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

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

EDITOR:

Anny Anselin

Research Institute for Nature and Forest, INBO

Kliniekstraat 25, B-1070 Brussels, Belgium.

home: E. Poetoustraat 13, B-9030 Mariakerke, Belgium

email: anny.anselin@inbo.be

Illustrations by Toni Llobet

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Bird Census News
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EDITORIAL

This is the first issue of Bird Census News in digital format and with a changed layout. At the beginning of this year a Questionnaire was send around to all delegates and a number of subcribers to ask their opinion on the future change to a digital-only journal and possible improvements in contents, lay-out and other matters related to the production of the journal. During our last meeting in Sempach (March 2012) the EBCC Board has decided –based on the results of the Questionnaire- that from then on, BCN will appear in digital format. In brief: the level of contents will remain broadly the same but there are now more clear thematic sections. The format is larger (A4 instead of A5) and the lay-out has been adapted. The journal is in colour and each issue will be downloadable from the EBCC website.

In the first part you find articles on monitoring terrestrial birds in the Galápagos Islands, a presentation of the use and development of the now 10 years old DOF-basen in Denmark, and the first results of atlassing in a Special Protected Area in the south of Turkey.

You have probably already read or heard that the European Bird Census Council, together with its partners across Europe, plans to produce a new atlas for breeding birds in Europe, to update the ground-breaking first atlas of Hagemeijer and Blair (1997), whose data are now 30 years old, and add new territories in southeast and east Europe. Data collection will build on existing national atlases, but the most recent data of new, starting atlas projects will of course also be incorporated into the results. In the section "European Atlas News" we present some of these new projects. For more details on the new European Atlas, we refer to the EBCC website: *http://www.ebcc.info/new-atlas.html*.

Also new is the section "Events" where you can read short reports on the successful *PECBMS* workshop and *Birds in Europe* launch in Mikulov, Czech Republic in February 2012 and find the announcement of the forthcoming EBCC Conference in Romania in September 2013.

I hope you like this BCN "new style" which we will try to improve in the future. And of course, we are waiting for interesting articles, short notes and lots of monitoring and atlas news. Enjoy this issue!

Anny Anselin
Editor Bird Census News
anny.anselin@inbo.be

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Monitoring an endemic community of terrestrial birds: the Galápagos Islands Breeding Bird Survey (GIBBS).

Nivia Luzuriaga[1,2,3], Frédéric Jiguet[1§*], Mark Gardener[3], Sophie Veran[4] & Pierre-Yves Henry[2§]

[1] UMR 7204 MNHN-CNRS-UPMC, Muséum National d'Histoire Naturelle, 55 rue Buffon, CP 51, 75005 Paris, France
[2] UMR 7179 MNHN-CNRS, Muséum National d'Histoire Naturelle, 1 avenue du Petit Château, 91800 Brunoy, France
[3] Charles Darwin Foundation, Puerto Ayora, Galápagos Islands, Ecuador
[4] CGBP, Institut National de la Recherche Agronomique, 34988 Montferrier-sur-Lez, cedex, France
[§] These authors contributed equally

fjiguet@mnhn.fr

Abstract. Monitoring avifauna on remote island holding numerous endemics needs well-designed and standardize field methods. We tested two field methods to develop a breeding bird survey dedicated to terrestrial birds on the Galapagos Islands, with the help of few volunteer observers. Sampling on count points and along transects have been conducted on Santa Cruz and Floreana islands. By analyzing the survey data, we found that observed abundances varied with field method and observer identity. We therefore advocate for transects surveyed by trained observers to conduct such a BBS. Finally, we report significant variations in abundance among habitats for ten terrestrial species.

Introduction

Bird monitoring is widely used to assess the impacts of human activities and of global environmental changes on biodiversity (Thaxter et al. 2010). From count data, conservationists build indices of trends in population size and community composition. Ideally, these indices should be used for the assessment of management actions and for adaptive conservation planning (Fleishman et al. 2006; Gregory, 2005; Noss 1996).

In the Galápagos Islands, human activities are known to threaten populations of endemic species, mainly through biological invasions and habitat changes. For instance, declines of populations of Warbler Finch (*Certidea olivacea)* and Medium Tree Finch (*Camarhynchus pauper)*, two localized endemic bird species of the humid highlands, are correlated with historical human occupancy and associated habitat loss (Donlan et al. 2007; Grant & Grant 2005). Climate change is also suspected to affect population dynamics; the increasing frequency of El Niño events limited population recovery of some species like Galápagos Penguin (*Spheniscus mendiculus*) and Floreana Mockingbird (*Mimus trifasciatus*) (Grant et al. 2000; Vargas et al. 2006; Vargas et al. 2007; Vargas 1987), whereas some Darwin's finches displayed a two-fold increase in breeding success (Grant & Grant 1987). Though, despite a high terrestrial bird endemism with 18 species out of 29 species, there is currently no integrated long-term monitoring to inform the trends in land bird numbers (apart from species-specific targeted, long-term research schemes; e.g. on finches, (Grant et al. 2000). The Darwin's finches represent the most diverse group (13 species), with three genus: *Geospiza* (four ground finches and two cactus finches), *Camarhynchus* (three tree finches, and Woodpecker, Vegetarian and Mangrove finches), and *Certhidea* (Warbler Finch). The other main group of closely related land birds is the *Nesomimus* mockingbirds (four species).

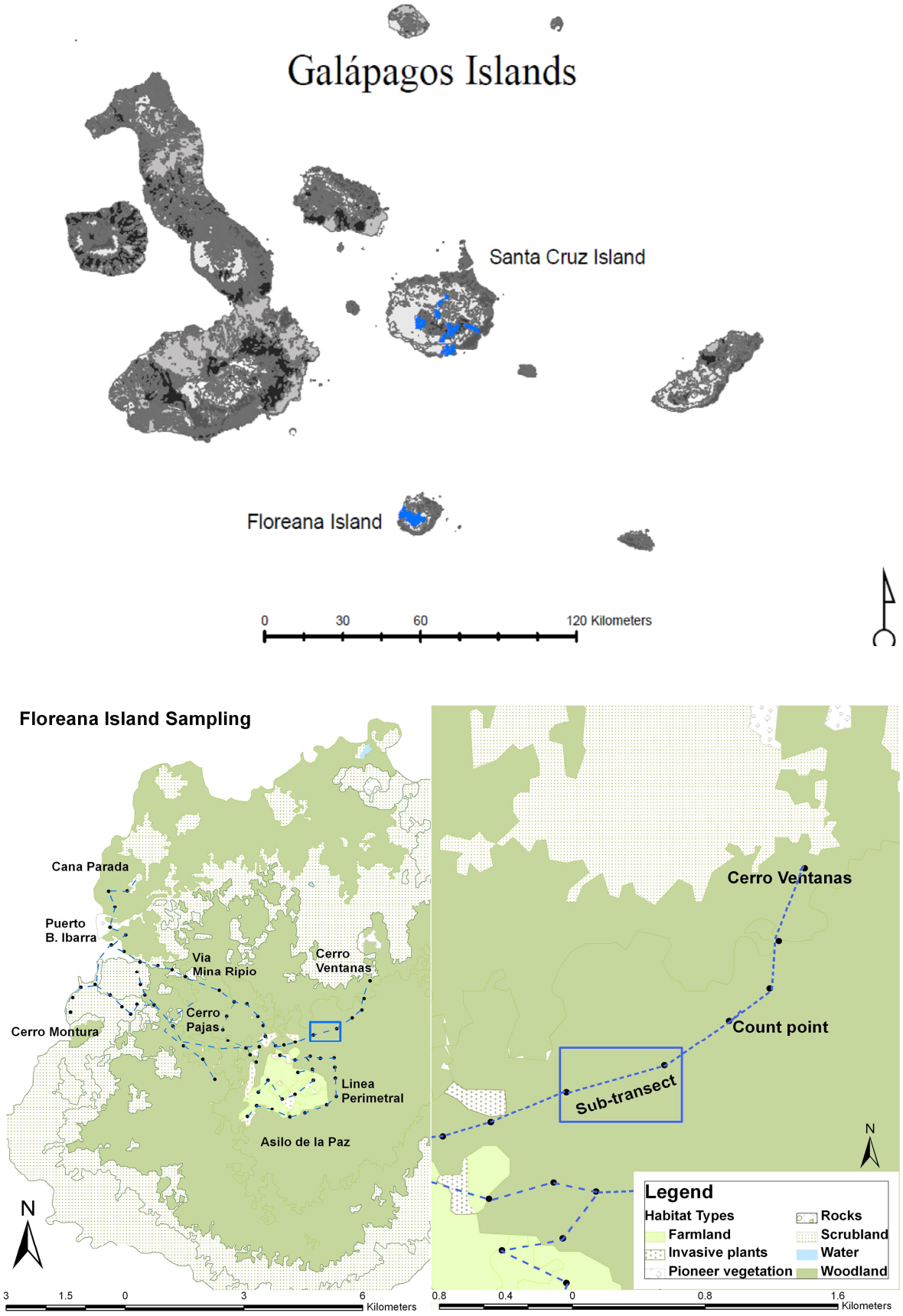

Figure 1. Locations of (upper) the GIBBS transects and point counts (in blue) on the islands of Santa Cruz and Floreana, and (lower) example of the detailed distribution across habitat types on Floreana (right panel is a zoom of the left panel).

Breeding Birds Survey (GIBBS) is to set up a cost-efficient, citizen-based, long-lasting monitoring scheme of terrestrial birds to be used for tracking spatial and temporal changes in population size and for informing policy makers and managers about the response of the bird community to their actions. This project was initiated in July 2009 with the support of the Charles Darwin Foundation (Ecuador) and the Muséum National d'Histoire Naturelle (France). The first step was to define, test and optimize a monitoring protocol suitable for this largely endemic island avifauna (Voříšek et al. 2008). Specific objectives were: (i) to test the two widely-used monitoring methods, transects and point counts, in the major habitats of two test islands, and (ii) to statistically evaluate the influence of methodological components of the protocol (effects of the counting method, the observer and the date) on observed relative abundances.

Methods

Study area: island characteristics

The GIBBS protocol was tested on two islands with contrasted land management but similar avifauna: Santa Cruz (989 km², 1°N 89°W) and Floreana (173 km², 2°S 92°W; Fig. 1a). Santa Cruz is characterized by a higher extension of human-impacted habitats, with 8.1% of farmlands, 4.9% of invasive plants, and 0.4% of urban habitat, the rest of the island being mainly covered by forests 61.6%, 21.5**%** of scrubs, 3.2% shrubland. Floreana is less influenced by human activities, with only 1.2% of farmland, 0.9% of invasive plants, and 0.1% of urban habitat, and is equally covered by forests (48.7%) and scrubs (47.9%). Santa Cruz is twice higher in elevation (800 m a.s.n.) than Floreana (450 m).

Monitoring design and protocols

Birds were counted along 22 transects, which were subdivided into individual sub-transects units (300m). Transects were defined to be less than 3.5 km. At the start of each sub-transect (and the end of the last one), we realized a 5-min point count (Bibby et al. 1992; Gregory 2004). We covered all the dominant habitats of the islands (> 10% coverage): woodland, scrubland, farmland and lands dominated by invasive plants (according to Clirsen 2006). Counts were distributed along domestic roads and tracks rather than at random, because of the lack of existing tracks in the forest habitats, and because of restricted access to cores of protected areas. A transect and associated point counts were implemented in half a day (6-10 a.m. or 4-6 p.m.) by one observer. Every individual bird that was heard or seen within a range of 150 meters from the observer was counted. Its distance from the observer (for both transects and point counts) and angle to the transect (for transects only) were measured, respectively, with a telemeter and a compass. Precise locations were taken with a GPS. Three different observers took part to the censuses. Observers were trained at visual and auditory bird identification (particularly for Darwin's finches) during eight hours prior to running GIBBS counts. This survey was conducted in 2010 during the breeding season (February 27 - April 25).

Statistical analyses

Sample size

The statistical unit considered in the analyses were the sub-transect and the corresponding point count. However we did not have such paired data for all sub-transects, what reduced the dataset to 90 sub-transects and 104 point counts. The sampling coverage per habitat type was 37% for woodland (n=72 sampling units), 29% for scrubland (n=56), 23% for farmland (n=46) and 10% for invasive plant habitat (n=20).

Species grouped

In a first approach we grouped the species in three categories based on physical traits: characteristics of sound (intensity, pitch and frequency), plumage coloration, body length and local abundance; the values were obtained from the literature (see Table 1). We created an Index of species recognition (IR) to better interpret further results on species relative abundances. This was necessary as field records were largely obtained by visual contacts (64%), and as the field work was carried out by local observers with little training.

