities that have been implemented during the project.

Main activites implemented during the project

Assessing the capacity of Macedonia, Belarus and Turkey to start and implement full schemes or international census plots
With the help of RSPB and EBCC a detailed questionnaire was prepared, aiming to deliver information about the potential for coordination, availability of skilled volunteers, existence of volunteer networks, experience of other citizen science initiatives, level of public awareness for bird watching and nature indicators, collaboration with other potential partner organizations, availability of financial resources, policy issues, availability of basic equipment such as binoculars, scopes, bird guides etc. All three countries had consultations with stakeholders and compiled the necessary information to fill in the questionnaire.

Field training, Macedonia

Theoretical training, Ankara, Turkey

International capacity building workshops (training the trainers)
Three workshops were organised in Belarus, Macedonia and Turkey, just before the first field season. They were successful and highly appreciated. In each country the training consisted of 2 parts. The first day was focused at a theoretical training, with presentations on the purpose and methodology, and illustrated with different case studies. This was followed by discussions

and decisions about the design of the national scheme and how the main challenges could be solved. The second day was a practical training to test the methodology in the field – selection of plots, distance bounds, detection of birds, filling in the forms etc. Trainers were key experts form RSPB/EBCC, BTO, SOVON and BSPB.

Capacity building workshops in order to improve the knowledge of the fieldworkers and to attract new volunteers

Major obstacles for development and enlargement of the CBM schemes in Eastern European Countries are the lack of tradition in monitoring activities engaging volunteers and the lack of skilled observers. There is also an important turnover of volunteers due to the fact that most of them are young people (high school or university students) and their interests or involvement posibilities can change rapidly, seriously hampering the continuity of schemes.

To overcome this problems one key activity of the project was capacity building of observers. Many group and individual trainings were set up aiming at developping species identification skills and the use of standardized observation and reporting methods. Background information was provided on the utility of common breeding bird monitoring, the PECBM scheme and the use of indicators for policy improvements. In total more that 25 organised workshops took place.

Establishing of new national/international census plots and providing the data to the PECBM database.

All three beginning countries (Macedonia Turkey and Belarus) started with their CBM schemes in spring 2007 and during the course of the project three full counts were made - one per year. The last one, in spring 2009 was run on a voluntary basis, as there were no funds allocated for this in the project budget. Other partners continued with their monitoring project and Lithuania re-launched its scheme (see Table 1).

Table 1: Details of the different established monitoring schemes

Year 2007/ Year 2008	Method	No of plots	No of observers	Data storage/ processing
Belarus	transects	25/32	18/25	Excel
Turkey	transects	11/16	11/15	Excel
Macedonia	transects	14/11	13/10	Excel
Lithuania	point counts	17/20	30/40	Excel/access (in prep)
Romania	point counts	61/84*	53/65*	Access
Poland	transects	478/481 (500)	231/255	Access/ TRIM
Bulgaria	transects	118/123*	119/98*	Access / TRIM

P*roducing information materials on biodiversity indicators and CBM schemes and delivering them to the governments and authorities responsible for EU integration, local authorities and nature conservation NGO's.*
A number of information materials in all countries were produced and widely distributed among the government authorities, state institutions, nature conservation NGOs, and among potential sponsors.

In Turkey, a brochure introducing the common bird monitoring scheme, the wild bird indicators indexes and the first results for Turkey (with 2007 and 2008 data) was printed after the second year of the project. The Macedonian Ecological Society produced a brochure, providing information on the project, explaining the purpose of the CBM and bird indexes, the methodology and launched an appeal for participation. A small leaflet was produced and widely distributed in high schools and Universities and other places with potential participants. Brochures with the similar purposes were published in Bulgaria, Lithiania and Romania as well. A short video film (4' 25") was produced to present the Romanian CBM program. The video was broadcasted in a green magazine on the Hungarian satellite Duna TV (http://www.dunatv.hu//video/videoplayer?video=1_435491) and was also posted on the project web page (version with English subtitles: http://www.youtube.com/watch?v=kWF3hfN4xWQ). In Bulgaria 5 issues of the CBM bulletin were widely distributed among the observers and stakeholders.

