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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.

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Preface

This is the first issue of Bird Census News as the **Journal** of the European Bird Census Council! EBBC's Board (new name of *ExCo* in accordance with our legal status as Association) decided to this change to avoid confusion with the recently started up Newsletter for the EBBC national delegates, produced by our Delegate Officer Åke Lindstrom. The contents of BCN will not change by this new status. To report developments in census and atlas work in Europe, from the local to the continental scale, and to provide a forum for discussion on methodological methods is still the main aim.

From now on you'll see regularly illustrations of Toni Llobet in BCN. Toni is a renown Catalan artist and illustrator of several bird and wildlife books, including the *New Catalan Breeding Bird Atlas* published in 2004 by the Catalan Ornithological Institute (ICO) and Lynx Edicions and the *Handbook of the Birds of the World*. Through the Catalan Ornithological Institute and arranged by Sergi Herrando he kindly gave permission to let EBCC use the illustrations of their breeding bird atlas in our journal, for which we are extremely grateful. We can now also make use of the species drawings made for The EBBC Atlas of European Breeding Birds and later used by BirdLife International for illustrating some of their publications, but only after agreement of the artists.

In this issue we go east: you find articles on Woodpeckers in Croatia, on monitoring Barn Swallow in Ukraine and on monitoring in small river valleys...in Moscow. All three studies have been presented at the EBCC conference in Chiavenna last year. At the end of the issue there is the "Books and journals" chapter and some announcements.
Enjoy this issue!

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Woodpeckers in the Croatian Karst Mountains

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Introduction

In Croatia, about 54% of the state territory can be classified as karst, the major part belonging to the Dinaric karst. This ecosystem is regarded by the Croatian National Biological and Landscape Diversity Protection and Conservation Strategy (Kutle, 1999) as a priority requiring special conservation action plans. In line with this strategy, the Karst Ecosystem Conservation project (KEC) was implemented aiming at the protection of landscape and biological diversity of the high karst zone of the Dinaric Mountains. One of the KEC project's goals was to design a comprehensive biodiversity monitoring program which should be carried out in five protected areas. A part of this goal was to prepare the monitoring of woodpeckers.

Woodpeckers are often considered as good bioindicators (Mikusiński *et al.*, 2001, Wübbenhorst & Südbeck, 2002). They share the prominent features of keystone and umbrella forest species (Bütler *et al.*, 2004, Mikusiński, 2006). Furthermore, some woodpecker species are declining (Hagemeijer & Blair, 1997, Mikusiński & Angelstam, 1998), therefore monitoring their populations is vital for their conservation management. Woodpeckers have similar spatial requirements, nesting biology, and ecology, and several species can be studied simultaneously using similar methods (Spitznagel, 1990, Scherzinger, 2003, Gjerde *et al.*, 2005). Identifying the distribution, size, and population trends of woodpeckers is an important step in developing conservation strategies not only of woodpecker species, but for the entire forest biodiversity (Gärdenfors, 2001).

The objectives of our study were to gain information on distribution, abundance, and habitat selection of woodpeckers in target areas of the KEC project, and to develop a methodology for long-term monitoring of woodpecker populations in the high-karst zone of the Dinaric Mountains in

Croatia. The research was focused on four woodpecker species: the Lesser Spotted Woodpecker, *Dendrocopos minor*, Great Spotted Woodpecker, *Dendrocopos major*, White-backed Woodpecker, *Dendrocopos leucotos*, and Three-toed Woodpecker *Picoides tridactylus*.
Only a few non systematic surveys were conducted in the high-karst zone of the Dinaric Mountains prior to our research (Kralj, 1997). Forests of this area are especially important for the Three-toed Woodpecker, whose range in Croatia is entirely confined to this area, as well as for the White-backed Woodpecker, whose population, despite of a wider range in general, is mostly concentrated in this area.

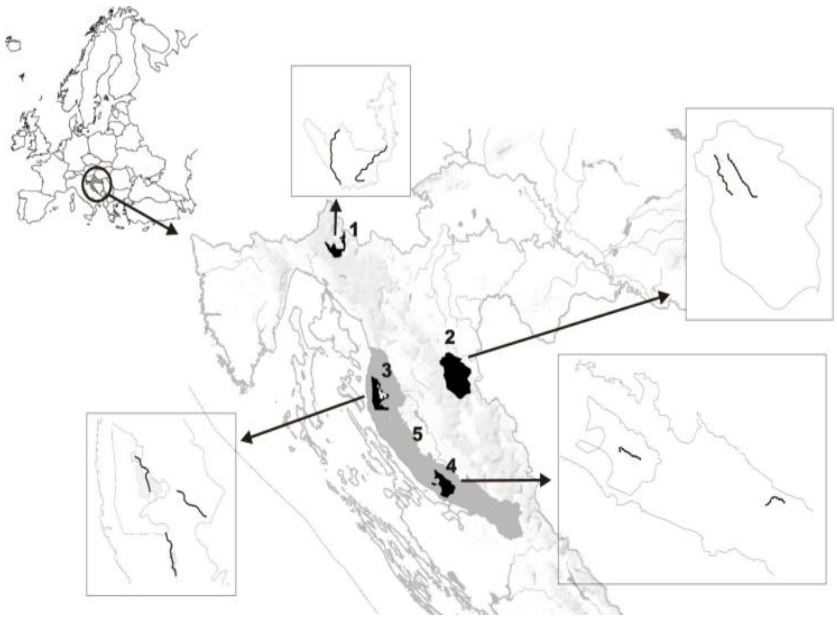


Fig. 1: Study areas and routes. The Risnjak (1), Plitvice lakes (2), North Velebit (3), and Paklenica (4) National Parks are shown in dark grey, while the Nature Park Velebit is shown in light grey (5)

Methods

This study was conducted from 2004 to 2007, in five protected areas of the Dinaric Mountains high-karst zone: the Risnjak, Plitvice Lakes, North Velebit, and Paklenica National Parks, and the Velebit Nature Park (Figure 1). All five study areas are predominantly covered with forests, which could be grouped in tree main forest habitat types: broadleaved deciduous

forests, mixed fir-beech forests, and coniferous forests. Broadleaved deciduous beech forests are developed as montane beech forests (mainly *Luzulo-Fagetum* Meusel 1937 and *Blechno-Fagetum* Ht. 1950 ex Marinček, 1970) on lower mountain slopes at elevations between 400 and 800 m a.s.l., and as sub-alpine beech forests (manly *Saxifrago rotundifolii-Fagenion* Merinček, 1993 associations) at elevations above 1100 m a.s.l. Thermopile beech forests (*Seslerio autumnalis-Fagetum* M. Wraber ex Borhidi, 1963) are developed on mountain slopes near the Adriatic Sea. Mixed fir-beech forests (*Omphalodo-Fagetum* (Tregubov 1957) Marinček *et al.*, 1993), developed mainly on elevations between 800 and 1200 m a.s.l., are the most widespread forest habitat in the research areas. Pure coniferous forests occur in the deeper mountain depressions (spruce forest; *Piceion* Pawl. in Pawlowski *et al.*, 1928 associations) and on rocky slopes (fir forest; *Calamagrosti-Abietetum* Ht. 1950). Forests are commercially managed by the Croatian Forestry Service in the Velebit Nature Park. In the national parks dead and dying trees are removed if necessary.

Field methods

Since woodpeckers occupying mountain habitats have relatively large territories (Cramp, 1985, Fernandez *et al.,* 1996, Pechacek, 2004), we used the point-count method with full distance measuring, which allows one to cover a large area in a short amount of time (Bibby *et al.,* 1985). Call playback was used to encourage territorial behaviour of woodpeckers and to enhance the efficiency of detecting birds.

Counting stations (points) were distributed systematically in each Park on one or two routes, depending on the size of the Park's forested area. Each route consisted of 10 to 15 stations. Counting stations were spaced 500 m apart and were arranged alongside forest roads or walking paths. Counting stations were distributed to ensure a good coverage of the most important forest types in the study areas, and ranging from 500 m to 1500 m a.s.l., with 70% of the counting stations between 800 and 1200 m a.s.l. A total of 117 counting stations, localised along 9 routes of 5 to 8 km long (Figure 1), were distributed over the study area.