Scientific names	Status	SC	FL	Length	Size	LO	CP	Song	Index (IR)	Level Identification
Geospiza fuliginosa	RE	O	O	11	0	1	0	0	1	Difficult
Geospiza fortis	RE	O	O	12.5	0.5	1	0	0	1.5	Difficult
Geospiza magnirostris	RE	O	NO	16	1	0.5	0	0	1.5	Difficult
Geospiza scandens	RE	O	O	14	0.5	1	0	0	1.5	Difficult
Camarhynchus parvulus	RE	O	O	11	0	1	0.5	0.5	2	Difficult
Camarhynchus psittacula	RE	O	O	13	0.5	0.5	0.5	0.5	2	Difficult
Camarhynchus pauper	RE	A	O	13	0.5	1	0.5	0.5	2.5	Difficult
Pyrocephalus rubinus	RE	O	NO	14	0	0	2	0.5	2.5	Easy
Certhidea olivacea	RE	O	NO	10	0	1	1	1	3	Easy
Crotophaga ani	I	O	O	35	1	1	0	1	3	Easy
Laterallus spilonotus	RE	O	A	15-16	1	0.5	1	0.5	3	Easy
Neocrex erythrops	R	O	O	18-20	1	0.5	1	0.5	3	Easy
Platyspiza crassirostris	RE	O	NO	16	1	0.5	0.5	1	3	Easy
Camarhynchus pallidus	RE	O	A	15	1	1	1	0.5	3.5	Easy
Myiarchus magnirostris	RE	O	O	16	1	1	1	1	4	Easy
Coccyzus melacoryphus	R	O	O	27	1	0	2	1	4	Easy
Dendroica petechia aureola	R	O	O	12	0	1	2	1	4	Easy
Nesomimus parvulus	RE	O	A	25	1	1	1	1	4	Easy
Zenaida galapagoensis	RE	O	O	18-23	1	0	2	1	4	Easy
Asio flammeus galapagoensis	RE	O	O	34-42	1	0.5	2	1	4.5	Easy
Bubulcus ibis	RE	O	O	50	1	1	2	1	5	Easy

Table 1. Observation of land birds during the GIBBS census in Galápagos Islands and the Species Recognition Index, estimated as explained in the Methods (IR<2.5= difficult; IR>2.5= easy). Other columns report the global status (RE: resident endemism; R: regional endemism; I: introduced); SC= Santa Cruz Island, FL= Floreana Island, O=observed, A=absent, NO=not observed. Data on songs have been found in (Bowman 2009; Podos & Nowicki 2001); data on CP=colours and body size come from (Swash & Still 2005) LO=local abundance from (Dvorak et al. 2011; Grant et al. 2005; O'Connor et al. 2010a); (Shriver et al. 2011); (Rosenberg et al. 1990).

Aquatic birds (*Anas bahamensis*, *Gallinula chloropus)* were discarded from the analyses because the field protocol was not appropriate for this group. Other species were also discarded because we obtained very few records: Short-eared Owl (*Asio flammeus*) (n=3), Galápagos Rail (*Laterallus spilonotus*) (n=8), and Paint-billed Crake (*Neocrex erythrops*) (n=10).

Statistical analysis

We based the analyses presented here on morning counts only. The dependent variable estimating the relative abundance was the total number of observed individuals (all species grouped), or the number of observed individuals per species for species-specific analyses. When a species had not been observed on a sub-transect or point, whereas it occurred in at least another sub-transect or point of the same transect, a value of 0 individual was given for each visit per counting unit of the transect where it was not detected. Variables that were examined for their effect on the relative abundance were the counting method (point *vs* transect), the identity of the observer (three observers), the date of survey (in days since 1st January), the island (Santa Cruz *vs* Floreana) and the habitat type (woodland, scrubland, farmland, land dominated by invasive plants), and two interactions between variables including habitat that were *a priori* expected to be of importance (habitat x method and habitat x observer; Table 2).

The variation in relative abundance between species, and between habitats within species,

were analysed using the number of individuals per specie as dependant variable. The models also included the effects of the observer identity and the counting method to account for these potential confounding factors. The statistical effects were tested using nested generalized linear models ('glm') with *quasi-Poisson* distribution (O'Hara & Kotze 2010). We used the R Statistical computing environment (R Foundation for Statistical Computing (R 2008).

Response	Df	Res.Df	Deviance	F	P<0.05
Method: Habitat	**185**	**450.19**	**-17.587**	**3.385**	**0.036**
Method: Observer	183	432.61	-7.456	1.459	0.235
Date	184	441.7	-9.099	3.503	0.063
Island	185	443.42	-1.711	0.640	0.425
Observer	**187**	**462.12**	**-18.709**	**3.496**	**0.032**
Method	**188**	**637.31**	**-193.89**	**24.155**	**$<10^{-8}$**

Table 2. Statistical dependence of the total number of birds counted per monitoring unit on the counting method (transect *vs.* point count), the habitat (four categories), the observer identity (three persons), the date (linear effect), the island (Santa Cruz *vs.* Floreana), and bivariate interactions. Tests were performed with comparisons of nested generalized linear model with quasi-Poisson distribution

Results

Global number of birds

21 species were detected on transects and 22 at point counts. Discarding aquatic species, sixteen terrestrial species remained for analyses.

The total number of detected birds was primarily affected by the counting method (Table 1): we counted twice more birds on transects than on points counts (Fig. 2; respectively 10.86± 1.03 [S.E.] and 5.55 ± 1.04 birds, when computed from raw data). This methodological effect was similar for the three observers (see Table 2, interaction Method x Observer not significant). It was however variable among the different surveyed habitats (Table 2, *P*=0.036). The total number of birds was similar in all habitats but farmland where it was lower (Fig. 2a). The total number of detected birds did not differ significantly between islands (*P*>0.4) and displayed no significant linear trend throughout the study period (*P*>0.06).The observer effect was significant (Table2): the two assistant observers (2 and 3) detected less birds (respectively, -21.4%, *P*=0.003 for observer 2; -20.5%, *P*=0.067 so not significant for observer 3*)* than the main observer (1, N. Luzuriaga).

Number of individuals per species

When analysing data at the species level (Table 3), counts were significantly higher on transects than on point counts for Woodpecker Finch (*Camarhynchus pallidus)*, Yellow Warbler *(Dendroica petechia),* Galápagos Flycatcher (*Myiarchus magnirostris)*, Galápagos Mockingbird *(Nesomimus parvulus)* and for the group of Darwin's finches (*Ps*<0.05). There was no significant difference for the remaining six species.

The relative abundance averaged across species was similar between woodland, scrubland and farmland habitats (*Ps*>0.20), but was significantly higher in habitats dominated by invasive plants (+9.14%, *P*=0.026) in comparison to woodland. The range of variation between habitat types was of similar importance than the range of variation between observers. Eventually, there was a small difference in relative abundance between the two islands, higher abundances occurring on Santa Cruz (slope = 1.455 ± 0.636) without obvious differences at the habitat level (habitat x island interaction not significant).

When we was analyzed the observer effect on the number of individuals detected by species, we found a reduced number of Galápagos Mockingbird (-9%, *P*<0.001), Vegetarian Finch (-20%, *P*<0.001) and Smooth-billed Ani (-14%, *P*=0.02) for Observer 2 and of Yellow Warbler (-40%, *P*=0.003*)* for observer3. The observer effects for the finch group and other remaining species was not significant.

The average number of individuals per species differed between habitats (species x habitat interaction) for six species and the finch group: Galápagos Flycatcher ($F_{3,190}$= 3.11, *P*=0.02), Warbler Finch ($F_{3,190}$=3.203, *P*=0.030),

Species		*Transects*			*Point Count*			
		estimate	SD	N(log)	estimate	SD	N(log)	P<0.05
Finch group	***Geospiza & Camarhynchus***	**1.810**	**6.111**	**0.08**	**0.845**	**0.12**	**2.327**	**<0.000**
Medium Tree Finch	*Camarhynchus pauper*	-1.658	0.421	0.190	-3.258	0.038	0.841	0.057
Vegetarian Finch	*Platyspiza crassirostris*	-2.420	0.595	0.089	-3.035	0.048	0.752	0.355
Woodpecker Finch	***Camarhynchus pallidus***	**-1.409**	**0.359**	**0.244**	**-3.258**	**0.038**	**0.841**	**0.001**
Warbler finch	*Certhidea olivacea*	-1.609	0.397	0.200	-2.005	0.135	0.450	0.518
Cattle Egret	*Bubulcus ibis*	-2.015	0.486	0.133	-1.118	0.327	0.289	0.355
Dark-billed Cuckoo	*Coccyzus melacoryphus*	-3.114	0.841	0.044	-2.698	0.067	0.636	0.550
Galápagos Flycatcher	***Myiarchus magnirostris***	**-0.530**	**0.231**	**0.589**	**-0.375**	**0.688**	**0.293**	**0.031**
Galápagos Mockingbird	***Nesomimus parvulus***	**-0.650**	**0.245**	**0.522**	**-1.509**	**0.221**	**0.351**	**0.037**
Smooth-billed Ani	*Crotophaga ani*	0.075	0.171	1.078	-0.340	0.712	0.196	0.203
Yellow Warbler	***Dendroica petechial aureola***	**0.582**	**0.133**	**1.789**	**0.253**	**1.288**	**0.145**	**0.023**

Table 3. Effect of the counting method on the number of observed individuals per species. Estimates of relative abundance (after exponential transformation to be expressed in number of individuals) are given for transects and point counts. Slope estimates quantify the difference in log-transformed number of individuals between the point count method (used as intercept value) and the transect method. They were obtained with generalized linear models, with quasi-Poisson distribution, and adjusted for the significant effects reported in Table 1. Species with a significantly higher number of contacts on transects than on point counts are in bold.

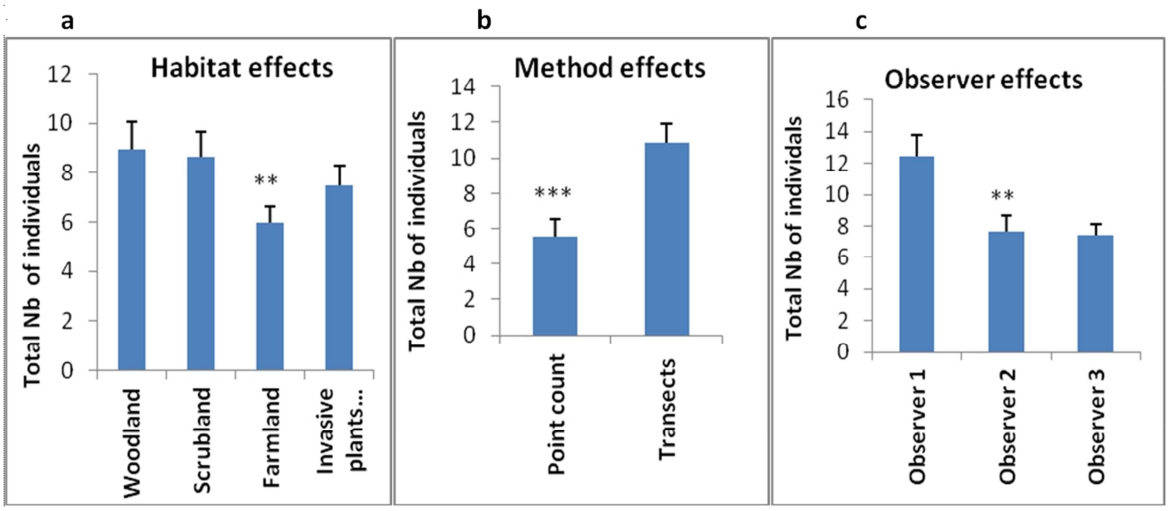

Figure 2. Mean (±SD) number of birds per counting according to (a) habitat type, (b) counting method, and (c) observer. Estimates were obtained with the statistical model described in Table 1.

Smooth-billed Ani ($F_{3,190}$= 6.34, P<0.001), Galápagos Mockingbird ($F_{3,190}$=10.36, P<0.001), Vegetarian Finch ($F_{3,190}$=9.99, P<0.001), Cattle Egret ($F_{3,190}$=5.27, P<0.001) and finch group ($F_{3,190}$=20.05, P<0.001).

For the Galápagos Mockingbird, the relative abundance was maximal in woodland and scrubland, and significantly lower in farmland (P=0.015, woodland intercept) and in habitats dominated by invasive plants (where it was not observed; Fig. 3). The relative abundance of the finch group was maximal on woodland (intercept=1.70±0.09 SE) and reduce on farmland 20% (P=0.010) and 16% on invasive plant habitat (P=0.004); within the other species, the Warbler Finch showed a higher abundance in invasive plants habitat (P=0.010).

