

KEY CONCEPTS OF ARTICLE 7(4) OF DIRECTIVE 79/409/EEC

PERIOD OF REPRODUCTION AND PRENUPTIAL MIGRATION
OF
ANNEX II BIRD SPECIES IN THE 28 EU MEMBER STATES

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TABLE OF CONTENTS

INTRODUCTION	3
1. CONTEXT AND OBJECTIVE	3
1.1 OBJECTIVE	3
1.2 CONTEXT	3
2. METHODOLOGY	4
2.1 DEFINITIONS	4
Period of reproduction	4
Return to the breeding areas	5
2.2 NATURE OF THE INFORMATION	6
<u>GATHERING OF DATA</u>	6
<u>PROCESSING OF DATA</u>	7
<u>PRESENTATION OF DATA</u>	7
2.3 NEED FOR FUTURE REGULAR REVIEW	8
3. CRITERIA USED TO IDENTIFY THE BEGINNING AND END OF THE PERIOD OF REPRODUCTION	9
4. BIRD SPECIES DATASHEETS	14
5. REFERENCES	15
SPECIES ACCOUNT	30

INTRODUCTION

1. Objective and context

1.1. Objective

This report presents information on the timing of the reproduction period and of pre-nuptial migration (return to the breeding areas) for bird species listed on Annex II of the Directive on the conservation of wild birds (79/409/EEC) occurring in EU28. Annex II lists those bird species that, owing to their population level, geographic distribution and reproductive rate, may be hunted throughout the Community (part 1) or in the Member States in respect of which they are indicated (part 2).

This document is an updated and extended version of the original "Key Concepts" report published in September 2001. Since the publication of the original report, 13 new countries have become members of the EU. Furthermore, much new information on the population size and trends has also become available for the entire EU since 2001. This report is intended to update the version of October 2009 (which included information of the EU-12 new Member States and new information on the status of the species in the 15 Member States that were covered by the first version) with the data from Croatia. However, a thorough update of the document remains necessary in the future to take into account the latest data for all Member States.

1.2. Context

The need for this information arose from a Court of Justice judgement in 1994¹. The Court concluded that the closing date for the hunting of migratory birds and waterfowl must be fixed in accordance with a method that guarantees complete protection of those species during the period of pre-nuptial migration².

Although the Court only examined the question of fixing closing dates for hunting of migratory species, a matter related to the start of the pre-nuptial migration, its interpretation (namely the requirement of 'complete protection'), is also relevant to the fixing of opening dates, a matter related to the end of the period of reproduction.

The exercise to develop a "Key Concept" report was initiated by the Birds Directive's ORNIS Committee (Committee for the adaptation to technical and scientific progress, which is comprised of official representatives of the competent authorities in the Member States and chaired by the European Commission) in November 1998. Both the Committee and the Commission recognised the need to have a clear interpretation of key concepts of Article 7(4) in the light of the 1994 Court of Justice's ruling, and how to apply them to the bird species of Annex II.

The report therefore aimed to summarise information on the period of pre-nuptial migration and reproduction of each Annex II species for each Member State where that species occurs.

As a basis for data compilation a general scheme for 'period of reproduction', including the different possible stages was developed. The sequence and importance of the different elements of this scheme vary in relation to the biology of different species.

¹ Case C435/92, Association pour la protection des animaux sauvages and other v Préfet de Maine-et-Loire and Préfet de Loire-Atlantique. Reference for a preliminary ruling: Tribunal Administratif de Nantes, France. European Court Reports, 1994, page I-0067.

² This case also highlighted other difficulties in applying Article 7(4) linked to staggered closing dates (different closing dates for different species) These are the risk of confusion between different species, which may lead to the shooting of species for which the hunting is already closed. There is also the risk of disturbance caused by hunting to other bird species for which hunting has already closed. These elements are not covered by the present exercise.

Likewise, a working definition was agreed for 'return to the breeding areas'. Further details on these definitions and their application are given in Section 2 of the introduction. The common methodology for collecting the data, including the gathering, processing and presentation of data, is also described in this section.

It must be recognised that there are likely to be some differences in quality of data for species across the Community. In order to ensure a science-based approach to underpin implementation of the directive there will be therefore a need to regularly update this review, taking into account new and better data on these species as it becomes available.

Furthermore, the data for individual species is presented at a national level and does not take into account any regional differences that may exist in relation to pre-nuptial migration and reproduction periods within a Member State. Where hunting seasons are fixed at regional or sub-regional levels there will be a need for more detailed information at the appropriate geographical and administrative levels.

The document provides a necessary step in clarifying the implications arising from the national application of the Court of Justice ruling. However, this work should not be read in isolation as it forms part of an ongoing exercise in interpreting the provisions of the Birds Directive relating to hunting. Furthermore, the data indicate that there are some problems in the definition of hunting seasons under Article 7(4) alone, varying in scale and degree, in every Member State.

Against this background, the Commission is therefore proposing to continue the work on interpretation by examining other key concepts of the Directive relating to hunting including the principles of wise use and ecologically balanced control. The Commission has now developed and updated the "Guidance document on hunting under Council Directive 79/409/EEC on the conservation of wild birds". This interpretation guide forms part of a broader initiative on 'sustainable hunting' under of the Birds Directive which the Commission has initiated with the Member States, the Federation of Associations for Hunting and Conservation of the EU (FACE) and BirdLife International. The initiative is based on a programme of scientific, conservation as well as training and awareness measures. The global warming caused by greenhouse gasses will most like lead to considerable climate change in the coming decades. This is an addition reason for updating this report regularly, as it must be expected that many migratory birds will change the migration and breeding periods in the coming years.

2. Methodology

2.1 Definitions

Initial discussions by the ORNIS Committee's Scientific Working Group in November 1998 agreed the following working definitions:

Period of reproduction¹

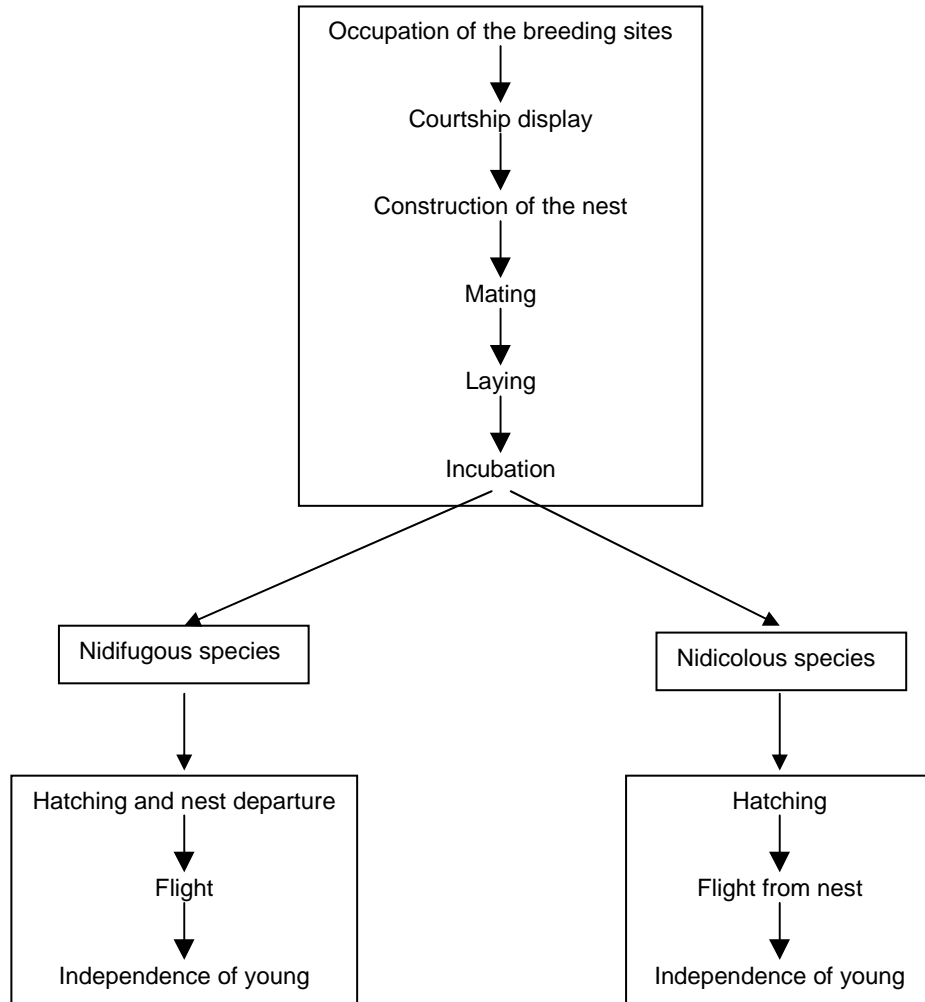
'**Breeding season**'² was defined using the definition of Cramp & Simmons (1977)³: "*the breeding season is the period during which a species lays and incubates its eggs and rears its young to the flying stage.*" However, the '**reproduction period**' not only covers the breeding season but also includes the occupation of the breeding areas as well as the period of dependence of young birds after leaving the nest (previously

¹ Note that Article 7(4) refers both to 'rearing season' and 'the various stages of reproduction' (cf. French version 'les différents stades de reproduction et de dépendance'; German version 'Einzelnen Phasen der Brut- und Aufzuchtzeit')

² This term is considered equal and better English than the term 'rearing season' used in Article 7(4).