Field work was carried out in the pre-breeding period, in April. Each route was visited twice in a season with at least ten days between consecutive visits, each time during calm weather without precipitation. Counting started approximately half an hour after sunrise at the first station of each route. Routes were traversed on foot when they were covered with snow, and they were crossed by a car when they were snow-free. The time needed to complete each route varied between four and seven hours, and

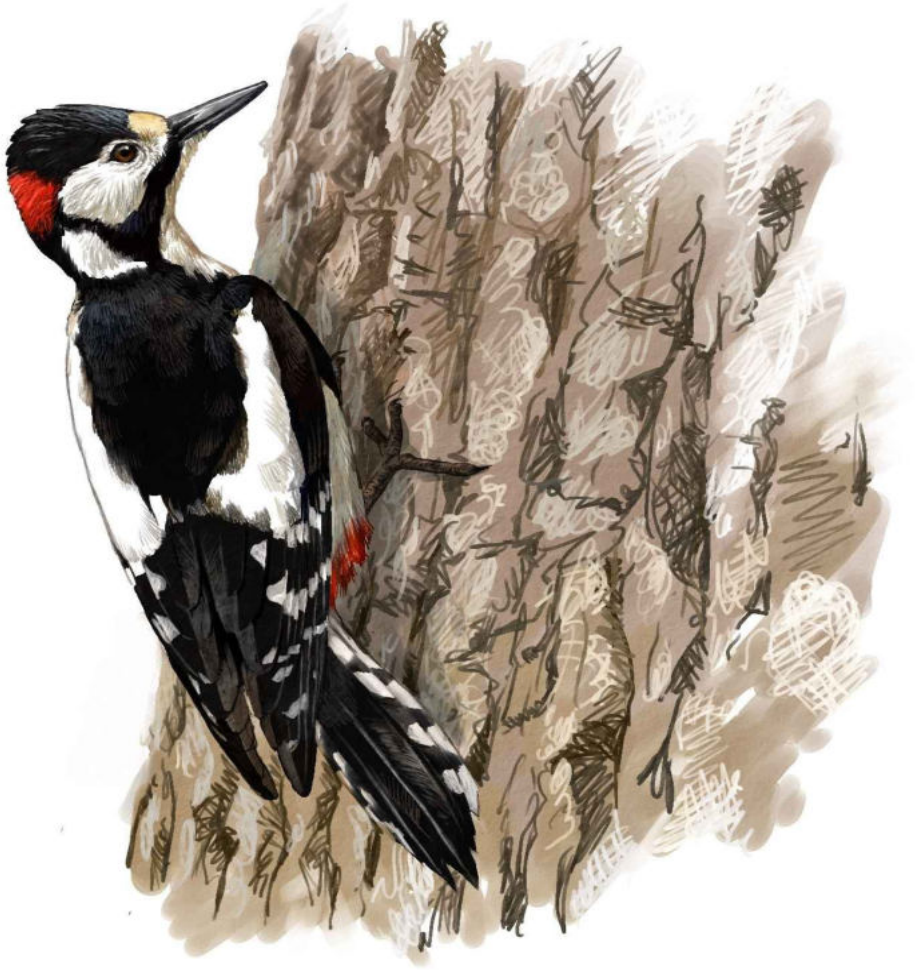
approximately two counting stations per hour were covered on foot, and three counting stations per hour were covered when using a car. Counting along the same route was canceled if the weather changed or if the woodpecker activity was unexpectedly low. The data collected in such cases was not taken into account in our analyses. The entire route was counted again within the next seven days, but preferentially not directly the next day to limit bird disturbance. We were able to survey one or two study areas per season, thus each study area was completely surveyed only once in the three-year study.

Protocol at counting stations

After reaching a counting station, spontaneous activity of woodpeckers was recorded for 1–2 minutes. After that, lure playback was used in order to encourage the activity of woodpeckers. Four species were lured: the Lesser Spotted, White-backed, Great Spotted, and Three-toed Woodpecker. The lure lasted for seven minutes and consisted of a drumming and adult's vocalizations mix of all four species alternated with periods of silence. Lures were played on a portable JVC car CD player with 45 W amplifier powered from car battery (7 Ah when carried in a backpack) through 80 W speakers. Luring was conducted at the volume level that was audible to the human ear at a distance of approximately 300 to 500 m (depending on the terrain configuration), and that was similar to the volume of live birds. After a luring session, the observer waited for 3–5 minutes more. The execution of the protocol at each counting station took approximately 11–14 minutes in total, depending on the activity of the birds. Each auditive or visual woodpecker observation was assigned a record containing the following information: the location of the bird in reference to the counting station, its estimated distance from the observer and the type of activity and/or vocalization.

Data analysis

All collected records were plotted on detailed maps (1:25000) according to the position of the sighting, and the maps were interpreted according to the territory mapping method (Bibby *et al*.,1985). Records were grouped in clusters representing pairs of breeding birds. The general assumption was that territorially behaving birds were members of a pair breeding in the area, so each identified cluster can be interpreted as a territory; therefore, our results are presented as number of territories. Records were assigned to distinct territories if observations occurred simultaneously, or if the records were more than 500 m apart. As an exception to this rule, records less than 500 m apart were assigned to distinct territories if terrain topography strongly suggested that these records belong to different bird pairs. Finally, we identified single records with a territory as well if they were located more than 1500 m from all other records.



In order to determine a kind of "relative density" of the woodpecker populations, the total number of territories of each species was divided by the total number of counting stations. Habitat availability-utilization analysis was performed for the data collected in all study areas. To determine habitat selection indices, a standardized selection index (Manly *et al.* 1993) was used. The Null hypothesis that woodpeckers use their habitat in proportion to its availability was tested with the chi-square test (Neu *et al.*, 1974). If the hypothesis was rejected and a significant difference was detected, the Bonferroni correction (Sokal & Rohlf, 1995) and the chi-square test were applied to determine which habitat types were used more or less frequently than expected. Computations were performed using the Ecological Methodology 6.1.1. tool suite (Krebs, 1999).

All available forest habitats were determined as proportions of all forest habitats in a 1 km wide belt along the routes (500 m radius from the counting stations), resulting in a total of about 6300 ha of available habitat (Table 1). Used habitats for each species were calculated as a sum of the

area of habitats on circular plots of 19.6 ha (250 m radius) determined around the first record of each territory. These circular plots were rather large in order to reduce the effects of possible inaccuracies in estimates of records positions. If two circular plots were overlapping, the area common to both plots was counted only once.

The habitat data was extracted and habitat types quantified in ARCGIS 9.2. (ESRI 1999-2006) from the digital habitat map of the KEC project areas (scale 1:25000, Oikon Ltd. for Karst Conservation project 2007). Habitats were classified in five categories (Table 1). If the total area of a certain habitat category was less than 4% of the total available habitat area (pine forest and grassland habitats), this category was excluded from the habitat selection analysis.

Table 1: Proportions of the available forest types

Forest type	Area (ha)	%
Beech	1490	23,70
Mixed	3104	49,40
Coniferous	1348	21,45
Pine	98	1,56
Other	243	3,86

Results

We found seven species of woodpeckers in the study areas: the Lesser Spotted, Great Spotted, White-backed, Three-toed, Black (*Dryocopus martius*), Grey-headed (*Picus canus*), and Green Woodpecker (*Picus viridis*). Green Woodpecker was only recorded at one locality (a single bird) in the Velebit Nature Park, in open mixed fir-beech woodland on warm rocky slopes. Three-toed Woodpecker was only recorded in the Paklenica National Park, in the area where all counting points were situated in a zone of thermopile montane beech forest. The other five species were recorded in all studied areas.

Abundance

During the survey period, a total of 123 territories of pied woodpeckers were identified on 117 counting stations (Table 2), resulting in approximately one territory of pied woodpecker per counting station on average. Depending on the route, we recorded 0.6 to 1.6 pied woodpecker territories per counting station.

Table 2: Abundance of pied woodpecker species in the study areas of Croatian Karst mountains, with N tot: total number of territories (in all 117 counting stations), and N av: average number of territories/counting station.

	P. tri	D. leu	D. maj	D. min	Total
N tot	36	31	45	11	123
N av	0.31	0.26	0.38	0.09	1.05

Great Spotted Woodpecker was the most frequent species with 45 identified territories (0.38 territories/counting station on average). It was followed by the Three-toed Woodpecker (36 territories with 0.31 territories/counting station on average) and the White-backed Woodpecker (0.26 territories/counting station on average). The relative density of the Lesser spotted Woodpecker was rather low (0.09 territories/counting station on average).
Even though the Great Spotted Woodpecker was the most frequent species overall, it was less frequent than the Three-toed Woodpecker in coniferous forests or the White-backed in beech forests (Figure 2).