In woodland, the relative abundance was highest for the finches (6.47±8.46) individuals per counting unit), Yellow Warbler (1.63±1.83), followed by Galápagos Mockingbird (0.46±0.60) and Galápagos flycatcher (0.38±0.52). In scrubland, the

highest relative abundance was for finches (5.83±8.42), Yellow Warbler (1.37±1.58), followed by Galápagos Flycatcher (0.92±1.12) and Smooth-billed Ani (0.80±1.09). In farmland, the finch group (3.1±4.6) and Smooth-billed Ani (1.54±1.97) were the most abundant species, followed by Yellow Warbler (1.28±1.55). In habitats dominated by invasive plants, the commonest species were Yellow Warbler (2.04±2.49), Smooth-billed Ani (1.59±2.39) and Galápagos Flycatcher (1.63±1.83; Fig. 3).

and 1 introduced species (Smoot-billed Ani) on both islands.We did not observe any migrant or vagrant species. The species that we did not observe on Santa Cruz were the Galápagos Hawk (*Buteo galapagoensis*), a resident endemic species, and the Barn Owl (*Tyto alba punctatissima*), a resident endemic subspecies. On Floreana, we did not observe the following species: Barn Owl, Warbler Finch *(Certhidea fusca ridgway),* Large Tree Finch, Large Ground Finch and Vegetarian Finch (*Platyspiza crassirostris*) (Grant et al. 2005).

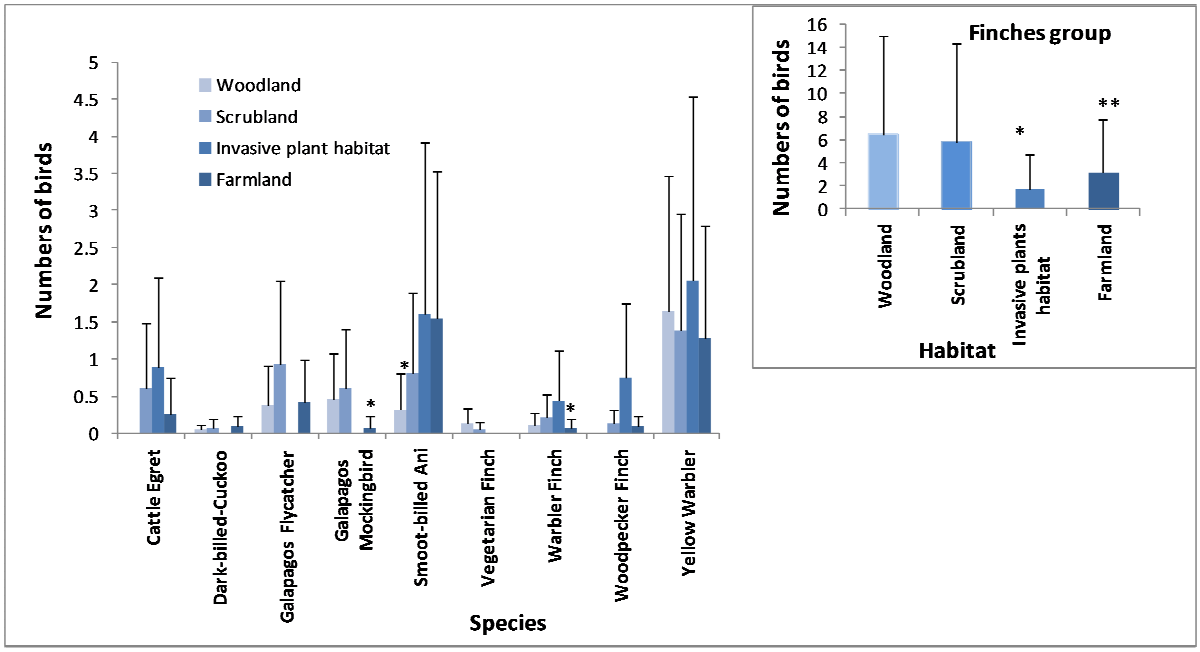

Figure 3. Variation in abundance per species among habitats, (Means ±SD) 95% (categories significantly differing from others marked with an asterisk). The model (glm) was adjusted for method and observer factors.

Discussion

We achieved to collect count data for 22 terrestrial bird species, which corresponds to 88% and 92% of the terrestrial breeding bird species listed respectively for the islands of Santa Cruz (n = 18) and Floreana (n=15). Considering the species coverage per status category, we obtained counts for 14 resident endemic species (RE in Table 1) on Santa Cruz (77% of the island total) and 9 on Floreana (60%), 3 species with regional endemism (R) on Santa Cruz (60%) and 3 on Floreana (75%),

Transects produced on average twice more contacts with birds than point counts, a robust difference that was found for a majority of species. This is consistent with former comparative tests between the two methods (Alldredge et al. 2008). An interpretation is that during point counts, the observer has a restricted detection range (visual and auditory), contrary to transects where observers move and can more easily detect active birds (Brewster & Simons 2009). This is especially true in habitats or regions with relatively low bird density.

The finch group was the most commonly detected, 45% the data consisted of finches, 37% was for Medium Ground Finch. We justify the group-level analysis because observers were not highly experienced and because many observations related to finches were not identified to the species level. Also many finch species do share similar traits making their specific identification difficult (see Table 1), for example Large, Medium and Small ground finches. The variability in song, calls or plumage poses a major challenge in such counting procedures, where the observer does not have time to track individuals until he/she achieves to identify them with certainty. In the Galápagos Islands, this problem is essentially due to the high similarity (both vocal and visual) of finches of genus *Geospiza* and *Camarhynchus* (Podos 2004; Podos & Nowicki 2001; Ratcliffe & Grant 1985; Christensen et al. 2006; Dvorak et al. 2011). Our ability to identify birds to the species level was actually much higher in transect lines than in point counts ; respectively, 1.2% and 4.1% of unidentified records out of all records. Hence, implementing transects provides more counts, what secures a higher statistical power for detecting differences in relative abundance, but also lowers the risk of misidentification.

Our analyses revealed an obvious but expected variability among observers, possibly linked to varying individual experience in survey methods and species detection/identification. Differences between observers can introduce biases and reduce the precision of abundance estimates. Alldredge et al. (2007) used distance sampling approaches to conclude to a big difference between the density estimates obtained from data collected by experienced and by inexperienced observers (Alldredge et al. 2008; Alldredge et al. 2007).

Relying just on our data, we achieved to characterize some species-specific patterns of variation of relative abundance between habitats that are described in the literature. Among the island avifauna, Yellow Warbler, Galápagos Flycatcher and the invasive Smooth-billed Ani (Grant & de Vries 1993; Rosenberg et al. 1990) were identified as the more generalist species, occurring in all habitats and always ranking among the most observed species (O'Connor et al. 2010b), while the other species are more specialized: here Vegetarian and Woodpecker finches, as well as mockingbirds (Dvorak et al. 2011; Fessl et al. 2006; Tebbich et al. 2002). Among rare and localized species, we should mention that Galápagos Dove (*Zenaida galapagoensis*) and Vermillion Flycatcher (*Pyrocephalus rubinus)* have been detected on Santa Cruz, and also Medium Tree Finch which is endemic to Floreana.

Our results suggest that a sampling method based on transects would provide a representative sample of bird observations to study the spatial variations of the relative abundance of such terrestrial breeding birds. Further developments should also consider the study of variations in detection probability, probably using distance sampling approaches. We also recommend that if a long-term breeding bird survey was to be started on the Galápagos Island, observers should first be trained to counting methods and to the identification of finches, in order to minimize observer variability and reduce error on parameters estimation.

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Bird Census News 2012, 25/1 : 13 - 16

DOF basen 10 years.

Timme Nyegaard, Henning Heldbjerg & Steen Brølling

Dansk Ornitologisk Forening (DOF), Vesterbrogade 140, DK 1620 Copenhagen V, Denmark

timme.nyegaard@dof.dk

Abstract. *DOFbasen* is BirdLife Denmark's internet based database for non-systematic bird observations. It celebrated its 10 years Anniversary in May 2012. We have used this occasion for giving a status of the use and development of this database. More than 11 million records have been entered, with more than 200.000 records of some more common species. Gradually the quality and amount of the data have enabled more proper analysis resulting in a better knowledge about the Danish birds.

Introduction

Dansk Ornitologisk Forening (DOF), the Danish BirdLife partner is an old organization (founded in 1906) now with ca. 16,000 members organized in 13 local branches. DOFs aim is to increase knowledge about and interest in wild birds and protecting their sites and habitats. Denmark comprises of 43,000 km^2 land and large areas of shallow water between the Baltic Sea and the North Sea. It holds therefore important stop-over sites and wintering area for a large number of mainly waterfowl, especially taking its small size into account.

In May 2002 DOF introduced the website www.dofbasen.dk as DOF's Internet-based database for non-systematic bird observations. Previously many local databases with different technical structures were present in and outside DOF and the aim of DOFbasen was to unify these systems into one, national database for bird observations and thereby giving the members as well as the public access to the large amounts of data collected by birdwatchers. Now DOFbasen acts as a daily inspiration for the members when planning the next field trip and as a source of information about birds in Denmark for instance their phenology and distribution.

In 2002 most people used a modem to get access to the Internet, hence it was costly to enter a great number of observations. It was therefore important for the users to have the possibility to enter data offline and afterwards upload them to the server. A software application was therefore developed for this purpose. At the same time a website was made, where all data are easily accessed. Now the offline application will soon be terminated while the online facilities are constantly improved.

During the years lots of changes have been made and when celebrating DOFbasens 10 years Anniversary it is a good opportunity to give a status of the use and development of DOFbasen.

Statistics

During the 10 years 3,300 observers have entered more than 11 million records from 16,500 pre-defined sites. The daily administration and development of DOFbasen is coordinated by staff in the secretariat of DOF with a large involvement of DOF volunteers and DOF's local branches. The website has on average 16.000 page views per day.

All data are entered using pre-defined lists of observers, species, sites and behavioural

categories. Data entry requires a user login, but data queries can be done online without.

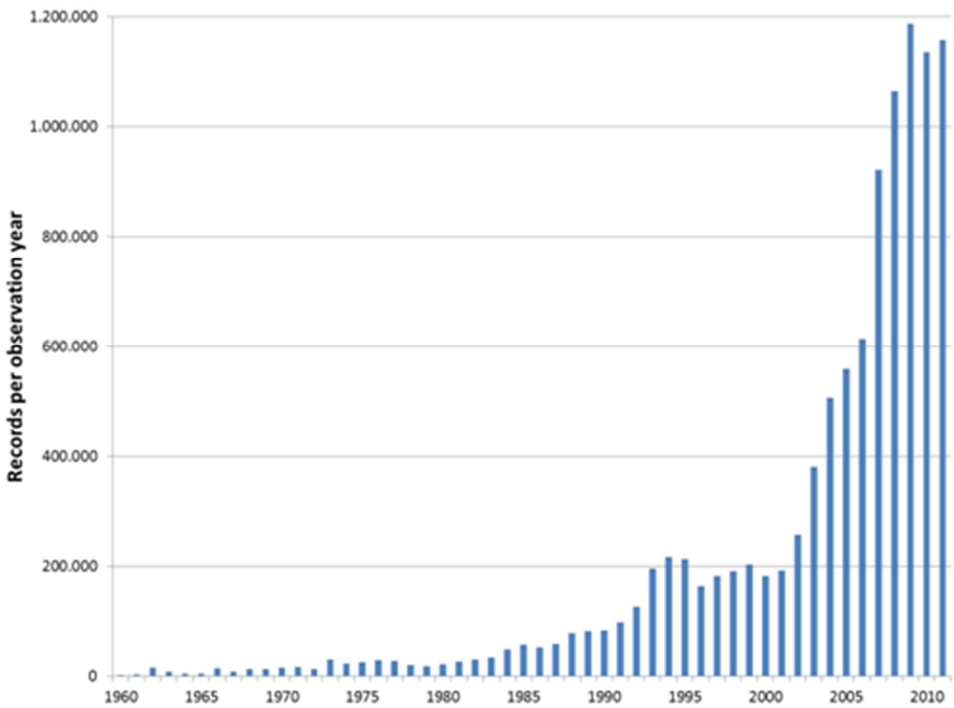

Figure 1. Records in DOFbasen per observation year . Before 1960 there are ca. 1,000 records. Ca. 2 mio. records have been converted from old databases and 25% of all records in DOFbasen are from before the launch in 2002. The peak in 1993-95 is a result of a national site monitoring project, from which all results have been imported into DOFbasen. The large increase from 2007 coincides with a renovation of the frontpage of the website, where many different user statistics were presented. This is assumed to be the reason and motivation for the users to enter more data on especially the more common (and in the database underrepresented) species as well as entering data from sites that are not typical for birding. 2012 seem to reach the same level as the previous three years.