³ Cramp, S. & Simmons, K.E.L. (eds). 1977. *Birds of the Western Palearctic*, Volume 1. Oxford, Oxford University Press. 722 pp.

recognised in the 1993 Commission report on the application of the Birds Directive¹). The following scheme, which deals with the different stages of reproduction, was agreed as an appropriate general scheme for the period of reproduction. The sequence and importance of the elements of this general scheme may vary by species according to differences in breeding biology.



Return to the breeding areas²

Return to the breeding areas is an annual displacement, in one of more stages, of birds from their wintering areas back to nesting grounds. The wintering period ends with departure from the wintering areas where migrant birds have been more or less stationary since the end of the post-nuptial (autumn) migration. The return to the breeding areas is commonly called 'pre-nuptial migration' or 'spring migration'.

In Europe, return migration movements are mostly directed north, northeast or northwest. This means that migrants from African winter quarters first cross the Mediterranean, then pass through central Europe on their way to their Northern European breeding areas. This migration normally takes several weeks (including breaks at resting places on the way) but individual birds can complete the journey in

¹ COM (93) 572 final. *Second report on the application of Council Directive 79/409/EEC on the conservation of wild birds.* Brussels, 24 November 1993.

² "return to breeding areas" is taken as a synonym of "return to the rearing grounds"

one or a few days. The start, end and length of the migration season in a particular country are determined by a number of biological, geographical and methodological factors.

Regarding the beginning of the pre-nuptial migration, all individuals of a species within a same region do not end their wintering period at the same time. Not only are there individual differences, but within a single wintering area, birds of different populations having different annual cycles come together. Birds belonging to northern populations, for example, often start their return flight much later than birds breeding more to the south. An extreme case is the so-called 'leapfrog' migration (e.g. in the Redshank): birds breeding in more northern latitudes travel greater distances and move to more southerly wintering areas than those that nest farther south.

The fact that birds leave a wintering area does not necessarily mean that they start their return migration. They can move to other wintering quarters because of changes in the local ecological conditions, exhaustion of food resources, disturbance or changes in climatic conditions. When migratory and sedentary birds of the same species coexist on the same wintering grounds, the situation can be even more complex. Thus, apparent discrepancies may arise among the data for large countries. Major differences between neighbouring regions can reflect ecological differences more than actual differences in migration timing. For example, although the southern parts of Spain (Andalucía) and Italy (Sicilia) are situated on the same latitude (37th) this does not necessarily imply similar arrival dates of migrants because different populations might be involved.

The length of the migration period does not only depend on the north-south extension of the country concerned but also on the availability and the use of resting places. A typical example concerns the Bar-tailed Godwits, which migrate from the African winter quarters to Siberian breeding areas. After a continuous flight from the Banc d'Arguin in Western Africa, they stay several weeks in the Wadden Sea. The migration period length is also determined by the quantity and the geographical range of the birds involved: a small population can pass in a few days while a numerous species with an extensive breeding range can have a prolonged migratory season encompassing several months. Moreover, the migration period can also be extended if a country is passed over by several populations with different time schedules. Methodological reasons can also account for a short period: the start and end dates of migration are not recorded accurately because it only involves small numbers of birds which are often not noted if few observations are available (low chance of recording). As said before, availability of data differs very much from species to species (behavioural differences) and from country to country (e.g. numbers of observers).

In general, the beginning of the return migration can only be estimated by comparison of data from many different regions of the European Union, analysis of ring recoveries and consideration of arrival dates in the breeding areas.

Information defining the timing of pre-nuptial migration was based on statistics relating to populations rather than individual birds.

2.2 Nature of the information

Gathering of data

For the 2001 Key Concepts report the data was compiled in close collaboration with the competent conservation authorities in each of the Member States as well as with BirdLife International and the Federation of Associations for Hunting and Conservation of the EU (FACE). All parties to the exercise were asked to provide the best available information on Annex II species, including where possible with reference to published sources. Accordingly, information for the 2001 version was sought from the national representatives on the Scientific Working Group (SWG) for the relevant bird species.

Initially data was provided on a questionnaire prepared and circulated on December 1998 by the Commission services. Subsequently, and according to the development of the work, updated information was provided either on questionnaires or other forms (e.g. tables).

The additional data on pre-nuptial migration and reproduction periods within the new Member States that were added to this version of the report have been provided by the competent conservation authorities in each country or, in case of lack of data, by the consulted stakeholders.

For this updated version, questionnaires were not used and all new information was provided by Member States authorities and/or their designated experts and/or stakeholders.

Some bird species have been subjected to more intensive study than others, whilst some countries have a long history of ornithological research and others have more restricted information. Thus, the quality and quantity of information presented is variable both between countries and between species. Nonetheless, given these constraints the report summarises data that is considered to be as much as possible the best available. The report presents explicit references for all data allowing an 'audit trail' to original sources.

Processing of data

In connection with the preparation of the 2001 version of this report a small advisory group was formed including experts from the SWG, FACE and BirdLife International. This group discussed various aspects of the draft, compiled data and where information for some species appeared to be anomalous; these were highlighted, via the Commission, with the relevant Member State's SWG representative.

This updated version of the document results from a consultation of the SWG representatives and/or relevant National Authorities and stakeholders mainly aimed at filling in missing data, especially for new Member States. The data were initially screened with the assistance of external contractors. Where information for some species was missing or appeared to be inconsistent, this was discussed directly with the relevant National Authorities. Data provided by National authorities have been given priority as long as they are supported by acknowledged references.

The October 2009 version was updated in August 2014 to integrate Croatian data.

Presentation of data

To avoid spurious precision and to allow for normal between-year variation in timing of migration and breeding events, the data presentations summarise the data on reproduction and return migration in 'decades' or ten-day periods (i.e. 1-10, 11-20, 21 up to 31 in each month).

A number of general principles were adopted in the gathering of data:

- Where there is a range in timing of pre-nuptial migration or breeding (as will occur in most countries of significant size), the data used relate to the earliest periods in each of the Member States concerned. This is generally relating to the southernmost parts or lowest altitudes. Likewise, for the end of the reproduction, the data used refers to the latest dates. This means that regional differences may exist for prenuptial migration and reproduction periods within the territory of one Member State, which may be relevant. The Court considered that "*on condition that complete protection of the species is guaranteed, the fixing of closing dates which vary between the different parts of the territory of a Member State is compatible with the directive.*"

- Where significant between-year variation occurs on a regular basis, data from the earliest periods have always been taken;
- Where different populations of the same species migrate through a country at different times, information relating to the earliest migrating population has been used. In some cases, where different populations (i.e. different subspecies or different flyways) are clearly distinguishable in the field their correspondent timings where given.
- Extreme, outlying and erratic data have been excluded due to their unpredictable nature and falling outside normal patterns of variation between and within years.

2.3 Need for future regular review

In some Member States, progressively earlier breeding¹ and migration² of some species has been demonstrated consequent upon changing climate that is resulting in warmer spring's weather in Europe. This, and climate-induced changes in distributions³ indicate that whilst the data presented here is a good current summary of relating to recent years, there will be a need for regular review and updating. Furthermore, the evolution on the knowledge of reproduction biology and ecology and of migration's phenology may also require future updating.

A thorough update of the document still needs to be done, in order to take into account the most recent references in each Member State and to lift some discrepancies between neighbouring countries⁴.

3. Criteria used to identify the beginning and end of the period of reproduction

In general, for migratory species, the stage of reproduction identifying the start of the period of reproduction is the 'occupation of the breeding sites'. However, the occupation of the breeding sites is generally difficult to use where the species is mainly locally resident or where there is a mixing of locally resident and migratory birds. In these cases, the stage identifying the start of the period of reproduction is the 'construction of the nest'. In those situations where the stage retained is difficult to recognise in the field, a mention is made to the corresponding number of decades counted from the start of egg laying (generally well known for most species).