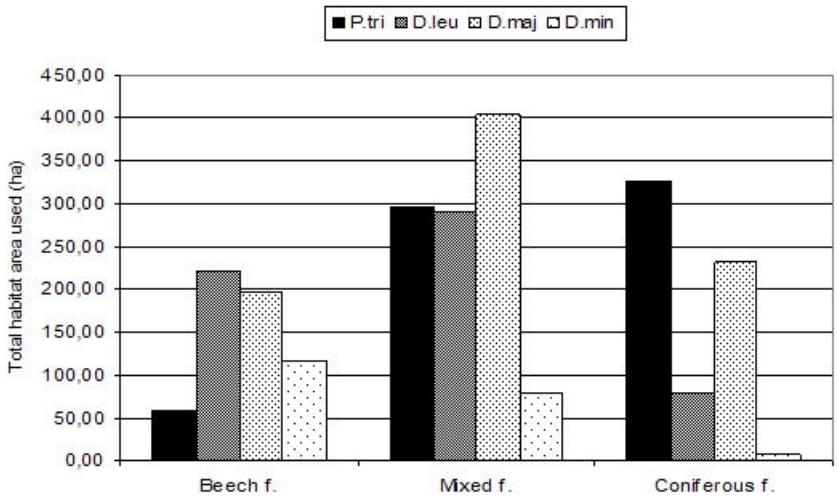


Fig. 2: Distribution of four pied woodpecker species in the different forest types. The total habitat area was derived from 250 m radius belts surrounding the first record of each territory cluster.

Habitat selection

Habitat selection analysis showed differences between the studied species. A standardized selection index indicates a preference for coniferous forests in the Three-toed Woodpecker, and a preference for deciduous forests in the White-backed Woodpecker and the Lesser Spotted Woodpecker (Table 3). The Null hypothesis "habitat selection is equal to habitat availability" was confirmed only for the Great Spotted Woodpecker, while it was rejected for the Three-toed, White-backed, and Lesser Spotted Woodpecker ($P < 0.01$) (Figure 3).

The Bonferroni correction corrected α to 0.0167 for 95% confidence limits in all cases. In Three-toed Woodpecker, selection of coniferous (spruce/fir) forests was highly significant in comparison to beech and mixed forests ($x^2 > 50$; $p < 0.001$; d.f.=1). Selectivity for mixed forest was also highly significant when compared to beech forests ($x^2 = 14.69$; $p < 0.01$, d.f.=1).

Table 3: Results of the chi-square test of H_0 hypothesis for habitat selection (equal to availability) and standardized selection index (Manly et al. 1993) for each habitat in four pied woodpecker species. Standardized selection indices above 1/number of resources, or 0.33 in this case, indicate habitat preference

	P. tri	D. leu	D. maj	D. min
X^2 (d.f.=2)	35.90	9.68	1.39	55.83
p	<0.01	<0.01	>0.5	<0.01
	Standardized selection index			
Beech	0.10	0.49	0.30	0.72
Mixed	0.25	0.31	0.30	0.23
Spruce/Fir	0.65	0.20	0.40	0.05

Selectivity for deciduous beech forest in the White-backed Woodpecker was highly significant when compared to mixed and coniferous spruce/fir forests ($x^2 > 15$; $p < 0.01$, d.f.=1), and selectivity for mixed forest was also significant when compared to coniferous spruce/fir forests ($x^2 = 5.9$; $p < 0.05$, d.f.=1). The Lesser Spotted Woodpecker showed the same pattern of selectivity as the White-backed, with significance being even higher ($x^2 > 100$; $p < 0.01$, d.f.=1). However, It must be taken into account that habitat selectivity of the Lesser Spotted Woodpecker was calculated on a relatively small sample of 11 territories.

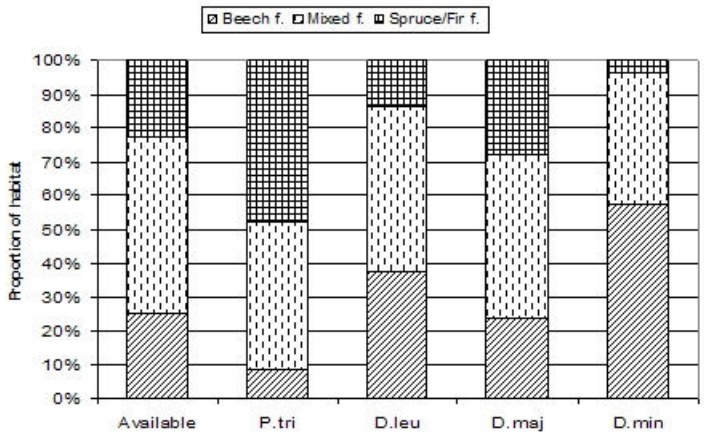


Fig. 3: Habitat availability and habitat use for four pied woodpecker species. Proportions of different habitats within the study plots were derived from the Habitat Map of KEC areas (Oikon Ltd. for Karst Conservation project 2007): crossed: Spruce/Fir; dashed: Mixed; barred: Beech.

Discussion

While developing the field methodology for a long-term monitoring of woodpecker populations in the high-karst zone of the Dinaric Mountains in Croatia, the main constraint was to develop an effective but practical monitoring plan that could be easily repeatable. The method and protocol which we described in this paper and have used in this study is a compromise between the conditions in the field and the data quality required. The field work can be executed on foot or by vehicle, in snow or in dry conditions. It enables the acquisition of data on abundance of several woodpecker species simultaneously with a moderate field effort and, therefore, is well-suited for national park employees and volunteers.
A wide spectrum of bird census methods exists, some being standardized for specific bird taxa (Bibby *et al.*, 1992). We decided to use a point-count method with call playback. This census technique is widely used for counting woodpeckers (e.g. Sielman, 1958, Spitznagel, 1990, Bühlmann & Pasinelli, 1996, Lovaty, 2001), but still not standardized. For example, the distances between counting stations found in literature vary greatly. Gilbert *et al.* (1998) suggested a 150 m distance for monitoring the Great Spotted Woodpecker, whereas Pechacek & d'Oleire-Oltmanns (2004) worked on stations that were spaced apart more than 700 m while studying the Three-toed Woodpecker. We separated counting stations at 500 m with the intention of limiting repeated sampling of the same individuals. We found, however, that stations were not entirely independent. A small number of birds was recorded at two counting stations (if they were displaying loud signals such as drumming). In heterogeneous terrain and in winter

conditions, we could not meet contradictory requirements of keeping counting stations independent and, at the same time, maintaining a reasonable efficiency of the observers in the field. Therefore, we decided to distribute the counting stations 500 m apart, and we resolved the "dependence" of counting stations by analysing data using the territory mapping method. Our recommendation is that routes should contain at most 15 counting stations spaced at 500 m: they can be covered by a half-day census even in snow conditions when the route has to be traversed on foot. The use of snow scooters could help overcome snow problems and improve the method by standardizing the time needed to cross the routes.

Our initial goal was to develop protocols for future monitoring of the Three-toed and White-backed Woodpecker populations—the two species listed in Annex 1 of the Bird Directive that are characteristic for the Croatian Mountain region. This region includes tree potential SPA areas of the Natura 2000 network (Gorski Kotar, Plitvice Lakes and Velebit) for which Three-toed and White-backed Woodpecker are classifying species. Monitoring of these populations will contribute to the accomplishment of the mandatory requirements of the EU legislative for the monitoring of the species listed in the Bird Directive Annex 1 (Croatian obligation in the EU joining process). While trying out our method, however, we realized that, with minimal additional effort, the Great Spotted and the Lesser Spotted

Woodpecker can also be included in the monitoring. By counting more species, a broader spectrum of ecological requirements can be covered and more habitat quality indications can be collected (Verner, 1984, Carignan & Villard, 2002, Scherzinger, 2003).
The proposed monitoring of woodpeckers will be a part of a broader biodiversity monitoring that will be carried out in five KEC project target areas. In the future, the survey along the described routes will be carried out by trained staff of each Park, which will ensure a long term monitoring. In this way, approximately 3–7% of the Croatian population of the Three-toed Woodpecker (estimated to 500-1000, Radović *et al.*, 2005) and approximately 2% of the White-backed Woodpecker population (1300-1800, Radović *et al.*, 2005) will be monitored. In order to get more representative samples of the populations breeding in the Croatian Dinaric Mountains, monitoring the area should be expanded to commercially managed forests (currently, only two of the described routes in the Velebit Nature Park are located in commercial forests). In our opinion, at least ten new additional routes should be randomly distributed in commercial forests, taking into account that the most important habitats are properly covered.