There are more than 200,000 records of each of some of the more common species like Common Buzzard *Buteo buteo*, Mallard *Anas platyrhyncos* and Greylag Goose *Anser anser*. Even some non-bird species (1.5% of all records) are entered in large numbers, like 25,000 records of Roe Deer *Capreolus capreolus* and 15,000 records of Hare *Lepus capensis*.

The observations are scanned by a group of volunteers in order to secure the accuracy of the data by finding odd records which are mainly due to errors during data entry or mis-identification of the species. Many corrections are also done as a result of easy user-to-user contact. A recent development of image upload to unusual sightings have greatly improved and simplified the data validation.

Another typical mistake which can be difficult to detect is choosing the wrong site in the list when entering data. Since 2009 the use of Google Maps has made it much easier to find and select the correct site, especially when birding in an area which the observer is not familiar with.

Other projects

Besides being the database for non-systematic records, DOFbasen is also the backbone of more systematic data collected in the IBA Caretaker Project, the Common Birds Monitoring and will also be so in the coming Atlas Project (2014-17).

Funding

DOFbasen was initiated and in the first years fully financed by DOF. Later on financial support has been achieved from private

foundations as well as Governmental support for partly covering the expenses of running and maintaining DOFbasen.

Making use of data

The data in DOFbasen have been used to produce a large number of small articles in DOF's popular magazines and websites. In the first years this was mainly meant for inspiring volunteers to enter their own data but gradually the quality and amount of data have enabled more proper analysis giving the readers better knowledge about the Danish birds. Regularly data from DOFbasen is delivered to and used by scientists and conservationists.

Some examples

Detecting fluctuations in activity and diversity of birds

When plotting the number of records per day for the the period 2009-11 in 10 days periods the level reflects clearly the diversity of birds in Denmark as well as the activity of the observers being largest during spring-autumn migration. There is a clear increase in activity around Christmas/New Year which is assumed to relefct more spare time during the holidays as wel as a general interest in entering the first observation of the year of each species. This could be the explanation of a higher peak during spring compared to autumn.

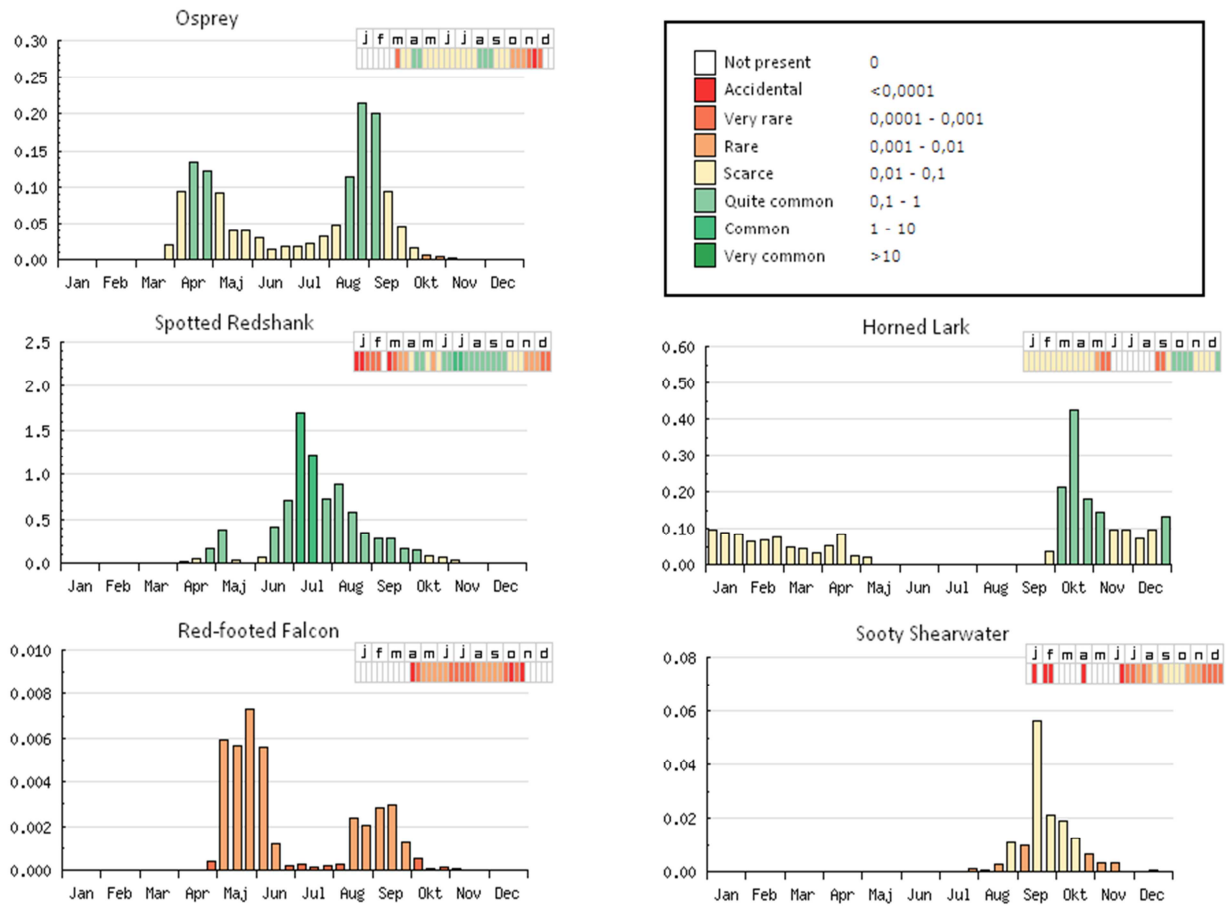

Figure 2. Showing the phenology of species using the DOFbasen records

Phenology

An analysis of species occurrence in 10 days periods during the year from 2003-11 showing the average number of specimens per trip list (calculated automatically) shows that the results fit in general very well with the existing knowledge on the phenology. However, the very common species are likely to be underrepresented in the database due to less focus from the observers (Figure 2).

Plotting the number of records can also clearly show seasonal and year-to-year variations e.g. of irruptive species.

Producing maps

It is obvious that the system allows to make all kinds of maps. We present here two examples, one using quantitative data, the other for comparison of qualitative data (Figure 3 & 4)

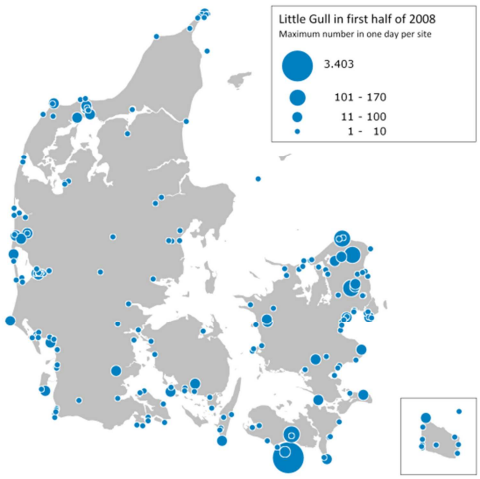

Figure 3. A typical map based on records in DOFbasen. Daily maximum number of Little Gull *Hydrocoloeus minutus* in the first half of 2008 is shown for each site.

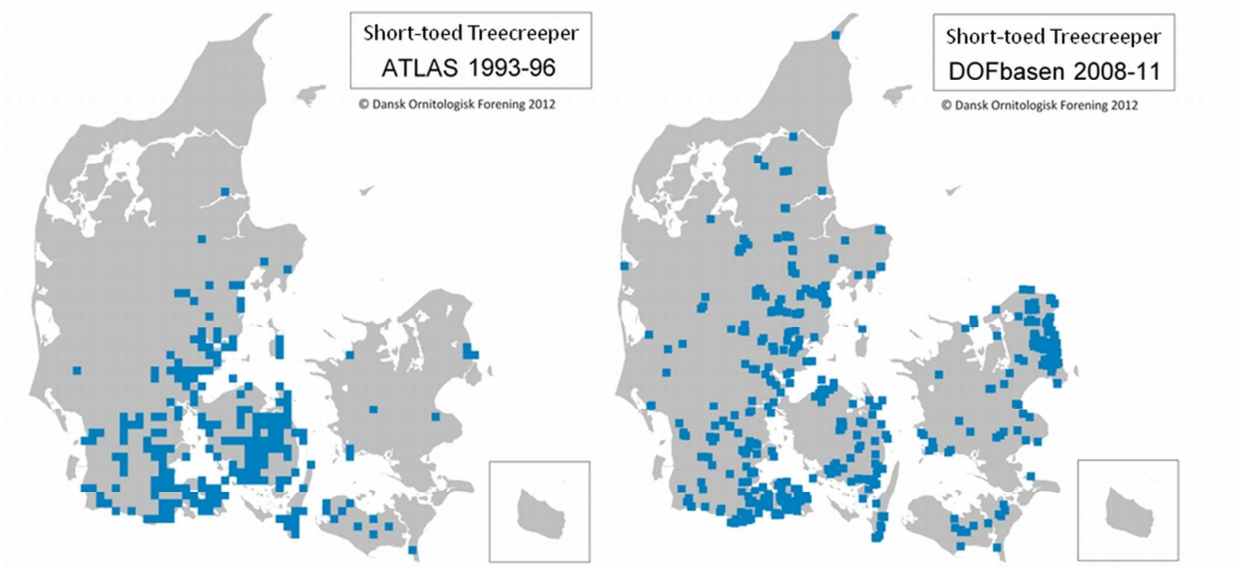

Figure 4. Typical examples of the use of data in DOFbasen. Above is shown 'simulated' atlas data from records in the breeding period compared with real atlas data collected ca. 15 years before, showing the large increase in distribution for Short-toed Treecreeper *Certhia brachydactyla*.

Bird Census News 2012, 25/1 : 17 - 21

A Bird Atlas of the Kaş Kekova Specially Protected Area in Turkey

Esra Per & Abdullah Hasbenli

Gazi University, Science Faculty , Biology Department, Teknikokullar, Ankara, Turkey

esraper@gazi.edu.tr

Abstract. The aim of the study was to produce for the first time a bird atlas of the Kaş Kekova Specially Protected Area in Antalya Turkey. The whole study area was divided into 25 UTM squares and each square was visited between October 2008 – June 2010, both within the breeding and migration period. A total of 96 bird species were recorded. The most frequently observed birds were: *Apus melba* (Alpine Swift), *Falco naumanni* (Lesser Kestrel), *Garrulus glandarius* (Jay), *Parus major* (Great Tit), *Streptopelia decaocto* (Collared Dove), *Lanius senator* (Woodchat Shrike), *Emberiza caesia* (Cretzschmar's Bunting), *Corvus corone* (Carrion crow) and *Sylvia rupelli* (Rüppel's Warbler). According to the IUCN red list categories : *Larus audouinii* (Audouin's Gull) and *Coracias garrulus* (Roller) are near-threatened and *Falco naumanni* (Lesser Kestrel) is vulnerable.

Introduction

The aims of the present study are (1) to determine the distribution of the birds of Kaş-Kekova Specially Protected Area (SPA) in Antalya, Turkey and to produce a bird atlas of the area, (2) to classify the threatened species, evaluate their threats and determine the conservation measures needed. Bird atlas work started in Turkey in 2001 but only a limited number of studies exist. Per et al. (2002) published the Erciyas Mountains Bird Atlas, Aksan et al. (2004) prepared the Palas Lake Bird Atlas and Üker (2006) prepared the Ondokuz Mayıs University campus bird atlas.

Materials and Methods

Location

Kaş- Kekova Specially Protected Area is located in Antalya province east of Kaş town on the south coast of Turkey (36°12`N, 29°39`E). The SPA covers 258.3 km^2 and extends between Uluburun and Demre. It includes the coastal zone and some small islands next to the coast. The altitude varies between 0-870 meters. Within the protected area there are some settlements and villages e.g. Kale-Üçağız, Çevreli, and Kapaklı (Figure 1 & 2).

Habitat

Important vegetation communities are *Aetheorhizo bulbosae-Pinetum brutiae* forest, maquis of *Quercus aucheri-Oleetum europaeae*, furigana vegetation *Alysso-Genistetum acanthocladae* and halofyt vegetation of *Salicornietum ramosissimae*. The first two vegetation communities are endemic for Turkey. According to the EUNIS habitat classification fourteen different classes occur in the area. The most common is the Maquis habitat (F5.2). Other important vegetations are the East Mediterranean phrygana (F7.3), the Early-stage natural and semi-natural woodlands and plantations (G5.6), the Lowland to montane mediterranean pine woodland (excluding black pine *Pinus nigra*) (G3.7), Unvegetated rock cliffs, ledges, shores and islets (B3.2) and Low-mid salt marshes (A2.54). Scrub covers 83% of the total area (http://www.kaskekovabiyocesitlilik.com.