- In general, the stage retained to identify the end of the period of reproduction is the 'full flight of young birds', i.e. fledging of all broods including second or third broods for some species (e.g. rails / Rallidae, pigeons / Columbidae, thrushes / Turdidae). Full flight means that young birds are capable of sustained, continuous flight to a similar capacity as adult birds and corresponds to the 'independence of young birds. Nonetheless, for certain species (e.g. crows / Corvidae) the full flight occurs before 'independence of young birds'. Young birds are independent when the loss of parental care and/or feeding does not significantly lower survival prospects of young. In those situations where the 'full flight/independence of young' is difficult to establish in the field, a mention is made to the corresponding number of decades counted from the end of hatching.

¹ Crick, H.Q.P., Dudley, C., Glue, D.E. & Thomson, D.L. 1997. UK birds are laying eggs earlier. *Nature* 388: 526.

² Sparks, T.H. 1999. Phenology and the changing pattern of bird migration in Britain. *International Journal of Biometeorology* 42: 134-138.

³ Thomas, C. & Lennon, J. 1999. *Nature* 399: 213.

⁴ For example, Denmark has indicated that the periods appearing for their country do not reflect the latest information.

Key concepts of Article 7(4): Version 2014

The stage identifying the start and the end of the period of reproduction for each individual Annex II bird species is given in the following table:

Species	Start	End
<i>ANATIDAE</i>		
1 - <i>Cygnus olor</i>	<ul style="list-style-type: none"> • occupation of the breeding sites where it is mainly migratory • construction of the nest in all other cases 	full flight of young birds
2 - <i>Anser fabalis</i>	occupation of the breeding sites	full flight of young birds
3 - <i>Anser brachyrhynchus</i>	<i>Does not breed in the EU territory covered by the Directive</i>	
4 - <i>Anser albifrons</i>	<i>Does not breed in the EU territory covered by the Directive</i>	
5 - <i>Anser anser</i>	occupation of the breeding sites	full flight of young birds
6 - <i>Branta canadensis</i>	<ul style="list-style-type: none"> • occupation of the breeding sites where it is mainly migratory • construction of the nest in all other cases 	full flight of young birds
7 - <i>Branta bernicla</i>	<i>Does not breed in the EU territory covered by the Directive</i>	
8 - <i>Anas penelope</i>	occupation of the breeding sites	full flight of young birds
9 - <i>Anas strepera</i>	<ul style="list-style-type: none"> • occupation of the breeding sites where it is mainly migratory • construction of the nest in all other cases 	full flight of young birds
10 - <i>Anas crecca</i>	<ul style="list-style-type: none"> • occupation of the breeding sites where it is mainly migratory • construction of the nest in all other cases 	full flight of young birds
11 - <i>Anas platyrhynchos</i>	<ul style="list-style-type: none"> • occupation of the breeding sites where it is mainly migratory • construction of the nest in all other cases 	full flight of young birds
12 - <i>Anas acuta</i>	occupation of the breeding sites	full flight of young birds
13 - <i>Anas querquedula</i>	occupation of the breeding sites	full flight of young birds
14 - <i>Anas clypeata</i>	<ul style="list-style-type: none"> • occupation of the breeding sites where it is mainly migratory • construction of the nest in all other cases 	full flight of young birds
15 - <i>Netta rufina</i>	• occupation of the breeding	full flight of young birds

Key concepts of Article 7(4): Version 2014

Species	Start	End
	<p>sites where it is mainly migratory</p> <ul style="list-style-type: none"> • construction of the nest in all other cases 	
16 - <i>Aythya ferina</i>	<ul style="list-style-type: none"> • occupation of the breeding sites where it is mainly migratory • construction of the nest in all other cases 	full flight of young birds
17 - <i>Aythya fuligula</i>	<ul style="list-style-type: none"> • occupation of the breeding sites where it is mainly migratory • construction of the nest in all other cases 	full flight of young birds
18 - <i>Aythya marila</i>	Occupation of the breeding sites	full flight of young birds
19 - <i>Somateria molissima</i>	<ul style="list-style-type: none"> • occupation of the breeding sites where it is mainly migratory • construction of the nest in all other cases 	full flight of young birds
20 - <i>Clangula hyemalis</i>	occupation of the breeding sites	full flight of young birds
21 - <i>Melanitta nigra</i>	occupation of the breeding sites	full flight of young birds
22 - <i>Melanitta fusca</i>	occupation of the breeding sites	full flight of young birds
23 - <i>Bucephala clangula</i>	occupation of the breeding sites	full flight of young birds
24 - <i>Mergus serrator</i>	occupation of the breeding sites	full flight of young birds
25 - <i>Mergus merganser</i>	<ul style="list-style-type: none"> • occupation of the breeding sites where it is mainly migratory • construction of the nest in all other cases 	full flight of young birds
TETRAONIDAE		
26 - <i>Bonasa bonasia</i>	courtship display (4 decades before egg laying)	Independence of young birds (c. 3-4 decades after hatching)
27 - <i>Lagopus lagopus</i>	continuous occupation of breeding territory	Independence of young birds (c. 6 decades after hatching)
28 - <i>Lagopus mutus</i>	continuous occupation of breeding territory	Independence of young birds (c. 6 decades after hatching)
29 - <i>Tetrao tetrix</i>	courtship display on lek sites (4 decades before egg laying)	Independence of young birds (c. 8 decades after hatching)
30 - <i>Tetrao urogallus</i>	courtship display on lek sites (6 decades before egg laying)	Independence of young birds (c. 9 decades after hatching)
PHASIANIDAE		
31 - <i>Alectoris chukar</i>	occupation of breeding territory by singing males (4 decades before egg laying)	Independence of young birds (c. 6 decades after hatching)
32 - <i>Alectoris graeca</i>	continuous occupation of breeding territory (4 decades before egg laying)	Independence of young birds (c. 6 decades after hatching)
33 - <i>Alectoris rufa</i>	continuous occupation of	Independence of young birds

Key concepts of Article 7(4): Version 2014

Species	Start	End
	breeding territory (4 decades before egg laying)	(c. 6 decades after hatching)
34 - <i>Alectoris barbara</i>	continuous occupation of breeding territory (4 decades before egg laying)	Independence of young birds (c. 6 decades after hatching)
35 - <i>Perdix perdix</i>	continuous occupation of breeding territory (6 decades before egg laying)	Independence of young birds (c. 6 decades after hatching)
36 - <i>Coturnix coturnix</i>	occupation of the breeding sites by singing males	Independence of young birds (c. 3 decades after hatching)
37 - <i>Phasianus colchicus</i>	courtship display (2 decades before egg laying)	Independence of young birds (c. 6 decades after hatching)
MELEAGRIDIDAE		
38 - <i>Meleagris gallopavo</i>	<i>no data in Europe</i>	
RALLIDAE		
39 - <i>Rallus aquaticus</i>	<ul style="list-style-type: none"> • occupation of the breeding sites where it is mainly migratory • construction of the nest in all other cases 	full flight of young birds (3 decades after hatching)
40 - <i>Gallinula chloropus</i>	<ul style="list-style-type: none"> • occupation of the breeding sites where it is mainly migratory • construction of the nest in all other cases 	full flight of young birds (5 decades after hatching)
41 - <i>Fulica atra</i>	<ul style="list-style-type: none"> • occupation of the breeding sites where it is mainly migratory • construction of the nest in all other cases 	full flight of young birds (6 decades after hatching)
HAEMATOPODIDAE		
42 - <i>Haematopus ostralegus</i>	<ul style="list-style-type: none"> • occupation of the breeding sites where it is mainly migratory • construction of the nest in all other cases 	full flight of young birds
CHARADRIIDAE		
43 - <i>Pluvialis apricaria</i>	occupation of the breeding sites	full flight of young birds
44 - <i>Pluvialis squatarola</i>	<i>does not breed in the EU territory covered by the Directive</i>	
45 - <i>Vanellus vanellus</i>	<ul style="list-style-type: none"> • occupation of the breeding sites where it is mainly migratory • construction of the nest in all other cases 	full flight of young birds
SCOLOPACIDAE		
46 - <i>Calidris canutus</i>	<i>does not breed in the EU territory covered by the Directive</i>	
47 - <i>Philomachus pugnax</i>	occupation of the breeding sites	full flight of young birds
48 - <i>Lymnocyptes minimus</i>	occupation of the breeding sites	full flight of young birds (c. 4 decades after hatching)
49 - <i>Gallinago</i>	• occupation of the breeding	full flight of young birds (c. 4