Our results demonstrated a clear difference habitat selection between four woodpecker species inhabiting the Croatian Dinaric Alps. Three-toed Woodpecker selected coniferous forests, White-backed and Lesser Spotted selected deciduous forests, and the opportunistic Great Spotted Woodpecker showed no selection at all. Similar habitat selection by woodpeckers was described by authors in other parts of Europe (Wesołowski & Tomiałojć, 1986, Angelstam & Mikusiński, 1994, Wesołowski, 1995, Scherzinger, 2003, Pechacek & d'Oleire-Oltmanns, 2004). In this paper, we presented the first data for the Dinaric Alps. Although a small sample of territories of the Lesser Spotted Woodpecker (n=11) cannot be taken as a reliable source for habitat selection and relative density estimation, since the data for that species in the South-East Europe is almost entirely lacking, we decided to analyse our data and discuss the results nonetheless.
To get a better understanding of future changes in habitat choice in relation to the population trends, monitoring and research on woodpeckers has to be further developed in the Dinaric Alps.

Acknowledgements

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A census of Barn Swallow, *Hirundo rustica* in Ukraine (2006)

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Introduction

In Tucker & Heath (1994) and Hagemeijer & Blair (1997), the breeding population of the Barn Swallow *Hirundo rustica* in Ukraine for the period 1980-1989 is estimated at 800 000-850 000 breeding pairs. The same numbers appear also in more recent sources like BirdLife International (2004) but we consider that these populations are largely underestimated. In Ukraine similar underestimations are also obvious for other species (Gorban, 1995, 2003). This is most probably the result of the use of different methods and incomplete census counts. Although in Ukraine several Barn Swallow censuses have been carried out by various people at different time periods in the past (Lisetskiy, 1984, Koshelev, 1986) a simultaneous and national census has never been organised. To obtain better and up-to-date breeding population estimations of the Barn Swallow in Ukraine we put up an overall census in 2006.

Method

To collect information we used the 30 year old network of the Bird Conservation and Study Society of Ukraine that consists of several hundreds of collaborators from all over the country. It includes pupils, students, biology teachers, scientists, hunters and other persons who are interested in birds. We elaborated a special questionnaire with specific information to be filled in:

- the total number of houses in a settlement;
- the number of investigated houses;
- the total number of recorded nests

- the number of used and unused nests in each different nesting situation (inside or outside buildings, the kind of building etc..)

We know that this kind of method is vulnerable to mistakes because the validation of the obtained information is difficult. However, we assumed that the fact that the Barn Swallow is a widely distributed, relatively well known and easily observed species will help to limit mistakes. The questionnaires contained pictures and a short description of the birds and their nest to avoid identification errors. This method allowed us to collect data from a great number of places simultaneously, and is at present in Ukraine the only way to obtain information on such a widespread species. In early spring 2006 more than one thousand questionnaires were distributed all over the country through the network. To distribute a higher amount was financially not possible.

Only about 7 % responses were received. All these data were used to estimate the Barn Swallow population in each region as well as for Ukraine as a whole. Nest building preferences were also analysed. We also collected additional information on the species phenology, on death causes and on people's attitude towards swallows.

The estimation of swallows' numbers was carried out by calculating:

1. the percentage of the investigated houses on the the total number of houses per settlement;
2. the total estimated number of nests per settlement based on the proportion of investigated houses;
3. adding up the estimated nests' in all counted settlements in one region gives *A* and the total houses in these settlements gives *B*. *A* dividing by *N*=*i* gives the

average number of nests in the settlement for a given region $A = \sum \left(\frac{ac}{b} \right)_i$, $\frac{A}{N = i}$, were i – number of investigated settlements in the region. B dividing by $N=i$ gives the average size of the settlement for the given region $B = \sum a_i$, $\frac{B}{N = i}$. A dividing by B gives an Index of the average number of nests per house in the region $I = \frac{A}{B} = \frac{\sum \left(\frac{ac}{b} \right)_i}{\sum a_i}$ (Table 1);

4. to obtain the estimated nests in every region we need the product of the Index and the average number of houses per settlement in the corresponding region;
5. adding up the estimated numbers for all regions gives the total estimated Barn Swallow nests in Ukraine;
6. in the majority of the regions only a minor proportion of the settlements have been counted (Table 2), therefore we calculated the standard error of the estimation, but excluding the regions which were represented by only one settlement. The data from some regions was incomplete which is certainly one of the causes why our numbers are underestimated.
7. to decrease the census errors and to confirm the reliability of data from questionnaires the authors carried out counts during the breeding season in a selected number of settlements. For each counted house we asked the owners to fill in the questionnaire in order to compare the results.

The statistical analysis of the data is shown in Table 2. The statistical indices were calculated for the Index of the average number of nests per house based on the data from every 77 observed settlements and for the percentage of observed houses in each settlement.

Results and discussion

The census was carried out almost entirely in the countryside and the total number of counted settlements is 77. The area studied is shown in Figure 1. The majority of Barn Swallows prefer to nest closely to human habitat in settlements with low buildings in farmland areas, which are present in large areas in Ukraine. This is the why we consider that although our census was limited to the countryside, the questionnaires' method allows us to get quite representative data of the population number for the whole country. (Figure 2).

The vast territory of Ukraine contains three geographical zones and mountains. Each of these zones have their own climate features and traditional ways of settling and agriculture which will influence the nesting distribution of the Barn Swallow. Depending on the region, the average number of swallow nests per settlement varies between 100 and 448. The number depends on the size of the settlement (Figure 3).

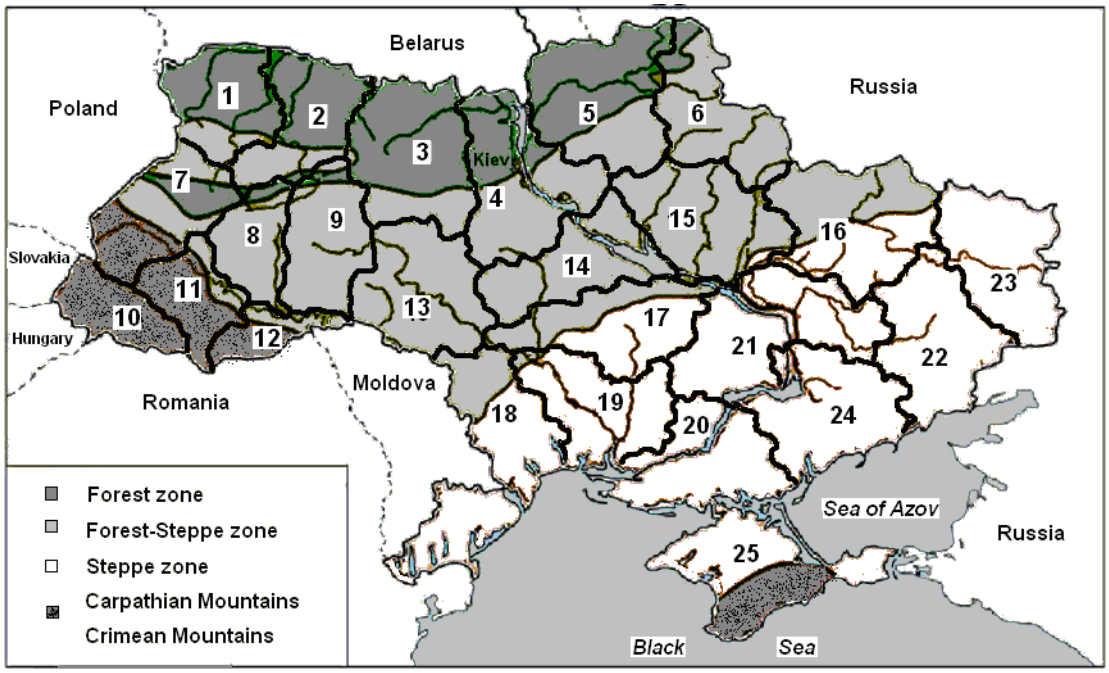

Fig. 1: The geographical zones and regions of Ukraine. Regions: 1-Volynia, 2-Rivne, 3-Zhytomir, 4-Kiev, 5-Chernigiv, 6-Sumy, 7-Lviv, 8-Ternopil, 9-Khmelnitsk, 10-Transcarpathian, 11-Ivano-Frankivsk, 12-Chernovitsi, 13-Vinnitsa, 14-Cherkasy, 15-Poltava, 16-Kharkiv, 17-Kirovograd, 18-Odesa, 19-Mykolayiv, 20-Kherson, 21-Dnipropetrivsk, 22-Donetsk, 23-Lugansk, 24-Zaporizhzhya, 25-Crimea.