Producing simple bird guides in native languages of common bird species and CD with bird songs.
This activity is very essential for the development of CBM scheme, as for any other monitoring bird scheme, because the availability of bird guides in local languages is crucial for development of good skills in bird identification especially for those which are not professional volunteers. Also free or very cheap bird guides, distributed among CBM participants are an incentive tool for recruitment of new people. All countries went in different directions with this activity depending on their needs. A key factor was that the budget available was very limited and there were no funds available for purchasing of drawings, artworks etc. After successful negotiation with the RSPB, a full set of excellent bird drawings of all European species was kindly donated for production of a simple bird guide for the project purposes.

In Macedonia, the first ever bird guide in local language was produced (see picture)! In Belarus a set of laminated pages with bird drawings to be used in the field were developed and the rest of funds allocated for this activity were used for purchase of a couple of Belarusian guides, still available on the

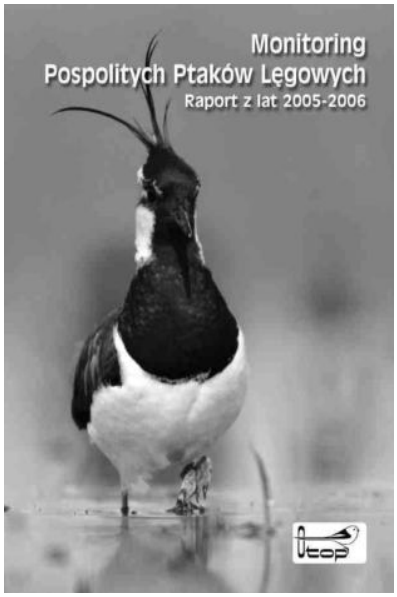
market. In Bulgaria a set of a bird guides and CD with the calls of the most common species were produced and distributed among the observers. The Romanian partner produced a set of three audio CDs with original recordings of Romanian bird song and calls. There are 162 recording of 152 common bird species, accompanied by detailed commentaries in Romanian, Hungarian and English (see picture below).

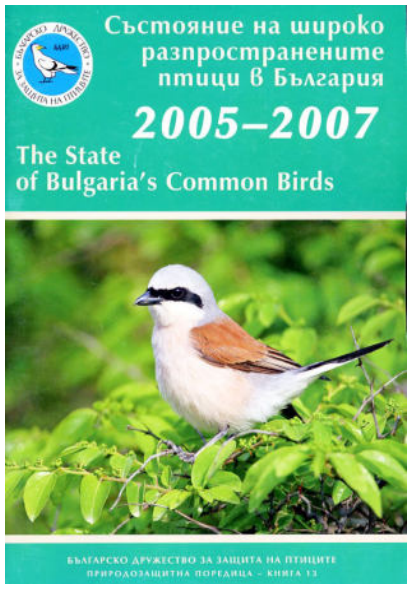
CD with original recordings of bird songs and calls, produced by the Romanian partner

First bird guide in Macedonia

Organizing a national advocacy forum before the policy makers on biodiversity indicators based on wild bird population trends.
This item was very important to underline the suitability of bird indices as a tool for measuring changes in the environment and their application in environmental policy. Special advocacy meetings took place in Poland and in Bulgary. They were attended by the relevant governmental authorities and agencies, national statistic institutes, scientific institutions, green NGO, sponsors and other stakeholders. Apart from those public discussions, some smaller meetings took place as well. In the other countries workshops were set up with policy makers and meetings were organised with the Ministry of Environment, the Ministry of Agriculture and other relevant institutions. These events have been helpful not only to promote the use of bird indices in policy making but also to attract attention to the serious problems of bird population decline and nature protection issues.

Producing an annual detailed report with the results from the CBM Scheme and distributing it among relevant ministries and agencies (see pictures).
A Polish report was produced based on the data from 2005-2006 field seasons. and in Bulgaria, the first report of the trends of common bird populations was published in March 2008 and launched during the advocacy forum in Sofia, April 2008. The report is based on 3 years data and presents the national population trends of 38 common and widespread bird species in the country. The Farmland bird index for Bulgaria, a combination of the population trends of 17 farmland species, is also included in the report.