Key concepts of Article 7(4): Version 2014

Species	Start	End
<i>gallinago</i>	<ul style="list-style-type: none"> sites with courtship display • construction of the nest in all other cases 	decades after hatching)
50 - <i>Scolopax rusticola</i>	occupation of the breeding sites (roding)	full flight of young birds (c. 4 decades after hatching)
51 - <i>Limosa limosa</i>	occupation of the breeding sites	full flight of young birds
52 - <i>Limosa lapponica</i>	occupation of the breeding sites	full flight of young birds
53 - <i>Numenius phaeopus</i>	occupation of the breeding sites	full flight of young birds
54 - <i>Numenius arquata</i>	occupation of the breeding sites	full flight of young birds
55 - <i>Tringa erythropus</i>	occupation of the breeding sites	full flight of young birds
56 - <i>Tringa totanus</i>	<ul style="list-style-type: none"> • occupation of the breeding sites where it is mainly migratory • construction of the nest in all other cases 	full flight of young birds
57 - <i>Tringa nebularia</i>	occupation of the breeding sites	full flight of young birds
LARIDAE		
58 - <i>Larus ridibundus</i>	courtship display at breeding sites (2 decades before egg laying)	full flight of young birds
59 - <i>Larus canus</i>	courtship display at breeding sites (2 decades before egg laying)	full flight of young birds
60 - <i>Larus fuscus</i>	courtship display at breeding sites (3 decades before egg laying)	full flight of young birds
61 - <i>Larus argentatus</i>	courtship display at breeding sites (3 decades before egg laying)	full flight of young birds
62 - <i>Larus cachinnans</i>	courtship display at breeding sites (3 decades before egg laying)	full flight of young birds
63 - <i>Larus marinus</i>	courtship display at breeding sites (3 decades before egg laying)	full flight of young birds
COLUMBIDAE		
64 - <i>Columba livia</i>	construction of the nest	full flight of young birds
65 - <i>Columba oenas</i>	occupation of the breeding sites, together with courtship display	full flight of young birds
66 - <i>Columba palumbus</i>	<ul style="list-style-type: none"> • occupation of the breeding sites where it is mainly migratory • construction of the nest in all other cases 	full flight of young birds
67 - <i>Streptopelia decaocto</i>	<ul style="list-style-type: none"> • occupation of the breeding sites where it is mainly migratory • construction of the nest in all other cases 	full flight of young birds
68 - <i>Streptopelia</i>	occupation of the breeding	full flight of young birds

Key concepts of Article 7(4): Version 2014

Species	Start	End
<i>turtur</i>	sites	
ALAUDIDAE		
69 - <i>Alauda arvensis</i>	<ul style="list-style-type: none"> • occupation of the breeding sites where it is mainly migratory • construction of the nest in all other cases 	full flight of young birds (c. 3 decades after hatching); semi-nidicolous species
TURDIDAE		
70 - <i>Turdus merula</i>	<ul style="list-style-type: none"> • occupation of the breeding sites where it is mainly migratory • construction of the nest in all other cases 	full flight of young birds
71 - <i>Turdus pilaris</i>	<ul style="list-style-type: none"> • occupation of the breeding sites where it is mainly migratory • construction of the nest in all other cases 	full flight of young birds
72 - <i>Turdus philomelos</i>	<ul style="list-style-type: none"> • occupation of the breeding sites where it is mainly migratory • construction of the nest in all other cases 	full flight of young birds
73 - <i>Turdus iliacus</i>	occupation of the breeding sites	full flight of young birds
74 - <i>Turdus viscivorus</i>	<ul style="list-style-type: none"> • occupation of the breeding sites where it is mainly migratory • construction of the nest in all other cases 	full flight of young birds
CORVIDAE		
75 - <i>Garrulus glandarius</i>	construction of the nest	Independence of young birds (c. 5 decades after hatching)
76 - <i>Pica pica</i>	construction of the nest, including re-lining of old nests (3 decades before egg laying)	Independence of young birds (c. 7 decades after hatching)
77 - <i>Corvus monedula</i>	construction of the nest, including re-lining of old nests	Independence of young birds (c. 7 decades after hatching)
78 - <i>Corvus frugilegus</i>	continuous occupation of breeding colonies	Independence of young birds (c. 7 decades after hatching)
79 - <i>Corvus corone</i>	construction of the nest, including re-lining of old nests	Independence of young birds (c. 6 decades after hatching)
STURNIDAE		
80 - <i>Sturnus vulgaris</i>	<ul style="list-style-type: none"> • occupation of the breeding sites where it is mainly migratory • construction of the nest in all other cases 	Independence of young birds (c. 3 decades after hatching)

4. Bird Species Datasheets

The description of each species consists of four parts:

1. The first part includes a short text on the distribution, movements, population size and relevant biological and behavioural aspects for each of the 80 species. This information is based on general literature (see page 15) and is given to provide a global perspective of the Member States data. This information was originally compiled by the IRSNB and revised by the SWG. In this edition of the report the text has been extensively updated to include new information and to adjust the EU populations to cover 27 Member States.
2. This is followed by a table that gives an overview of the occurrence of the species in the EU - if it is resident, breeding, migrating or wintering in the Member State (or a combination of this). The information in the tables is primarily based on data from the general references (page 15). A light grey bar indicates that the species does not regularly breed or migrate through the Member State in spring.
3. This is followed by two tables concerning the period of reproduction based on data provided by the Member State. The first table shows the stage used to identify the beginning of the reproduction period, with relevant comments. The second table gives the period of reproduction (in ten days intervals - decades) as provided by the Member States. A light grey bar indicates if the species does not breed regularly in the particular Member State. At the end of this part, important comments and conclusions are added. These include comments on the species breeding range and the stages identifying the start and the end of the reproduction period.
4. The final part indicates the period of pre-nuptial migration based on data provided by the Member State. This comprises a table assessing the degree of difficulty to identify the beginning of the pre-nuptial migration period and the references used; a second table with the periods of the pre-nuptial migration (in decades). A light grey bar indicates if the species does not migrate through the particular Member State in spring. At the end of this part, important comments and conclusions are added. These include comments on the species movements (e.g. wintering areas) and comments on the identification of return movements.

5. REFERENCES

General

BirdLife International 2004A. Birds in Europe: population estimates, trends and conservation status. Cambridge. Birdlife Conservation Series No. 12.

BirdLife International 2004B. Birds in European Union: a status assessment. Wageningen, The Netherlands.

Delany, S. & Scott, D. 2006. Waterbird Population Estimates 4th Edition. Wetlands International. 239 pp.

Hagemeijer, W.J.M. & M.J. Blair (eds.) 1997. The EBCC Atlas of European Breeding Birds. Published for the European Bird Census Council by T & A.D Poyser.

Scott, D.A. & P.M. Rose 1996. Atlas of Anatidae Populations in Africa and Western Eurasia. Wetlands International.

Snow, D.W. & C.M. Perrins (eds.) 1998. The Birds of the Western Palearctic - Concise Edition. Oxford University Press.

Tucker, G. M. & M.F. Heath 1994. Birds in Europe: Their Conservation Status. BirdLife International.

By Member State

AUSTRIA

1 - SACKL, P. & O. SAMWALD 1997. Atlas der Brutvögel der Steiermark. Sonderheft zu den Mitt. Landesmus. Joanneum Zoologie, Graz.

2 - GLUTZ VON BLOTZHEIM, U. & K. BAUER 1966-1997. Handbuch der Vögel Mitteleuropas. 14 Bände. Aula-Verlag, Wiesbaden.

3 - DICK, G., M. DVORAK, A. GRÜLL, B. KOHLER & G. RAUER 1994. Vogelparadies mit Zukunft? Ramsar-Bericht 3 Neusiedler See – Seewinkel. Umweltbundesamt, Wien.

4 - KILZER, R. & V. BLUM 1991. Atlas der Brutvögel Vorarlbergs. Österr. Ges. f. Vogelkunde, Landesstelle Vorarlberg, Wolfurt/Vorarlberger Landschaftspflegefonds, Bregenz. Natur und Landschaft in Vorarlberg 3.

5 - WINKLER, H. & B. HERZIG-STRASCHIL 1981. Die Phänologie der Limikolen im Seewinkel (Burgenland) in den Jahren 1963 bis 1972. Egretta 24: 47-69.