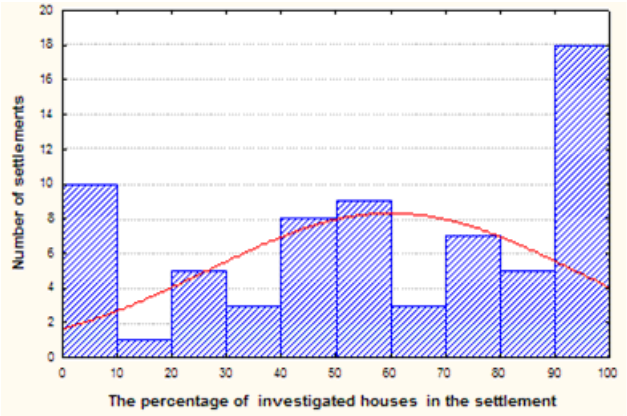

Fig. 2: The normal distribution of the percentage of observed houses in the settlements. The mean is 59.72 % (±3.98 % SE); the confidence limits (-95 %; +95 %) are 51.78 % and 67.67 %; the median 59.55 %; minimum 4.15 %; maximum 100 %; SD 33.08 %.

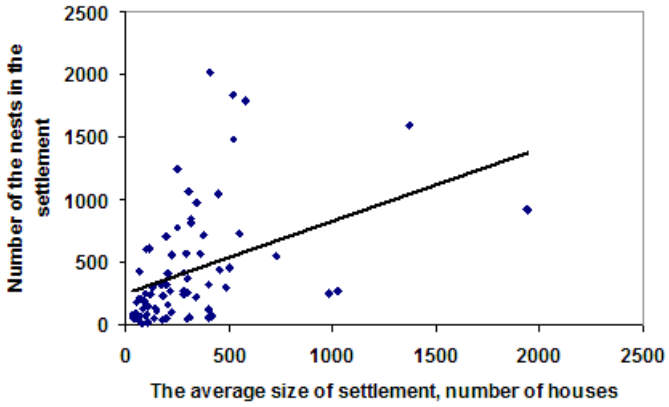

Fig. 3: The swallows' nest number depends on the size of the settlement as the geometric series where equation is: y = 0.5812x + 245.36 (based on the counts in 77 settlements in countryside).

Table 1: The statistic analysis of questionnaires' data of nests *Hirundo rustica* number. For the statistical analysis of Indices' distribution the calculation of the Index was done for each investigated settlement by the equation: *I=[(ac/b)]=c/b*, were *I*: Index of the average number of nests per house, *a*: total number of houses in the settlement, *b*: number of investigated houses in the settlement, *c*: number of recorded nests.

Region	I	I min	I max.	b	SE Indices	SD indices
Vinnitsa	1.84	1.16	2.67	4	0.38	0.77
Volynia	2.05	0.35	4.30	6	0.98	1.96
Dnipropetrivsk	1.84	0.98	2.60	4	0.47	0.81
Zhytomir	0.86	0.77	0.95	3	0.05	0.09
Zaporizhzhya	1.52	0.48	4.40	4	0.96	1.92
Lugansk	2.92	2.31	3.53	2	0.61	0.87
Lviv	1.70	0.24	3.63	4	0.85	1.70
Mykolayiv	2.04	0.77	5.00	5	0.77	1.72
Poltava	2.18	0.61	4.98	3	1.40	2.43
Rivne	1.48	0.73	2.16	7	0.24	0.58
Sumy	2.75	0.85	6.11	7	0.91	2.04
Ternopil	1.33	1.30	1.35	3	0.02	0.03
Kharkiv	3.19	2.88	3.50	2	0.31	0.45
Cherkasy	1.85	0.16	3.09	3	0.88	1.52
Chernigiv	1.85	0.15	5.25	12	0.53	1.83
Chernivtsi	0.42	0.20	0.80	3	0.19	0.33

There is an indication that the population increase is first positively related to the number of houses, but that at some level (too much urbanised, less farmland) this relation becomes negative. The lowest average number of nests per settlement is observed in the Forest zone and in the highlands. The settlements' sizes and urban density vary largely between the various regions of Ukraine. Therefore it is much more appropriate to use relative indices for the population estimation. The relative swallows' distribution in the different geographical zones is expressed as index nests/house, which is lowest in the highlands, on average 0.45. In the Forest zone this is 1.73, in the Steppe zone 1.91. The index is highest in the Forest-Steppe zone with 2.31 nest per house. These results are shown in the Table 2.

The average swallows' nests density per region varies from 5.3 to 26.57 per km. These differences between the geographical zones can be explained by the differences in climate, degree of landscape openness and woodland areas, traditional architecture which influences the suitability of buildings as nesting sites and farming, which has an influence on food availability. The population level depends on many different factors which can cause sudden changes in numbers.

Table 2: The results of Barn Swallows' account in Ukraine in 2006 year. The number of censured settlements: N set, the average number of nests per settlement: Av.nest/set, Index of the average number of nests per house: I, the estimated number of nests, thousands: N estim.

Landscape	Region	km^2 ×1000	N set.	A.nest/ set	I	N estim.	nests/ km^2
Forest	Volynia	20.2	6	331	2.05	348.9	17.2
	Rivne	20.1	7	316	1.56	316.6	15.7
	Zhytomir	29.9	3	100	0.86	163.1	5.4
	Chernigiv	31.9	12	189	1.85	280.7	8.8
	Sumy	23.8	7	253	2.75	376.6	15.8
	Lviv	21.8	4	313	1.7	579.1	26.5
	Ternopil	13.8	3	275	1.33	280.1	20.2
Highlands	Transcarpathian	12.8	1	117	0.26	67.8	5.3
	Ivano-Frankivsk	13.9	1	229	0.66	175.1	12.5
	Chernivtsi	8.1	3	188	0.42	746.9	9.2
Forest-Steppe	Vinnitsa	26.5	4	368	1.84	539.1	20.3
	Cherkasy	20.9	3	448	1.85	368.7	17.6
	Poltava	28.8	3	246	2.18	448.7	15.5
	Kharkiv	31.4	2	366	3.19	616.3	19.6
	Kirovograd	24.6	1	338	2.49	341.1	13.8
	Mykolayiv	24.6	5	302	2.04	270.7	11.1
Steppe	Kherson	28.5	2	280	1.25	184.1	6.4
	Dnipropetrivsk	31.9	4	243	1.84	348.7	10.9
	Lugansk	26.7	2	401	2.92	315.6	11.8
	Zaporizhzhya	27.2	4	242	1.52	221.8	8.1
Total		603.7	77	277± 19.85	1.73± 0.18	6317.9	13.6 ±1.2

We roughly estimated the total number of Barn Swallow in Ukraine at 6.32 millions breeding pairs, which is much higher than former published population numbers. Our estimation can either be too high or too low. An overestimation can be due to the fact that one may expect a bias towards getting information from settlements with higher densities of Swallows because in areas where they are scarce there is probably less stimulus to count them or fill in the questionnaire. Also methodological errors like including House Martin, *Delichon urbica* nests or nests occupied by Sparrows in the count can play a role. Causes for underestimation could be the relatively low number of settlements (n=77) counted, and the exclusion of the populations nesting in towns.

The high abundance of Barn Swallow in Ukraine could probably be explained by the fact that the typical habitat of the species, a combination of traditional agriculture (including livestock farming) and rural architecture Ambrosini *et al.*, 2002, Møller, 1983, 2001) is still very common. In Ukraine, the standard settlement is something between a village and a farm. The farmhouses with additional buildings are concentrated around a square and surrounded by the fields. Almost every house has one or two cows and all the cattle of the settlement is pastured together in one or more common herds on the neighbouring meadows. Such structure is common for the standard traditional settlement in the whole country but is in particular common in the Forest-Steppe zone. In this region, the abundance of swallows is highest. The more southern regions have a pronounced dry climate and the number of nests are limited there, not only by the absence of suitable nest sites and supplies of insects but most of all by the lack of nest material in the period of nest building.

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Breeding birds of small river valleys in Moscow.

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Introduction

Urban parks may serve as reservoirs for native species in densely populated areas (Ohmart, 1994). Moscow is one of the largest cities in Europe – about 100000 ha, with a population of 12 million. During the XXth century the city has largely extended beyond its historical borders. Compared to the situation in 1917 the area occupied by the city has increased by seven times and the population by 4.5. A major part of the capitals' territory has now been transformed into urban habitat. The bird fauna of the city parks in Moscow is relatively well known (e.g. Kalyakin & Voltzit, 2006). However, information on their distribution and diversity in specific habitats such as small river valleys under strong urban pressure is scarce. We tried to improve this knowledge by investigating the bird communities of two protected river valleys in the city. We also aimed at assessing the conservation value of their habitats for threatened species and to evaluate the importance of these sites in regard to the bird biodiversity in Moscow.

