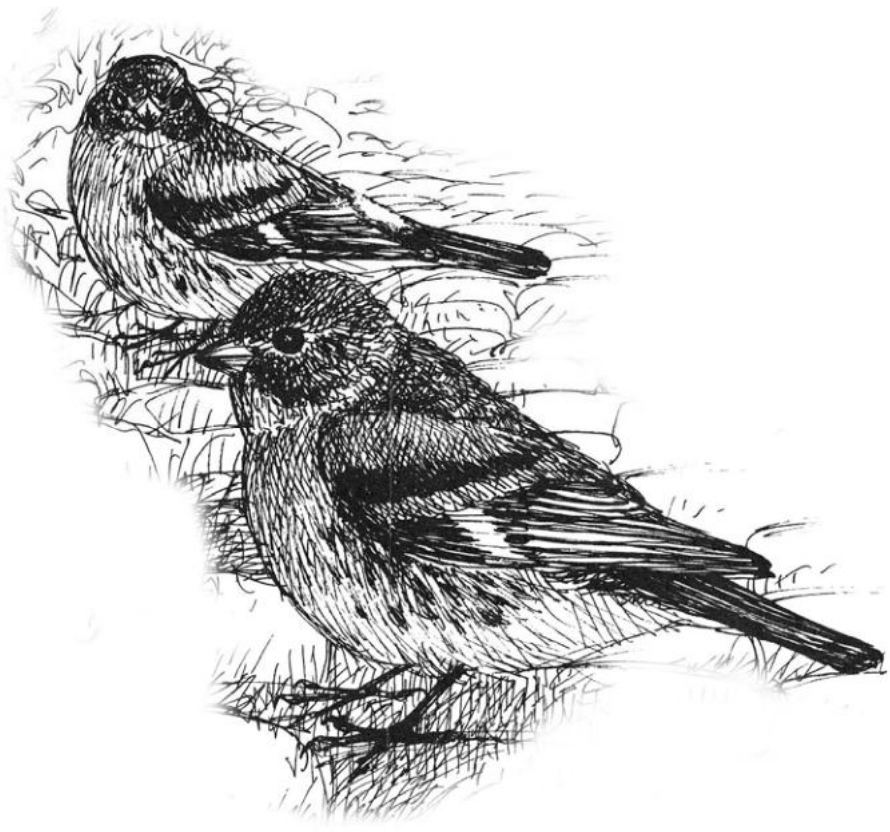
Bird Census News

Newsletter of the European Bird Census Council



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

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

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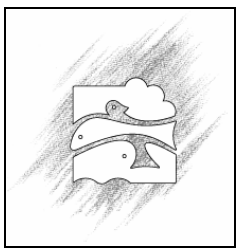

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Volume 17 n°1-2, November 2004

Preface

After some extra work on the long awaited (second part of the) Pärnu Proceedings which appeared in June 2004, we present here volume 17 as a double issue 1-2 of 68 pages, full of news. The EBCC conference in Kayseri has been a success and ExCo would like to thank Uygar Özesmi and his enthusiast Turkish colleagues for the smooth organisation. We are convinced that the meeting will be an important stimulus for ornithology and bird conservation in Turkey.
At the board meeting, a new ExCo has been elected and we welcome Ruud Foppen, Uygar Özesmi, Hans-Gunther Bauer, Frederic Jiguet and Åke Lindstrom as new members. We thank Ex-Chairman David Gibbons and other outgoing members Juha Tiainen, Martin Flade, Tibor Szep and Lorenzo Fornasari for all their work. Lorenzo kindly proposed to organise next EBCC meeting in Italy.
Apart from the addresses of the new ExCo and the Minutes of the Board Meeting, you find several articles on monitoring and atlas work in Spain where a lot is happening, an article on the new Flemish Breeding Bird Atlas and selected summaries from journals and books.
And,...did you remark our new logo?
Enjoy this volume!

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New Executive Committee of the European Bird Census Council : 2004-2007

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Deriving avian population trends from atlas data in Spain: opportunities and biases at a regional scale.

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Introduction

In Spain, pioneer attempts to describe distribution of breeding bird species using atlas methodology were made on a regional basis. The first published ornithological atlas was from La Rioja (De Juana, 1980). Subsequent ones were published for Cataluña (Muntaner *et al.*, 1983), Galicia (López & Guitián, 1983), the Basque Country (Álvarez *et al.*, 1985) and Navarra (Elósegui, 1985). The latter adopted the UTM 10 × 10 km grid, while the former used a different grid from the National Topographic Map, comprising sample units of about 130 km^2 each.

Meanwhile, the National Bird Atlas Project had started as a pilot project in 1975 (Purroy, 1993). Data were collected on the basis of the National Topographic Map grid, with 1,073 quadrangles of 26-30 × 18.5 km each. Information provided by volunteers was gathered over an extended period of twenty years, and finally this work was published (Purroy, 1997) becoming an obvious reference in Spanish ornithology.

Owing to a wider initiative of the Spanish Environment Ministry, SEO/Birdlife began to develop a new atlas project in 1997. Relevant methodological improvements were decided, as opposed to previous atlas: field work over breeding seasons of 1998-2001 (though data from some regional atlases published in the period 1985-2001 were also included) and use of UTM 10 × 10 km grid (5,571 squares). In this way, the recent *Atlas de las aves reproductoras de España (Atlas of Breeding Birds in Spain*; Martí & Del Moral, 2003) provides a complete and authoritative view of bird distribution.

On the other hand, bird monitoring has become, in last decades, one of the most outstanding topics and considerable efforts have been spent throughout Europe and America to develop effective and reliable schemes. Knowledge of population changes and trends is considered a major tool in relation to bird management and conservation (Sutherland, 2000). Also, bird populations are used in some countries as state indicators of environmental change, probably because of the ease of detection and count and knowledge of taxonomy and ecology, more than because they fulfil precise and

restrictive conditions of ideal environmental indicators (Gregory & Vorisek, 2003). Despite their high position in trophic chains, which could make birds less sensitive to short-term changes in environment, it has been stressed that the best way to define criteria to select indicators is test their use.

Current monitoring programs take advantage of several bird census techniques in order to implement adequate and standardised schemes, which can provide long-term information on population trends within a given geographical scope: regional, national or even continental. Such programs, generally based on volunteer work, are carefully designed to cope with spatial and temporal variations in distribution and abundance, and have clear stated objectives (see Gilbert *et al.*, 1998 for a complete review of bird monitoring in Britain and Ireland). In Spain, nation-wide monitoring actions to-date are wintering waterbird census, operating since late 1960's (Martí & Del Moral, 2002), and common breeding bird census, deriving populations indices from point counts along surveys randomly distributed across the UTM 10 × 10 km grid (Del Moral, 2003), apart from close and particular monitoring of some endangered or game species (e.g. Spanish Imperial Eagle *Aquila adalberti*, Lammergeier *Gypaetus barbatus*, White-Headed Duck *Oxyura lecocephala* and Woodpigeon *Columba palumbus*).

Unfortunately, the so called SACRE scheme *(Monitoring of Common Breeding Birds in Spain*), promoted by SEO/Birdlife relying on volunteer work, started only in 1996 as a pilot project. So, the possibility of detecting long-term trends is still out of reach -though it is expected to provide reliable data in next future-, and caution must be observed while interpreting initial results. Besides, number of participants and coverage has been progressively improved, but cannot be considered optimal at present stage (Del Moral *et al.*, 2002).
What are the global trends for bird populations in Spain, then? In this paper, a different approach is explored, using data from some regional atlases published in the early 80's, and comparing species' distributions with those outcoming for the 1998-2001 period as expressed in the new national atlas.

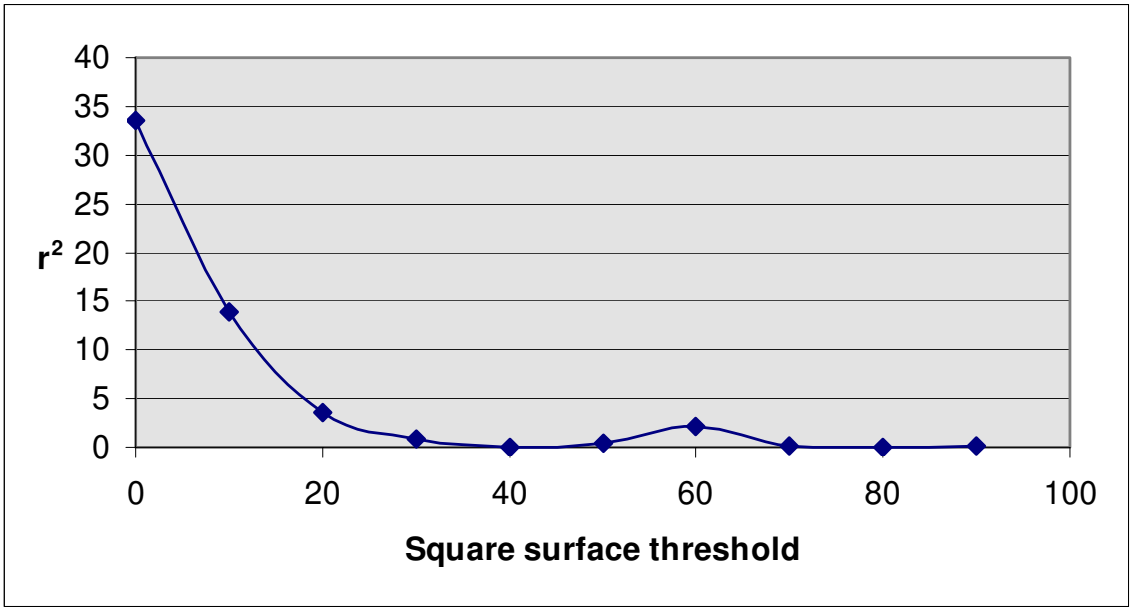


Fig. 1: Relationship between square surface threshold entering the analysis and determination coefficient (r^2) for average richness and square surface.

Approximating bird numbers for the Basque Country

The Basque Country is a small region in Northern Spain, comprising 7,234 km^2, on the border between the Mediterranean and Atlantic biogeographical domains. Mountain forests, either natural or plantations, hold the main landscape features. Bird communities reflect this showing a dominance of woodland species (Galarza, 1996). Field data for both atlases were compiled respectively in 1982-1984 and 1998-2001 (a 15-year period in between), on the basis of presence/absence of species within each UTM 100 km^2 square.

Some corrections had to be made in data sets to allow homogeneous comparison. To begin with, the study area was assimilated, because in the first atlas surfaces not included in the Basque Country in peripheral squares were not surveyed. A threshold to select squares entering the analysis had to be chosen, to avoid the influence of sampled surface over average richness (number of species per square). In Figure 1, the relationship between this surface threshold and r^2 (the proportion of average richness variability owed to square surface) shows that 30 % can be a reasonable criterion. Six additional squares with continental area exclusive for the Basque Country were ruled out because of their insignificant surface (less than 2 %). The study area eventually considered is illustrated in Figure 2 (86 squares). A few endangered species were excluded because information had not been represented on a 100 km^2 basis in the 1982-1984 atlas. With some other lesser adjustments, the total number of species considered reached 170.

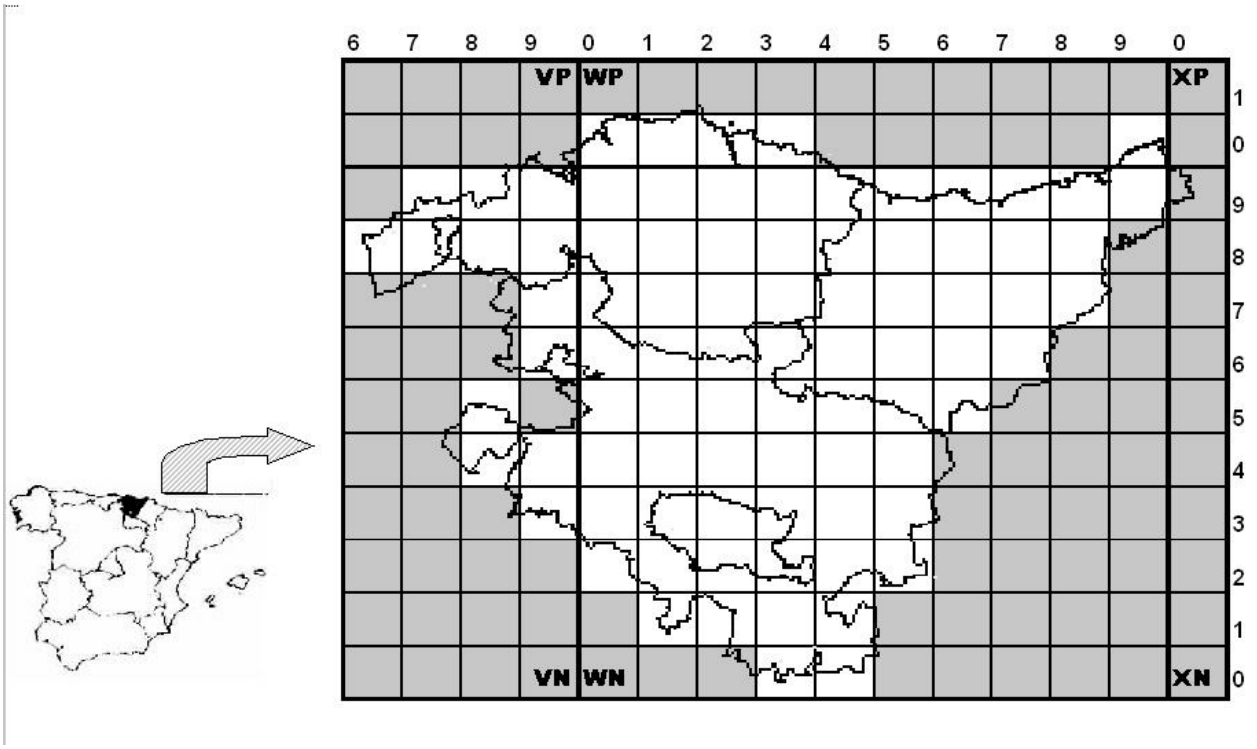


Fig. 2 UTM 100 km² squares selected for analysing range variations of bird species (with more than 30 % of surface belonging to Basque Country). Excluded squares are shaded.

It soon became clear that comparability between data sets were subject to an important bias: the human factor. Observers had not been the same, and one could undoubtedly state that identification skills, transport facilities, and ornithological and geographical knowledge had largely improved since the first atlas, resulting in a general increase of "coverage", identified as the proportion of detected species over ideal or potential list.

Sampling effort parameters (for instance, hours spent in the field per square) were not provided for the first atlas, so the possibilities of data standardization were reduced to using volume of squares-species entries in the sets: 5,489 in the 1982-2984 atlas, and 7,173 in the 1998-2001. This kind of correction factor had been previously applied by Robbins *et al.* (1989) while searching for bird distribution changes at a regional scale in North America, by Yeatman-Berthelot & Jarry (1995) to assess bird trends in France, and by Gibbons *et al.* (1993) to explore comparability of coverage in Britain and Ireland. This procedure can be submitted to discussion, because it is assumed that no real increase in average richness has taken place (it is all related to increase in coverage) and, probably, variations in coverage have not been homogeneous across species.

On the other hand, direct comparisons between both atlases for 21 species - well-known colonial breeders like waterfowl or gulls- were considered reliable, and their data excluded for the correction factor. Statistical significance of distribution changes were evaluated with the G test and the Williams correction (Fowler & Cohen, 1986).