6 - BLUM, V. 1997. 15 Jahre Limikolenzählung im Vorarlberger Rheindelta. Vorarlberger Naturschau 3: 119-150.

7 - GAITZENAUER, K. 1990. Die Bedeutung des Brutbiotopes der Turteltaube (*Streptopelia turtur*) im Seewinkel im Hinblick auf den Artenschutz. Biol. Forschungsinst. Burgenland-Bericht 74: 117-127.

8 - SCHUSTER, S., V. BLUM, H. JACOBY, G. KNÖTZSCH, H. LEUZINGER, M. SCHNEIDER, E. SEITZ & P. WILLI 1983. Die Vögel des Bodenseegebietes. Orn. Arbeitsgem. Bodensee, Konstanz.

9 - HAFNER, F. 1994. Das Steinhuhn in Kärnten. Naturwiss. Ver. f. Kärnten 52, Sonderheft, Klagenfurt.

10 - SHERZINGER, W., 1976. Rauhußhühner. Nationalpark. Bayer. Wald, Heft 2.

11 - JINDRICH, O. 1995. Biotoperhebung Truppenübungsplatz Allentsteig. Bundesministerium für Landesverteidigung, Wien.

12 - STRAKA, U. 1991. Zum Vorkommen der Lachmöwe (*Larus ridibundus*) an der Donau im Tullner Feld und in angrenzenden Ackerbaugebieten des südlichen Weinviertels in den Jahren 1985 bis 1991. Vogelkundl. Nachr. Ostösterreich 2: 8-11.

- 13 - BIRDLIFE AUSTRIA database (including regular publications of observation summaries for eastern Austria in the magazine "Vogelkundliche Nachrichten aus Ostösterreich")
- 14 - unpublished data Biological Station Illmitz
- 15 - LABER, J. & A. PELLINGER 2008. Die durchziehenden und überwinternden Gänsebestände der Gattung *Anser* und *Branta* im Nationalpark Neusiedler See – Seewinkel. Egretta 49: 35-51.
- 16 - AUSTRIAN AVIFAUNISTIC COMMISSION database
- 17 - DVORAK, M., H. GRABENHOFER & B. WENDELIN 2008. Brut- und Durchzugsbestände von Wasservögeln an den Lacken des Seewinkels im Jahr 2007. – in: BirdLife Austria (ed.): Ornithologisches Monitoring im Nationalpark Neusiedler See – Seewinkel. Unpubl. research report for the national park Neusiedler See – Seewinkel.
- 18 - BAUER, H.-G., E. BEZZEL & W. FIEDLER 2005. Kompendium der Vögel Mitteleuropas. Band 1-3. Aula-Verlag, Wiesbaden.
- 19 - LABER, J. 2003. Die Limikolen des österreichisch/ungarischen Seewinkels. Egretta 46: 1-91.
- 20 - RANNER, A. & R. RIEGLER 2005. Verbreitung und Bestand der Saatkrähe (*Corvus frugilegus*) im Burgenland im Jahr 2005. Egretta 48: 96-101.

BELGIUM

- 1 - Avifaune de Belgique, 1967.
- 2 - LIPPENS L. & H. WILLE, 1972. *Atlas van Vogels in België en West-Europa*. Lannoo, Tielt, Utrecht.
- 3 - VLAVICO, 1989. Vogels in Vlaanderen: voorkomen en verspreiding. IMP, Bornem.
- 4 - DEVOS, 1998. DEVOS K., KUIJKEN E., VERSCHEURE C., MEIRE P., BENOY L., DE SMET W. & GABRIËLS J., 2005. Overwinterende wilde ganzen in Vlaanderen, 1990/91 – 2003/04. *Natuur.oriolus* 71: 4-20.
- 5 - AVES database.
- 6 - DEVILLERS P., W. ROGGEMAN, J. TRICOT, P. DEL MARMOL, J.-P. JACOB & A. ANSELIN, 1988. *Atlas van de Belgische broedvogels*. Koninklijk Belgisch Instituut voor Natuurwetenschappen, Brussel.
- 7 - HAELTERS J., L. VIGIN, E. STIENEN, S. SCORY, E. KUIJKEN & T. JACQUES, 2004. Ornithologisch belang van de Belgische zeegebieden. Bulletin van het Koninklijk Belgisch Instituut voor Natuurwetenschappen. Vol 74 Suppl.
- 8 - OFFRINGA H., J. SEYS, W. VAN DEN BOSSCHE & P. MEIRE, 1996. Seabirds on the Channel doormat. *De Giervalk* 86. 1-71.
- 9 - VERMEERSCH G., A. ANSELIN & K. DEVOS, 2006. Bijzondere Broedvogels in Vlaanderen in de periode 1994-2005. Mededeling INBO.M.2006.2 Instituut voor Natuur- en Bosonderzoek, Brussel
- 10 - VERMEERSCH G., ANSELIN, DEVOS K., HERREMANS M. STEVENS J., GABRIËLS J. & VAN DER KRIEKEN B., 2004. Atlas van de Vlaamse broedvogels 2000-2002. Mededelingen Instituut voor Natuurbehoud 23, Brussel , 496 pp.

BULGARIA

- 1 – BOEV, Z. 1991. Distribution and status of the ostercacher (*Haematopus ostralegus* L., 1758) (Haematopodidae – Aves) in Bulgaria. – *Historia naturalis bulgarica* 3: 75-91 (in Bulgarian, English summary).
- 2 – MICHAYLOV, H. 1995. Study of the ecology of the Quail (*Coturnix coturnix*, Linnaeus 1758) in the elevated plains in West Bulgaria. Ph. D. Theses. University of Forestry, Sofia. 131 pp. (in Bulgarian).
- 3 – MILCHEV, B. 1990. Ornithological study of the bird fauna in the Bulgarian part of Strandja mountains. Ph. D. Thesis. University of Sofia "St. K. Ohridski", Sofia 182 pp. (in Bulgarian).
- 4 – MILCHEV, B. & GEORGIEV, V. 1998. Birds of the Vratza mountains. I. Status and composition of species. *Ann. Univ. of Sofia "St. K. Ohridski"* 88-90: 75-88.
- 5 – MILTSCHIEW, B. & GEORGIEWA, U. 1998. Erstbeobachtung des Alpenschneehuhn *Lagopus mutus* in Bulgaria. *Ornithologische Mitteilungen* 50: 43 – 44.

- 6 – NANKINOV, D., SIMEONOV, S., MICHEV, T. & IVANOV, B. 1997. The fauna of Bulgaria. Vol. 26. Aves. Part 2. Akademichno izdatelstvo "Prof. Marin Drinov" Sofia, 428 pp (in Bulgarian, English summary).
- 7 – PETROV, T. 1980. The birds of Sredna Gora mountains. – Proceedings of the museums of the Southern Bulgaria 7: 9 – 49 (in Bulgarian, English summary).
- 8 – SIMEONOV, S., MICHEV, T. & NANKINOV, D. 1990. The fauna of Bulgaria. Vol. 20. Part I. Bulgarian Academy of Sciences, Sofia. 351 pp (in Bulgarian, English summary).
- 10 – STOYANOV, G., SHURULINKOV, P., KJUTCHUKOV, D., SPAKOVSKI, P., DELOV, V., VULTCHEV, K. & STOYANOV, A. 2003. Vom Bruten der Waldschnepfe *Scolopax rusticola* in Bulgaria. – Ornithologische Mitteilungen 55: 211-217.
- 11 – SIMEONOV, P. & J. MOOIJ 1997. Deuxieme observation d'une Bernache du Canada (*Branta canadensis*) sur le littoral nord de Bulgarie. - *Branta*, 2, 14
- 12 – IANKOV, P. 1997 *European News, British Birds*, 90, 6, p. 239.
- 13 – IANKOV, P. (ed.) 2007. Atlas of Breeding Birds in Bulgaria. Bulgarian Society for the Protection of Birds, Conservation Series, Book 10. Sofia, BSPB, 680 p.
- 14 – BOEV, N., G. KONSTANTINOV 1954. The Grey Partridge, Sofia, Fizkultura. 83 p. (In Bulgarian)
- 15 – DIMITROV, M., T. MICHEV, L. PROFIROV, K. NYAGOLOV 2005. Waterbirds of Bourgas Wetlands: Results and Evaluation of the Monthly Waterbirds Monitoring 1996-2002. Bulgarian Biodiversity Foundation and Pensoft Publ. House, Sofia. 160 pp.
- 16 – DONCHEV, S. 1984. Migrating Birds of Orders Charadriiformes and Passeriformes along the Bulgarian Black Sea Coast. – *Acta zoologica bulgarica*, 24: 45-61. (In Bulgarian with English Summary)
- 17 – NANKINOV, D. 1982. The birds of Sofia City – *Orn. Inf. Bull.*, 12, 386 c. (In Bulgarian with English Summary)
- 18 – IVANOV, BOJ. 1998. The breeding birds of the Shabla lake. – *Acta zoologica bulgarica* 50: 1, 35-42.
- 19 – SHURULINKOV, P., R. TSONEV, B. NIKOLOV, G. STOYANOV, L. ASENOV 2005. The birds of the Central Danubian Plain. Sofia, Green Balkans. 120 p. (In Bulgarian)
- 20 – KOSTADINOVA, I., S. DERELIEV 2001. Results from the Mid-Winter Counts of Waterbirds in Bulgaria for the Period 1997-2001. Bulgarian Society for the Protection of Birds, Conservation Series, Book 3, Sofia, BSPB. 96 p. (In Bulgarian and English)
- 21 – GEORGIEV, ZH. 1976. The birds of the Black Sea coast between Burgas and Varna. – In: *Terrestrial Fauna of Bulgaria*, Sofia, BAS: 261-268 (IN Bulgarian with english Summary).
- 22 – DONCHEV, S. 1980. Bird migration along the Bulgarian Black Sea coast – *Ecology, BAS*, 7: 68-83 (In Bulgarian with English summary).
- 23 – SPIRIDONOV, G. 1985 Stock Dove *Columba oenas*. – In: Botev, B., Ts. Peshev (eds) 1985. Red data Book of PR Bulgaria, V. 2, Animals. Sofia, 183 p. (In Bulgarian with English summary).
- 24 – PETROV, TZ. 1981. The Birds of the Sredna Gora Mountain. – *Bull. Mus. South Bulgaria*, 7: 9-49 (In Bulgarian with French summary).
- 25 – DONCHEV, S. 1977. The Birds of the Valley of Roses. – *Acta zoologica bulgarica*, 6: 15-34 (In Bulgarian with German summary).