Methods

The two study sites were situated in small river valleys within the Moscow "metropolis", the Shodnya (in the north west) and the Setun (in the south west), both tributaries of the Moskva River. Each site was divided into 5 plots based on the general habitat (for a detailed description see Table 1). The plots had an average area of 28.58± 11.6 ha in the Shodnya river valley and 28.57±15.2 ha along the Setun river. The area and the percentage of forest cover (dense cover with bushes and trees) was measured using GIS. Other characteristics as the level of human disturbance (recreation) and habitat diversity and fragmentation (heterogeneity) per plot were also measured using the categories presented in Table 2.

Table 1: Plots in the valley of the river Setun (1-5, from Moscow circle road to Amin'evskoe shosse, 8.5 km) and the river Shodnya (6-10, from Mashkinskoe shosse to Zhahar'ino, 7 km). Forest Cover in %: FC; Heterogeneity: HE; Intervention: IN.

n°	Description of the plots	FC	HE	IN
1	Natural and semi-natural grasslands in combination with small patches covered with bushes and trees (*Salix sp.*). Length: 1 km.	15	4	3
2	Plot close to the river, covered with forest vegetation (*Alnus incana, Salix sp.* etc.) Length:1,5 km.	90	2	2
3	Semi-natural grasslands with areas covered with trees (*Betulus sp., Salix sp., Alnus incana, Populus sp.*). Length: 1 km.	50	3	5
4	Plot close to the river and terrace covered with forest vegetation (up to 200m wide) (*Alnus incana, Salix alba, Betula sp., Populus tremula, Acer platanoides*, *Larix sp.* etc.). Length: 2 km.	90	2	2
5	The most diverse plot. Open areas with ravine grassland-like patches and small vegetable gardens. Length: 3 km.	0	5	3
6	Situated in a part where the valley is 400-200 m wide. The upper part is covered by forest (*Alnus incana, Salix alba, Betula sp., Populus tremula, Acer platanoides*, *Quercus robur, Ulmus sp., Larix sp.* etc.). Open areas with grasslands and small vegetable gardens. Length: 1,5 km.	70	3	1
7	Flooded grasslands and 40% of small vegetable gardens. Small groups of trees (*Salix sp.*) along the riverbank. Length: 1,5 km.	10	2	4
8	The left steep slope of the river bank (100m) is covered with deciduous forest (*Ulmus sp., Alnus incana, Salix alba, Betula sp., Acer platanoides*, *Quercus robur* etc.). Length: 1 km.	85	3	2
9	Flooded grasslands of Kurkinskaya and with on left bank steep slope of the valley. Narrow treelines (Salix sp., Ulmus sp, *Alnus incana*) along the riverbank. Length: 1 km.	5	2	3
10	Resembles plot 5 in the valley of Setun river. 50% is covered with forest (*Alnus incana, Salix alba, Betula sp., Acer platanoides*, *Tilia cordata,* etc), and 50% with small vegetable gardens. Length: 2 km.	50	5	3

Table 2: Categories for characterizing heterogeneity and human intervention in the plots.

Heterogeneity		**Human intervention**	
category	**habitats-fragments/plot**	**recreants (during study)**	**extention of network of paths**
1	1	none	very low developed
2	2-3	none	low developed
3	4-6	present	well developed
4	7-10	many, regular and intensive	very well developed
5	> 10	many, regular and intensive	very well developed, part of the habitat is transformed for recreational purposes

Birds were counted and mapped (threatened species) along routes with an average length of 3-6 km. The total length of all routes was about 70 km. Data on confirmed and possible breeding was collected in every plot, also including all threatened species in Moscow and species of conservation concern on European level (Tucker & Heath, 1994). Fieldwork took place from May to July in 2003 and 2004. To summarise the abundance of birds in each plot (see Table 3) we used the following qualitative categories (Eremkin & Ochagov, 1998): RR: very rare, the species is breeding outside the plot, no contacts; R: rare, the species breeds on the limits of the plot, occasional contacts; C: common, the species breeds within the plot with at least several pairs.

Results and discussion

Data on the presence and abundance are shown in Table 3. Several other species have been observed during the survey (foraging or flying over) but did not use the plots for breeding: *Ardea cinerea* , *Pernis apivorus* , *Accipiter gentilis* , *A. nisus* , *Falco subbuteo* , *Larus ridibundus* , *L. canus* , *Sterna hirundo* , *Hirundo rustica* , *Delichon urbica* , *Columba livia* , *Apus apus* , *Serinus serinus* , *Corvus monedula* .

The analysis of the results showed a significant negative correlation between the number of threatened species and the percentage of forest cover ($r = -0.7$, $P>0.05$, $N= 10$) suggesting that the open valley habitat could be of relative greater importance for the threatened species of Moscow. The correlation between the number of threatened species and the species richness per plot ($r = 0.47$) and between the level of heterogeneity ($r = 0.34$) was not statistically significant. With a total of 61 species along only two small river transects (total 15.5 km), which represents 39 % of all breeding species of Moscow, the diversity of breeding birds in these valleys seems relatively high. Moreover, fifteen species are included in the Red list of Moscow which represents 19 % of the total number of species of high conservation concern in the city.

The conservation value of the whole network of small river valleys and their open habitat for the Moscow avifauna is most probably strongly underestimated.

Table 3: Breeding birds in the Setun and Shodnya river valleys, Moscow, RL: Red List of Moscow, SP: SPEC (Species of European Concern). Evaluation of bird abundance: RR – very rare, R – rare, C – common. Red list categories: 1 – endangered, 2 – vulnerable, 3 – declining, 5 – recovered, + - recommended for monitoring in Moscow as possible vulnerable species.

Species	Setun plots					Shodnya plots					RL	SP
	1	2	3	4	5	6	7	8	9	10	-	-
Anas crecca	-	-	-	-	R	-	-	-	-	-	1	-
Anas platyrhynchos	C	C	-	R	C	-	-	-	-	R	-	-
Falco tinnunculus	-	-	-	-	-	R	-	-	-	-	2	3
Crex crex.	-	-	-	-	-	R	R	-	R	C	3	1
Charadrius dubius	RR	-	-	-	-	-	-	-	-	-	1	-
Actitis hypoleucos	-	-	-	-	-	-	-	-	RR	-	1	-
Jynx torquilla	R	-	-	-	R	R	R	-	R	R	2	3
Dendrocopos major	-	-	-	-	-	R	-	-	-	-	-	-
Dendrocopos minor	-	R	-	C	C	-	-	-	-	-	+	-
Dendrocopos leucotos	-	-	-	-	-	-	-	-	-	R	3	-
Anthus trivialis	-	-	-	-	-	C	-	-	-	-	+	-
Motacilla flava	-	-	-	-	-	-	R	-	R	-	3	-
Motacilla alba	C	R	R	C	C	R	R	R	R	C	-	-
Lanius collurio	-	-	-	-	R	R	C	-	R	R	3	3
Oriolus oriolus	-	-	-	-	-	R	-	-	-	-	+	-
Sturnus vulgaris	-	-	C	-	-	R	-	-	R	C	-	-
Pica pica	C	-	-	-	R	-	R	R	-	R	-	-
Corvus cornix	C	C	C	R	C	C	C	C	C	C	-	-
Corvus corax	-	-	-	-	-	-	-	-	-	R	5	-
Troglodytus troglodytus	-	-	-	-	-	-	-	R	-	-	+	-
Prunella modularis	-	-	-	-	-	-	-	R	-	-	+	-
Locustella fluviatilis	R	R	-	-	-	R	C	R	C	R	3	-
Acrocephalus schoenobaenus	R	-	-	-	-	-	-	-	-	-	+	-
Acrocephalus dumetorum	C	C	-	-	-	R	R	C	-	C	-	-
Acrocephalus palustris	C	C	-	-	C	R	C	R	C	-	-	-
Hippolais icterina	-	-	-	C	R	R	-	R	-	R	-	-
Sylvia nisoria	-	-	-	-	-	-	RR	-	-	-	1	-
Sylvia atricapilla	C	C	-	C	C	C	-	C	-	C	-	-
Sylvia borin	C	C	-	C	C	C	R	C	-	-	-	-
Sylvia communis	C	R	R	C	C	-	C	-	C	C	-	-
Sylvia curruca	-	-	-	-	-	R	-	-	-	-	-	-
Phylloscopus trochilus	C	C	R	R	C	C	R	C	-	-	-	-
Phylloscopus collybita	C	R	-	R	C	C	-	R	-	-	+	-
Phylloscopus sibilatrix	-	-	-	-	-	-	-	R	-	-	-	-
Phylloscopus trochiloides	-	R	-	C	C	-	-	R	-	-	+	-
Ficedula hypoleuca	R	C	-	R	C	-	-	-	-	C	-	-
Muscica striata	-	-	-	R	R	-	-	-	-	-	-	-
Saxicola rubetra	-	-	-	-	-	-	C	-	C	-	3	-
Oenanthe oenanthe	C	-	-	-	-	-	-	-	-	-	-	-
Phoenicurus phoenicurus	RR	-	-	-	-	-	-	-	RR	-	+	2
Erithacus rubecula	-	C	-	C	C	C	-	C	-	-	-	-
Luscinia luscinia	C	R	-	R	C	C	C	C	C	C	+	-
Luscinia svecica	C	R	-	-	C	-	R	-	-	-	+	-
Turdus pilaris	C	-	-	C	C	-	R	R	R	C	-	-