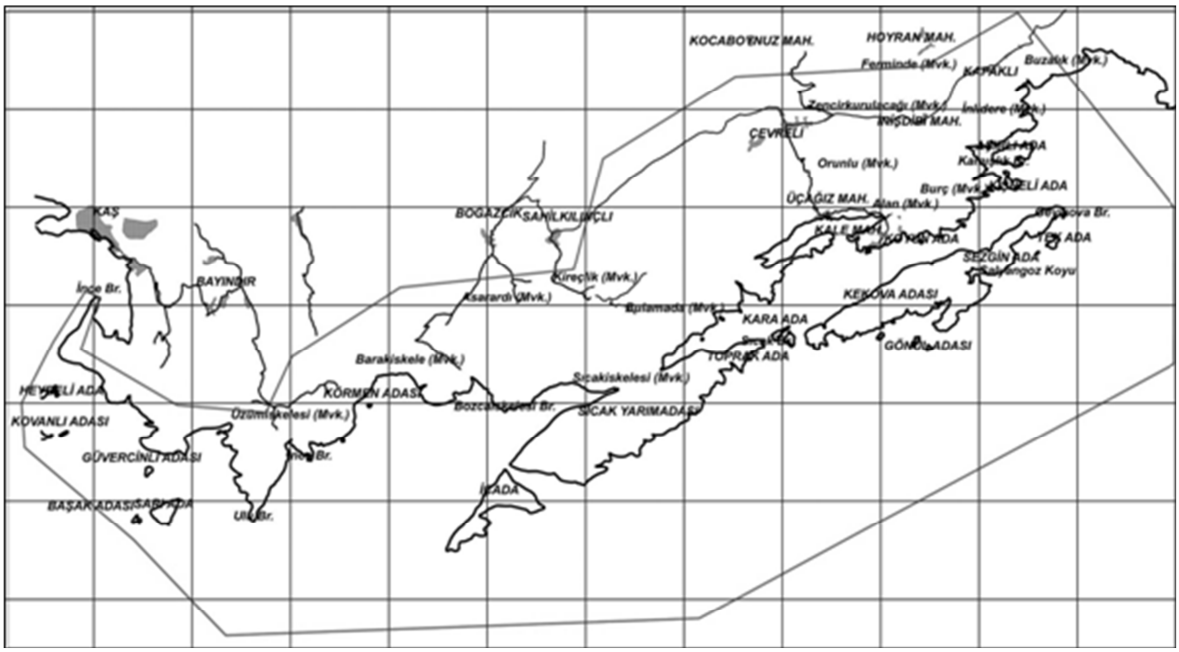

Figure 1. Map of the region with the borders of the Kaş-Kekova Specially Protected Area (grey line), some villages and roads

Fieldwork

The whole study area (UTM grid zone 35S) was divided into 25 UTM squares of 2.5×2.5 km. Each square was visited between October 2008 – June 2010 both within the breeding and migration period. The "Point Count" method was applied to all stations which include different habitat types. Twenty-minute observations were made at each census point. Observation time and date, elevation of the observation site, UTM coordinates and species of birds seen and/or heard were recorded together with their breeding codes, according to Hagemeijer and Blair (1997).

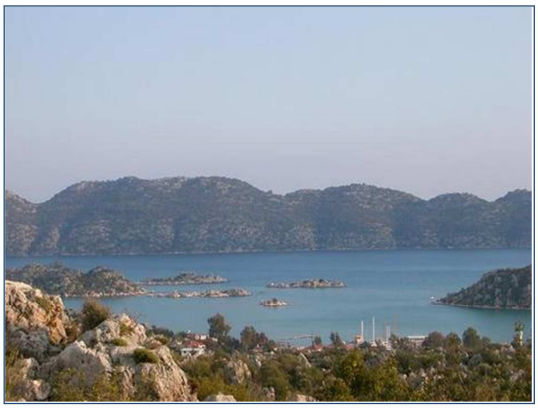

Figure 2. Coastal landscape of the SPA

Results and Discussion

A total of 96 bird species of 13 orders and 34 families were recorded during this study. Of the 85 breeding species, 51 are resident and 34 are summer visitors. Three of the observed species are winter visitors and 8 are migratory and seen during the migration as well as the breeding season. Of the 85 species, 24 are comfirmed, 29 possible and 32 probable breeders. We produced distribution maps for each species (for a selection, see Figures 4-14). Species diversity per square varies between 1 – 37 (Figure 3), with an average of 10,8. Habitat types in the study area are maquis, rocky, agricultural land, olive orchard, phrygana, area around greenhouses and marshes. The highest species diversity was recorded in maquis, rocky, marsh and phrygana habitats.

The most numerous species were: *Apus melba* (Alpine Swift), *Falco naumanni* (Lesser Kestrel), *Garrulus glandarius* (Jay), *Parus major* (Great Tit), *Streptopelia decaocto* (Collared Dove), *Lanius senator* (Woodchat Shrike), *Emberiza caesia* (Cretzschmar's Bunting), *Corvus corone* (Carrion crow) and *Sylvia rupelli* (Rüppel's Warbler).

Some of the recorded species are threatened according to the IUCN red list categories

(http://www.iucnredlist.org). *Larus audouinii* (Audouin's Gull) and *Coracias garrulus* (Roller) are near-threatened (NT) and *Falco naumanni* (Lesser Kestrel) is vulnerable (VU).

Falco peregrinus (Peregrine Falcon), *Larus cachin*nans (Yellow-legged Gull), *Apus pallidus* (Pallid Swift) and *Apus melba* (Alpine Swift) breed on cliffs of Kekova Island and the nearby smaller islands. On Güvercinli *Apus pallidus* (PallidSwift) and *Apus melba* (Alpine Swift) each breed on opposite sides of the island, while *Buteo rufinus* (Long-legged Buzzard) and *Sitta neumayer*'s (Western Rock-nuthatch) occur in the inner part. 37 out of 96 species have conservation priority according to the BirdLife International criteria at European scale (Burfield et al. 2004)), with 3 SPEC1, 10 SPEC2 and 24 SPEC3 species (see Figures 4-14).

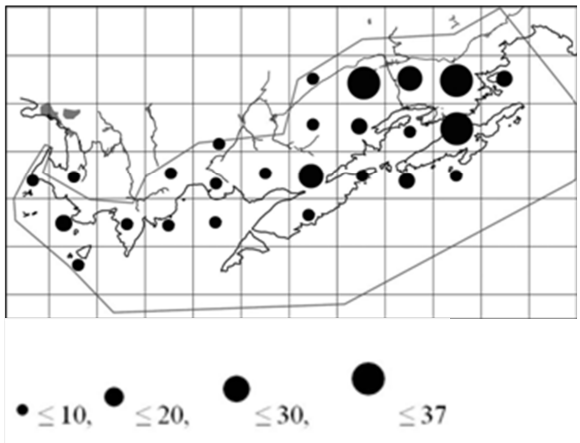

Figure 3. The number of species detected in each square

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Conclusion

This first ornithological study in the Kaş Kekova SPA presents preliminary results to assess the bird species status and distribution of the area. Our first data suggest that species diversity increases near freshwater streams and is low on the islands. Greenhouses situated in the freshwater zones serve as an important feeding resource. Although the area still preserves valuable natural landscapes and habitats, it suffers an increasing pressure on nature by e.g. tourism, agriculture and livestock development. According to the principles of sustainable natural resource management, it will be important to strive towards a good balance between landuse and conservation of nature. Therefore, in order to follow and evaluate the breeding bird population in this SPA, we recommend to start a monitoring program in the near future.

Acknowledgements

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Figures 4-14: Distribution maps from species with conservation categories 1,2 and 3 (Burfield et al 2004), with category (SP) and number of breeding pairs (BP)

Figure 4. *Larus audouinii*, Audouin's Gull: SP1, BP: 6

Figure 5. *Falco naumanni*, Lesser Kestrel: SP1, BP: 5

Figure 6. *Falco peregrinus,* Peregrine Falcon: SP1, BP: 5

Figure 7. *Coracias garrulus*, Roller: SP2 BP:1

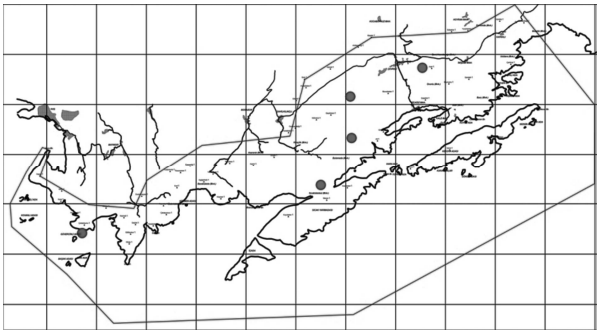

Figure 8. *Lanius senator*, Woodchat Shrike: SP2, BP: 13

Figure 9. *Circaetus. gallicus,* Short-toed snake-eagle: SP3, BP: 14

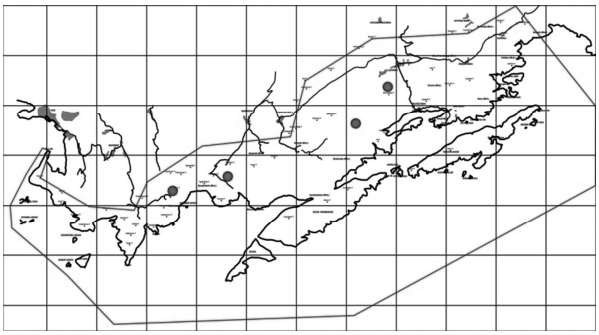

Figure 10. ***Buteo rufinus*****, Long-legged Buzzard: SP3, BP: 13**

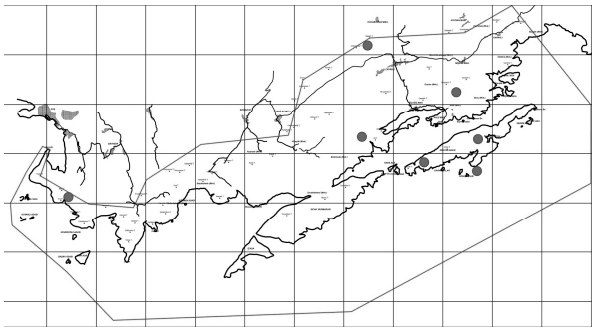

Figure 11. ***Falco tinnunculus*****, Kestrel: SP3, BP:12**

Figure 12. ***Delichon urbica*****, House Martin: SP3, BP13**

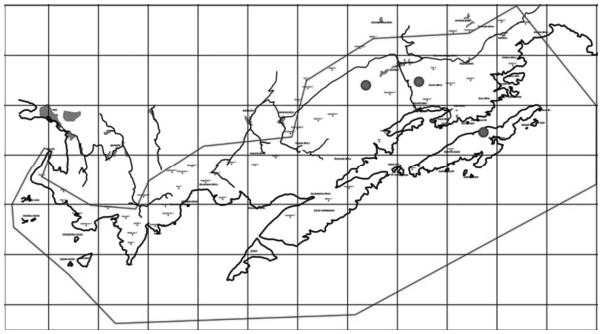

Figure 13. ***Oenanthe oenanthe*****, Northern Wheatear: SP3, BP: 10**

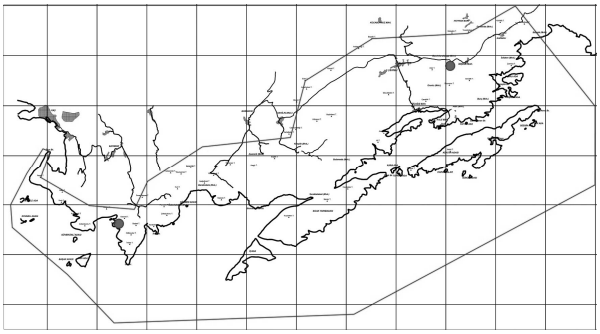

Figure 14. ***Passer montanus*****, Tree Sparrow: SP3, BP:13**

EUROPEAN ATLAS NEWS

A new Dutch atlas project on the go!

Chris van Turnhout, Jouke Altenburg & Ruud Foppen
Sovon Dutch Centre for Field Ornithology, Toernooiveld 1 6525 ED Nijmegen, The Netherlands
vogelatlas@sovon.nl

Introduction

The Netherlands is launching a new atlas project! Sovon, the Dutch centre for field ornithology, starts with the field work in November 2012. It is not long ago that the second atlas of the Dutch breeding birds was published (2002), but the Dutch breeding bird community has undergone large changes since then. The same goes for migrants and wintering species. For those species it was already 30 years ago that an atlas was published. Hooded crows have disappeared completely since then, Great egrets recolonized our country, we all know that. But what about the changes that have occurred in the distribution of Linnets in winter for instance? Moreover, nature policy on both the national and international (European) level asks for more actual and detailed data on distribution and numbers of birds. In this sense the atlas also fits perfectly in the plans of the EBCC to publish a new European breeding bird atlas. Fieldwork will last three winter- and breeding seasons, 2012-2015. In this paper we briefly describe the methods that are going to be used to collect the data.