SPECIES	HABITAT TYPE	NUMBER OF SQUARES 1985	NUMBER OF SQUARES 2003	CHANGE 1985-2003 %	G
Podiceps cristatus	W	0	15	↑↑	
Ardea cinerea	W	0	4	↑	
Anas strepera	W	0	4	↑	
Ardea purpurea	W	0	4	↑	
Bubulcus ibis	W	0	2		
Anas clypeata	W	0	2		
Aythya fuligula	W	0	2		
Himantopus himantopus	W	0	2		
Egretta garzetta	W	0	1		
Anas acuta	W	0	1		
Anas querquedula	W	0	1		
Aythya ferina	W	0	1		
Phalacrocorax carbo	W	0	1		
Cignus atratus	AL	0	1		
Oxyura jamaicensis	AL	0	1		
Gypaetus barbatus	M	0	1		
*Ciconia ciconia***	W	1	15	1,500	14.25
*Fulica atra***	W	6	27	450	14.24
Nycticorax nycticorax	W	1	3	300	0.93
Larus fuscus		3	3	100	0.00
Larus cachinnans-argentatus		10	9	90	0.05

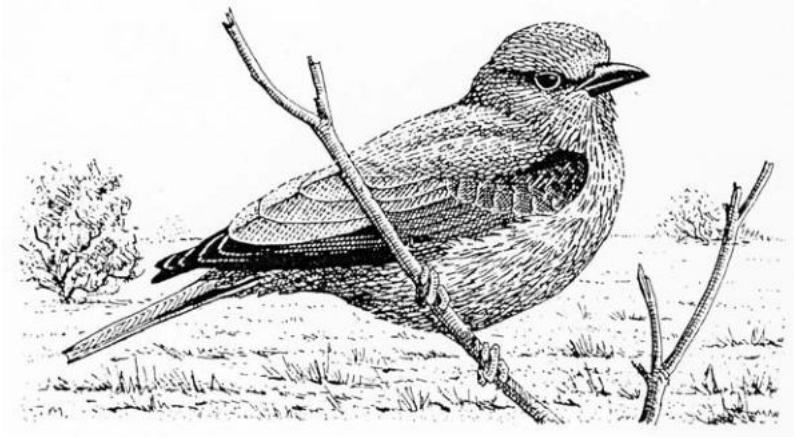
Table 1: Changes in bird distribution in the Basque Country, for those well-monitored species whose results were not influenced at all by coverage differences, from atlas data provided by Álvarez et al. (1985) and Martí & Del Moral (2003). New, expanding and stable breeding species blocks are separated. Obvious qualitative trends for new, regular breeding species are noted with arrows. Statistically significant variations using G tests are noted with ** (p>0,01). W, wetland birds; F, forest birds; M, mountain and shrubland birds; AG, farmland birds; AL, allochthonous.

Status and distribution results

Amongst those 21 well-monitored species (Table 1), 14 were new breeders for the study area, while three showed clear distribution increases and the two left were considered stable. An obvious relevant increase could be accounted for Great Crested Grebe *Podiceps cristatus*, Grey Heron *Ardea cinerea*, Purple Heron *Ardea purpurea* and Gadwall *Anas strepera*. White Stork *Ciconia ciconia* and Coot *Fulica atra* showed statistically significant increases, while Yellow-legged Gull *Larus cachinnans* and Lesser Black-backed *Larus fuscus* remained stable.

For the rest of the species, it was believed that a better coverage should end in an apparently expanded distribution. Eight of these were new breeders, though five of them could possible have been detected through increase in coverage, and could have been present previously. But the other three (Sardinian Warbler *Sylvia melanocephala*, Goldcrest *Regulus regulus* and Common Pheasant *Phasianus colchicus*) had undoubtedly experimented positive changes throughout the 1990's, as clearly evidenced by particular studies (Pérez de Ana, 1993). Another species, Savi's Warbler *Locustella luscinioides*, had to be regarded as gone extinct in the study area due to lack of recent observations.

A coverage correction factor (1.3, as the ratio between the volume of each data set or, in other words, between average species richness) could be applied to 1982-1984 data set. The 42 commonest species (each distribution exceeding 78 % of total squares) could not be evaluated in this way, because the adjusted distribution outnumbered the maximum possible range. For them, the method was not sensitive enough to detect distribution increases, given the size of sample units. Anyway, there were no negative changes in direct comparison.



SPECIES	HABITAT TYPE	NUMBER OF SQUARES 1985	NUMBER OF SQUARES 1985 ADJUSTED	NUMBER OF SQUARES 2003	CHANGE 1985-2003 %
*Streptopelia decaocto***		2	2.62	54	2,061.07
*Monticola solitarius***	M	2	2.62	19	725.19
*Dendrocopos minor***	F	10	13.1	69	526.72
*Charadrius dubius***	W	4	5.24	23	438.93
*Milvus milvus***	F	6	7.86	32	407.12
*Tachybaptus ruficollis***	W	6	7.86	30	381.68
*Anas platyrhynchos***	W	17	22.27	61	358.82
*Hieraaetus pennatus***	F	12	15.72	55	349.87
*Asio otus***		9	11.79	34	288.38
*Monticola saxatilis***	M	7	9.17	26	283.53
*Pernis apivorus***	F	18	23.58	66	279.90
*Rallus aquaticus**	W	6	7.86	21	267.18
*Caprimulgus europaeus***	F	25	32.75	83	253.44
*Loxia curvirostra***	F	9	11.79	28	237.49
*Falco subbuteo***		22	28.82	66	229.01
*Anthus campestris***	AG	10	13.1	30	229.01
*Athene noctua***	AG	19	24.89	56	224.99
*Gallinula chloropus***	W	27	35.37	69	195.08
*Otus scops**		17	22.27	40	179.61
*Sylvia undata***	M	34	44.54	73	163.90
*Cisticola juncidis**	AG	30	39.3	64	162.85
*Milvus migrans***		38	49.78	80	160.71
*Emberiza cia**	M	26	34.06	54	158.54
*Dendrocopos major**	F	45	58.95	84	142.49

Table 2: Changes in species distribution that increased more than expected and are statistically significant (G tests: * p<0,05, ** p<0,01), from atlas data provided by Álvarez et al. (1985) and Martí & Del Moral (2003). Habitat types as in Table 1.

So, there remained 76 species whose variation was positive -that is, above the expected value regarding variation in coverage-, and 22 whose variation was negative -below the expected value, which can be interpreted as either a distribution decrease or an increase by lower rate than expected accounting for variation in coverage-.
Finally, two homogeneous groups were selected, with 24 species with positive and statistically significant change (Table 2), and 22 with negative change (Table 3).

For some species, bias due to coverage probably had a greater role in explaining distribution change than expected by the global correction factor. Over estimation of real change is quite sure for them.
This is the case with woodpeckers (Lesser Spotted *Dendrocopos minor* and Middle Spotted *Dendrocopos medius*), nocturnal birds (Short-eared Owl *Asio otus*, Scops Owl *Otus scops*, Little Owl *Athene noctua* and Nightjar *Caprimulgus europaeus*) and maybe some others with identification problems (Thekla Lark *Galerida theklae*) or low densities (Calandra Lark *Melanocorypha calandra*, Ortolan Bunting *Emberiza hortulana*).

On the other hand, the only species showing a statistically significant negative trend was Turtle Dove *Streptopelia turtur*, though others approached significancy: Woodchat Shrike *Lanius senator*, Jackdaw *Corvus monedula*, Whitethroat *Sylvia communis*, Corn Bunting *Miliaria calandra*, Sedge Warbler *Acrocephalus schoenobaenus*, Reed Bunting *Emberiza schoeniclus*, Grasshoper Warbler *Locustella naevia* and Hoopoe *Upupa epops*.

SPECIES	HABITAT TYPE	SQUARES 1985	SQUARES 1985 ADJUSTED	SQUARES 2003	CHANGE 1985-2003 %	G
Acrocephalus schoenobaenus	W	3	3.93	1	25.45	1.69
Emberiza schoeniclus	W	3	3.93	1	25.45	1.69
Lanius senator	AG	12	15.72	9	57.25	1.81
*Streptopelia turtur**	AG	48	62.88	38	60.43	6.17
Carduelis spinus	F	7	9.17	6	65.43	0.65
Corvus monedula	AG	22	28.82	20	69.40	1.59
Coccothraustes coccothraustes	F	1	1.31	1	76.34	0.03
Porzana pusilla	W	1	1.31	1	76.34	0.03
Oenanthe hispanica	AG	7	9.17	7	76.34	0.28
Locustella naevia	AG	34	44.54	36	80.83	0.90
Sylvia communis		50	65.5	53	80.92	1.32
Upupa epops	AG	31	40.61	33	81.26	0.78
Miliaria calandra	AG	55	72.05	61	84.66	0.92
Acrocephalus arundinaceus	W	15	19.65	17	86.51	0.19
Passer montanus	AG	52	68.12	60	88.08	0.51
Emberiza cirlus	AG	62	81.22	72	88.65	0.55
Sturnus unicolor	AG	39	51.09	47	91.99	0.17
Coturnix coturnix	AG	50	65.5	61	93.13	0.16
Alectoris rufa	AG	32	41.92	40	95.42	0.04
Jynx torquilla		65	85.15	82	96.30	0.06
Parus palustris	F	56	73.36	71	96.78	0.04
Pyrrhocorax pyrrhocorax	M	32	41.92	41	97.81	0.01

Table 3. Changes in species distribution that increased less than expected or decreased, from atlas data provided by Álvarez et al. (1985) and Martí & Del Moral (2003). Statistically significant variations are noted with * (p<0,05). Habitat types as in Table 1.

Global change in species' ranges, as measured by geometric mean of variations of quantifiable species, was 151.4. This parameter showed a positive dynamic for distributions and possibly for populations, even after assuming overestimation for nocturnal and secretive species. An "expert" interpretation would conclude that, in spite of an exaggerated quantitative value, positive general trend was a fact.
Regarding status change, there were 24 new breeders -although eight of them could have been unnoted before and another eight cannot be considered regular breeders yet- and just one local extinction.

Connecting species with habitats and processes

Next step was to allocate species into broad, unique, breeding habitat classes, in the hope of identifying patterns associated to expanding or contracting ranges. Classification was implemented quite reasonably, on the basis of accurate knowledge about selection of habitat and vegetation structure features in the Basque Country (Galarza, 1996) and Spain (Martí & Del Moral, 2003). Whenever one particular species offered uncertainties, it was excluded from the analysis. In this way, species were included in either wetlands, forests, shrubland or mountains, and farmland.

Another group was considered for exotic, allochthonous species. Relative differences in environmental pressure over habitats were expected to become evident, trying to test the use of bird assemblages as multispecies indicator (review of concept and application in Hansson, 2000).

As to wetlands, in the period from 1982-1984 to 1998-2001, 13 new breeders were found and only one disappeared. Among 12 species with quantifiable distribution change, eight showed positive variations and four negatives. But it must be stressed that these were mainly passerines breeding here in coastal marshes, like Reed Bunting, Sedge and Great Reed *Acrocephalus arundinaceus* warblers. Marshlands have been subject to enormous reductions and functional deterioration in the Basque Country, both in historical and contemporary times.
About 90 % of original coastal marshland has been transformed into agricultural, urban, industrial or recreational areas (Rivas & Cendrero, 1992), and the process is still going on. In the Netherlands, Foppen (2001) demonstrated that viability of passerine populations in small, isolated marshland fragments was considerably lower.
On the contrary, interior wetlands (lagoons and reservoirs) have been restored or recently built for agricultural purposes, providing new opportunities for ducks, herons, grebes and storks.

In the forests, two species were new breeders for the study area, although only Goldcrest showed a spectacular expanding of its range. Seven species became included in the positive and statistically significant section, with woodpeckers (Great Spotted *Dendrocopos major* and Lesser Spotted), some raptors (Booted Eagle *Hieraaetus pennatus*, Honey Buzzard *Pernis apivorus* and Red Kite *Milvus milvus*) and passerines associated to pine woods and plantations (Common Crossbill *Loxia curvirostra* and Citril Finch *Serinus citrinella*). The rate of distribution increase is even astonishing for Lesser Spotted Woodpecker and Red Kite, and probably there are some methodological artefacts involved, as could be a preference of observers for these species, whose distribution was subject to particular investigations in the early 1990's.
Anyway, range expansion is evident for many species, including those occupying pine *Pinus radiata* plantations as suboptimal habitats. This type of habitat is very relevant in the Basque Country landscape, comprising a still-growing 21 % of its total surface. Even though forest management for timber production is incompatible with maintenance of mature bird assemblages and endangered species, as opposed to original oak forests (Carrascal & Tellería, 1990), colonisation of tolerant species has taken place.

Shrubland and mountain species were grouped because of their shared use of landscapes with low vegetation volume, independently of abiotic factors like altitude (there is no relevant gradient in the Basque Country), or the presence of those habitat patches within an agricultural matrix. Six species showed clear expanding ranges, well documented for Rufous-tailed *Monticola saxatilis* and Blue *Monticola solitarius* rock thrushes, Lammergeier and Sardinian Warbler. Chough *Pyrrhocorax pyrrhocorax* was in the negative or less positive table, but magnitude of change was insignificant and this is probably one of the cases were -as will be discussed later on- the existence of a biogeographical or habitat limit for distribution increase imposed an erroneous pattern.

Three farmland birds showed range increases above the expected: Tawny Pipit *Anthus campestris*, Little Owl (surely overestimated) and Zitting Cisticola *Cisticola juncidis* (whose population trends are difficult to separate from fluctuations owed to winter weather conditions), while eleven showed negative or less positive behaviour. Obvious contracting ranges are evidenced for Turtle Dove, Woodchat Shrike, Jackdaw, Corn Bunting, Grasshopper Warbler and Hoopoe.

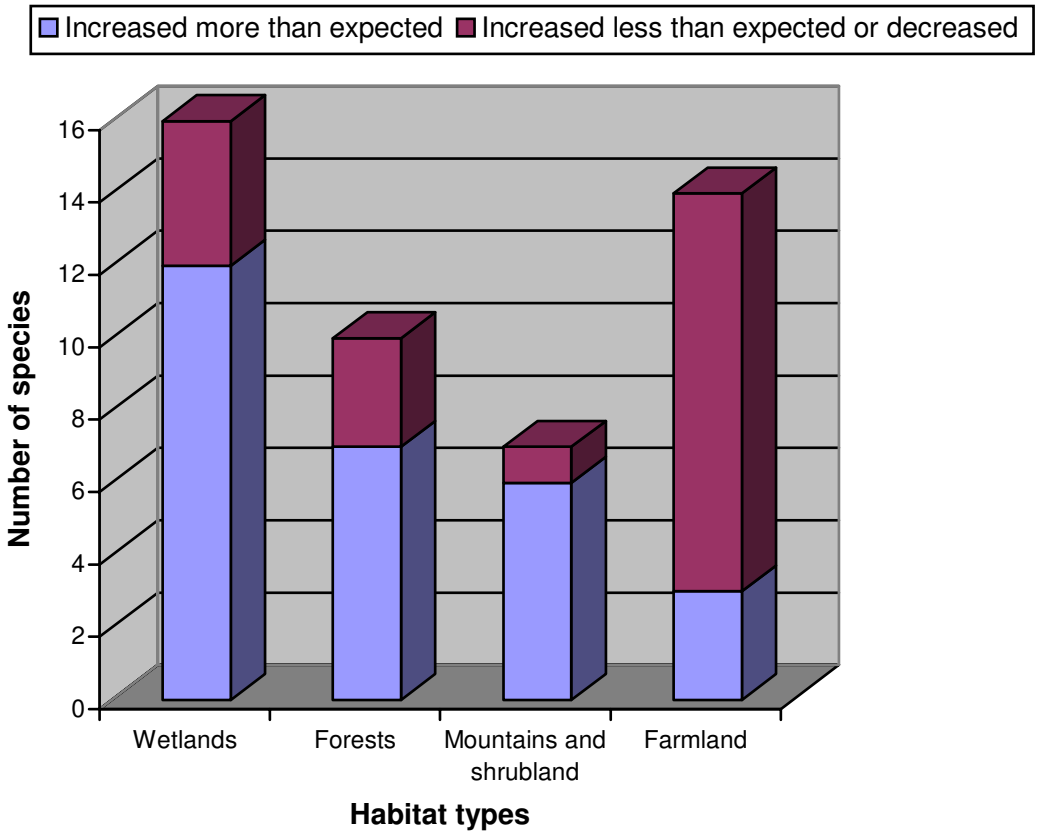


Fig. 3: Number of autoctonous bird species with quantitative or probable range changes, referred to habitat types.

As a whole, Figure 3 reveals a divergent pattern among habitats, with species associated to farmland performing much worse than those from wetlands, forests or shrublands. This result, far from exclusive, has been described throughout Western Europe in last two decades, as a consequence of agricultural intensification (see, for instance, Siriwardena *et al.*, 1998). In the Basque Country, reduction of farmland surface due to urbanisation, transport infrastructures or industrial occupations could also be playing a major role (nearly 5 % of agricultural land has vanished between 1990 and 2000; Gobierno Vasco, 2003), apart from fragmentation and other ecological impacts.

For most species, mechanisms underlying population declines have not been exhaustively studied in Spain, with the exception of relations between decreasing diversity and patchiness of land use after intensification and irrigation (Díaz *et al.*, 1993). Some particular processes, like non-sustainable hunting bags and competition from expanding Collared Dove *Streptopelia decaocto* over populations of TurtleDove have also been studied (Hidalgo & Rocha, 2001).