Species	**Setun plots**						**Shodnya plots**				**RL**	**SP**
Turdus iliacus	-	-	-	R	-	-	-	-	-	-	-	-
Turdus philomelos	-	-	-	C	C	-	-	-	-	-	-	-
Turdus merula	-	-	-	-	-	-	-	R	-	-	-	-
Aegithalos caudatus	-	-	-	-	RR	-	-	-	-	-	3	-
Parus caeruleus	-	-	-	C	C	-	-	-	R	C	-	-
Parus major	C	C	C	C	C	C	R	C	C	C	-	-
Sitta europaea	-	-	-	-	R	-	-	-	-	-	-	-
Passer domesticus	-	-	C	-	-	-	-	-	-	-	-	-
Passer montanus	C	-	-	-	C	-	-	R	-	-	-	-
Fringilla coelebs	-	C	C	C	C	C	R	C	R	C	-	-
Chloris chloris	C	C	-	C	C	-	-	-	-	-	-	-
Carduelis carduelis	R	R	-	C	C	-	-	-	-	-	-	-
Acanthis cannabina	-	-	-	-	-	-	-	-	-	R	-	-
Carpodacus erythrinus	C	C	R	-	C	C	C	R	C	C	+	-
Coccothraustes coccothraustes	-	-	-	-	-	-	-	-	-	R	5	-
Emberiza citrinella	R	-	-	-	-	R	C	R	R	R	+	-
Emberiza schoeniclus	C	-	-	-	-	-	-	-	-	-	+	-
Total	27	22	9	22	31	26	22	24	21	27	15	5

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Books, reports & journals

Lindström Å., Green M., Ottvall R. & Svensson S. 2008.
Monitoring population changes of birds in Sweden. Annual report for 2007, Department of Ecology, Lund University. 80 pp. (in Swedish with English summary and English captions of figures and tables).
Download pdf file at: www.biol.lu.se/zooekologi/birdmonitoring (in menu choose first "Årsrapport", then "Årsrapport-2008").

This report presents the results of the Swedish National Bird Monitoring programme, run by the Department of Ecology, Lund University, as a part of the National Monitoring Programme of the Swedish Environmental Protection Agency. The results from 2007 include data from 706 winter point count routes in 2006/2007 (32nd winter), of which 335 were carried out during the Christmas/New Year count, and 282 summer point count routes (33rd year). A third program is running since 1996 with 716 Fixed routes, systematically (and therefore semi-randomly) distributed over Sweden (combined line transect and point counts). In total 462 Fixed routes were completed in the summer of 2007 (best year ever) and aal 716 routes have now been censused at least once since 1996. Trends were analysed using TRIM. Overall, 2007 was a good year for Swedish birds.

In the Christmas/New Year count 2006/2007, about 280,000 individuals of 147 species were counted by 279 different observers. Winter indices increased in 65% of the species compared to the winter before. Moderate to strong long-term increases are present in the following species: Cormorant, Grey Heron, Mallard, Tufted Duck, Smew, Canada Goose, White-tailed Eagle, Raven, Rook, Blue Tit, Nuthatch, Wren, Robin and Greenfinch. Several tits and woodpeckers had unusually high indices. Long-term winter declines are prominent in Black Grouse, Collared Dove, Hooded Crow, Willow Tit, Marsh Tit, Treecreeper, Goldcrest and House Sparrow.

On the point count routes in summer 2007, 105,000 birds of 212 species were counted by 183 different observers. From the Fixed routes were reported 142,000 birds of 220 species, by 243 persons. Examples of species with long-term positive trends in summer are Black-throated Diver, Whooper Swan, Red Kite, Marsh Harrier, Red Kite, Osprey, Crane, Raven, Blue Tit, Wren, Mistle Trush, Blackcap, the *collybita* subspecies of Chiffchaff and Goldfinch. The following species show clear negative long-term trends: Slavonian Grebe, Black Grouse, Snipe, Curlew, Common Sandpiper, Herring Gull, Black-headed Gull, Stock Dove, Cuckoo, Swift, Green Woodpecker, Wryneck, Skylark, House Martin, Sand Martin, Hooded Crow, Willow Tit, Marsh Tit, Wheatear, Trush Nightingale, Grasshopper warbler, Dunnock, Tree Pipit, Yellow Wagtail, Red-backed Shrike, Starling, Linnet, Bullfinch,

Yellowhammer, Ortolan Bunting, Rustic Bunting, Reed Bunting and House Sparrow. It is noteworthy, however, that many long-time declines have levelled out the last decade or so, with some species even starting to increase again.

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 ("Vanliga jordbruksfåglar", 11 species) show a 40% decline since 1975 although in 2007 the index increased. Woodland birds ("Vanliga skogsfåglar", 26 species) have declined with 20%, whereas a group of other common birds ("Övriga vanliga fåglar", 21 species) show no average change in population size. For the first time we also present indicators on the Fixed routes and a smaller subset of more specialised species. Indicators are presented for farmland, forest and mountain birds. These indicators are official indicators of biodiversity within the national environmental objectives set by the Swedish Parliament. The indicator for forest birds show a significant higher index in 2007 compared to 2002. None of the other indicators show any significant trend for the short period covered (2002-2007), but the direction of all are either neutral or positive.

Flade M., Grüneberg C., Sudfeldt C. & Wahl J., 2008.
Birds and Biodiversity in Germany – 2010 Target. DDA, NABU, DRV, DO-G, Münster. 55 pages.
Available from: DDA-Schriftenversand, Regina Kronbach, Am Hohen Hain 4 d, D-09212 Limbach-Oberfroha. Email: schriftenversand@dda-web.de tel: + 49 (0) 3722-91819. Charge: 10 Euro + post and package
Can be downloaded for free on the homepage of the Dachverband Deutscher Avifaunisten (DDA): www.dda-web.de

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On the occasion of the 9th meeting of the Conference of the Parties to CBD, this report represents a comprehensive overview of the conservation status of German bird life, representing all biological diversity. The report aims to inform decision makers in politics and administration as well as the public who are interested in the successes achieved in species conservation in recent years, and also to reveal the continuing or even increasing need for action, in particular in the unprotected "wider countryside". The analysis is based on several million records, gathered by more than 5.000 birdwatchers. 12 different topics are presented, each on two pages with species examples and illustrated with graphs and pictures: Bird monitoring, Protection of species, Critically endangered species, Birds as indicators, Farmland birds, Forest birds, Urban birds, Wetland birds, Coastal and sea birds, Alpine birds, Migrating water-birds and Trans-Saharan migrants.

Overall situation

*Many common bird species are in decline: numbers of 23 of the 64 commonest German birds have fallen over the last 15 years. Even species such as House sparrow, House Martin and Lapwing continue to deteriorate in status.

*Ground-nesting birds of farmland such as Skylark and Curlew are particularly threatened: causes are intensification of agriculture, loss of semi-natural wet grasslands and the recent use of fallow land for the cultivation of energy crops. Favourable trends are found only where there are high levels of organic farming and in large protected areas. If biodiversity loss is to be halted on agricultural land, support measures must be targeted more strongly at the conservation of species and habitats. An important current issue is the need for a fallow land programme to compensate for the loss of EU set-aside.

*Forest birds have shown a slight recovery: semi-natural forest management has led to better living conditions for typical species such as Nuthatch and Great spotted woodpecker. Nearly half of the 52 most common woodland species have increased since 1990, but this increase has taken place almost exclusively outside forests, in parks, gardens and green spaces. Sharp rises in the price of timber and increased use of wood for fuel are currently causing severe intensification of forest management. Therefore, declines in forest birds should be expected in the future.