Aims

The main aims of the new atlas are:

(1) to capture the present distribution of breeding and wintering birds and the changes with previous atlas periods
(2) to describe the variation in (absolute) breeding and wintering densities and at a detailed spatial scale (250 x 250m) and, for breeding birds, the changes with the previous atlases
(3) to estimate actual breeding and wintering numbers and the changes with the previous estimates
(4) to describe the seasonal patterns in distribution and numbers for non-breeding birds and the changes with the previous atlas
(5) to attract a new pool of volunteer observers to bird census work in the Netherlands

Methods

The methods to collect the data are largely similar to the ones used during the previous atlas period, and to the one used recently in the new British atlas. One of the most important aims of the atlas project is to register and describe changes, so it is vital that

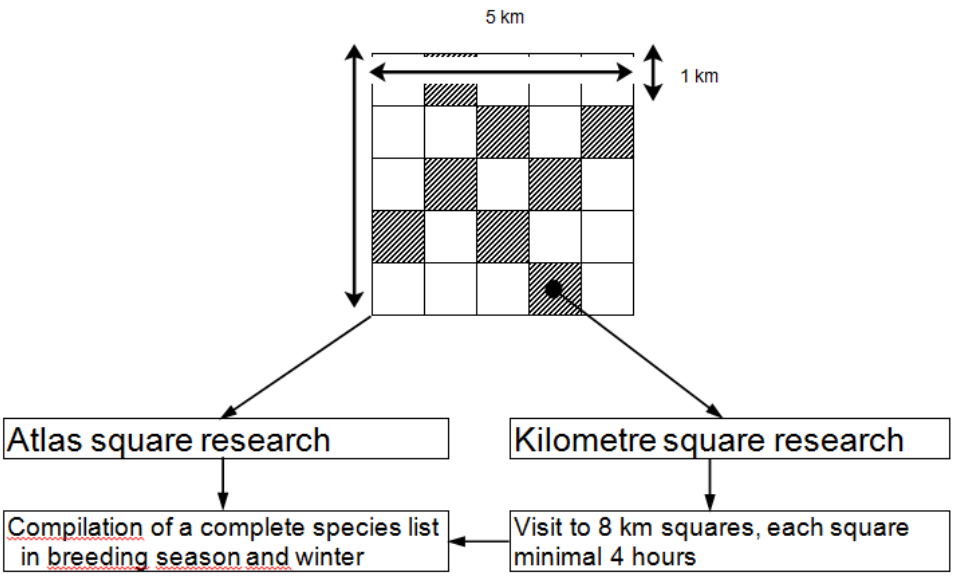

Figure 1. Representation of the core survey data for the atlas

the collected data in both periods are comparable. The basis is the collection of complete species lists in each five by five kilometre square (our basic atlas grid). Therefore, we ask observers to 'adopt' an atlas square and visit it at least three times in spring and three times in winter. Breeding codes need to be noted as well as an estimate of the number of breeding pairs and for a selected number of species also the wintering numbers. For scarce and rare species we also like to know the exact location of the observation and we will use additional data sources with observations for those species. Additionally we ask observers to collect more quantitative data by visiting two times per season 8 out of 25 kilometre squares for a fixed time of exactly one hour, including a five minute point count in the centre of each km square. The 1x1 km squares are preselected (same squares as 15 years ago) and are counted two times in spring and two times in winter. Non-obligatory, observers are encouraged to perform more points counts, for instance more often during the season or two times five minutes in a row (to estimate detection probabilities using N-mixture models). Also observers are asked to map their point count observations (to be able to retrieve estimates of absolute abundance by distance sampling methods). See figure 1 for a brief visualization of the count methods. In comparison to the previous breeding bird atlas we hope to generate distribution maps with more detail and also to have more and better data to estimate breeding numbers on a regional and national basis.

We try to make the data collection phase as attractive as possible for a large group of observers by including roving records (e.g. by apps or easy access website) and by giving the opportunity to do additional one hour kilometre square surveys (including a point count) in all the squares in all months of the year, without the need to 'adopt' an atlas square.

Data collection

For data collection and presentation we make use of the latest IT developments. Instead of collecting data on paper forms we develop mobile phone (apps) and website entry forms. We also want to use the web to present our results in a more detailed and elaborated way than is possible by only presenting a paper book. We want to start with this already in the first year of data collection. This means that we actually talking about a live atlas that evolves during the atlas process. This is an attractive feed back to our observers but has also the advantage that it can be updated also after the atlas project has been finished provided that sufficient km-square locations remain to visited in the years thereafter. This is quite feasible because we can integrate these counts with the counts of our regular monitoring schemes, which we will of course continue during the atlas project.

Project organisation and planning

The main project will be run by a project coordinator and an assistant hosted at Sovon. He will set up a system of regional atlas coordinators. They will constitute the crucial link with (voluntary) observers. Their primary task is to look for observers, to guide them where needed and to assist in the data control. This summer will be the preparation phase with e.g. an important goal to develop the web-, database- and mobile applications and the production of a field manual. For more information please contact:
Jouke Altenburg, vogelatlas@sovon.nl or
Chris van Turnhout, chris.vanturnhout-@sovon.nl.

Atlas III – a new atlas mapping the birds of Denmark 2012-2019

Irina Levinsky, Timme Nyegaard & Thomas Vikstrøm*
BirdLife Denmark, Vesterbrogade 140, 1620 Copenhagen V, Denmark
www.dof.dk*project manager, thomas.vikstroem@dof.dk

Introduction

BirdLife Denmark has recently launched a new atlas project mapping the distribution of the birds of Denmark. The project will run over the coming eight years and will involve more than 1000 volunteers, collecting data over a four year period (2014-17). The new atlas, Atlas III, will be the third project mapping the breeding birds in Denmark. The previous atlas projects were carried out by BirdLife Denmark with app. 20-year intervals, in 1971-74 and 1993-96, respectively. The timing is therefore perfect for a new atlas, made possible thanks to a generous grant from the Aage V. Jensen Nature Foundation.

Aims

Like the previous atlases, the new atlas aims to map the distribution of all breeding bird species in Denmark using a 5x5 km grid, resulting in 2163 squares. In addition, Atlas III will include several new features. For the first time, the wintering birds will be sampled in addition to the breeding birds. Furthermore, inspired by, among others, the excellent Catalan Winter Bird Atlas (Herrando *et al*. 2011), the relative and total abundance of the breeding and wintering populations of the most common species will be estimated using distance sampling. For this purpose, line transects will be placed in the squares in order to account for probability of detection. Finally, the atlas will include exact counts of the breeding populations of 18 rare bird species that have proven difficult to cover by BirdLife Denmark's existing monitoring projects, the Rare Breeding Bird Monitoring Programme and the Common Bird Census.

The atlas project features new digital elements, as well. New media enables the use of electronic reporting channels for registering the collected data, including an app for smartphones, which will use the internal GPS of the phone to navigate to the relevant square on the grid system. A freely accessed website will be updated automatically on a daily basis, visualising the new results and permitting anyone interested to keep track of the project's progress.

Planning and coordination

The complete atlas is planned be published in 2019 as a digital database as well as printed as a book. With the field work completed already in 2017, up-to-date data will most likely be available for *The EBCC Atlas of European Breeding Birds II*, which is to be published in 2019, as well.

The project will be coordinated by BirdLife Denmark, and field work will be carried out by volunteers in BirdLife Denmark's 13 local branches, with assigned coordinators for each square - responsible for coordinating the data collection in that specific square.

The Swiss Breeding Bird Atlas 2013-2016

Peter Knaus
Swiss Ornithological Institute, Seerose 1, CH-Sempach, Switzerland
atlas@vogelwarte.ch, web http://atlas.vogelwarte.ch

Introduction

In Switzerland (and the Principality of Liechtenstein), two national breeding bird atlases have been published, and fieldwork for the third atlas will start next year. Data for the first atlas were compiled from 1972 to 1976. It was basically a qualitative atlas: For each atlas square (10 × 10 km), every breeding bird species was recorded, if possible with a certain breeding record. Accordingly, the observations of each species were presented on distribution maps with symbols for squares with possible, probable or confirmed breeding. Further details such as the exact location or details for rarer species were (unfortunately) generally not submitted by the 271 collaborators. With the publication of the first atlas, the distribution of all Swiss breeding birds was illustrated for the first time with a standardised method (Schifferli et al. 1980).

20 years after the first atlas, the second one was started, also because there were signs of marked changes in distribution due to changes in agricultural policy and land use. Fieldwork was carried out from 1993 to 1996. The aim was to present a detailed picture of the distribution and abundance of breeding birds that allowed the detection of differences between regions and altitude levels.

Three approaches were used for different groups of breeding birds: (a) *Widespread species* (125 species) were mapped in 5 or 10 1 × 1 km squares per atlas square (10 × 10 km) by a simplified territory mapping. Each square was surveyed three times during the breeding season; above the tree line only two surveys were required. (b) Of the 8 *colonial species* (e.g. Sand Martin *Riparia riparia*) all colonies and nests were recorded, for the same species if possible in the same year. (c) The remaining 69 *rare species* (e.g. Eurasian Hoopoe *Upupa epops*) were searched for anywhere in the atlas square to provide at least one observation.

These data resulted not only in *comparative distribution maps* 1972–1976 vs. 1993–1996, but also in *point maps* for rare and scarce species, illustrating the square kilometres with observations. For the first time relative *abundance maps* were published for widespread species, which illustrated regional differences in density, interpolating the data of the 2943 1 × 1 km squares with territory mapping. About 1000 ornithologists, mainly volunteers contributed to the second atlas that became a milestone in Swiss ornithology (Schmid et al. 1998).

Because many species had suffered massive declines already in the 1970s and before, another atlas project was started in 2007 to document the distribution of the breeding birds in the 1950s (Knaus 2011). The perimeter and the number of atlas squares were identical to the 1993–1996 atlas. Data were gathered from various sources: As many observers as possible who were active at the time were contacted, old notebooks were collected and archives and publications searched for specific records. That allowed

well-founded comparisons with the 1970s and 1990s for around half of the species. This Historic Breeding Bird Atlas documents the magnitude of losses in species richness since 1950–1959, especially in farmland areas (Knaus et al. 2011).

Since the 1993–1996 atlas, several breeding birds show marked distribution changes. Using casual observations for the period 1997–2011 they are illustrated for the Red Kite *Milvus milvus* and the Woodchat Shrike *Lanius senator* (Fig. 1 and 2).

Methods for the 2013–2016 atlas

The methods for the new atlas will be very similar to the 1993–1996 atlas. The grid is the same (467 atlas squares of 10 × 10 km), and there is again a simplified territory mapping in 5 1 × 1 km squares per atlas square. The number of 1 × 1 km squares will be lower due to better statistical models. These squares will be representative with regard to habitat types and altitude for the atlas square.

The breeding birds are divided into five groups with different survey methods:

(a) *Widespread species* (93 species) are widespread in the whole country or at least in certain regions. These species are mapped in the selected 1 × 1 km squares. If not observed during these surveys, they have to be searched for in the rest of the atlas square.

(b) *Rare species* (104 species) are rare or breed only exceptionally, or they are difficult to record during ordinary surveys (e.g. because they occupy large territories). All observations should be reported with precise sightings. Possible habitats of these species should be searched for extensively, so that the distribution at a resolution of 1 km^2 is as complete as possible, at least for species easy to record (e.g. Icterine Warbler *Hippolais icterina*).

(c) *Rare species (Plateau, Jura)*: 8 species are still quite widespread in the Alps, but rare or clearly declining on the Plateau and in the Jura (e.g. Ring Ouzel *Turdus torquatus*, Citril Finch *Serinus citrinella*). They also have to be reported with precise sightings in those two regions, and possible habitats of these species should be searched for extensively.

(d) *Colonial species:* 10 species nesting in colonies are included in this group (e.g. Grey Heron *Ardea cinerea*, Common Tern *Sterna hirundo*). All colonies and nests of these species should be searched and reported with precise sightings. As a result, distribution and population per atlas square should be known.

(e) *Colonial species (settlements):* Two species breed predominately in settlements, Common Swift *Apus apus* and House Martin *Delichon urbicum*. Both depend on conservation measures, and more information about medium-sized and large colonies is needed. Therefore all colonies with at least 10 pairs should be reported with precise sightings and searched for in the whole atlas square.