Reports with CBM scheme results from Poland (left) and Bulgaria (right)

As a conclusion, it could be said that SEED Bird Indicators project was not a extended project with a significant budget but it was an initiative, which mobilized enthusiasm, energy, knowledge, skills and dedication, which built an effective partnership based on common values and objectives and which facilitated exchange of know-how and expertise.
As a result:

- 3 new countries started CBM schemes – Turkey, Belarus and Macedonia
- Lithuania re-started it's CBM scheme
    - 3 international training workshops and more than 25 national/local ones were held
- The first ever bird guide in Macedonian was printed

- Romanian and Polish governments started to provide funds for the CBM schemes and production of national common bird indices
- Governments of Bulgaria and Lithuania are intend to launch tenders at the end of 2009 beginning of 2010
- In all seven countries the publication of guidelines, leaflets and bird guides provides now sound basic information to stimulate participation in common bird census schemes.

And last but not least - The profile of CBM, bird indicators, the partners NGOs, BirdLife International, EBCC and, GEF/SGP was raised among students, scientists, state institutions and other national and international stakeholders and "bird" authorities.

Acknowledgements

The goals of this project have been realised thanks to the professional and dedicated work of Metodija Velevski, Danka Uzunova, Viktar Fenchuk, Ozge Balkiz, Shabo D. Zoltan, Petras Kurlavicius, Dagmara Yavinska and Barbara Archita.

Special thanks also to Svetoslav Spasov, Richard Gregory, Petr Vorisek and Ian Burfield for their constant support, strategic advices and valuable ideas, as well as to all members of the Executive Committee of EBCC, Alena Klvaňová and Jana Skorpilova. Warm acknowledgements also go to Veleslava Abadjieva and Milena Atanasova (SGP Bulgaria) for their understanding and endless patience.

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Books, reports & journals

Carrascal, L. & D. Palomino 2008. The common breeding birds in Spain. Populations in 2004-2006. SEO/BirdLife, Madrid. 202 pages. (in Spanish: *Las aves comunes reproductoras en España. Población en 2004-2006*, with a short English summary). ISBN 978-84-936441-3-0.
Order at: SEO/BirdLife, c/Melquiades Biencinto 34, E-28053 Madrid, Spain, or via seo@seo.org

The database from the long-term monitoring scheme on common breeding birds in Spain (SACRE, in Spanish) was used to estimate the average population sizes of 95 species from 2004 to 2006 (birds of the Canary and the Balearic archipelagoes not included here). The 90% confidence intervals of these estimates, both at the national and regional scales, were also calculated as indication of their relative precision.

After a chapter in which the census and data analysis methods are explained, the main body of the publication consist of the species accounts. For each of the 95 species considered following information is presented in tables: the national population numbers, numbers for each Autonomous Region and their percentage to the total, and the 90% confidence intervals of the estimates and the density/km^2 in the most important habitat types used by each species. In a short text a summary is given of the information shown in the tables. More detailed figures on the densities in various habitats are presented at the end in several annexes.

The sample size was 12 030 point-counts over all the administrative provinces of peninsular Spain. There is a mean of 802 point-counts/region, with minimum in Murcia (243) and a maximum in Castilla y León (2708). The 95 species considered in the study averaged 1228 occurrences across the 12 030 samples, ranging widely between 24-39 (Whinchat, Hawfinch, Common Redstart) and 4104-5234 (House Sparrow, European Serin, Blackbird). This variability in occurrence, a reflection of actual ecological rarity of each species in Spain, is directly related to the accurateness of the estimated population sizes. After calculating their detectability indexes, the mean field abundance of each species in 23 main environments was parameterized by means of bootstrapping methods, allowing to obtain absolute densities at the national/regional scales.

The average population estimates calculated here are highly reliable, because: 1) the confidence intervals linked to mean population sizes entail reasonably narrow margins of variation; 2) our regional estimates for Catalonia are highly similar to those previously suggested in a study based on completely different data and analyses. It must be noted that the population sizes presented do not include

populations breeding above 1500 m altitude, however, for most of the species considered these populations are negligible. The five most abundant species of the 95 considered are House Sparrow (163 450 000 individuals), Black Starling (52 700 000), Greenfinch (35 730 000), Goldfinch (34 380 000) and Crested Lark (31 450 000). Only one species could be considered "Near Threatened" according to the criteria of the UICN: the Dartford Warbler. Its vulnerability relates to a recent population decline, which most probably is the result of natural reforestation of scarcely vegetated areas in Spain.