CROATIA

- 1 - Darabuš, S. (2002): Poljske koke. pp. 149-165 in: Mustapić, Z.: Lovstvo. Hrvatski lovački savez, Zagreb, 597 pp.
- 2 - Dolenec, Z. (1999): The laying dates of Starlings *Sturnus vulgaris* in northwestern Croatia. *Ornis Svecica* 9:224-226.
- 3 - Dolenec, Z. (2003): First arrival dates of spring migrant passerines in Croatia. *Israel Journal of Zoology* 49: 67-70.
- 4 - Frković, A. (2012): Tetrijeb gluhan u Gorskom kotaru. Lovački savez Primorsko-goranske županije, Rijeka.
- 5 - Grošelj, P. (2002): Breeding of the Fieldfare *Turdus pilaris* in Croatia. *Larus* 48: 90-91.
- 6 - Jurinović, L. (2005): Status of the Lesser Black-backed Gull *Larus fuscus* in Zagreb, NW Croatia. *Larus* 49: 7-12.

- 7 - Jurinović, L., Kralj, J. (2012): Dinamika brojnosti i kretanja galebova (Laridae, Aves) koji se hrane na odlagalištu otpada Prudinec, Zagreb. str. 84-85. in: Anić Vučinić A. (ur.): XII. Međunarodni simpozij gospodarenja otpadom. 29-30. listopada 2012. Geotehnički fakultet, Zagreb.
- 8 - Jurinović, L., Kralj, J. (2013): Effect of weather conditions on dynamics of the Black-headed Gull, *Chroicocephalus ridibundus*, wintering on Jakuševac, Zagreb city rubbish dump. *Pakistan J. Zool.* 45(6): 1773-1776.
- 9 - Kralj, J. (1997): Croatian ornithofauna in the last 200 years. *Larus* 47: 1-112.
- 10 - Kralj, J. (2005): Rare birds in Croatia. Second report of the Croatian Rarities Committee. *Larus* 49: 37-51.
- 11 - Kralj, J., Barišić, S. (2013): Rare birds in Croatia. Third report of the Croatian Rarities Committee. *Nat. Croat.* 22 (2): 375-396.
- 12 - Kralj, J., Barišić, S., Ćiković, D., Tutiš, V. (2013): Croatian Bird Migration Atlas. Croatian Academy of Sciences and Arts. Zagreb, 250 pp.
- 13 - Kralj, J., Barišić, S., Ćiković, D., Tutiš, V., Van Swelm, N.D. (2014): Extensive post-breeding movements of the Adriatic Yellow-legged Gulls *Larus michahellis*. *J. Ornithol.* 155: 399-409.
- 14 - Kralj, J., Radović, D. (2002): Rare birds in Croatia – First report of the Croatian Rarities Committee. *Larus* 48: 73-83.
- 15 - Kralj, J., Radović, D., Tutiš, V. (1998): Numbers and seasonal activity of Anatidae at Draganić fishponds in NW Croatia. *Vogelwelt* 119: 21-29.
- 16 - Lukač, G. (2011): Atlas Nacionalnog parka Paklenica. JU NP Paklenica, Starigrad-Paklenica, 356 pp.
- 17 - Mikuska, J., Mikuska T., Romulić M. (2002): Ptice. Vodič kroz biološku raznolikost Kopačkog rita. Matica Hrvatska Osijek. 112 pp.
- 18 - Radović, D., Kralj, J., Tutiš, V. (1999): Migration pattern and seasonal activity of waders at Draganić fishponds in NW Croatia. *Wader Study Group Bull.* 90: 35-41.
- 19 - Rucner, D. (1998): Ptice hrvatske obale Jadrana. *HPM.* 311 pp.
- 20 - Schneider, M. (1989): Endangered and rare birds in the alluvial wetlands of the sava river on the Posavina/Croatia. *Larus* 40: 167-178.
- 21 - Stipčević, M. (1997): A survey of spring migration on the wetlands of the island of Pag, Croatia (March–May 1990–1991). *Wader Study Group Bull.* 84: 26–32.
- 22 - Trohar, J. (2002): Zašićene šumske koke. pp. 197-202 in: Mustapić, Z.: *Lovstvo.* Hrvatski lovački savez, Zagreb, 597 pp.
- 23 - Tutiš, V., Kralj, J., Radović, D., Ćiković, D., Barišić, S. (2013): Red Data Book of birds of Croatia. MENP & SINP, Zagreb. 258 str.
- 24 - Žganec, K. (2002): The Fieldfare *Turdus pilaris*, a new breeding species in Croatia. *Larus* 48: 91-92.

Note: Apart from published literature, data about periods of prenuptial migration and reproduction were taken from the database of ringed birds (Zagreb ringing center) and archive of the Institute of Ornithology. Additional data were received from various Croatian ornithologists and from the Croatian Ministry of Agriculture, Directorate for forestry, hunting and wood industry.

CYPRUS

- 1 – BirdLife Cyprus waterbird Counts (Dec 2004 – Jul 2007) in Monthly Newsletters, jan 2004 – Aug 2007.
- 2 – Cyprus Bird report (2003 – 2005). BirdLife Cyprus Annual Reports.
- 3 – FLINT, P.R. & STEWART, P.F. 1992. The Birds of Cyprus. British Ornithologists' Union Check-list No 6 (2nd Edition). Tring, UK.
- 4 – KASSINIS, N. 2007. Water bird monitoring in Cyprus 17th international Conference of European Bird Census Council (EBCC). In preperation.
- 5 – Ministry of Interior Annual reports (1995 – 2006) game fund water bird counts.
- 6 - KOURTELLARIDES, K (1998) Breeding Birds of Cyprus.

CZECH REPUBLIC

- 1 – HUDEC, K. et al. 1983. Fauna CR – Ptáci 3/I,II. Academia, Praha, 1236 pp
- 2 – HUDEC, K. et al. 1994: Fauna CR – Ptáci 1. Academia, Praha, 672 pp.