Finally, only three allochthonous species were added to the breeder's list. Ruddy Duck *Oxyura jamaicensis* and Black Swan *Cygnus atratus* breeding attempts came from feral populations or escaped individuals. As a game species, Common Pheasant has been subject to multiple releases in the wild, and its distribution has showed a considerable increase.

These patterns could be compared to those presented in a study by Estrada & Pedrocchi (2002), who made a similar attempt to analyse range variations in Cataluña (a region in North-eastern Spain comprising about 38,500 km^2) using older (1981-1982; Muntaner *et al.*, 1983) and new atlases (1999-2001). They did not make any corrections regarding coverage, so only direct differences were accounted for. Anyway, general positive trends were identified for some forest species (Great Spotted and Black *Dryocopus martius* woodpeckers, Iberian Chiffchaff *Phylloscopus ibericus*, Booted Eagle, Cytril Finch), some waterfowl (Little Grebe *Tachybaptus ruficollis* and Mallard *Anas platyrhynchos*) and urban birds (Collared Dove, Spotless Starling *Sturnus unicolor*). On the contrary, Mediterranean farmland species like Short-Toed Lark *Calandrella brachydactyla*, Jackdaw, Great-Grey Shrike *Lanius meridionalis*, Quail *Coturnix coturnix* or Stock Dove showed contracting distributions.

As a whole, both independent approaches in Cataluña and the Basque Country shared trend direction for many birds, with increase in forest and wetland species and decrease in farmland birds. Differences are detected for owls, showing a clear increase in the Basque Country but a reduction in range in Cataluña. This is probably a result of deficient coverage for nocturnal species in the 1982-1984 atlas in the former region, as stated before.

The use of atlas data in the context of monitoring and environmental indicators

Robbins *et al.* (1989) and Rheinwald (2001) showed how population trends derived from atlas data were in accord with those from extensive annual surveys, hence useful to monitor trends, at least on a local scale. They suggest requirements like sampling saturation and consistency of coverage, to ensure adequate relationship between proportion of sampling units where the species occur and abundance, and therefore between changes over time and population trend. Theoretical and empirical evidence linking frequency and abundance are on the basis of modern quantitative atlas methodology (Bart & Kloeisewski, 1989; Gibbons *et al.*, 1993; Schmid *et al.*, 1998), and relating distribution change to population dynamics is becoming a major tool for interpretation of environmental pressures over European birds (Hustings & Vergeer, 2002).

But the matter of sensitivity and scale has to be considered. In our case, the simple use of 100 km^2 squares imposed limited possibilities of detecting population variations, because even important changes can be hidden. This particularly applies to passerines with breeding territories much smaller than the distribution sample unit. They can undergo important population changes which are not noted in an atlas representation (Pullin, 2002). So, species with bigger areas are more prone to be monitored with atlas data, and also rarer species (Robbins *et al.*, 1989), precisely those which face difficulties when monitored on annual schemes. But the point is, whenever a statistically significant range variation is found, a deep population variation has possibly taken place. In other words, the power to evidence slow changes or initial stages has to be considered. Non-significant variations should be analysed, because they may alert about already operating processes.

A major limitation of our study has been the lack of similar coverage and absence of intensive efforts for every square during the 1982-1984 atlas. In the 1998-2001 atlas, detected species were globally estimated at 90-100 % of the real number, but this figure was not available in the previous one. Correcting data sets led to overestimation of distribution change for inconspicuous species.

But other problems came from the impossible detection of positive variations in commonest species, whose previous distribution -measured through the 100 km^2 UTM grid- comprised the whole study area. The methods reveal inefficiency for those range-saturated species, which had to be excluded. A pitfall of this kind is the existence of specific biogeographical or ecological restrictions that prevent proper correction of species range, regarding coverage. The position of the Basque Country, between the European Atlantic and Mediterranean regions, might play a role in the overestimation of range variation for Hoopoe, Black-eared Wheatear *Oenanthe hispanica* or Red-legged Partridge *Alectoris rufa*. For others, competitive interactions (between alopatric Spotless and Common *Sturnus vulgaris* starlings) or saturated habitat occupancy (Chough) could be involved. Anyway, misleading trends have to be accounted for, and individual analysis should be performed.

In a wider environmental context, scientists and politicians alike have focused great attention on bird populations, searching for quantitative, responsive and simplifying biodiversity indicators. Apart from many general statements, few empirical studies have analysed strengths and weaknesses of birds as indicators (Gregory *et al.*, 2001). In the Basque Country, Ramírez (2000) demonstrated that value of birds to predict richness of other taxa, was not straightforward. Authors like Prendersgast & Eversham (1997) or Lawton (1996) -among others- stated that, at a regional scale, ecological requirements hinder range coincidence between groups. But the ease of achieving bird distribution makes worth mapping, as initial or routinely framework, while developing additional criteria.

Not many countries in Europe have well organised and long-lasting monitoring schemes to allow including bird populations into a "quality of life", policy relevant system of indicators, as the United Kingdom or the Netherlands do. In Spain, such goal still has to be formulated, but at a regional scale, the government of the Basque Country has already adopted breeding bird trends as a major component of biodiversity headline indicator (Gobierno Vasco, 2003), taking advantage of "historical" sources of information, which only birds can provide.

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The Spanish common breeding bird monitoring scheme, Programa SACRE

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Introduction

The Spanish common breeding bird monitoring scheme (El Programa de **S**eguimiento de **A**ves **C**omunes **R**eproductoras en **E**spaña, SACRE) started in 1996. 2003 has been the eighth consecutive year and the obtained dataset obtained is now sufficiently large to allow a more detailed analysis of the trends.

Aims

The principal aims of the *Programa SACRE* are:

At national level:

- To detect changes in populations of a large number of species and in a large variation of habitats throughout Spain. The knowledge of population changes (increase as well as decrease) is fundamental for the planning of adequate conservation strategies. Monitoring breeding bird populations has the added value that it can serve as an indicator for the conservation status of other faunistical groups and for habitats in general.
- Improve the knowledge on the distribution of breeding bird species in Spain.

At European level:

- Since 2002 SEO/BirdLife has submitted all the monitoring data to the Pan-European common breeding bird-monitoring programme, a common initiative of the European Bird Census Council (EBCC) and BirdLife (Gregory & Vorísek, 2003). The aim of this international programme is to develop and use breeding birds as a base for multi-species policy relevant indicators on European scale.

- The indices obtained will be used to evaluate conservation policy in different parts of Europe and every BirdLife partner (e.g. SEO) could establish conservation working-lines to influence the environmental policy of their country.

Methods

The basic unit used is the 10×10 km UTM square. The Spanish territoy comprises 5600 such a squares. Based on a series of criteria 575 priority squares have been selected, representing the various features of every region. Each unit countains at least 20 counting points, one km apart and situated in a zone with homogeneous habitat. Within the square, the number of counting points in each main habitat type has to be proportional to their surface. During the breeding season two visits are made: the first between half April and half May, to count mainly sedentary species, the second between half May and half June, to include the migratory species.

The square is traversed by car during early morning hours (not later than 11 a.m.) and with good weather conditions. At each point all birds seen or heard during 5 minutes are counted. Birds are recorded in two distance categories (0-25 m and >25 m). The order of the visited points has always to be exactly the same.

Results

Cooperation

The number of volunteers has steadily increased. At present, the counted squares are spread all over the Spanish territory (Figure 1) but not in a homogeneous way. In 2003 345 squares have been counted, 250 of them being priority ones (see above).

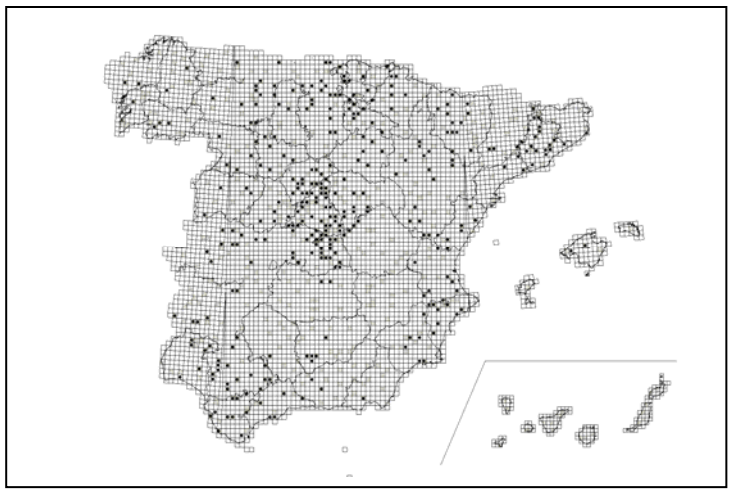

Fig. 1: Distribution of the priority squares (grey) with those counted in 2003 indicated with a black spot.

Habitat coverage

At present, the proportional distribution of the counting points over the various Spanish habitats in the priority squares is relatively good. The major bias occurs in the cultivated areas and in the scrub (matorral) habitats. Although the absolute number of counting stations in farmland is the highest of all, this is not in proportion to the vastness of the habitat in Spain. There is still an important gap in the extensive agricultural zones of Castilla-La Mancha and eastern Andalucía, where coverage is poor. On the other hand counting points in urban zones, wetlands and woodland areas seem disproportionally high. (Figure 2).

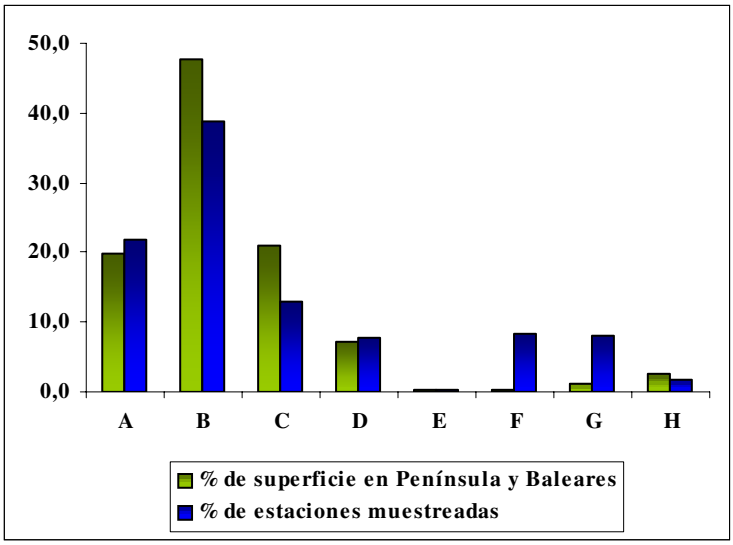

Fig. 2: Percentage of the area of the various landscapes (habitats) in Spain (left bar) and of counting points (in priority squares) in each of this landscapes (right bar) for 2003 (A. Forests, B. Fields, C. Shrub - Matorral, D. Pastures, E. Coastal wetlands, F. Inland wetlands, G. Urban zones and H. Rocky areas).

Population trends

Population trends have been analysed using the statistical programme TRIM (Trends & Indices for Monitoring data), developed by Statistics Netherlands (Pannekoek & van Strien, 1998).
Of the 114 species analysed in 2003, 80 show a positive trend which is significant in many cases (Table 1). As in previous years, this group consists mainly of forest birds as e.g. Song Trush (*Turdus philomelos*), Firecrest

(*Regulus ignicapillus*), several Tit species, Chaffinch (*Fringilla coelebs*), Crossbill (*Loxia curvirostra*), Bullfinch (*Pyrrhula pyrrhula*), etc. A striking example is the Collared Turtle Dove. This species has shown a very positive trend in the past (see e.g. Gámez, 2003), the change is highly statistically significant and the number of samples large.

Nevertheless, 34 species (33%) seem to demonstrate a negative trend for the period 1996-2003 (Table 2). Some of them show conspicious significant changes: Quail (*Coturnix coturnix*), Skylark (*Alauda arvensis*), Swallow (*Hirundo rustica*), Stonechat (*Saxicola rubetra*), Garden Warbler (*Sylvia borin*), Woodchat Shrike (*Lanius senator*), Jackdaw (*Corvus monedula*), Carrion Crow (*Corvux corax*) and Yellowhammer (*Emberiza citrinella*). Although some other species do not show statistically significant changes their decline is seems to be similar to former results: Red Partridge (*Alectoris rufa*), Little Bustard (*Tetrax tetrax*), Collared Dove (*Streptopelia turtur*) and Jay (*Garrulus glandarius*). It should also be noticed that that three coraciformes, Bee-eater (*Merops apiaster*), Roller (*Coracias garrulus*) and Hoopoe (*Upupa epops*), all migratory species, show a marked decline. Although for none of the three species this decline is statistically significant, it could indicate that there are certain conservation problems in their wintering area, , which at present are dificult to determine.

Especie	Nº	Incremento %
Acrocephalus arundinaceus	51	60*
Acrocephalus scirpaceus	68	26
Aegithalos caudatus	146	6*
Alcedo atthis	33	159
Anthus campestris	72	16
Anthus spinoletta	5	42
Anthus trivialis	55	30
Apus pallidus	219	89
Burhinus oedicnemus	74	29*
Calandrella rufescens	4	238
Carduelis cannabina	204	28*
Carduelis carduelis	218	65*
Carduelis chloris	216	88*
Carduelis spinus	72	3
Cercotrichas galactotes	8	0
Certhia brachydactyla	145	39*
Cettia cetti	169	28*
Cinclus cinclus	19	124*
Clamator glandarius	73	100*
Coccothraustes coccothraustes	23	397
Columba livia	144	66*
Columba palumbus	206	32*
Cuculus canorus	190	32*
Cyanopica cyanus	47	21*
Delichon urbica	193	50*
Dendrocopos major	137	82*
Dendrocopos minor	10	31
Emberiza cia	108	47*
Emberiza citrinella	46	22*
Emberiza hortulana	41	89*
Ficedula hypoleuca	54	303
Fringilla coelebs	188	36*
Galerida cristata	186	6*
Galerida theklae	93	76*
Garrulus glandarius	134	26*
Jynx torquilla	87	28*
Lanius collurio	60	18*
Loxia curvirostra	42	116*
Luscinia megarhynchos	198	26
Melanocorypha calandra	96	11

Especie	Nº	Incremento %
Miliaria calandra	212	18*
Monticola saxatilis	27	2
Monticola solitarius	37	22
Motacilla cinerea	98	17
Motacilla flava	17	16
Muscicapa striata	97	40*
Myopsitta monachus	8	1.552*
Oenanthe leucura	28	4
Oenanthe oenanthe	119	8*
Oriolus oriolus	177	61*
Parus ater	101	3*
Parus caeruleus	174	7*
Parus major	209	37*
Passer domesticus	221	9*
Passer montanus	144	10*
Petronia petronia	116	17*
Phoenicurus phoenicurus	36	122*
Phylloscopus bonelli	106	101*
Pica pica	190	34*
Ptyonoprogne rupestris	77	32
Pyrrhocorax pyrrhocorax	63	6*
Pyrrhula pyrrhula	38	6*
Regulus ignicapillus	96	25*
Regulus regulus	18	26
Remiz pendulinus	24	623*
Riparia riparia	45	137*
Saxicola torquata	190	17
Serinus serinus	221	41*
Sitta europaea	57	43*
Streptopelia decaocto	138	639*
Sturnus unicolor	209	8*
Sturnus vulgaris	42	1.269
Sylvia atricapilla	171	55*
Sylvia cantillans	98	47*
Sylvia communis	104	35*
Sylvia hortensis	47	47*
Sylvia melanocephala	139	13*
Turdus merula	210	26*
Turdus philomelos	89	93*
Turdus viscivorus	110	18

Table 1. Species which show a positive trend during the last eight years. The second colums shows the number of squares used for the analysis, the third the percentage of change. Statistically significant changes (P>0.05) are indicated with an asterisk.

Especie	Nº	Descenso %
Alauda arvensis	154	-17*
Alectoris rufa	201	-3
Apus apus	219	-1
Apus melba	21	-28
Calandrella brachydactyla	79	-21
Chersophilus duponti	5	-90
Cisticola juncidis	133	-1
Coracias garrulus	18	-27
Corvus corax	152	-13*
Corvus monedula	116	-34*
Coturnix coturnix	154	-30*
Dryocopus martius	4	-7
Emberiza cirlus	139	-1*
Hippolais pallida	11	-16
Hirundo daurica	75	-7
Hirundo rustica	223	-30*
Lanius senator	170	-16*
Locustella luscinioides	3	-73

Especie	Nº	Descenso %
Merops apiaster	187	-9
Motacilla alba	178	-3
Oenanthe hispanica	111	-5
Parus palustris	14	-86
Passer hispaniolensis	16	-66
Phylloscopus collybita	132	-35
Picus viridis	184	-7
Prunella modularis	58	-3
Psittacula krameri	8	-30
Saxicola rubetra	32	-49*
Serinus citrinella	10	-34
Streptopelia turtur	201	-19
Sylvia borin	70	-32*
Sylvia conspicillata	41	-9
Sylvia undata	132	-13
Tetrax tetrax	66	-25
Upupa epops	211	-4

Table 2. **Species which show a negative trend during the last eight years. The second colums shows the number of squares used for the analysis, the third the percentage of change. Statistically significant changes (P>0.05) are indicated with an asterisk.**

Barn Swalow, *Hirundo rustica*

The Barn Swallow (*Hirundo rustica*) has shown a negative trend during the last years. This seems to be a long-term event, as some authors detected this already more than twenty years ago (De Lope, 1981). This decline is not only occuring in Spain but also in various surrounding countries (Möller, 2001).