*Species breeding on the coast are particularly seriously threatened: Kentish plover and Little tern need targeted protection measures if the are to survive in Germany. Numbers of shellfish-eating visitors to the Wadden Sea, such as Red Knot and Eider, have shown alarming declines over the last 10 years.

*Long-running protection schemes have helped spectacular large birds: continuing population increases for Black stork, White-tailed eagle, Peregrine falcon and Common Crane show that voluntary- and state-sector conservation measures can enable the long-term survival of these species.

Sustainability

*Bird are policy indicators of the sustainability of land-use in Germany. The Federal Government's sustainability strategy sets a target of stabilising the status of all species in the species diversity indicator and those selected to represent high value habitats.

*The indicator has stagnated over the last ten years and in 2005 only 74 % of the target had been met. Significant extra effort will be needed if the sustainability target is to be achieved

Climate change

*Climate change will also affect bird life: numbers of ducks wintering in Germany have increased, because the winter range of some species has moved in response to milder winter conditions in central Europe.

*Long-distance migrants such as Tree pipit, Wood warbler and Pied flycatcher suffer from dramatic changes in landscape, migration and on their African wintering grounds. Causes are drought, overgrazing, deforestation

and expansion of the desert.
*Long-distance migrants are particularly strongly affected by population declines, regardless of habitat preference, ecological guild, or genetic kinship. Therefore, rapidly changing conditions on the African continent should be brought more strongly within the focus of nature conservation.

Pedrini P., Rossi F., Rizzolli F. & Spina F., 2008.
The Italian Alps as ecological barrier of post-nuptial migration. across Europe: general results from the first phase of the Alp Project (1997-2002). Biologia e Conservazione della Fauna, Volume 116, 335 pages. (in Italian: *Le Alpi italiane quale barriera ecologica nel corso della migrazione post-riproduttiva attraverso l'Europa: resultatiti generali della primera fase del Progetto Alpi, 1997-2002*, with English summaries to chapters and bird lists with scientific names). ISSN 1126-5221.

This new and impressive volume of the series of the Italian Instituto Nazionale per la Fauna Selvatica together with the Museo Tridentino di Scienze Naturali presents the first results of the Alp Project or Progetto Alpi. The aim was to improve the knowledge of post-nuptial migration across the Italian section of the barrier represented by the Alpine chain. The project has been proposed to ringers who were already involved in migration monitoring based on standardised methods. The interesting aspect of the project, based on a network of stations following the same field protocols, lies in its potential for comparative analysis across the sites, in order to come to a more detailed knowledge of bird migration in the Alps, by identifying different migratory patterns adopted by the birds confronted with this first major ecological barrier they encounter during their southwards migration.

The specific aims of the project are: 1) to understand the strategies of avoidance/crossing adopted by migrants confronted with the Alps and their ecological and physiological implications; 2) to describe the geographical origin of migrants, based on the recoveries and morphometrics; 3) to describe the phenology and migration speed of the single species; 4) to describe the general physiological aspects at the species level; 5) to investigate flight and stopover strategies at the inter- and intra specific level. During 1997 and 1998 the suitability of the single sites within the framework of the project has been considered, regarding the possibilities for standardised and passive trapping. There were three categories of ringing sites with the aim of monitoring migration in its longitudinal development and with respect to altitude: pass sites, slope sites and valley bottom sites. The geographical and environmental diversity across sites has allowed investigating different ecological situations, like areas of active migration (high passes) versus mainly stopover sites (wetlands in valley bottoms).

Analyses were performed for 24 sites running at least two years from 1997 to 2002.

The standardisation of data collection has represented a major effort for the project, when considering the challenges of a demanding task as ringing for migration studies is. Detailed common protocols have been used for biometrical and environmental data and a Field Manual has been produced. The project was originally planned for a period of five years based on contemporary activities across sites during previously defined standardised 5-day periods.

The general data base is described through the following statistics:
- pattern of captures of species by year, by pentade, per pentade and altitudinal range
- species composition of the general dataset for the late summer period; for the late summer period by altitudinal range and by geographical sector and the same for the autumn period.
- summary of ringings per year

An abundance index has been calculated by dividing the capture totals by ringing days when analysing captures by year, pentade and altitudinal range. The general data set contained 136.632 records. In order to describe the species composition by catches, the overall sampled period has been divided into late summer (passage of trans-Saharan migrants) and autumn (intra-Palearctic migrants).
Per site, an abundance index was used and the diversity of evenness of the avian communities was calculated.

A total of 49 species with a minimum sample of 100 individuals have been analysed. All species belong to the passerines except for the Wryneck. 16 are trans-Saharan migrants and 33 intra-Palearctic migrants. Statistics on temporal distribution and altitudinal range of ringing have been performed by grouping data of different sites.

New BirdLife milestone publication: Atlas of Breeding Birds in Bulgaria

The dream of generations Bulgarian bird conservationists and ornithologists – the Atlas of Breeding Birds in Bulgaria, is already a fact. This impressive 680-pages publication was developed by BSPB/BirdLife Bulgaria during the last 15 years, thanks to the invaluable help of BirdLife International and especially of the support from RSPB (the BirdLife Partner in UK). The edition of the book was kindly sponsored by BirdLife/Vogelbescherming Nederland and Dutch Nationale Postcode Loterij. Without any doubt this will be the ornithological 'Bible' of the country for the following decades.

It is developed on the standard methodology of the European Ornithological Atlas Committee on 10-km UTM grid and covers the period 1996-2005. In total 297 bird species are presented in the book, nine of which do not breed any more in the country. Just two species are aliens to Bulgaria, which shows very high level of naturalness of the bird fauna of the country. Detailed species accounts include data on historical development of the country's populations, quantitative data and trends in the distribution and numbers of all breeding species.

The Atlas already had significant contribution to the bird conservation of Bulgaria. It was the natural base for identification of the most valuable bird sites – the Important Bird Areas (IBAs), actual situation of which was described in another impressive BSPB publication (Important Bird Areas and NATURA 2000 sites in Bulgaria, 2007). Based on it, BSPB proposed to the Bulgarian Government designation of all the 114 IBAs as Special Protection Areas under the EU Bird Directive. Both books are strong tools in the fight of the Bulgarian conservation community to persuade the government to establish an adequate NATURA 2000 network, as the EU Directives impose for each Community State.

The Atlas is another proves of the leading role of BSPB in the ornithology and bird conservation in Bulgaria, but also a milestone for further monitoring of the changes of the Bulgarian bird fauna and sound scientific base for successful conservation action.

It will be distributed outside Bulgaria by NHBS Environment Bookstore (www.nhbs.com).


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7th Conference of the European Ornithologists' Union 2009

21-26 August 2009, Zurich, Switzerland

The European Ornithologists' Union has been founded as an equal partnership among avian biologists across Europe to provide an international forum for the advancement of European ornithology in all its aspects. The bi-annual conferences provide ideal platforms to get in contact, exchange ideas and disseminate knowledge. The council of the EOU and the local organisers invite you cordially to join the 7th EOU conference to be held at the University of Zurich from 21-26 August 2009!

The conference aims at bringing together the full range of researchers in ecology, behaviour, evolution, physiology, morphology, systematics and conservation biology of birds to exchange ideas and to think about future research projects. Studies on birds still have a lot to offer both in basic and applied research. The challenges are there and together we can solve them!

Information on the conference location, accommodation, deadlines, registration fees, etc. are available at http://www.eou2009.ch/. You may also wish to contact the local organising committee at info@eou2009.ch.

Information on the Scientific Programme Committee, the general scientific programme, plenary talks and the submission of symposia and papers are provided at http://www.ucc.ie/en/eou2009/. Inquiries about the scientific programme should be addressed to EOU2009Programme@ucc.ie.

We hope that you will contribute to and find interesting topics in the scientific programme. We are looking forward to meeting you in beautiful Zurich.

Your text in the next issue?

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

- you have (preliminary) results of your regional or national atlas,
- you have information on a monitoring campaign,
- you have made a species-specific inventory,
- you are a delegate and have some news on activities in your country,
- you are planning an inventory and want people to know this,
- you read a good (new) atlas or an article or report on census and you want to review it,

Do not hesitate to let us know this!

Send text (in MSword or OpenOffice), figures and tables (and illustrations!) by preference in digital format. Figures and tables in colour will be shown in colour in the PDF version on our EBCC website: www.ebcc.info.

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