- 3 – HUDEC, K., Chytil, J., Stastny, K. & Bejcek, V. 1995. Ptáci České republiky. Sylvania 31: 97 – 149.
- 4 – HUDEC, K. & Stastny, K. 2005. Fauna CR – Ptáci 2/I,II. Academia, Praha, 1208 pp.
Stastny, K. & Bejcek, V. 2003. The Red List of Birds of the Czech Republic. Priroda, Praha 22: 95 – 129.
- 5 – CEPÁK J., KLVÁŇA P., ŠKOPEK J., SCHRÖPFER L., JELÍNEK M., HOŘÁK D., FORMÁNEK J., ZÁRYBNICKÝ J. 2008. Czech and Slovak bird migration atlas. Aventinum, Prague, 608pp.
- 6 – MACHÁČEK P., PYKAL J., ŠEVČÍK, J., CHOBOTSKÁ H. 2008. Results of long-term monitoring of waterbirds in southern Moravia and southern Bohemia (Czech Republic). CCB Brno, 56pp.
- 7 – ŠKORPÍKOVÁ V. 2007. Some additional data on the distribution of the Stock Dove (*Columba oenas*) in South Moravia in breeding and non-breeding times. Crex - Zpravodaj JMP ČSO 27: 50-59
- 8 – ŠTASTNÝ K., BEJČEK V., HUDEC K. 2006. Atlas hnízdního rozšíření ptáků v České republice. Aventinum, Praha. 464pp.
- 9 – ŠTASTNÝ K., HUDEC K. et al. 2009 (in press). Fauna ČR, Ptáci 3. Academia, Praha.

DENMARK

- 1 - HVASS, H. (ed), 1978. Danmarks Dyreverden. Bind 6 : Fugle I. Rosenkilde and Bagger, Odense.
- 2 - HVASS, H. (ed), 1978. Danmarks Dyreverden. Bind 7 : Fugle II. Rosenkilde and Bagger, Odense.
- 3 - HVASS, H. (ed), 1978. Danmarks Dyreverden. Bind 8 : Fugle III. Rosenkilde and Bagger, Odense.
- 4 - OLSEN, K.M., 1992. Danmarks Fugle - en oversigt. Danish Ornithological Society, Copenhagen.
- 5 - <http://www.dofbasen.dk/>

ESTONIA

- 1 - ELTS, J., KURESOO, A., LEIBAK, E., LEITO, A., LILLELEHT, V., LUIGUJOE, L., LOHMUS, A., MÄGI, E. & OTS, M. 2003: Status and numbers of Estonian birds, 1998-2002. Hirundo 16 (2): 58-83. (in Estonian, with English summary).
- 2 - LEIBAK, E., LILLELEHT, V. & VEROMANN, H. (eds.) 1994: Birds of Estonia. Status, Distribution and Numbers. Estonian Academy Publishers, Tallinn.
- 3 - ROOTSMÄE, L. & VEROMAN, H. 1974. Eesti laululinnud. Valgus, Tallinn.
- 4 - JAANUS ELTS, 2007. Status of Annex II bird species in Estonia. Report of Estonian Ornithological Society for Estonian Ministry of the Environment.

FINLAND

- 1 - VON HAARTMAN, L., O. HILDÉN, P. LINKOLA, P. SUOMALAINEN & R. TENOVUO, 1963-72. Pohjolan linnut värikuvin. I-II. Otava, Keuruu.
- 2 - HILDÉN, O., J. TIAINEN & R. VALJAKKA, 1979. Muuttolinnut. Kirjayhtymä, Helsinki.
- 3 - LOKKI, J., H. HAUTALA, P. KOSKIMIES, V. NEUVONEN, P. J. NIKANDER, J. PALMGREN, A. TASKANEN, J. CAVÉN, J. OJANEN, P. SEPPÄ, 1997. Suomen linnut - CD-fakta WSOY Multimedia, Helsinki.
- 4 - FINNISH MUSEUM OF NATURAL HISTORY, University of Helsinki, Nest Record and Ringing Schemes (unpublished information).
- 5 - VÄISÄNEN, R. A., E. LAMMI & P. KOSKIMIES, 1998. Distribution, numbers and population changes of Finnish breeding birds. Otava, Keuruu. 567 p. (Finnish with English summary).
- 6 - VON HAARTMAN, L., 1969. The nesting habits of Finnish birds I. Passeriformes. Commentationes Biologicae Soc. Sci. Fennica 32: 1-187.

FRANCE

- 1 - YEATMAN-BERTHELOT, D. & G. JARRY, 1994. Nouvel atlas des oiseaux nicheurs de France 1985-1989, SOF, 776 pp.

- 2 - Office National de la Chasse, 1996. Données récentes sur les dates de migration pré-nuptiales et l'état de conservation des oiseaux migrateurs chassables en France. Rapport interne: 64 pp.
- 3 - YEATMAN-BERTHELOT, D. & G. JARRY, 1991. Atlas des oiseaux de France en Hiver", SOF, 575 pp.
- 4 - MHNH & ONC, 1989. Répartition et chronologie de la migration pré-nuptiale et la reproduction en France des oiseaux d'eau gibier. Secrétariat d'état chargé de l'environnement, 86 pp.
- 5 - GÉROUDET P., 1983. Limicoles, Gangas et Pigeons d'Europe. Delachaux et Niestlé.
- 6 - LEFEUVRE, J. C. (coord.), 1999. Rapport scientifique sur les données à prendre en compte pour définir les modalités de l'application des dispositions légales et réglementaires de chasse aux oiseaux d'eau et oiseaux migrateurs en France. Ministère de l'Aménagement du Territoire et de l'Environnement, 204 pp.
- 7 - MENONI, E., 1991. Ecologie et dynamique des populations du Grand Tétrás dans les Pyrénées avec des références spéciales à la biologie de la reproduction chez les poules. Tirer quelques applications à sa conservation. Thèse de Doctorat de l'Université Paul Sabatier, Toulouse.
- 8 - NOVOA, C., 1998. La perdrix grise dans les Pyrénées-Orientales, utilisation de l'habitat, éléments de démographie, incidence des brûlages dirigés. Thèse de Doctorat de l'Université Paris 6, 200 pp.
- 9 - BERNARD-LAURENT A., P. LEONARD, 1998. Phénologie de la reproduction de la perdrix bartavelle (*Alectoris graeca saxatilis*) dans les Alpes. In : Actes de Perdrix VII, Symposium international sur les perdrix, les cailles et les faisans, 9-13 octobre 1995, Dourdan, France, M. Birkan, L.M. Smith, N.J. Aebischer, F.J. Purroy & P.A. Robertson, eds. Gibier Faune Sauvage, Game Wildl., 15 (4) : 379-395.
- 10 - OFFICE NATIONAL DE LA CHASSE, 1986. La perdrix rouge. *Bull. mens O.N.C.* 106, suppl. fiche n°39, 12p.
- 11 - RICCI J.C., F. BERGER & J. F. MATHON, 1988. L'analyse des tableaux de chasse de perdrix rouges en 1986 dans l'Hérault : contribution au suivi et à la gestion des populations. *Bull. mens O.N.C.* 120 :23-27.
- 12 - RICCI J.C., J. P. TARIS, J. F. MATHON & F. BRIDE, 1987. L'analyse des tableaux de chasse de perdrix rouges en 1985 dans l'Hérault : résultats et perspectives. *Bull. mens O.N.C.* 110:11-15.
- 13 - PEPIN D., B. CARGNELUTTI, J. F. MATHON, 1985. Démographie de la Perdrix rouge (*Alectoris rufa*). I. Apport de l'analyse des tableaux de chasse. *Acta Oecol. / Oecol. Applic.* 6(1):31-46.
- 14 - BIRKAN M.G., 1977. *Analyse des tableaux de chasse de perdrix (Perdrix perdrix L. et Alectoris rufa L.). Courbes d'éclosion, structure et dynamique des populations, plan de chasse.* In : P. Pesson & M.G. Birkan, Eds., *Ecologie du petit gibier et aménagement des chasses.* Gauthier-Villars :55-77.
- 15 - CAILLOT, E. (2005).- Stationnement des limicoles côtiers au sein des réserves naturelles de France. Distribution et phénologie des observations. Groupe Oiseaux R.N.F. R.N. Domaine de Beauquillot. 78 p
- 16 - Collectif. In press. Cahiers d'habitats Natura 2000. Connaissance et gestion des habitats et des espèces d'intérêt communautaire. Les oiseaux. La Documentation Française, Paris.
- 17 - FOUQUE C., E. CORDA, J.L. TESSON, J.Y. MONDAIN-MONVAL, C. BARTHE, F. DEJ & M. BIRKAN, 2004. Chronologie de la reproduction d'anatidés (anatidae) et de la foulque macroule (*Fulica atra*) en France. *Game & Wildlife Science* 21 (2), juin 2004 : 1-39.
- 18 - GENDRE, N. & G. DE SMET, 2008. Bilan de la migration active de l'Oie cendrée *Anser anser* en Charente-Maritime en 2008. Rapport LPO. 8 pages.
- 19 - GUILHEM, V. 2007. Migration pré-nuptiale au col de l'Escrinet (Ardèche). Synthèse du suivi du 24 janvier au 15 mai 2007.
- 20 - NILSSON, L. 2008. Migration de retour des Oies cendrées, de plus en plus tôt. Rapport préparé à l'occasion des Tables Rondes de la Chasse. 16 pages.
- 21 - ROSELAAR C.S. in CRAMP et al. 1977. Handbook of the Birds of Europe, the Middle East and North Africa. The Birds of the Western Palearctic. Volume 1. Ostrich to ducks. Oxford University Press.