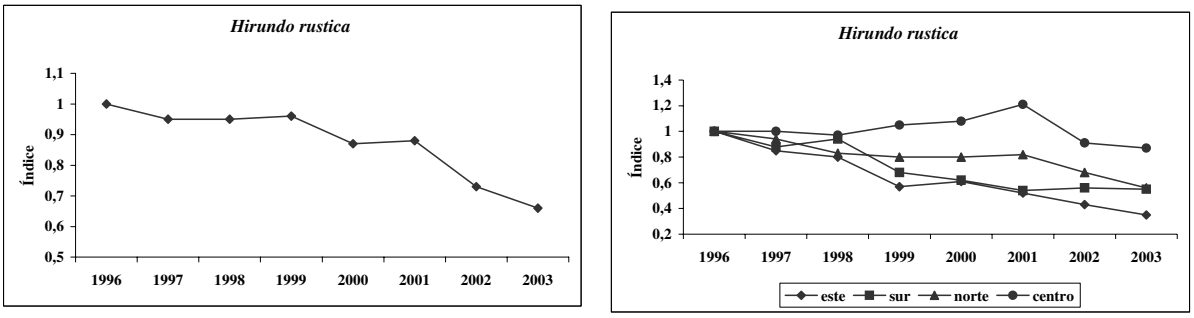

Fig. 3: General (left) and regional right) trend of Barn Swallow in Spain.

This negative trend applies to the whole country (Figure 3) although it seems more marked in the eastern and southern parts of the peninsula, with significant changes of 40 and 30% in these zones. In the central part the decline seems moderate (Figure 3).

Bonelli's Warbler, *Phylloscopus bonelli*

This species underwent a steady population increase since 1998 (Figure 4). This could be due to changed farmland practices in several zones with abandonment of cattle pastures resulting in an increase of scrub and forest habitat. The increase is most marked in the central part of the country. However, in the southern part there is a negative trend.

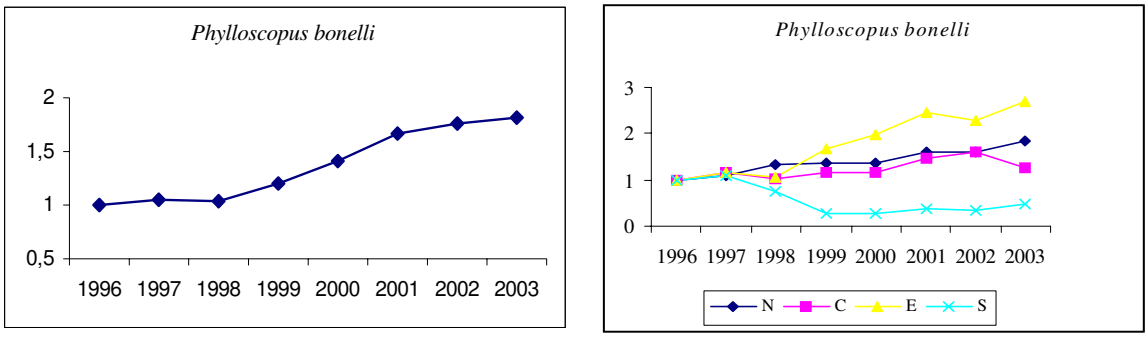

Fig. 4: General (left) and regional right) trend of Bonelli's Warbler in Spain

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Bird Census News 2004:1/2:30-34

A new breeding bird atlas in Spain

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Study area and census method

After the publication of a first breeding bird atlas in 1997, SE/BirdLife has now published a second atlas covering a much shorter period than the previous and using a standardised method, comparable to other European atlases.

Fieldwork for the new atlas was carried out during four breeding seasons: 1998, 1999, 2000 and 2001. In 2002 some additional observations were collected in order to increase coverage and obtain confirmation of breeding status.

The carthographical unit used in the atlas was the 10 × 10 km square based on the Universal Transverse Mercator (UTM) projection grid. Spain was thus divided into 5600 squares (Figure 1). However, a number of the squares were partly overlapping with either French, Portugese or marine territory, or were very small due to deformations originating from the UTM projection. Only 29 containing a limited area of Spanish territory were omitted from the survey.

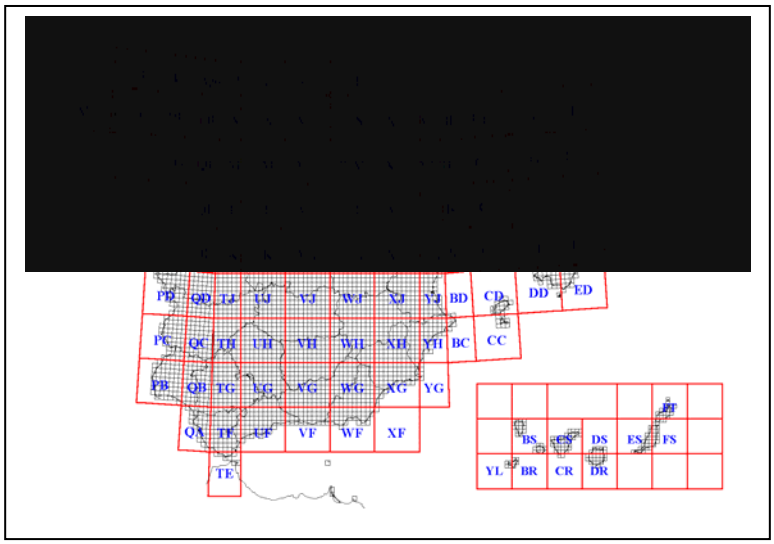


Fig. 1: Distribution of the 10×10 km UTM squares. The 100×10 km UTM squares are defined by a two letter code

Besides the information resulting from fieldwork in the four-year period, data from breeding birds between 1985 and 1997 were also used in particular zones with little coverage. This included sources such as already published regional atlases: Aragón (Sampietro *et al*, 2000), Ávila (Sansegundo, 1987), Baleares (Avellá *et al*, 1997; Escandel, 1997), Burgos (Román *et al*, 1996), Cádiz (Alonso, 1985), Madrid (Díaz *et al*, 1994), Murcia (Martínez *et al*, 1996), Palencia (Jubete, 1997) y País Valenciano (Urios et al, 1991) or atlases in preparation in Almería, Jaén, León and Valladolid. Published data of rare species or special of special interest from various other sources were also included. The aim of the project was clearly to gather new data for the whole territory, but priority was given to those areas of which no (previous) recent information was available.

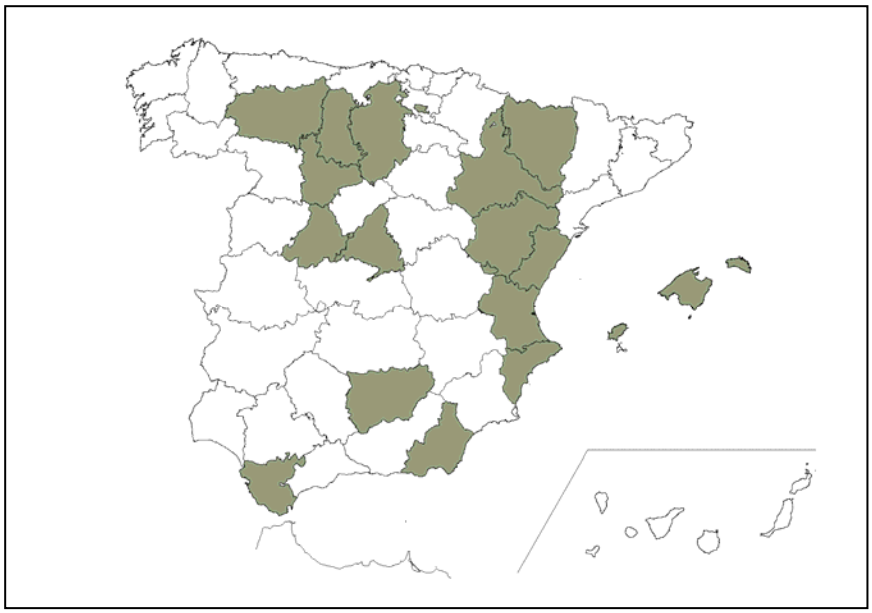
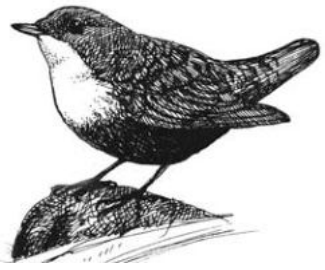


Fig. 2: Provinces or zones for which information was available for the 1985-1997 period. In these areas many squares have been surveyed between 1998 and 2001



Volunteers were asked to try and locate as many breeding bird species as possible in all significant habitat types, and to spread the visits over the whole breeding season. To facilitate fieldwork registration, the international standardized 16-category classification system of breeding evidence has been reduced to 10 categories (zie Table 1).

Possible breeding	
V	Species observed in breeding season in possible breeding habitat
Probable breeding	
MC	Male with territorial song
T	Permanent territory, presumed through registration of territorial behaviour
C	Courtship and display, agitated behaviour or anxiety calls from adult
CN	Nest-building or excavating of nest-hole
Confirmed breeding	
CD	Distraction-display or injury feigning
NU	Used nest or eggshells found (occupied or laid within period of survey)
J	Young have recently left the nest
AC	Adults carrying faecal sac or food for young
N	Nest occupied, bird incubating, nest containing eggs or young

Table 1: Breeding evidence: the categories used in the atlas project

Observers were also asked to assess numbers of each species in a square, using a semi-quantitative scale system. This data were used to obtain national population estimations (see Table 2).

I	0-9 pairs
II	10-99 pairs
III	100-999 pairs
IV	1.000-9.999 pairs
V	> 10.000 pairs

Table 2: The semi-quantitative categories for population estimation

Information on endangered species was obtained through specialists and species-specific censuses organised on regional or national scale like the one by SEO/BirdLife for the Griffon Vulture and the Egyptian Vulture in 1999 and 2000 (Del Moral & Martí 2000, 2002).

Compared to the former atlas, some taxonomic changes have occured in relation to species and subspecies: *Puffinus puffinus* de *P. mauritanicus*,

Aquila adalberti de *A. heliaca*, *Anthus petrosus* y *A. spinoletta*, *Phylloscopus collybita* de *P. brehmii* y *P. canariensis*, *Lanius excubitor* de *L. meridionalis*.

General results

The participation of almost 2000 fieldworkers resulted in 404.233 records (13.000 forms), completing the distribution of the 337 species considered. Twenty-two per cent of this information originates from the 1985-1997 period. The volunteers covered almost 4/5the of the whole territory. In order to obtain a 100% coverage, special teams were set up to survey the remaining 1024 squares. Semiquantitative data could be obtained for 81% of the records. The mean number of species per square was 75.

A total of 337 species have been recorded as breeding birds in Sapin, including 49 exotic species. Of the 288 native species, 266 are regular breeders while 17 are recorded regularly, are recent colonizers or hitherto unregistrated breeders. Due to the insufficient breeding evidence, the status of 5 species (*Phaeton aethereus, Porzana parva, Charadrius hiaticula, Sterna caspia y Acrocephalus schoenobaenus*) remains unclear. Of the 49 introduced species, only 6 can be considered as well established breeders.

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Bird Census News 2004:1/2:35-47

Atlas of the breeding birds in Flanders 2000-2002

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Introduction

The first atlas of breeding birds in Flanders was published in 1988 and was based on fieldwork conducted between 1973-1977 (DEVILLERS et al. 1988). For almost three decades, this work provided the only information available concerning the distribution and abundance of all breeding bird species in Flanders. Although several species-specific projects were subsequently undertaken, it was not until 1994 that a monitoring programme for rare, colonial and exotic bird species was initiated. This was co-ordinated by the Institute of Nature Conservation (IN), a research institute of the Flemish Government. Although this project provided very useful information that could be used for defining special protection areas (SPAs), it was clear that the rest of the breeding avifauna was experiencing major changes, including common species. As a direct response, during 1998, a new comprehensive breeding atlas project was launched by the IN and initial contracts were drawn-up to kick-start the process.

Aims, background and methodology

In 1999, a unique intention of co-operation was agreed between the IN and several organizations including regional and provincial councils, nature and youth organizations. This agreement proved very useful in creating a well organized group of volunteers. The project was financed by the Flemish Government. The new atlas would assess many apparent changes in the distribution of breeding birds at a Flemish level (Flanders is the northern part of Belgium and considered as separate from Wallonia and Brussels, the capital).

The main aims of the atlas were as follows:

- assess the current distribution of all breeding bird species in Flanders;
- assess their relative abundance where possible;
- create detailed population estimates for around 65 % of all species;
- gather exact location data for all rare, colonial and exotic breeding bird species throughout Flanders.

It was planned to complete the fieldwork within 3 breeding seasons.

During the 1999 breeding season, an inventory of several atlas squares was produced as a test. The method used in that first season replicated that used in the Dutch atlas project (SOVON 2002) and was also based on the Universal Transverse Mercator (UTM) projection to divide Flanders into an internationally recognized grid of 5km x 5km squares.

Fieldwork was organized in such a way that less-experienced ornithologists were able to take part in the project. It was carried out during the breeding seasons of 2000, 2001 and 2002. In 2003, a few additional squares were surveyed in order to increase coverage. Many birdwatchers were involved, organized at a local level by regional co-ordinators and overseen by a national co-ordinator and professional IN staff. The largest volunteer organization in Flanders, Natuurpunt, was primarily involved in organizing the volunteer structure. In general, fieldwork consisted of surveys on both 5km x 5km and 1km x 1km scales and a total of 645 squares had to be surveyed.

In each 5km x 5km square, volunteers were initially asked to try and locate as many breeding bird species as possible and to assess both numbers and locations of a selected sub-set of species. In doing so, they were free to choose the time and duration of their observations, although a few general guidelines were provided. Subsequently, as part of a standardized fieldwork procedure, they were required to make two one-hour long visits to sets of eight fixed 1km x 1km squares. Each volunteer was provided with a 1:10.000 scale map of each 5km x 5km square on which the 1km x 1km squares were also indicated and several forms were issued to record their data. As with the Dutch method, the species list was constructed to include a classification of breeding status, i.e. possible, probable or confirmed breeding. The aim of the hour long counts was to construct relative abundance maps and during each hour a 5 minute point count was performed in the middle of every square. These short duration point counts fine-tuned these maps in the case of common species, which were often recorded during the hour count, irrespective of their relative abundance. During the hour counts, observers were asked to record all breeding bird species present and to provide counts of the number of breeding pairs/territories for a selection of species.

Relative abundance is expressed as the frequency of occurrence (e.g. if a

species occurs in four of the eight 1km x 1km squares, its frequency index is 4/8 = 0,5). The frequency values resulted in the maps that accompany many species accounts. Some species were very difficult to record and some migrants were missed due to their late arrival date. Consequently, the maps for species such as Spotted Flycatcher, Lesser Spotted Woodpecker and Icterine Warbler underestimate abundance. In some cases, it was decided not to show the map as the results were considered too poor.

Estimates of the number of breeding pairs/territories for each atlas square were made for the selected species listed in chapter 2, table 2. Six categories, ranging from 1-3 breeding pairs up to 151-500 pairs were used. For some colonial breeding species (terns, gulls, Sand Martin), an extra category of > 500 pairs was added. The final population size was estimated by totalling the estimates for each square and using judgement to refine these if necessary. For example, species like Green Woodpecker and several raptors were likely to be overestimated due to their large territories and/or conspicuous behaviour, while others like Lesser Spotted Woodpecker and Hawfinch were probably underestimated and their actual population size was deemed higher than the census total suggested.

Why this method?