The data will result in *comparative distribution maps* for the three atlas periods since 1972–1976, for 100 species comparisons are also possible with the Historic Breeding Bird Atlas 1950–1959. One of the exciting results will be *comparative abundance maps* illustrating differences in the density since 1993–1996 on the basis of 1 × 1 km squares. This will highlight interesting facts, such as changes in the hotspots of Red-List species and the success of recovery programmes. The differences in the

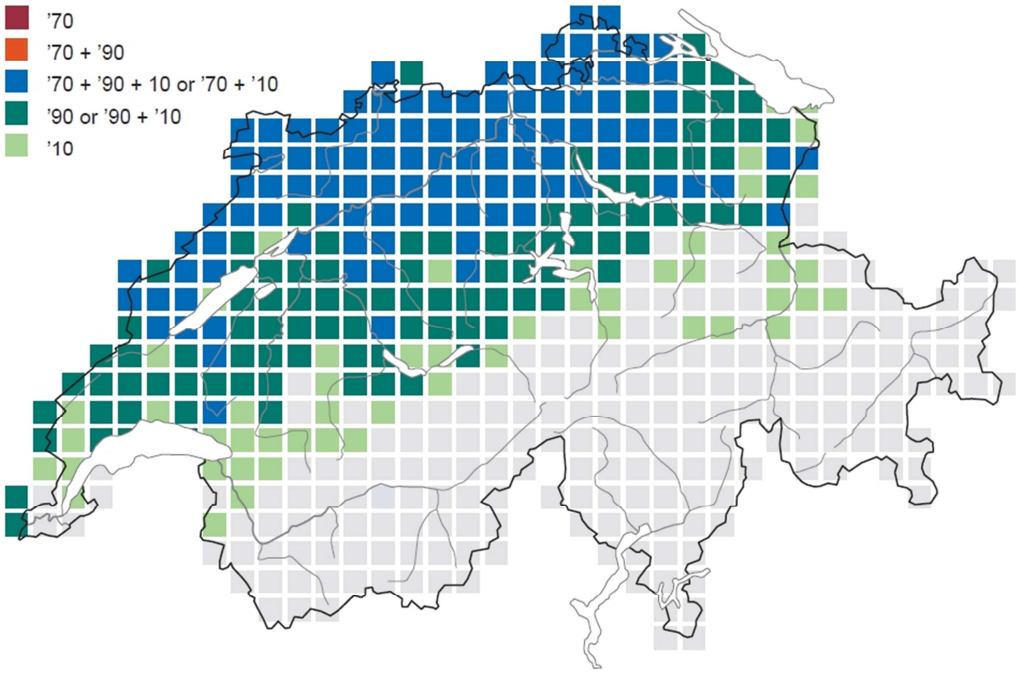

Figure 1. The comparative distribution map of the Red Kite Milvus milvus, illustrating the atlas squares occupied in 1972–1976, 1993–1996 and 1997–2011 (for the last period based on casual observations). The species is constantly expanding its range and is colonising more and more the Alps.

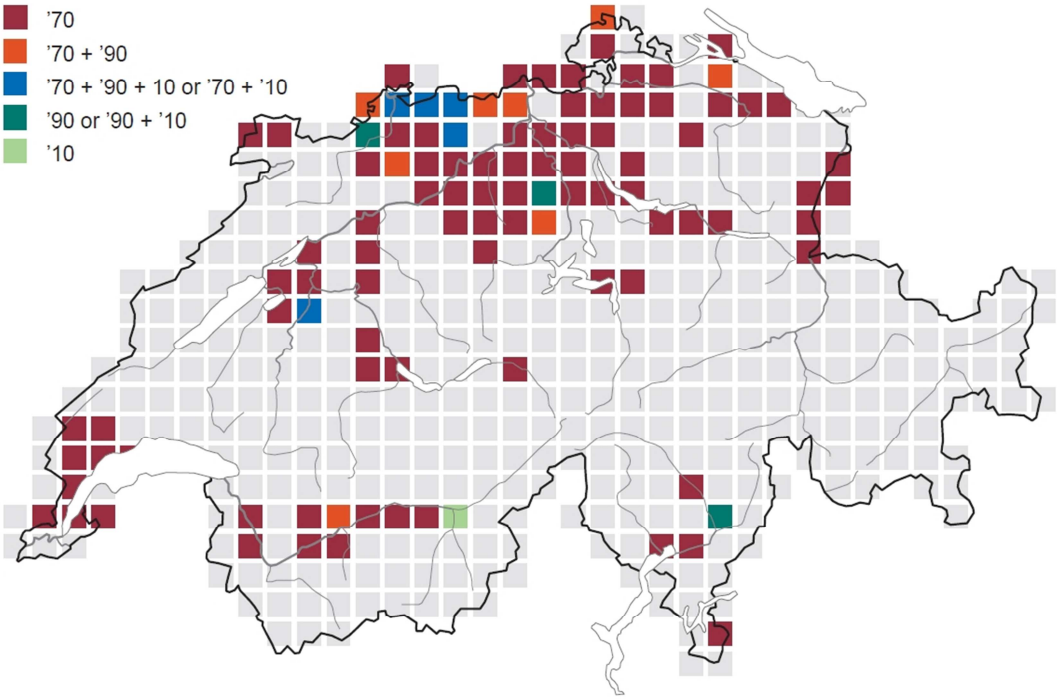

Figure 2. The comparative distribution map of the Woodchat Shrike *Lanius senator*, illustrating the atlas squares occupied in 1972–1976, 1993–1996 and 1997–2011 (for the last period based on casual observations). Victim mainly of the intensive agriculture, the species is on the fringe of extinction.

altitudinal distribution since 1993–1996 will show the effects of climate change. With the atlas data improved estimates of the population size of all breeding birds will be possible. Finally the territory mapping and the precise sightings of rare species will allow to

model distribution and population densities in combination with habitat data. Until now, for instance we don't know the proportion of Common Cuckoos *Cuculus canorus* breeding in wetlands, in alpine habitats or in agricultural areas.

Basically all data will be transmitted electronically. The online portal www.ornitho.ch will play a key role, from where data are extracted regularly into the atlas data base. Also the analyses of the simplified territory mapping will be carried out online. Further an automatic delimitation of the territories is planned.

For the new atlas we work together with 20 regional atlas coordinators. They provide a link between the observers and the atlas team at the Swiss Ornithological Institute and advise the observers on fieldwork methods and organisation as well as on analyses of the territory mapping.

To instruct the collaborators and to promote the atlas a special website is online since mid-July 2012: http://atlas.vogelwarte.ch. In four languages (including English) all information about the atlas, species difficult to record and the participation possibilities are available. In a forum the collaborators can discuss special issues and exchange their field experience. The posts in this forum are regularly checked by the atlas team to avoid misunderstandings and to clarify the explanation of the methods. The website also serves for funding. Individual persons, societies and companies can support their favourite species in the book to be published in 2018.

The data of the Breeding Bird Atlas of Switzerland and Liechstenstein 2013–2016 will of course also be available for the new European Breeding Bird Atlas.

Acknowledgements

Many thanks to my colleagues in the atlas steering committee: Lukas Jenni, Verena Keller, Matthias Kestenholz, Hans Schmid and Niklaus Zbinden. Much work is also done in the atlas working group, whose members are Sylvain Antoniazza, Jérôme Duplain, Roman Graf, Jérôme Guélat, Guido Häfliger, Marc Kéry, Roberto Lardelli, Claudia Müller, Bertrand Posse, Michael Schaad, Martin Spiess and Bernard Volet and the steering committee.

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BOOKS AND JOURNALS

U. Ottosson, R. Ottvall, J. Elmberg, M. Green, R. Gustafsson, F. Haas, N. Holmqvist, Å. Lindström, L. Nilsson, M. Svensson, S. Svensson & M. Tjernberg, 2012 Fåglarna i Sverige – antal och förekomst. (In Swedish with English summary and short species account summaries: Birds in Sweden – numbers and distribution) Sveriges Ornitologiska Förening, Hamstad, ISBN 978-91-88124-005
Order: http://www.sofnet.org/naturbokhandeln/start/ and then press "Webbutik" (where you can chose English). The price is SEK 595 (about EUR 70).

This book presents national and regional population estimates for the 251 species that bred in Sweden in 2008. It is the first time estimates are published for each of Sweden's 21 counties and 29 provinces. Also, for the first time high resolution maps showing the relative density of most species breeding in the country are published and the most transparent and geographically detailed population estimates are given. It has taken 14 years to compile, interpret and summarize the huge amount of data available, including many sources that are either unpublished or non-retrievable through conventional database search utilities. The chapter on Data sources learns us that a considerable amount of published and unpublished bird data as well as habitat data have been used. Density data were designated to habitat categories as far as was possible. The purpose was to create a database with densities to be used for extrapolation by area to obtain population estimates for regions and habitats. The methods for estimating population sizes, explained in a separate chapter, have been developed in two main ways: by compilation and evaluation of existing population data, and by extrapolation of density data. Both are explained in detail. Density ranges and post-extrapolation interpretations are explained for each species in the species accounts. The final national estimates are simply sums of the regional estimates, usually a number mid-way between the minimum and maximum estimates. The next section on population estimates presents in four tables the details of large-scale patterns in abundance and distribution of Sweden´s breeding birds. This includes rankings of the most abundant species nationally by pair number, biomass, the number of breeding species and pairs per province. Another interesting chapter is the one on perspectives on the present population estimates. With some 250 breeding species, 21 counties and 29 faunistic provinces, in the order of 10000 population estimates are given in this book. The authors recognize that temporal change is a problem with respect to the more common species as most density data on which this book is based stem from the 1970s and the 1980s. However, whenever reliable trend estimates have been available the population estimates have been corrected accordingly, if needed. Comparison with previous national estimates reveals not that much changes but trend data imply that the total number of breeding birds has probably decreased by some 30% since the 1970s, at

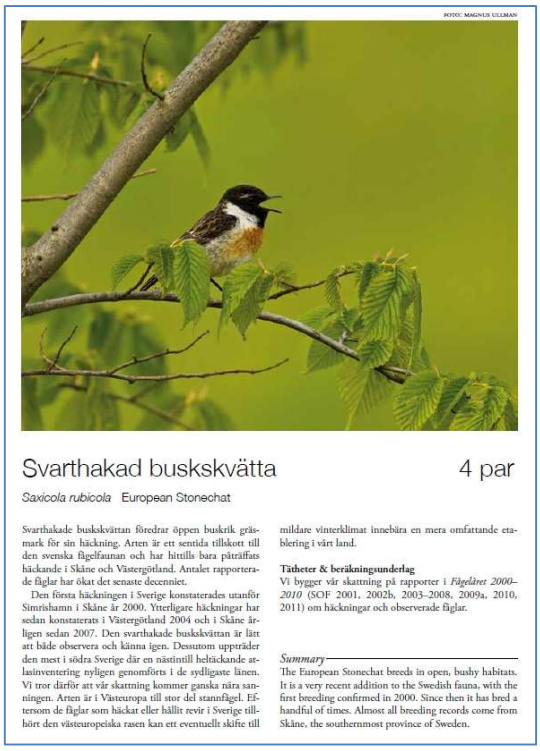


FOTO: MAGNUS ULLMAN

Svarthakad buskskvätta 4 par

Saxicola rubicola European Stonechat

Svarthakade buskskvättan föredrar öppen buskrik gräsmark för sin häckning. Arten är ett sentida tillskott till den svenska fågelfaunan och har hittills bara påträffats häckande i Skåne och Västergötland. Antalet rapporterade fåglar har ökat det senaste decenniet.

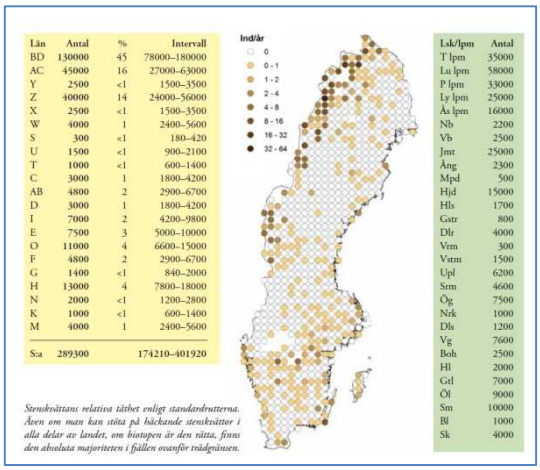
Den första häckningen i Sverige konstaterades utanför Simrishamn i Skåne år 2000. Ytterligare häckningar har sedan konstaterats i Västergötland 2004 och i Skåne årligen sedan 2007. Den svarthakade buskskvättan är lätt att både observera och känna igen. Dessutom uppträder den mest i södra Sverige där en nästintill heltäckande atlasinventering nyligen genomförts i de sydligaste länen. Vi tror därför att vår skattning kommer ganska nära sanningen. Arten är i Västeuropa till stor del stannfågel. Eftersom de fåglar som häckat eller hållit revir i Sverige tillhört den västeuropeiska rasen kan ett eventuellt skifte till mildare vinterklimat innebära en mera omfattande etablering i vårt land.