Support the publication of the Latvian Breeding Bird Atlas!

The Latvian Ornithological Society is asking for donations for the publication of the Latvian Breeding Bird Atlas 2000–2004. This study both in terms of number of people involved and amount of data gathered is the biggest bird research project ever carried out in Latvia. This book will not only include maps of breeding distribution but also the latest estimate of breeding population sizes, habitat use and threat status of the breeding bird species, details on changes in population status over the last 20 years and the reasons behind these changes.

This is the second national atlas study in Latvia (the first was carried out in 1980–1984). More than 1200 volunteers have taken part in fieldwork. The large scale of this study has made it too big for a single sponsor. During the fieldwork several companies, funds and individuals have supported our work financially and we wish to thank them all.

Nevertheless, despite former donations we still need EUR 66 000 to process the data and print the book. We ask for your support. If you donate EUR 150 (EUR 1500 for companies) your (or your company's) name will be printed in the section of the species of your choice (as a supporter for this species). All names of sponsors will be published in the "Acknowledgements". Should a company (or individual) decide to donate more than half of the sum needed, its name and logo will be printed on the cover of the book. We thank all contributors in advance for their donations!

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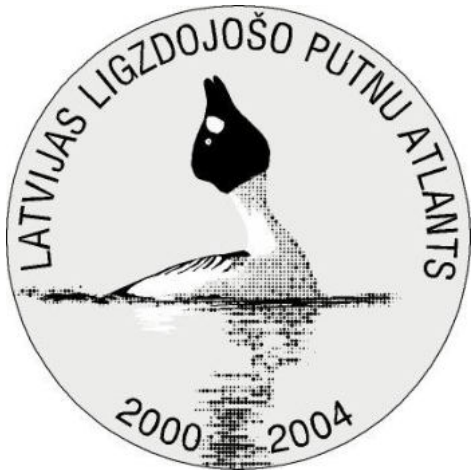

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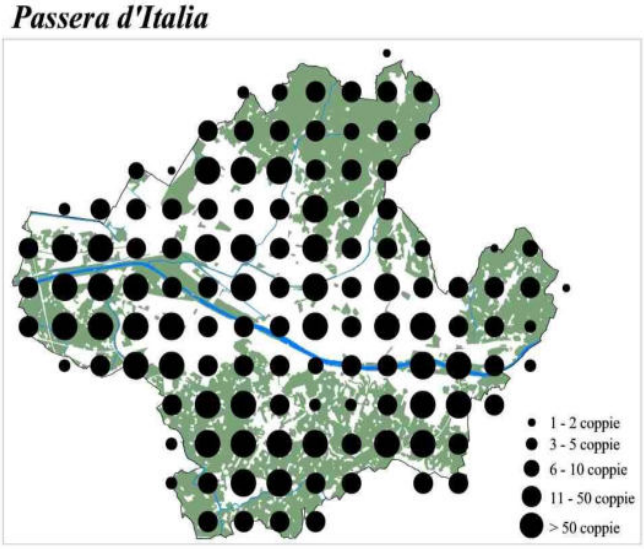
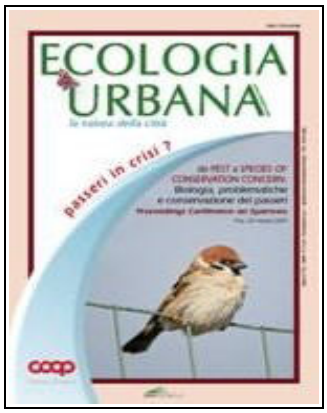
Dinetti Marco 2009. Atlas of Breeding Birds of Florence, Third Edition 2007-2008. Lipu & Comune di Firenze, 272 pages (in Italian: *Atlante degli uccelli nidificante nel comune di Firenze, Terza edizione, 2007-2008*, with English summary). Format: 17x24, black & white and colour pictures, maps. Price: 20 Euro + p&p.
Contact: Marco.dinetti@lipu.it