Compared to the previous atlas, this method is entirely different and does not allow for detailed comparisons between the two. Although this is a major disadvantage, the previous method was not repeated for several reasons. Firstly, the scale of the previous atlas (10km x 8km squares) seemed too crude and secondly, modern atlases are all able to generate relative abundance maps which would have been impossible using the previous method. In order to be able to provide data towards a possible future project of pan-european abundance maps, this new method was the only option. Furthermore, the standardized fieldwork procedure would yield baseline data for future atlas projects.

Data processing and checking

All data obtained from atlas fieldwork were collected on standard recording forms. These were sent to the regional co-ordinator who checked them thoroughly and contacted volunteers in case of any obvious anomalies. Following this first step, data were sent to the IN where they were checked once more before being entered in an SQL-database. Forms were printed from the database which were returned to the individual volunteers. They were asked to check the lists one final time in order to ensure accuracy. After the final breeding season, the completed lists for each region were sent to the relevant co-ordinators asking them to provide extra information on the annual numbers of some colonial or rare breeding bird species per square. For some pioneer species like Sand Martin and Avocet or obvious species like Rook, we wanted to be able to estimate the numbers in each of the three

atlas years.

Technology also presented a convenient way of double-checking data. By posting preliminary versions of species maps (distribution, numbers and relative abundance) on a frequently updated website (www.instnat.be/broedvogels), volunteers were able to easily provide many useful comments. The site also provided the opportunity to submit records from outside the census procedures, resulting in over 60.000 extra observations. These observations were also submitted to regional co-ordinators for them to assess credibility and accuracy. Afterwards, if the observations enhanced the information per square, they were incorporated, although they could be traced at all times.

Interpreting the species maps

Three different species maps are presented.

Each species account features a distribution map where the different colours represent the classification of breeding status. Black indicates certain breeding, dark grey shows probable breeding and light grey only possible breeding. Under each of these maps a table is shown providing information on the number of squares applicable to each breeding category, the population estimate for the species and the percentage of occupied squares. If an annual estimate is available, the total population estimate shows both minimum and maximum numbers for the 3-year period. For example, the population of Zitting Cisticola was estimated at 10-12 pairs in 2000, 14-16 in 2001 and 20-27 in 2002. In the table, the population estimate will be 10-27 pairs.

Relative abundance maps actually show the level of certainty with which a species may be recorded at any location in Flanders. The value that accompanies each map varies between 0 and 1, the latter indicating the highest level of probability that a certain species is present. High values also mean that a particular species is widely distributed and numerous in that region. The correlation between absolute and relative densities was remarkably strong and not significant for only 10 % of all species, in particular, raptors and colonial breeders. For some species absolute abundance maps are also presented based on the categories in table 3 of chapter 2, but it should be remembered that these maps are an amalgamation of data from three atlas years. For instance, if Common Tern was recorded in three consecutive years, the highest number of breeding pairs will be presented on the map.

Finally, for some species a trend graph is presented as well. These graphs differ between species and depend on the duration of monitoring schemes. Grey Heron has had an annual breeding census since 1981, but this is exceptional as a common bird census programme has never existed in Flanders. For breeding birds such as Zitting Cisticola, it was often possible

to access archive material from many years ago, collected by bird watchers, attracted by their rarity. An English summary is given under each species account summarizing the distribution, status and population trend of each, along with possible reasons for decreasing or increasing numbers.

Status of breeding birds and general changes since the 1970s

During the 2000-2002 atlas period, a total of 183 species were recorded as breeding birds in Flanders, including 13 exotic species but excluding domesticated forms of Greylag Goose, Mallard and Stock Dove and two subspecies (Yellow Wagtail *ssp. flavissima* and White Wagtail *ssp. yarrellii*). In this book, Barnacle Goose and White-fronted Goose are the only two European species considered to be exotic breeding birds in Flanders. Their natural range lies too far away and although often wintering in large numbers, there are clear indications that breeding birds of these species originated from waterfowl collections. Although the wild origins of White Stork, Mute Swan, Greylag Goose, Pintail, Wigeon and Red-crested Pochard could not be proven, these species were not considered as exotic, since Flanders lies at the limit of their European breeding range. During the atlas period, other species originating from collections were irregularly recorded as well, but these were not included in this atlas.

Species diversity (Figure 1) was highest in the eastern parts of Flanders, in the so-called Campine area dominated by sandy soils and with some extensive woodlands (mostly pine, but some deciduous as well), heaths and fishpond areas. Other diversity hotspots were located in large river valleys and near the harbours of Zeebrugge, Antwerp and Gent where industrial activities have created suitable but temporary habitats for a number of scarce and rare breeding birds such as Ringed and Kentish Plover, Sandwich and Little Tern and several gull species. Diversity was very low in some areas in the western and south-eastern parts of Flanders which are dominated by intensive agriculture and where woodlands are almost completely absent.

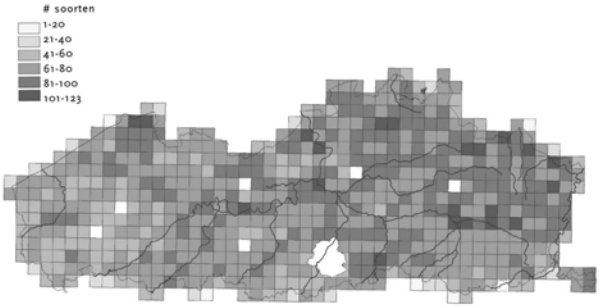

Fig. 1: Species richness per 5x5 atlas square in Flanders, divided into 6 categories:1-20, 21-40, 41-60, 61-80, 81-100 and 101-123 species, from light to dark.

Examining the occurrence of Red List species, based on the new Red List, river valleys and harbour areas become even more prominent, as do some agricultural regions in the south, because of the presence of Corn Bunting, Yellowhammer and Grey Partridge. Some dune areas are clearly important too, although the high value of Brussels was the result of the occurrence of several exotic species. Figure 2, shows that the majority of species in Flanders are quite restricted in their breeding ranges and almost 70 species were recorded in less than 10 % of all squares. Only about 30 where recorded in more than 90 %.

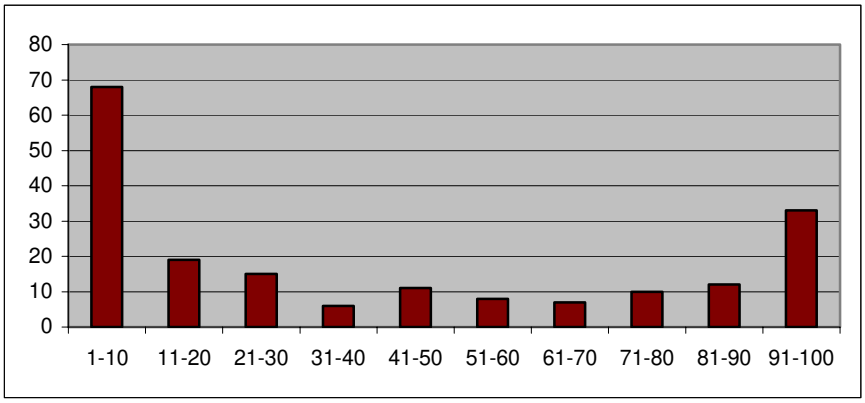

Fig. 2: The percentage of occupied atlas squares compared to the number of species in Flanders.

Among the most widespread species are Blackbird, Wren, Dunnock, Carrion Crow, Wood Pigeon, Chiffchaff (see Figure 3), Magpie, Great Tit, Blackcap and Song Thrush. Compared to the 1973-1977 atlas period, 13 species have disappeared, but 25 others are new arrivals. Although the balance might seem positive, it should be noted that 9 of the species are exotic breeders and for another 5 (Parrot Crossbill, Baillon's Crake, Brambling, Red-crested Pochard and Wigeon) it is highly doubtful that the recent breeding records will lead to a permanent colonization. Black Grouse, Ruff, Black Tern, Tawny Pipit and more recently Short-eared Owl and Ortolan Bunting, have all became extinct.

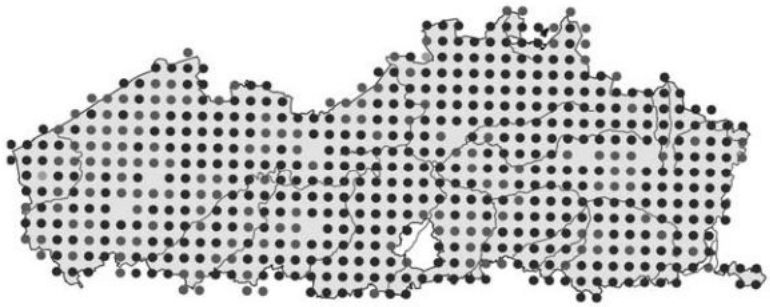

Fig 3: Distribution of the Chiffchaff in Flanders (light dots are probable breeders, dark dots certain breeders)

General results

Although the number of breeding bird species has increased over the last three decades, many common farmland species are showing a rapid decline. The population of the Skylark (Figure 4) is now estimated at between 9000 and 11.000 breeding pairs, a decline of approximately 90 % since the 1970s. Previously one of the commonest species in Flanders, it is now virtually absent from large areas and even features on the Red List.

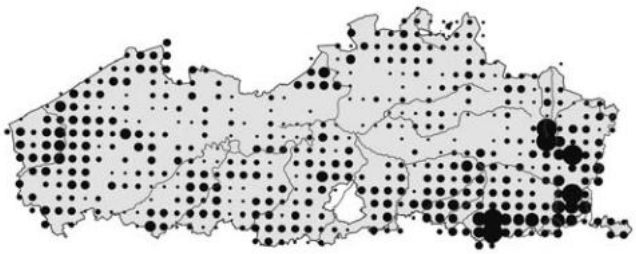

Fig. *4: Distribution and abundance of the Skylark in Flanders*

Other species more typical of arable land show different trends. Although Yellow Wagtail has declined sharply in many grassland areas, numbers have increased significantly on arable land where the species seems to adapt rather well to the ongoing intensification. However, Corn Bunting and Grey Partridge are also declining rapidly as in many other parts of Europe.

Changing crops and the increase in maize planting create unsuitable habitat, as does the intensified mowing of grasslands. Meadow Pipit, Skylark, Whinchat (Figure 5), Black-tailed Godwit, Lapwing and many other species all show very low productivity because of detrimental mowing practices. More efficient harvesting methods cause many birds hardship, especially in winter. Linnet, Tree and House Sparrow all suffer from impoverished food supplies during the colder months. Destruction of hedgerows is largely responsible for the rapid decline of the Yellowhammer which is contracting its range towards the east where it is still locally common. Recently, a few local protection programmes have been organized in order to try and save farmland birds through nature management in co-operation with farmers.

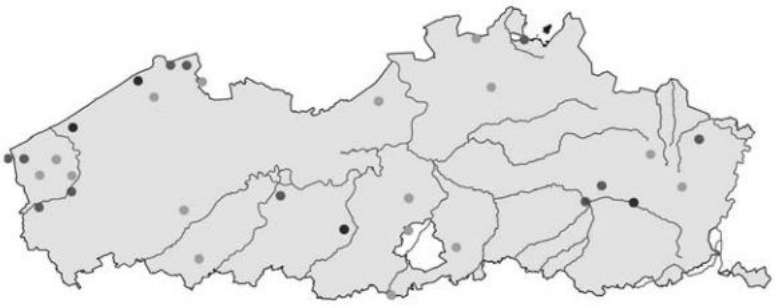

Fig. 5: Distribution of the Whinchat in Flanders

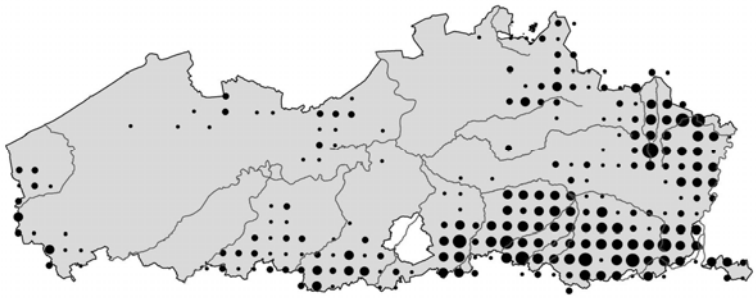

Fig. 6: Distribution and abundance of the Yellowhammer in Flanders

In the 1970s, drainage caused many wet meadows to dry out. However, the recent atlas period has been characterized by consecutive mild, wet winters and springs causing relatively high water levels throughout Flanders. As a result, species like Black-tailed Godwit, Shoveler and Garganey increased temporarily in many areas, especially in the coastal polders. Shortly following the atlas period, however, the weather again became drier and almost all of these species decreased again. Lowering of water levels and increasing nitrification of marshland caused many such areas to either vanish completely or to lose much of their attractiveness to reed-dwelling birds and Bittern and Little Bittern are almost extinct despite recent signs of a slight recovery. The Great Reed Warbler could not be proved to breed

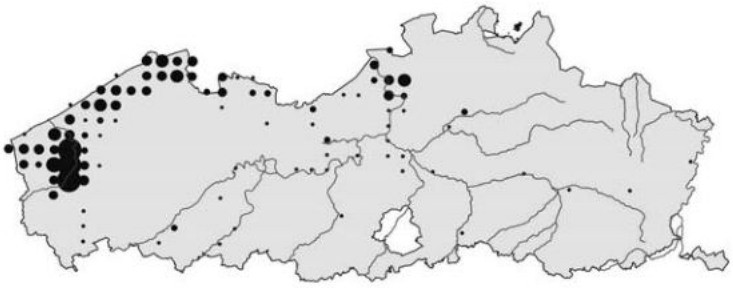

Fig. 7: Distribution and abundance Sedge Warbler in Flanders

during the atlas period and even Reed Bunting declined. Less threatened species like Reed and Sedge Warbler showed stable or even increasing numbers. Sedge Warbler shifted its range completely to the western part of Flanders, abandoning almost all wetlands in the east. The increase of scrub created more suitable habitat for species like Grashopper Warbler, Marsh Warbler and Bluethroat and the latter has shown a remarkable increase and range expansion as in many other parts of Europe.

Nitrification and the invasion of scrub also plays an important role in the composition of breeding bird species in dune areas. Lesser Whitethroat and Nightingale are becoming quite scarce elsewhere but reach very high densities in the dunes. For a species like Stonechat, dune areas are the westernmost stronghold. It is almost completely absent from adjacent farmland and only becomes more common again in the central and north-eastern part of Flanders on sandy soils.

Heathland species like Woodlark, Tree Pipit, Stonechat and Nightjar are thriving locally. They have benefited from increased nature management (grazing and thinning of pine forests), although large fires have also played a role. Meadow birds like the Meadow Pipit reach high densities and even Skylarks are doing well in heathlands overgrown with *Molinia* grass due to nitrification. Woodlark has increased significantly compared to the 1970s but has disappeared from the dunes. Tree Pipit has also contracted its range towards the sandy soils in the north-east. After a long period of decline, Stonechat is common again in heathland and it is suspected that they recolonized farmland on sandy soil as a result of the successful heathland populations.

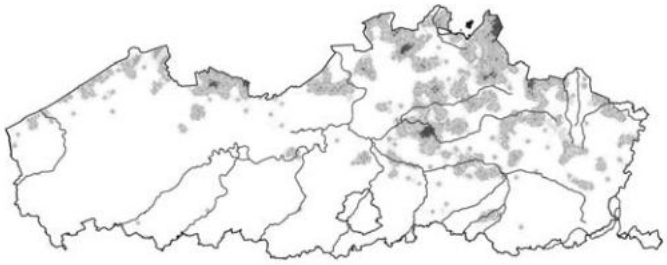

Fig. 8: Relative abundance of the Stonechat in Flanders

Encouraging situations were also to be found in woodland. Maturing woodlands (both pine and deciduous), better protection and enlightened forestry practices, which are more tolerant of standing dead wood, have allowed many species to thrive and expand their range towards the west. Tawny Owl, Nuthatch, Treecreeper, Jay, tit species, Spotted, Lesser Spotted and Black Woodpecker have all increased. Middle Spotted Woodpecker continues to expand its range in Wallonia and has now reached Flanders. Many woodland species have reached the coastline. In western Flanders, isolated castles and their surrounding parklands offer stepping stones in the expansion. Mild winters also play a role. Species like Goldcrest and Crested Tit have almost certainly benefited from recent mild winter weather. However, there are two sides to every story and those species that depend on younger forests or young plantations such as Lesser Whitethroat, Icterine Warbler and Willow Warbler have suffered (local) declines. In recent times, nature management has favoured deciduous woodland at the expense of pine forests and the latter are increasingly turned into deciduous or mixed woodlands and these young plantations may provide the above mentioned

species with temporary habitat again. Developing woodlands, gardens and rows of trees in an agricultural landscape can all have a profound effect on the local avifauna. Goldfinch is a clear beneficiary, but those species that demand open landscapes lose out. Mature rows of trees may provide essential corridors for many woodland birds but limit visibility for Skylark and Black-tailed Godwit. Such landscape elements have proved a boon to nesting raptors. In the 1970s the Kestrel was the only widespread bird of prey. Nowadays, Common Buzzard, Sparrowhawk, Hobby and Goshawk have colonized all parts of Flanders as far as the coast. Even the Peregrine Falcon breeds once more and uses nestboxes provided for them on power stations and other high buildings.