Tätheter & beräkningsunderlag

Vi bygger vår skattning på rapporter i *Fågelåret 2000–2010* (SOF 2001, 2002b, 2003–2008, 2009a, 2010, 2011) om häckningar och observerade fåglar.

Summary

The European Stonechat breeds in open, bushy habitats. It is a very recent addition to the Swedish fauna, with the first breeding confirmed in 2000. Since then it has bred a handful of times. Almost all breeding records come from Skåne, the southernmost province of Sweden.



Län	Antal	%	Intervall
BD	130000	45	78000–180000
AC	45000	16	27000–63000
Y	2500	<1	1500–3500
Z	40000	14	24000–56000
X	2500	<1	1500–3500
W	4000	1	2400–5600
S	300	<1	180–420
U	1500	<1	900–2100
T	1000	<1	600–1400
C	3000	1	1800–4200
AB	4800	2	2900–6700
D	3000	1	1800–4200
I	7000	2	4200–9800
E	7500	3	5000–10000
O	11000	4	6600–15000
F	4800	2	2900–6700
G	1400	<1	840–2000
H	13000	4	7800–18000
N	2000	<1	1200–2800
K	1000	<1	600–1400
M	4000	1	2400–5600
Sua	289300		174210–401920

Lsk/lpm	Antal
T lpm	35000
Lu lpm	58000
P lpm	33000
Ly lpm	25000
Ås lpm	16000
Nb	2200
Vb	2500
Jmt	25000
Ång	2300
Mpd	500
Hjd	15000
Hls	1700
Gstr	800
Dlr	4000
Vrm	300
Vstm	1500
Upl	6200
Srm	4600
Ög	7500
Nrk	1000
Dls	1200
Vg	7600
Boh	2500
Hl	2000
Grl	7000
Öl	9000
Sm	10000
Bl	1000
Sk	4000

Stenskvättans relativa täthet enligt standardrutterna. Även om man kan stöta på häckande stenskvättor i alla delar av landet, om biotopen är den rätta, finns den absoluta majoriteten i fjällen ovanför trädgränsen.

least in southern Sweden (based on the point count program of the Swedish Bird Survey). With this decline in mind the relationship between the estimate in the 1970s and those of the 1990s and 2000s seem to be in good harmony. A special chapter is dedicated to the analysis of gradients within Sweden. The present book does demonstrate several novel patterns in density gradients within the country. Some 'taiga species' have long been known to decrease in abundance towards the south, just as many southern species decrease in abundance towards the north. However, for some species with a pan-Swedish distribution there are now quantitative data to demonstrate that they breed in markedly higher densities in the north than in the south, which is probably an unexpected pattern to many readers. A novel pattern also evident is that many species increase in abundance from the west to the east in southern Sweden. In the next chapter two important needs towards better future estimates are presented. Firstly it is necessary to produce efficiency values so that the counts from the Fixed Routes in the Swedish Bird Survey can be transformed to true densities. Secondly, a deeper focus on the species and habitats not covered well by the standardized multi-species programs is needed. After an extended English summary comes the main part of the book: the species texts. All accounts start with the species´ Swedish, scientific, and English names, and the estimated national breeding population given in pairs. The first paragraph briefly describes distribution, habitat preference and population change during the last 10 or 30 years.The second is devoted to comparing our estimates with previous ones, and to describing differences and patterns in density among habitats and geographic regions. Next, general patterns in observed densities are presented and evaluated, usually by habitat and region. Details are given on the range of density values actually used for the extrapolations, listed by habitat and county/province , and several more estimation data. Most species accounts feature a map presenting data from the Fixed routes of the Swedish Breeding Bird Survey. These maps provide a reliable picture of the geographic range and regional differences in abundance of the common species. However, the limits of the abundance categories differ among species; hence the maps can neither be used to directly compare abundance among species, nor to derive absolute abundance numbers. The latter depend much on season, detectability and various assumptions underlying census efficiency. A table contains the estimated population sizes by province. Each species account is

illustrated with at least one picture and here priority was given for the habitat rather than the bird itself. The text ends with a short English summary.
For those who are interested in nordic birds and a good example of data analysis and presentation, do not hesitate to read it!

S. Herrando, L. Brotons, E. Estrada, S. Gualla. & M. Anton (eds.) 2011: Atles dels ocells de Catalunya a l'hivern 2006-2009 (In Catalan with English summary: Catalan Winter Bird Atlas 2006-2009). Institut Català d'Ornitologia/Lynx Edicions. Barcelona. 645 pages. ISBN 978-84-96553-72-9.
Order: www.lynxeds.com/catalog/books-birds/palearctic, The prize is 60 €.

To date two breeding-bird atlases had been published in Catalonia (1984 and 2004), but a winter atlas was lacking, despite the importance of this season for many local breeding species and migrants from central and northern Europe.

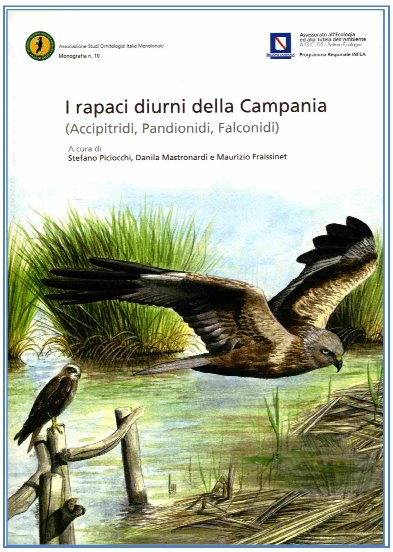
The outputs of this winter atlas go beyond the mere distribution of birds at this time of year and show: 1) fine-grained maps of abundance; 2) variations between winters; 3) information regarding altitude and habitat preferences; 4) population estimates; and 5) temporal trends. As well, it includes information from the significant number of winter bird ringing recoveries to try to ascertain the origin of the birds that spend the winter in Catalonia. Interestingly, the distribution and abundance of the seabirds (which in winter may be completely pelagic) are also shown in this book.
The first pages of the atlas show the characteristics of the Catalan climate and habitats during the cold season, which are followed by a methodological chapter fully translated into English. This methodological section is particularly extensive and shows how data collection protocols integrated existing winter monitoring projects and how taxonomic or spatial gaps were covered. It also shows, for instance, the modellisation techniques applied to generate the five different fine-grained map types or the distinct analyses conducted to estimate winter population sizes. The species sheets detected during the study period in Catalonia are organized into three different chapters: 1) Resident or wintering species, 2) Very rare species and 3) Exotic or introduced but not established species. This part of the book is written in Catalan but includes comprehensive English summaries.
As a whole, this book explains the relevance of the study area during the cold season, when the overall bird abundance doubles that of the breeding season. In total, 318 species have been found in this atlas; among them some winter visitors commonly expected to be further south, such as the Quail, the Wryneck or the Scops Owl, whereas waterbirds from northern latitudes such as the Black-

tailed Godwit, the Dunlin or the Shelduck concentrates in the Ebro Delta in numbers so high that the area is considered of international importance for them. Up in the Pyrenees, Alpine sparrows coming from the Alps spend the winter among resident Lammergeyers. Meanwhile, Dartford Warblers, Southern Grey Shrikes and Thekla Larks occur.

Sergi Herrando

S. Piciocchi, D. Mastronardi & M. Fraissinet (Eds) 2011: I rapaci diurni della Campania (Accipitridi, Pandionidi, Falconidi) (In Italian with English summary: Diurnal raptors of Campania). ASOIM, Monografia 10, Napoli. 256 pages. ISBN 978-88-904432-4-4.
Order: contact Maurizio Fraissinet, mfraissinet@tiscali.it

As the title says, this book deals with diurnal raptors in the south Italian region of Campania. It is the result of more than 20 years of ornithological research and raptor monitoring by members of the Ornithological Association of Soutern Italy (ASOIM). After some introductory chapters which provide information on geography, habitats, raptor taxonomy and the methods used for this report, we come to the main part of the book, the species accounts. For each of the30 species (breeding, migratory, wintering or occasional) we find a description of their current status and information on their phenology, characteristics, breeding distribution (including a map) and population size as well as on population trends, threats and management aspects. Each species text is illustrated with various good quality colour pictures. The book concludes with a part dedicaded to relations between raptors and man in Campania. One interesting issue is about the raptor recovery centres, where recovery has often been conducted on a scientific basis, with research into rehabilitation trends of individual species. Other issues dealt with are e.g. hunting, habitat changes and the excessive proliferation of wind turbines. With the many pictures and the comprehensive texts this book will no doubt appeal to a much broader public than ornithologists alone, which is of course very welcome in an area where illegal hunting is still an important problem.



Anny Anselin

EVENTS

Successful PECBMS workshop and Birds in Europe launch in Mikulov, Czech Republic, February 2012

PECBMS workshop

The fourth PECBMS workshop was held in Mikulov, Czech Republic from 6 - 8 February 2012. The workshop goals were to bring together all national coordinators and other co-workers as well as policy experts for discussions on the usage and development of common bird indicators, on the potential increase of species and regional coverage or on the new research directions. The aims of the workshop were also to revise the project outcomes after the 10 years of its existence and outline its future directions. Outputs of discussion will be used in project long-term planning. Based on the anonymous workshop evaluation, we can conclude that the workshop was well appraised by the participants and they got new ideas for their own work in coordinating monitoring schemes. All presentations and conclusions of discussions are freely available on http://bigfiles.birdlife.cz/ebcc/PECBMS_workshop2012/PECBMS/. A report of the workshop is foreseen for the next issue.

Petr Voříšek & Jana Škorpilová

Birds in Europe, 3,2,1….launch!

In early February, 100 ornithologists and stakeholders from 40 countries defied the harsh winter weather and met in the southern Czech town of Mikulov, to launch the exciting three-year project "Birds in Europe 3". The overall goal is to collate the best available data on the distribution, trends and abundance of all European bird species, and produce the third assessment of their population status.

The results of the two previous editions of 'Birds in Europe' published by BirdLife in 1994 and 2004, both had massive impacts on conservation, research and policy. They first revealed widespread declines in farmland birds across Europe, and helped ensure that agri-environment measures became mandatory under the EU Common Agricultural Policy. The second highlighted the plight of many long-distance migrants, but also showed that the EU Birds Directive has had a significant, positive impact on the rare and threatened species that it aims to conserve, mainly via the Natura 2000 protected area network.

The European Commission is funding the new project, as part of its wider commitment to support European Red List assessments for various groups of animals and plants. Since 2005, the International Union for Conservation of Nature (IUCN) has produced European Red Lists for all terrestrial vertebrates, except birds. This gap will now be filled. By collating the latest data on the size and trend of bird populations and ranges in each country, it will be possible to reassess their status and produce Red Lists at both European and EU scales, to help set conservation priorities for the coming years.

The new project will be implemented by a strong and experienced consortium, led by BirdLife International. It includes the European Bird Census Council, Wetlands International, SOVON (Dutch Centre for Field

Ornithology), British Trust for Ornithology, Royal Society for the Protection of Birds/BirdLife in the UK, Czech Society for Ornithology/ BirdLife in the Czech Republic, IUCN and BirdLife Europe. These organisations have a long history of successful cooperation on relevant initiatives, such as the global Red List, Pan-European Common Bird Monitoring Scheme, International Waterbird Census, Waterbird Population Estimates, Important Bird Areas, European Breeding Bird Atlas, and of course the two earlier editions of 'Birds in Europe'.
Crucially, the project will draw heavily on the overall expertise and data holdings of national bird monitoring schemes and organisations across Europe, including BirdLife Partners and many others.
The data required from each country are similar to those that EU Member States have agreed to report to the European Commission every six years, under the Birds Directive. Real efforts have been made to harmonise these two processes, so that the consortium can provide technical support to Member States and help ensure that one common, agreed data set emerges in 2014, serving various purposes. The consortium will also support the European Commission in combining and analysing the data at EU level, to help measure progress towards the targets agreed in the EU Biodiversity Strategy for 2020.
Ian Burfield

19th International Conference of the EBCC, Romania 2013

The next EBCC conference will be held in Cluj, Romania, organised by the Societatea Ornitologica Romana (BirdLife Romania). The conference days are **17-20 September 2013** with suggested arrival on Monday 16th and departure on Saturday 21st September. Any new information on the conference will be regularly updated on the EBCC-website, www.ebcc.info. The first announcement will be send in autumn 2012.

Your text in the next issue?

Bird Census is meant as a forum for everybody involved in bird census, monitoring and atlas studies. Therefore we invite you to use it for publishing articles and short reviews on your own activities within this field such as (preliminary) results of a regional or national atlas or a monitoring scheme, species-specific inventories, reviews or activity news of your country (as a delegate: see also below)

Instructions to authors

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

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

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

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