This third edition of the urban breeding bird atlas of Florence threats the distribution, abundance, trends, habitat and breeding biology and conservation problems of 86 species. Maps are provided for the years 1986-1988, 1997-1998 and finaly, 2007-2008. 124 UTM 1x1 km squares have been counted using both qualitative and quantitative census methods (see example of distribution map below). The avifauna is used as an environmental indicator for urban quality evaluation. This is an unique urban ecology study in Italy and Europe that shows the long-term process of urbanization of birds on a detailed scale. The book can be used for birthwatching, for environmental education, for a 'biodiversity- friendly' habitat management or... for simply visiting Florence.



A special issue of the Italian journal "Ecologia Urbana" 21(1): 1-119, presents the proceedings of a conference on Sparrows held in March 2009 in Pisa.
Contact: Marco.dinetti@lipu.it



Ottvall, R., Edenius, L., Elmberg, J., Engström, H., Green, M., Homqvist, N., Lindström, Å, Pärt, T. & M. Tjernberg 2009. Population trends for Swedish breeding birds. Ornis Svenica 19: 117-192.
Contact: richard.ottvall-at-zooekol.lu.se

The authors assessed the population trends for 255 bird species in Sweden (including distinct subspecies), based on data for the last 30 and 10 years, respectively. Over the past 30 years more species have decreased (38%) than increased (32%) in numbers. In particular, formerly common farmland species have fared poorly but this is also true for some forest species. Over the past 10 years there are more species with increasing trends (29%) than there are species with decreasing trends (19%). Trends for several species in long-term decline have levelled off and have in some cases even started to increase. It is not known whether this recent change is a result of conservation efforts or simply that population numbers have established at lower levels now permitted by the environment. It is therefore essential to initiate research devoted to finding factors directly linked to ongoing population changes, particularly for species in long-term decline. To cover population trends for all Swedish species additional monitoring programmes are needed, in particular on owls and in mountain habitats.

18th International Conference of the EBCC

The European Bird Census Council and SEO/BirdLife are pleased to invite you to the 18th International Conference of the EBCC

The dates are the **22nd - 26th March, 2010**, and the venue is the 'San Francisco' Cultural Center (originally an old monastery) in **Cáceres, Spain**, in the heart of the region of Extremadura, one of the most spectacular parts of Europe for its bird fauna, and in particular its birds of prey.

Don't forget to registrate!! Online registration will close on **March 15, 2010**

See conference website: *http://www.seo.org/ebcc2010*

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.
- Figures, pictures and tables should not be incorporated in the text but attached as separate files.
- Provide illustrations and figures both in colour and black and white. Figures and tables in colour will be shown in colour in the PDF version on our EBCC website: www.ebcc.info.
- The lenght of the papers is not fixed but should preferably not exceed more than 15 pages A4, font size 12 pt, line spacing single (figures and tables included).
- Papers should include an abstract of maximum 100 words.
- Authors will receive proofs that must be corrected and returned as soon as possible.
- Authors will receive a pdf-file of the paper.

References:
- In the text: Aunins (2009); Barova (1990a, 2003), Gregory & Foppen (1999), Flade *et al.* (2006), (Chylarecki 2008), (Buckland, Anderson & Laake 2001)
- In the reference list:

Gregory, R.D. & Greenwood, J.J.D. (2008). Counting common birds. In: *A Best Practice Guide for Wild Bird Monitoring Schemes* (eds. P. Vorísek, A. Klvanová, 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'Ornitologia*, 24:138-146.

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by mail on CD to: Anny Anselin, Research Institute for Nature and Forest, Kliniekstraat 25, B-1070 Brussel, Belgium

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, +44 1842 750050, email: david.noble@bto.org.

Please send short national news for the Delegates Newsletter to EBCC's Delegates Officer: Åke Lindström, Dept. of Animal Ecology, Lund University, Ecology Building, S-223 62 Lund, Sweden,+46-46-2224968,Mobile: +46-70-6975931, email: ake.lindstrom@zooekol.lu.se

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