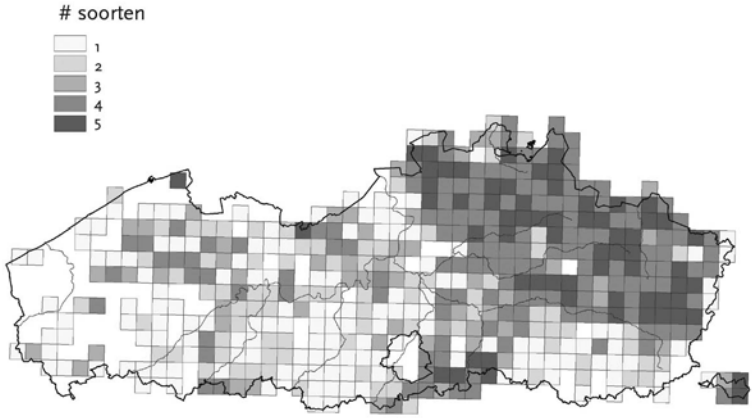

Fig. 9: Distribution of species in Flanders typical for pine woodland, including Black Woodpecker, Crested Tit, Coal Tit, Goldcrest and Crossbill

However, the raptor success story has meant that many species are increasingly predated upon and even Hobby is being driven westwards by the flourishing Goshawk population. The impact of Goshawk predation on Long-eared Owl, Black Woodpecker and several corvid species requires research. All corvid species are thriving in situations where they do not encounter Goshawk. Rook in particular, has benefited hugely in the past three decades from legal protection and the banning of poisonous seed dressings. But of course the success of crows could be at the expense of other species and their impact on meadow birds also merits further study. Declining numbers of Black-tailed Godwit in the northern part of Flanders could at least partly be attributable to nest predation by crows. The influence of the increasing Red Fox remains unclear in Flanders.

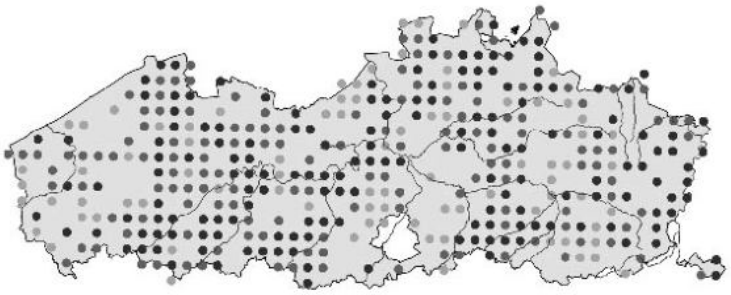

Fig. 10: Distribution of the Hobby in Flanders

Some major changes have occurred among pioneer species like Sand Martin, Avocet, Kentish Plover, Ringed Plover and several gull and tern species. Expansion of harbours has been creating suitable habitat for these species for decades and more recently, a growing co-operation between nature organizations and harbour authorities has resulted in specially protected, although often temporary, areas within harbours. Nevertheless, these species still show strongly fluctuating numbers.

In 2000 more than 1500 breeding pairs of Sandwich Tern were recorded in the only breeding colony in the Zeebrugge harbour area. In 2001, 920 were still present, but by 2002, the population had crashed to just 46 pairs. However, in 2004 more than 4000 pairs bred on an artificial peninsula. In 2002, an enormous colony of Mediterranean Gulls (> 1100 breeding pairs) was discovered in Antwerp harbour, although vegetation succession at the location caused the birds to move to other areas in the harbour. The highest numbers of other gull species like Black-headed Gull are increasingly found in industrial locations rather than traditional heathland sites. The future for these species remains unclear as there is a limit to the expansion of harbours and few natural alternatives exist. Consequently, many are also on the Red List.

Probably the most successful, although highly controversial group, are the exotic species that have escaped from captivity and then breed in the wild. Compared to the 1970s, all exotic species have expanded their range, some enormously.

Notorious among these are Canada Goose (estimated population 1400-1800 breeding pairs) (Figure 12) and Egyptian Goose (800-1100 pairs).

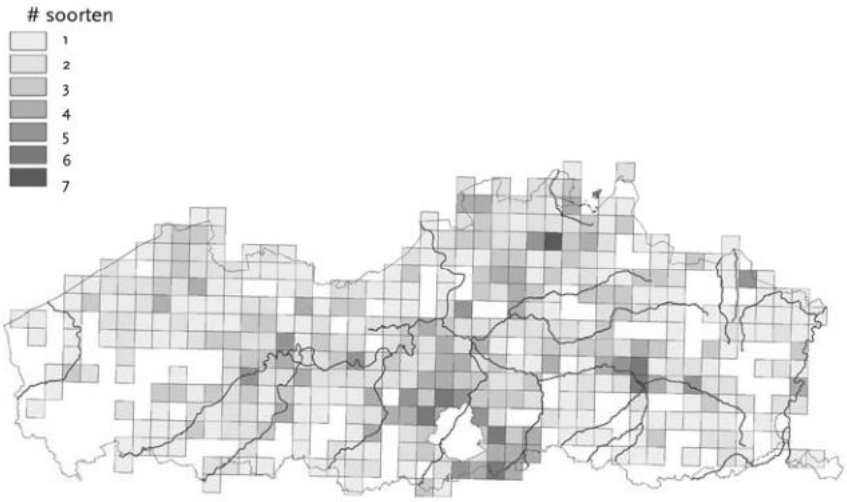

Fig. 11: Distribution of different exotic species in Flanders , including Black Swan, Canada Goose, Egyptian Goose, Barnacle Goose, Bar-headed Goose, Mandarin Duck, Wood Duck, Ruddy Shelduck and Rose-ringed Parakeet

During the 1973-1977 atlas period, both species were present in only a handful of squares, but are now widespread throughout the country. Recently, studies have addressed their impact on native species, but no governmental action plan exists. It is probably too late to even consider limiting their numbers, as populations of these feral birds are increasing almost everywhere else in Europe as well. However, in the case of Magellan Goose, Bar-headed Goose and Black Swan, which are also increasing, the populations are still small enough to make control measures feasible.

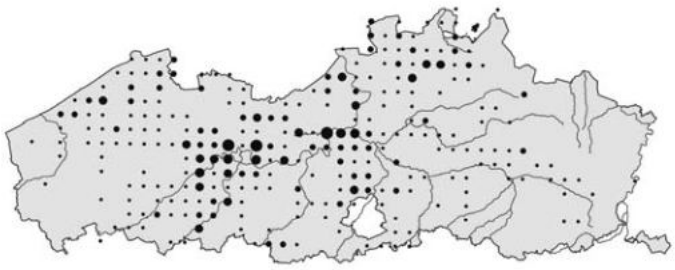

Fig.12: Distribution and abundance of Canada Goose in Flanders

From the changes in distribution and numbers mentioned above, one can conclude that within the relatively short period of 25-30 years that has separated the first and second breeding bird atlases, bird populations in Flanders have been highly dynamic. Although some of the developments reflect population changes at a European level, many are the result of increased human pressures on landscape and natural environments in Flanders. This atlas provides a solid basis for continued research. Although hypotheses are offered to explain the trends exhibited by species, many require further investigation. The establishment of a common breeding bird census in Flanders would be an essential next step. This would help in predicting changing patters in species distribution and might enable threats to be tackled before it becomes too late. It would also provide a valuable tool to assess the impact of major industrial developments, large-scale construction works and the intensification of agricultural practices that affect even our most common birds.

Bird Census News 2004:1/2:48-64

Minutes of the EBCC Board Meeting

Wednesday 8 September 2004, 17.00 hrs,

Bird Numbers 2004, Kayseri, Turkey

1. Chairman's welcome

2. Apologies for absence
Received from Ward Hagemeijer and Ake Lindstrom.

3. Minutes of the last meeting
These were printed in *Bird Census News* 14(2), 34-44.

4. Report of the EBCC Executive Committee (ExCo)
Chairman's Report attached as Annex 1.

5. Financial Report
Treasurer's Report attached as Annex 2.

6. The status of EBCC
At its last meeting, Board voted unanimously to allow ExCo to seek to make EBCC a Foundation under Dutch law (following the model adopted by the Wader Study Group) should further investigation prove this affordable. Such a move requires a redrafting of EBCC's constitution.

Background:
At present, the legal status of EBCC is somewhat ambiguous. EBCC exists as a 'de facto' organisation under Belgian Law. Unfortunately, EBCC's ability to tender for contracts and employ staff, should it wish to, is limited by its current status. ExCo perceives this as a potential barrier to further development of EBCC's work and its capacity to achieve its stated objectives. EBCC has a constitution (reproduced in *Bird Census News* 1995, 8, 60-66), with country delegates, an executive committee, and board meetings of those delegates held at its conferences.

At the last Board meeting the potential advantages and disadvantages of following the Wader Study Group of adopting Foundation status were outlined.

At that time, the potential advantages of EBCC becoming a Foundation were seen as:

1. EBCC's legal status would be formalised
2. It would be able to raise and handle funds
3. It would be able to employ staff should it wish to

4. It would be able to tender for or commission work
5. Present structures would require little, or no, modification
6. It would help to clarify the financial responsibilities of ExCo members

It was appreciated that there may also be some costs, particularly in registering the Foundation formally, and in liasing with a Notary to deal with legal aspects.

Progress since the last Board meeting:
Following the last meeting, ExCo redrafted EBCC's constitution, following the Wader Study Group model. There remained, however, a number of questions that could only be answered by a Solicitor (Notary) working under Dutch Law. Through the offices of SOVON, a Notary was approached and instructed to work on EBCC's behalf. Her advice was somewhat unexpected. She advised strongly against EBCC becoming a Foundation under Dutch Law, as such Foundation's are unable to have members (equivalent to delegates for EBCC).

However, the Notary suggested that it would be eminently sensible for EBCC to become an Association under Dutch Law. An Association has to have a management committee (ExCo in EBCC's case), and a general meeting of members (the Board of delegates in EBCC's case). Following further discussion within ExCo, the Notary was asked to draft EBCC's Article's of Association, using the redrafted constitution as a basis.

The draft Articles were received a week before this Board meeting. ExCo had hoped to share the draft Articles with Board and perhaps even to vote on whether to accept them or not. Unfortunately, more work is required on them before ExCo is satisfied that they can be presented to Board. However, ExCo does not wish to wait a further three years before revising EBCC's status. To this end, ExCo would like delegates to vote on the draft Articles of Association by post, rather than waiting for the next Board meeting.

Over the coming weeks, ExCo will revise the draft Articles with the Notary, until both parties are content with them. ExCo then proposes to hold a consultation, during which the draft Articles will be circulated to delegates for comment. Once these comments have been dealt with, ExCo proposes to ask delegates to vote on the draft Articles *by post.*

Under its existing constitution, postal voting is not simple. All delegates must be informed of the vote and at least half of them must agree to a postal vote. Once the postal vote is agreed, two-thirds of all delegates must vote (or opt not to). To change the constitution, two-thirds of those that cast a vote must favour that change.

ExCo is not asking delegates to vote for constitutional change at this Board meeting, rather it is simply asking them whether they are content to vote for constitutional change *at some time in the near future* by post. Delegates

would be provided with the finalised Articles of Association and explanatory information to allow them to come to a decision when voting.

ExCo recommended delegates vote at this Board meeting to allow a vote on constitutional change to be undertaken by post in the future.

Board voted unanimously in favour of ExCo's recommendation to allow a vote on constitutional change to be undertaken by post in the future.

However, as only 26 out of EBCC's 56 delegates were present at the Board meeting, the number voting in favour – though doing so unanimously - fell just short of the half of all delegates needed. Because of this, it will be necessary to contact those delegates absent from this meeting to ask them to vote on the same question.

7. The Kayseri Declaration

The EBCC Conference will shortly be followed by a high-level conference, organised by the Dutch Government and European Commission, celebrating the 25th anniversary of the Birds Directive. The timing of these two events provides a unique opportunity to push for some significant and sustained funding from international and governmental sources for bird monitoring in Europe. To this end, ExCo proposed that the Kayseri conference should draft a Declaration to forward to the Dutch conference, outlining the importance of pan-European monitoring, including EBCC's role within that. A Declaration was drafted and circulated for comment during the conference. The final declaration is attached as Annex 3.

8. EBCC's next (17th) Conference

EBCC received a single offer from a country willing to host EBCC's next conference. This offer is from Italy, via Lorenzo Fornasari, and it is planned to hold the conference in March 2007. The conference will be organized by CISO (the Italian Ornithological Society) with the help of Pavia and Milano University, and with financial support from the regional administration of Lombardy. The conference venue will probably be near Lake Garda.
Board voted unanimously in favour of the Italian proposal to host the 2007 conference.

9. Election of new Executive Committee

Several members of ExCo wished to stand down at this conference. These were: David Gibbons, Juha Tiainen, Martin Flade, Tibor Szep and Lorenzo Fornasari. There were five nominations for these five vacant posts on ExCo. These were: Hans-Günther Bauer, Ruud Foppen, Uygar Ozesmi, Ake Lindstrom and Frederic Jiguet.

ExCo proposed the following changes to its officers and members:
Richard Gregory (Chairman, UK)
Hans-Günther Bauer (Secretary elect*, Germany)
Anny Anselin (BCN Editor, Belgium)

Ruud Foppen (Treasurer, Netherlands)
Uygar Ozesmi (Delegate Officer, Turkey)
Ward Hagemeijer (Netherlands)
Ake Lindstrom (Sweden)
Frederic Jiguet (France)
Przemek Chylarecki (Poland)
Alexander Mischenko (Russia)

* H-GB will become Secretary in September 2005, and will be an ordinary member of ExCo until then. Secretarial duties during this period will be shared between other ExCo members. Strictly, as the number of nominations equalled the number of vacant posts no voting was required. However, in order to give the new ExCo a clear mandate, Board was asked to vote on whether or not they were in favour of the proposed ExCo.

Board Voted unanimously in favour of the proposed Executive Committee.

10. Any other business
On behalf of the Board, Martin Flade, warmly thanked David Gibbons for all the work he had done for EBCC in his role as Chairman. David Gibbons in turn thanked all the other outgoing members of ExCo, and wished the new committee well.

List of people attending the Board Meeting:

Name	Country	Delegate (Y/N)
Mart Niklus	Estonia	N
Lorenzo Fornasari	Italy	Y
João Pedro Pina	Portugal	N
Juhe Tiainen	Finland	Y
Ian Burfield	UK	N
BahtiyarKurt	Turkey	Y
Karel Stastny	Czech Republic	Y
Petr Voříšek	PECBM	N
Przemysaw Busse	Poland	N
Igor Gorban	Ukraine	Y
Jeremy Greenwood	UK	N
Koen Devos	Belgium	Y
Olivia Crowe	Ireland	Y
Norbert Teufelbauer	Austria	Y
Michael Dvorak	Austria	Y
Nikolai Petkov	Bulgaria	N
Svetoslav Spasov	Bulgaria	Y
Ali Stattersfield	UK	N

Name	Country	Delegate (Y/N)
Franz Bairlein	Germany	N
Marc Kéry	Switzerland	N
Brian Huntley	UK	N
Helen Baker	UK	N
Erica Dunn	Canada	N
David Hussell	Canada	N
Hans-Günther Bauer	Germany	N
Uygar Özesmi	Turkey	Y
Ruud Foppen	Netherlands	N
David Noble	UK	Y
Tibor Szép	Hungary	Y
Martin Flade	Germany	Y
Alexander Mischenko	Russia	Y
Goetz Rheinwald	Germany	Y
Frédéric Jiguet	France	Y
Juan Carlos Del Moral	Spain	N
Sergi Herrando	Spain	N
Lluis Brotons	France	N
Oskars Keiss	Latvia	N
Ainars Aunins	Latvia	Y
Janis Preidnieks	Latvia	Y
Arco Van Strien	Netherlands	N
Heldbjerg Henning	Denmark	Y
Michael Borch Grell	Denmark	Y
Gregoire Loïs	France	N
Romain Julliard	France	N
Niklaus Zbinden	Switzerland	Y
Verena Keller	Switzerland	N
David Stroud	UK	N
Klaus Witt	Germany	N
Magne Husby	Norway	Y
Svein H Lorestsen	Norway	Y
Sergey Kochanov	Russia	N
Frank Saris	Netherlands	Y
David Whaley	Cyprus	N
Judy Dawes	Cyprus	N
David Gibbons	UK	N

ANNEX 1. EBCC Chairman's report for the period March 2001 to September 2004

1. Membership of ExCo

The ten members of ExCo as elected at the Board meeting of 28 March 2001 have been:
David Gibbons (Chairman; United Kingdom)
Ward Hagemeijer (Vice Chairman; Netherlands)
Anny Anselin (Treasurer & Editor of *Bird Census News*; Belgium)
Richard Gregory (Secretary; United Kingdom)
Martin Flade (Germany)
Juha Tiainen (Finland)
Tibor Szep (Hungary)
Przemek Chylarecki (Poland)
Lorenzo Fornasari (Italy)
Alexander Mischenko (Russia)

Alexander Mischenko stood down as a member of ExCo in spring 2003, and Elena Lebedeva (also from Russia) was co-opted by ExCo in his place. Elena has since resigned her position and Alexander was co-opted back to the role once again. Since the last Board meeting, Martin Flade has served as Delegate Officer, a new post introduced by ExCo in order to improve communications with country delegates.

ExCo has also called upon the expertise of a range of observers during its meetings. These were:
Ian Burfield (who replaced Des Callaghan as BirdLife International observer)
Ruud Foppen (observer for SOVON)
David Noble (observer for British Trust for Ornithology)
Petr Vorisek (coordinator of the Pan-European Common Bird Monitoring Scheme)
Uygar Ozesmi (Chairman, Kayseri Conference organising committee)

2. Meetings of ExCo

ExCo has met twice-yearly since the last Board meeting, with its 22nd to 28th meetings held in:
Brussels, Belgium (October 2001); Brodowin, Germany (April 2002); Prague, Czech Republic (September 2002); Beek-Ubbergen, Netherlands (May 2003); Kayseri, Turkey (September 2003); Lammi, Finland (April 2004); and Kayseri, Turkey (September 2004).

3. Conference proceedings

<u>1995 Parnu (Estonia) conference proceedings:</u>
The proceedings of the EBCC's 13th International Conference held in Parnu, Estonia in 1995 have recently been published as a special edition of *Bird Census News* (even though several papers presented at the conference had already been published in *The Ring* 17 (1-2):

Anselin, A. (ed.) (2004) Bird Numbers 1995, Proceedings of the International Conference and 13th meeting of the European Bird Census Council, Parnu, Estonia. *Bird Census News* 13 (2000).

The publication, in 2004, of the 1995 Parnu proceedings as a special volume of *Bird Census News* for 2000 needs some explanation! Originally, the proceedings were to be published by the conference organisers, Estonian Ornithological Society, on behalf of EBCC. After several years of editorial work, however, it became clear that there would be no published proceedings without extra help. By agreement with the conference organising committee, EBCC ExCo took control of the publication, intending to publish it as a special volume of *Bird Census News* in 2000. ExCo arranged additional editorial help but that, too, failed to materialise, causing further delay. Eventually, in 2003, ExCo assumed the role of editor, its members and observers undertaking all the remaining editorial work. Anny Anselin, editor of *Bird Census News*, undertook the final edit and ExCo thanks her for her Herculean efforts on their behalf.

ExCo apologises to all Parnu conference delegates, and especially the authors, for the long delay. The Parnu proceedings are available on the EBCC website, www.ebcc.info.

2001 Nyiregyhaza (Hungarian) conference proceedings

The proceedings of the 15th EBCC conference, held at Nyiregyhaza, Hungary, in March 2001, will be published as a special edition of *Ornis Hungarica*. The proceedings will be printed in September 2004, and circulated to all Hungarian conference delegates in autumn 2004. The citation for the proceedings is:

Szép, T., Blair, M. and Báldi, A. (eds.) 2003. Bird Numbers 2001, Monitoring for Nature Conservation. Proceedings of the 15th International Conference of the EBCC. *Ornis Hungarica* 12-13. The full proceedings are, however, already available on the conference website , http://zeus.nyf.hu/~szept/15thebcc.htm, and will also be made available via the EBCC website. ExCo is extremely grateful to the editors, Tibor Szep, Mike Blair and Andras Baldi, for the hard work they put into this publication over several years.

4. Bird Census News

Since the last Board meeting, five issues of *Bird Census News* have been published. These are:

Volume 14, no. 2 (2001)
Volume 15, nos. 1 & 2 (2002)
Volume 16, nos. 1 & 2 (2003)

These volumes cover 184 pages. Volume 15 (1) was entirely dedicated to the Turkish atlas project, while volume 16 (1) was a special issue on Pan-European Monitoring. As outlined above, the Parnu proceedings (200 pages) was published as the delayed *Bird Census News* volume for 2000. *Bird Census News* has a circulation of 300.

A contents list for volumes 11 (1998) to 16 (2003) is available on the EBCC website (www.ebcc.info), with some complete editions available to download. ExCo is extremely grateful to the Institute of Nature Conservation (I.N.) in Belgium for providing financial support for the publication of Bird Census News.

5. Provision of data from the EBCC Atlas of European Breeding Birds

At each of its meetings, ExCo considers requests from a range of users, keen to make use of Atlas data for academic or conservation purposes. Amongst others, requests have been received from: Szabolcs Nagy (BirdLife), Carlos Vila (Uppsala University), Pam Berry (University of Oxford), Joe Crocker (CSL Ecotoxicology), Hans Schmid, Marc Metzger, Ian Owens, Carsten Rahbek, Rob Thomas, Berien Elbersen, Mireille de Heer, and Brian Huntley/Rhys Green (University Durham/RSPB University of Cambridge).

6. EBCC on the web

EBCC has a web presence at www.ebcc.info. ExCo contracted CSO (Czech Ornithological Society, BirdLife Partner in Czech Republic) to develop EBCC's new website. During spring and summer 2004, ExCo and observers provided a range of information to CSO for them to incorporate on the website. Design, layout and technical matters were all dealt with by CSO.

ExCo and its observers are grateful to Petr Zasadil and Lucie Stejskalova at CSO for their help in developing EBCC's new website.

7. The status of EBCC

Discussions about changing the status of EBCC have taken up a substantial amount of ExCo's time over the last three years. Because of the importance of this matter to EBCC, this issue is treated as a separate agenda item in the Board meeting (see agenda item 6).

8. Planning for the 16th EBCC conference in Kayseri, Turkey.

Uygar Ozesmi (Chairman of the organising committee of this conference) joined ExCo when discussing plans for the conference. In September 2003, ExCo visited Kayseri to see the facilities and help plan the conference.

9. Support for establishing new common bird monitoring schemes in Europe

ExCo, its members or observers, have provided support, in various ways, to help establish new common bird monitoring schemes in Bulgaria, Germany, Portugal and Romania.

10. Liaison with delegates

The establishment of a Delegate Officer (Martin Flade) has allowed ExCo to update the list of delegates (and their contact details) substantially over the last three years, especially during 2003 and 2004. ExCo is endeavouring to find at least one delegate for each of 46 countries.

Prior to the Kayseri conference the country status of delegates was as follows: 21 countries with 2 responding delegates; 8 countries with 1 responding delegate and 7 countries with no responding delegates; for 10 – mostly small – countries, no delegates have yet been identified. Further attempts will be made to update the delegate list during the Kayseri conference. [Note that during the conference a further 6 delegates were confirmed, bringing the total number of delegates to 56].

11. Pan-European monitoring: *The Pan-European Common Bird Monitoring scheme*

The Pan-European Common Bird Monitoring scheme (PECBM) project follows on from a series of EBCC initiatives to develop Euromonitoring, dating back to the 1980s, most notably the successful Villa Cipressi workshop held in Italy in 1996.

PECBM began in January 2002 with financial support from the Royal Society for the Protection of Birds (RSPB: BirdLife Partner in the United Kingdom). The Czech Society for Ornithology hosts the project co-ordinator, Dr Petr Vorisek; the project manager, Dr Richard Gregory, is based at RSPB. The PECBM is an association of individual experts and organisations cooperating through the EBCC and BirdLife International, with the support of the RSPB, EBCC, BirdLife International, Czech Society for Ornithology, and Statistics Netherlands.

The PECBM aims to collate national survey data on common birds in a harmonised way from its European network of expert ornithologists. It aims to increase both the number of countries collecting and submitting data on trends, and the number of bird species covered, to help develop and promote the concept of biodiversity indicators in Europe, and thereby promote bird conservation. More widely, the project aims to improve the scientific standard of bird monitoring across Europe by fostering co-operation and the sharing of best practice and expertise. For details: see http://www.ebcc.info 'Pan-European Common Bird Monitoring'.

The first task for the project was to establish a network of cooperating experts across Europe. This list stands at close to 120 contacts. The next task was to organise a monitoring workshop that was held in Prague in

September 2002. Some 53 participants attended from 26 countries. This meeting reviewed current knowledge and data availability, and agreed a process for the collation of national trends (using TRIM) into Pan-European species indices and then Pan-European indicators (see *Bird Census News* 2003, Volume 16). A further step was to establish a Technical Group with representatives from RSPB, SOVON, BTO and Statistics Netherlands to help steer the technical development of indices and indicators.

The result of this work came to fruition in 2003 with the creation and publication of the first ever Pan-European indices and indicators based on data for 48 common species of farmland and woodland from 18 countries (http://www.ebcc.info 'Pan-European Common Bird Monitoring'). The provisional indices and indicators created have been used extensively and have received a very favourable response from policy and decision makers in Europe. Our work on birds leads the way in biodiversity monitoring and indicators in Europe and there are various refinements, developments and improvements planned. The provisional indicators have been used widely, for example: in the EU's 2003 Environment Policy Review, Environment Related indicators, and a leaflet on indicators; in Eurostat's Yearbook 2004; in the European Environment Agency's Signals 2004 and core indicator set; in the IRENA indicators of agriculture; in the European Action Plan for Skylark; and in BirdLife's *State of the World's Birds* report, biodiversity indicators position paper, and 'Farming for Life' campaign.

The work has been presented to the European Commission and the European Parliament, to a meeting with Eurostat, European Commission, European Environment Agency, and the European Topic Centre, and to an international conference hosted by the UK Royal Society's 'Beyond extinction rates: monitoring wild nature for the 2010 targets'. One paper entitled "Developing indicators for European birds" will be published in the *Philosophical Transactions of the Royal Society: Biological Sciences*. Further papers are planned.

The wild bird indicators are being actively considered as a structural indicator for Europe, representing biodiversity (for both the long and short list), and as an indicator of sustainable development in Europe.

At the time of writing, data collation for 2004 is well under way. National trends have been received from 12 countries and data for another dozen are expected soon. Once assembled and processed, the Pan-European indices for species and the Pan-European indicators will be updated.

The main priorities for the PECBM scheme in 2004 have been:

to formalise species selection and the classification of birds to habitat types.
to expand the number of species and countries contributing data (70+ species in 2004 & around 20 countries).
to help improve the indices generated by existing count schemes.

to support new national count schemes; and most importantly, increase financial support for both national and international monitoring initiatives for common birds.

The PECBM is in active discussion with the European Commission regarding financial support for the scheme. A funding proposal has also been sent to the Czech Science Foundation, the outcome of which will be known in November 2004.

The main limiting factor for the project thus far has been capacity. This has, regrettably, limited feedback to the network, publication of reports and papers, support to individual countries and so forth. The scheme plans to remedy this situation by securing funding to offset the costs of country participation where appropriate, and increase core staff time. It is hoped that a second monitoring workshop will be held.

The PECBM would like to thank the many individual experts, data providers and organisations responsible for national data collection and analysis. It is only through a great deal of goodwill and cooperation that this has been a success.

Finally, EBCC has worked under contract to the European Topic Centre/Nature Protection and Biodiversity via Wetland International to develop wild bird indicators and explore bird habitat relationships. This work, carried out by SOVON and RSPB, has generated considerable income to EBCC.

12. Strategic planning

ExCo has spent some time looking forward to major new work areas, strategic directions, identity, and its links with birdwatchers. We take the view that Pan-European monitoring will remain a significant work area and of very high priority to EBCC. We do not envisage repeating a European Breeding Bird Atlas in the near future, but may wish to do so in the longer term. We see the boundaries between count schemes and atlas projects diminishing over time. ExCo sees the need to raise the profile of EBCC with a range of audiences, from policy makers to general birdwatchers. Developing an attractive web site will be central to achieving this goal.

David Gibbons (6 September 2004)

ANNEX 2. Financial Report for the period 01.03.2001-15.08.2004 European Bird Census Council

Assets on 15.08.2004:

1. Check Account Euro

Account on 01.03.2001	341.20	
Account on 15.08.2004	6148.26	**A1**
Difference	+ 5807.06	**B1**

2. Check Account GBP (presented in Euro)

Account on 01.03.2001	0.00	
Account on 15.08.2004	1603.11	**A2**
Difference	+ 1603.11	**B2**

3. Savings Book

Account on 01.03.2001	1559.99	
Account on 15.08.2004	5286.29	**A3**
Difference	+ 3726.30	**B3**

4. Cash Money

In cash on 15.08.2004	0.00	**A4**

5. Total assets on 15.08.2004:

A1+A2+A3+A4= **13037.66** Euro

Details on income and expenses Account Check Euro:

a. Bird Census News

Income	
Subscriptions	86
Sponsorship Vol. 14/2, 15/1-2, 16/1-2[1]	2272.80
Total	2358.80
Expenses	
Production Vol. 14/2, 15/1-2, 16/1-2	972.80
Mailing of Vol. 14/2, 15/1-2, 16/1-2	1300
Total	2272.80
Difference	**+ 86**

1: Sponsorship by the Institute of Nature Conservation

b. Contracts

Income	
Royalties EBCC Breeding Bird Atlas[2]	3067.92
Invoice 2001/1-3, 2002/1,2003/1-2, 2004/1	10.674
Total	13741.92
Difference	**+ 13741.92**

2: BTO and SOVON kindly waived their rights in favour of EBCC

c. ExCo Meetings

Expenses	
Brussels, Brodowin,Nijmegen, Lammi	2947.04
Total	2947
Difference	**- 2947.04**

d. Miscellaneous

Expenses	
Agreement DDA Cottbus conference	600
EBCC website	900
Total	1500
Difference	**- 1500**

e. Banking

Income	
Interest Cheque Account	0.38
Total	0.38
Expenses	
Charges	103.69
Total	103.69
Difference	**- 103.31**

f. Transfer between Accounts

Check Account to Savings Book	**- 3470.51**

The ExCo wishes to thank the Institute for Nature Conservation (Brussels) for their financial help with Bird Census News.

Anny Anselin
EBCC Treasurer
31.08.2004

ANNEX 3.

Conclusions from the 16th international conference of the European Bird Census Council

Kayseri, Turkey

September 2004

The triennial EBCC conference was held from 6-11 September at Erciyes University, Kayseri, Turkey and was attended by **126** specialists on bird survey and monitoring from **24** countries across Europe.

RECALLING that 2004 is the 25th anniversary of the European Union's (EU) Directive on the conservation of wild birds, that it is also the 25th anniversary of the Convention on Migratory Species (CMS), and the fifth anniversary of the Agreement on the conservation of African-

Eurasian migratory waterbirds (AEWA) developed under the auspices of CMS;

NOTING that it is also the 25th anniversary of the Convention on the conservation of European wildlife and natural habitats (Berne Convention), which requires for non-EU countries virtually identical conservation provisions to the EU Birds Directive, so establishing a comprehensive and continent-wide framework for bird conservation;

NOTING ALSO that the three pillars of the Ramsar Convention on Wetlands, to which all European countries are Contracting Parties, relate to the protection of internationally important wetlands, the wise use of all wetlands, and to the international co-operation between countries to these ends;

AWARE that through their establishment of these inter-governmental treaties, governments have assumed important obligations to maintain the favourable conservation status of Europe's birds across their range and distribution, including the establishment of ecologically coherent networks of protected sites;

NOTING ALSO the global biodiversity target established by the World Summit on Sustainable Development in 2002, of "significantly reducing the current rate of loss of biological diversity" by 2010, and the even more challenging EU target of "halting the decline of biodiversity by 2010";

CONSCIOUS that populations of many birds continue to show declines at both national and international scales, and noting that in many cases this is a consequence of land-use policies, notably the EU's Common Agricultural Policy which has simplified and intensified European agriculture, and at the same time has resulted in the abandonment of lower-intensity farming practices in many areas, especially extensive pastoralism;

FURTHER AWARE that birds can be excellent indicators of the health of the wider environment and of the sustainability of human activities given that they occur in a range of habitats, that they are responsive and sensitive to environmental changes, and that these changes can reflect those of other biodiversity;

NOTING that most monitoring of birds is undertaken by extensive networks of volunteers as an expression of interest in birds and commitment to conservation; and **ALSO NOTING** the high public interest in birds provides a unique opportunity to raise levels of public awareness about wider environmental concerns such as climate change through national programmes of education;

CONSIDERING that understanding these wide-scale changes is essential so that appropriate policy responses can be developed and implemented;

WELCOMING the considerable progress made by EBCC and others[1] in developing a Pan-European Common Bird Monitoring Scheme, which has already produced habitat-based indicators and trends for 48 bird species in 18 countries;

PLEASED that the high policy relevance of the Pan-European Common Bird Monitoring Scheme indices to inform debate on biodiversity indicators and targets, and sustainability in Europe has been recognised by many international institutions[2];

WELCOMING the support already given by governments for the establishment and maintenance of existing bird monitoring programmes in Europe, **HOWEVER, GREATLY DISMAYED** at the absence of funding in some countries and withdrawal of public funding for common bird monitoring by the government of Denmark;

FURTHER CONCERNED that despite this high international policy relevance, **no**[3] resources have yet been provided by governments or international institutions for the development of the Pan-European Common Bird Monitoring Scheme at an international scale, despite being aware that long-term financial resourcing of this important work at both national and international scales is critical to realise its full potential; and

BEING AWARE that representatives of EU governments will meet with international organisations and stakeholder interests in November 2004 in The Netherlands, to review the progress achieved during the last 25 years of the Birds Directive, and to develop priorities for future implementation.

The Conference Participants —

REQUEST THAT the European Commission and the Dutch Government transmit this statement to participants of the November Birds Directive Conference to inform discussion – in particular of the following critical issues:

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[1] The Pan European Common Bird Monitoring Scheme (PECBM) is a partnership of EBCC, Royal Society for the Protection of Birds, BirdLife International, Statistics Netherlands and Czech Society for Ornithology, along with national bird monitoring organisations responsible for data provision.

[2] Including the European Commission's 2003 Environment Policy Review, EU Environment related indicators pamphlet, Eurostat Yearbook 2004, European Environment Agency (EEA) Signals 2004, EEA 2004 report 'High Nature Value Farmland: Characteristics, Trends, and Policy Challenges', IRENA indicator no. 28 'Population trends of farmland birds in EU-15', EEA core set indicator BDIV 2h 'Species Diversity - Trends of a representative selection of species populations associated with different ecosystems', and short-listed on the Eurostat Structural Indicator list for 2005 to report on the Lisbon Strategy.

[3] Recognising a small amount of funding from the European Topic Centre/Nature Protection Biodiversity for indicator production.

- The urgent need for biodiversity trend information to measure commitments made under the World Summit on Sustainable Development in 2002 to significantly reduce the current rate of loss of biological diversity by 2010, and the EU target of halting the decline of biodiversity by 2010.

- The value and policy-relevance of bird monitoring schemes, not just in providing information on the changing status of bird populations, but also as relatively easily monitored indicators of wider ecological change and environmental sustainability;

- The critical need for long-term governmental financial support to maintain and further develop the capacity of national bird monitoring schemes, especially to inform government obligations to maintain bird populations under a range of international conservation treaties, and the need to work in partnership with non-governmental organisations to this end;

- The urgent need for funding, especially from international institutions, to support and further develop the Pan-European Common Bird Monitoring Scheme, to allow annual production of trends and indicators for biodiversity in Europe.

- The need for responsive policy actions to be taken wherever the results from monitoring identify that birds or their habitats are in an unfavourable conservation status; and

- The need for support for meaningful indicators to fully implement the Birds Directive and other international treaties.

Journals and reports

In this Chapter a selected summary review is given of the contents of journals and reports send to Bird Census News as exchange.

Ciconia, Ligue Pour la Protection des Oiseaux, Délégation Alsace et Lorraine, Musée Zoologique de Strasbourg. (in French with English summaries).

Volume 28, Fasc 1, 2004.

Muller, Y.:1-24. Recent evolution of nesting birds in the Romersberg Forest (Moselle). Impact of forest management and hurricane Lothar.

The first census of nesting birds in the Romersberg Forest 423 ha of oak and beech bordering the Lindre Lake (Moselle) took place in 1993. Nine years later another census was undertaken in exactly the same condition excepting the count of nesting raptors. The 2002 census confirmed the important avian biodiversity in this forest: 45 nesting species of passerines or similar species are found with an average density of 61.2 pairs per 10 ha. By comparing the result of the 1993 and 2002 counts the analysis of the effect of forest management and hurricane Lothar can be made. Three nesting species found in 1993 were absent in 2002. On the other hand seven probable new nesting sprecies were found in the forest in 2002. Five common species were found in significantly greater numbers, whereas the population of seven species decreased. Overall the density diminished about 10% between 1993 and 2002. Amongst the outstanding birds the Collared Flycatcher decreased substantially from 53 pairs or territorial males in 1993 to 40 in 2002, the population of the Middle Spotted Woodpecker is stable and those of the Three Creeper and the Short-toed Tree Creeper are decreasing, perhaps as a consequence of the reduction of mature trees.

Sané, F.: 25-34. The Stone Curlew (*Burhinus oedicnemus*) in Alsace: population in 2004.

Within the framework of a national survey a new census of the Stone Curlew in Alsace was launched in 2004. Using the method of recorded calls at night the adults or pairs holding territories were localised in two sample quadrats of 31 and 33 km² situated respectively in the north and the south of the agricultural plain of the Hardt. On the basis of an average density of 0.33 – 0.36 pairs per km² and an area of 240 km² where the birds are present and taking into account a few pairs found in agricultural land around Rouffach the regional population is estimated at 80-90 pairs. The estimation of 60-80 pairs in 1996 having probably been slightly under-estimated, the population is considered as stable since this date, or to have increased in insignificantly. This stabilisation is seen as a result of the maximum area now reached of cultivated maize but this will have to be confirmed during the next census in 2009 or 2010.

Bird Numbers, Avian Demography Unit, University of Cape Town, South Africa, batlas@matnhs.uct.ac.za

Volume 13, number 1, June 2004 (a selection)

Cooper, J:4-7. Albatross research and conservation at South Africa's subantarctic Prince Edward islands.
Williams, A & N Parsons:8-10. Cholera catastrophes: are Kelp Gulls culprits?
de Ponte Machado, M & J Hofmeyr:11-13. Great White Pelicans *Pelecanus onocrotalus*: waterbirds or farm birds?
Ward, V & A Williams:14-17. Coastal killers: causes of seabird mortality.
Marais, E & F. Peacock:27-30. A plague of Locustella? – Influx of River Warblers in northern South Africa.

Wheeler, M:42-43. The Nest Record Card Scheme (NERCS).
Tyler, S.:51-52. Road counts of crows and raptors in Namaqualand.
D. Licheri & F. Spina, 2002.: Biodiversità dell'avifauna italiana: variabilità morfologica nei Passeriformi. Parte II.(The biodiversity of the Italian avifauna: morphological variability in Passerines). Biologia e Conservazione della Fauna, Volume 112, 1-205. Instituto Nazionale per la Fauna Selvatica "Alessandro Ghigi". Via Ca'Fornacetta, 9 – Ozzano dell'Emilia, Bologna, Italy. (Italian with English summary).

F. Spina & D. Licheri, 2003.: Biodiversità dell'avifauna italiana: variabilità morfologica nei Passeriformi. Parte III.(The biodiversity of the Italian avifauna: morphological variability in Passerines). Biologia e Conservazione della Fauna, Volume 113, 1-177. Instituto Nazionale per la Fauna Selvatica "Alessandro Ghigi". Via Ca'Fornacetta, 9 – Ozzano dell'Emilia, Bologna, Italy. (Italian with English summary).
Both volumes are the continuation of a series that contributes to the description of morphological variability in Passerines and aims at completing the existing information for an increasing detailed knowledge of the quantitative, phonological and ecological distribution of birds in the country. Results are given for a number of species from Alaudidae to Sylvidae (Part II) and Muscicapidae to Emberizidae (Part III).

Spagnesi, M. & L. Serra (eds) 2003. Uccelli d'Italia (Birds of Italy). Quaderni di Conservazione della Natura, 16, Min. Ambiente, Instituto Nazionale per la Fauna Selvatica, 265 pp. ISNN 1592-2901.(Italian)
A review is given of the status of 121 non-passerine species belonging to the Gruiformes, Charadriiformes, Pterocliformes, Columbiformes, Cuculiformes, Strigiformes, Caprimulgiformes, Apodiformes, Coraciiformes and Piciformes, breeding, wintering or migrating in Italy. Each of the two-page species texts threat population numbers, distribution, phenology, habitat requirements and conservation. A distribution map of the breeding and/or wintering area and a beautiful water colour of each bird complete the text.

Third International Black Stork Conference/ Troisième Conférence Internationale sur la Cigogne noire. Fourneau Saint-Michel (Belgium), March 28-31 2001. Aves, 2003, Volume 40/1-4, 240 pp.(articles in English or French). (see www.aves.be)
This special volume contains the proceedings of a special conference on the Black Stork, Ciconia nigra, considered as Rare (SPEC 2) within Europe. 45 articles present various aspects as international status, regional status, biology and ecology, ringing, migration, wintering, education and awareness and conservation.

Kuus, A. & Kalamees, A. (eds.) 2003. Important Bird Areas of European Union importance in Estonia, Eesti Ornitoloogiaühing, Tartu, 136 pp, ISBN 9985-830-59-8
Council Directive 79/409/EEC on the conservation of wild birds (i.e. the Birds Directive) obliges the Member States to take the requisite measures to maintain the population of the wild bird species at a level which corresponds in particular to ecological, scientific and cultural requirements, and to preserve, maintain or re-establish a sufficient diversity and area of habitats for all the defined species. The species mentioned in Annex I and regularly occurring migratory species (particularly wetland-dependent species) shall be subject to special conservation measures concerning their habitats; the most suitable territories in number and size shall be classified as special protection areas for the conservation of these species. Generally recognized criteria for estimating the minimum population size ensuring the viability of populations have not been developed in Europe. A 100-pair threshold regarding the species on protected areas developed in Estonia (Lõhmus 2001) is one of the few criteria that include biological justification. In case of certain species (e.g. Capercaillie *Tetrao urogallus*, Great Snipe *Gallinago media*) minimum viable populations have been provided in conservation management plans of these species (Viht & Randla 2002; Kuresoo & Luigujõe 2002).In addition to the number of pairs, representation of a species on a sites

can be estimated on the basis of the proportion of the breeding pairs of the total Estonian population of the species. Similarly to the assessment of the representation of habitats and species listed in the Habitat Directive, thresholds to 20% and 60% could be considered when assessing the coverage of the SPA network for individual species (population coverage of less than 20% require special attention, in case of representation of 20-60% the situation depends on the particular species, over 60% the representation of the species is considered satisfactory). In this overview, minimum numbers have been taken as the basis for estimating the coverage of a species on IBAs because the data on maximum numbers of several species are incorrect. Updated estimates of Estonian breeding birds populations have been used for this assessment (Elts et al. 2003). All 56 species listed in Annex I of the Bird Directive regularly breeding in Estonia and the species proposed to be included in Annex I occur as breeders on IBAs. According to the available data population coverage of different species on IBAs ranges between 3.2 – 100% of their Estonian population size. A hundred percent coverage of certain species of small population size is derived from the calculation of the percentage on the basis of minimum population estimates and thus, for example, does not reflect the actual situation with respect to the Short-eared Owl (*Asio flammeus*). Population size of the species of heavily declining populations (Merlin *Falco columbarius*, Ruff *Philomachus pugnax* and *Short-eared Owl*) on IBAs may currently be lower than the proposed figures. Population size of the Merlin and Ruff has declined on current protected areas, therefore the existence of protected areas does not necessarily ensure the preservation of these species in viable numbers. Population coverage of several common species in Estonia is very likely underestimated (e.g. Hazel Grouse *Bonasa bonasia*, Red-breasted Flycatcher *Fidecula parva*). Such species often occur together with other qualifying species, however, data on the numbers of these species have not been provided (or are difficult to obtain, e.g. because of the nocturnal activity of the species). Dispersed breeding distribution (sites with significant congregations do not exists or there are only a few) is the most frequent reason for the low coverage of several species in Estonia, e.g. for Slavonian Grebe (*Podiceps auritus*), Honey Buzzard (*Pernis apivorus*), Hen Harrier (*Circus cyaneus*), Montagu's Harrier (*Circus pygargus*), Lesser Spotted Eagle (*Aquila pomarina*), Eagle Owl (*Bubo bubo*), Pygmy Owl (*Glaucidium passerinum*), Ural Owl (*Strix uralensis*), Tengmalm's Owl (*Aegolius funereus*), Kingfisher (*Alcedo atthis*), Grey-headed Woodpecker (*Picus canus*), White-backed Woodpecker (*Dendrocopos leucotos*), Three-toed Woodpecker (*Picoides tridactylus*) and Wood Lark (*Lullula arborea*). A number of important breeding sites of the Kingfisher are located in landscape reserves where protection of the habitats of the species is ensured by means of conservation management regimes. Conservation of all known breeding sites of the Lesser Spotted Eagle is provided by the relevant legal act. However, protection of all above named forest species must be improved because one of the most significant threat factors, that is intensified forest management has an adverse impact on these sites. The criteria for the selection of IBAs are probably the least suitable for this type of species and therefore, the species should be subject to particular attention in the course of the designation of special protection areas on the basis of IBAs. In case of four localised or rare species (Avocet *Recurvirostra avosetta*, Roller *Coracias garrulus*, Tawny Pipit *Anthus campestris* and Bluethroat *Luscinia svecica*) increase in the population coverage is inhibited by the insufficient number of known regular breeding sites. The Bluethroat and Tawny Pipit are poorly studied species and the breeding sites of these species are likely to be located in habitats unsuitable for organizing conservation management. Despite a relatively large number of pairs on IBAs the proportion of the total Estonian population on IBAs is low for certain common species occupying widespread habitat types: White Stork (*Ciconia ciconia*), Hazel Grouse (*Bonasa bonasia*), Spotted Crake (*Porzana porzana*), Corncrake (*Crex crex*), Common Crane (*Grus grus*), European Nightjar (*Caprimulgus europaeus*), Black Woodpecker (*Dryocopus martius*), Barred Warbler (*Sylvia nisoria*), Red-breasted Flycatcher (*Fidecula parva*) and Red-backed Shrike (*Lanius collurio*). These species are common in Estonia and their numbers on IBAs are very likely underestimated, therefore, low population percentage cannot be interpreted as the need for increasing network coverage of these species. The White Stork and Red-backed Shrike are also adapted to human activities and habitat-based conservation of these species is not of primary importance (Lõhmus 2001). Of rare species the Black Stork (*Ciconia nigra*) and eagles occupy breeding areas as dispersed single pairs, therefore, in most cases it is possible to add adjacent nesting sites to the already identified areas instead of creating new IBAs based on category 'C' criterion. The most important

attention should be given to the Black Stork and Greater Spotted Eagle. The following seven rare or very local wetland-dependent species are the best represented species on IBAs: Black-troated Diver (Gavia arctica), Barnacle Goose (Branta leucopsis), Golden Eagle (Aquila Chrysaetos), Little Crake (Porzana parva), Dunlin (Calidris alpina), Caspian Tern (Sterna caspia) and Sandwich Tern (Sterna sandvicensis).

We need drawings for Bird Census News!!

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

Important note for mailing exchange journals or books:

In the address: please ALWAYS put my NAME on the first place before "Bird Census News" or "EBCC" or whatever is put after. With new regulations in the Belgium Post mail without the name of the addressee (and only the name of an organisation) is not delivered to private persons!

Your text in the next issue?

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

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

Do not hesitate to let us know this!

Send text (in MSword), figures and tables (and ilustrations!) by prefence in digital format,

By email to:

anny.anselin@instnat.be

or by mail on CD to:

Anny Anselin, Institute of Nature Conservation, Kliniekstraat 13, B-1070 Brussel, Belgium

You will be send a pdf-format of your article to use for reprints

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