22 - VERHEYEN R. (1948). De Zangvogels van België. Tweede Deel. Koninklijk Natuurhistorisch Museum van België, Brussel. Rimbart, P. 2008. Merle noir. CORA Faune Sauvage 3p.

GERMANY

- 1 - BAUER, H.-G. & P. BERTHOLD, 1997. Die Brutvögel Mitteleuropas – Bestand und Gefährdung. 2. Aufl. – Aula-Verlag Wiesbaden, 715 pp.
- 2 - BAUER, K.M. & U.N. GLUTZ V. BLOTZHEIM, 1990. Handbuch der Vögel Mitteleuropas, Band 2, Anseriformes (1. Teil), 2. Aufl. – Aula-Verlag, Wiesbaden, 534 pp.
- 3 - BERNDT, R.K. & G. BUSCHE, 1993. Vogelwelt Schleswig-Holsteins. Band 4: Entenvögel II. – Karl Wachholtz Verlag, 228 pp.
- 4 - BEZZEL, E., 1985. Kompendium der Vögel Mitteleuropas. Nonpasseriformes – Nichtsingvögel. – Aula-Verlag Wiesbaden, 792 pp.
- 5 - BEZZEL, E., 1993. Kompendium der Vögel Mitteleuropas. Passeriformes – Singvögel. – Aula-Verlag Wiesbaden, 766 pp.
- 6 - BEZZEL, E. & F. LECHNER, 1978. Die Vögel des Werdenfelser Landes. Vogelkundliche Bibliothek, Bd. 8 – Kilda-Verlag Greven, 243 pp.
- 7 - GLUTZ V. BLOTZHEIM, U.N. & K.M. BAUER, 1988. Handbuch der Vögel Mitteleuropas, Band 11, Passeriformes (2. Teil). – Aula-Verlag, Wiesbaden, p. 733-1226.
- 8 - GLUTZ V. BLOTZHEIM, U.N. & BAUER, K.M & E. BEZZEL, 1984. Handbuch der Vögel Mitteleuropas, Band 6, Charadriiformes (1. Teil), 2. Aufl. – Aula-Verlag Wiesbaden, 839 pp.
- 9 - GLUTZ V. BLOTZHEIM, U.N. & BAUER, K.M & E. BEZZEL, 1986. Handbuch der Vögel Mitteleuropas, Band 7, Charadriiformes (2. Teil), 2. Aufl. – Aula-Verlag Wiesbaden, 893 pp.
- 10 - HÖLZNER, J. [Bearb.], 1987. Die Vögel Baden-Württembergs. Bd. 1: Gefährdung und Schutz, Teil 2: Artenschutzprogramm Baden-Württemberg, Artenhilfsprogramme. – Landesanstalt für Umweltschutz Baden-Württemberg, Karlsruhe; p. 725-1420.
- 11 - MELTOFTE, H., BLEW, J., FRIKKE, J., RÖSNER, H.-U. & C.J. SMIT, 1994. Numbers and distribution of waterbirds in the Wadden Sea. – IWRB Publication 34, 192 pp.
- 12 - BERNDT, R.K. & G. BUSCHE 1991. Vogelwelt Schleswig-Holsteins. Band 3: Entenvögel I. – Karl Wachholtz Verlag, 210 pp.
- 13 - KLAFS, G. & STÜBS, 1977. Die Vogelwelt Meddenburgs. VEB Gustav Fischer Verlag Jena. 358 pp.

GREECE

- 1 - HANDRINOS, G & T. AKRIOTIS, 1997. The Birds of Greece. Helm. London. 336p.
- 2 - HELLENIC BIRD RINGING CENTER. Recoveries in Greece of birds ringed in foreign countries (1930-1997). Unpublished report.
- 3 - ORNIS DATABASE. Greece.
- 4 - F. REITZ (pers. comm.), Office National de la Chasse.
- 5 - DRETAKIS, M. (in prep.). The Waterbirds of the Cretan lakes and reservoirs. Patterns of abundance and diversity in relation to ecological parameters of biotopes. PhD Thesis, Department of Biology, University of Crete, Greece.
- 6 - BONNETTI, A., C. PAPACONSTANTINO & N. KARDAKARI, 2000. The Birds of Gialova Lagoon. Hellenic Ornithological Society, Athens. (in press) LIFE report in Greek.
- 7 - Kazantzidis S. & M Noidou (eds). 2008. Migration phenology of huntable waterfowl species in Greece. Final project report. Ministry of Rural Development and Food. Forest Research Institute - NAGREF, Thessaloniki 255 pp. (in Greek)

HUNGARY

- 1 - Faragó S. (2004): Vadászati állatttan. Mezőgazda Kiadó, Budapest.
- 2 - Magyar G., Hardarics T., Waliczky Z., Schmidt A., Nagy T., Bankovics A. (1998): Nomenclator avium Hungariae. Madártani Intézet, Budapest 202 pp.

3 - Haraszthy, L. (ed.) Magyarország Madarai, 1998

IRELAND

- 1 - Handbook of the Birds of the Western Palearctic.
- 2 - New Atlas of Breeding Birds in Britain and Ireland.
- 3 - HUTCHINSON, 1989. Birds in Ireland.
- 4 - Dúchas The Heritage Service, National Parks & Wildlife (unpublished data).
- 5 - LLOYD, C. S., M. L. TASKER & K. E. PARTRIDGE, 1991. The status of seabirds in Britain and Ireland. Poyser, London.
- 6 - HARRISON, C., 1975. A Field Guide to the Nests, Eggs and Nestlings of Britain and European Birds. Collins, London.
- 7 - BAER & NEWTON. Wader Study Group Bull (2006) 111: 24.
- 8 - BirdWatch Ireland files
- 9 - CROWE, 2005. Ireland's Wetlands & their Waterbirds: Status and Distribution
- 10 - HANCOCK, 1991. Common Scoters in the Flow Country. RSPB report; Irish Birds (1996) 5:413-422.

ITALY

- 1 - MESCHINI, E. & S. FRUGIS (Eds.), 1993. Atlante degli uccelli nidificanti in Italia. Suppl. Ric. Biol. Selvaggina, XX:1-344.
- 2 - SERRA, L., A. MAGNANI, P. DALL'ANTONIA & N. BACCETTI, 1997. Risultati dei censimenti degli uccelli acquatici svernanti in Italia, 1991-1995. Biol. Cons. Fauna, 101:1-312.
- 3 - DALL'ANTONIA, P., R. MANTOVANI & F. SPINA, 1996. Fenologia della migrazione di alcune specie di uccelli acquatici attraverso l'Italia. Ric. Biol. Selvaggina, 98:1-72.
- 4 - SPAGNESI, M., F. SPINA & S. TOSO, 1998. Problemi di conservazione degli uccelli migratori con particolare riferimento al prelievo venatorio. Istituto Nazionale Fauna Selvatica, Documenti Tecnici 4:1-75.
- 5 - FOCARDI, S. & F. SPINA, 1986. Rapporto sui censimenti invernali degli Anatidi e della Folaga in Italia (1982-1985). . Istituto Nazionale Fauna Selvatica, Documenti Tecnici 2:1-80.
- 6 - ANDREOTTI, A., L. BENDINI, D. PIACENTINI & F. SPINA, (*in press*). The role of Italy within the Song Thrush *Turdus philomelos* migratory system analysed on the basis of ringing-recovery data. Vogelwarte.
- 7 - BOLDREGHINI, P. & F. MONTANARI, 1991. A short note on wintering geese in northern Italy. Ardea 79:173-174.
- 8 - BRICHETTI, P. & L. CANOVA, 1992. Moriglione *Aythya ferina*. In: Brichetti, P., P. De Franceschi & N. Baccetti (eds.). Fauna d'Italia. Aves I:372-379.
- 9 - BRICHETTI, P., 1992. Fistonie turco *Netta rufina*. In: Brichetti, P., P. De Franceschi & N. Baccetti (eds.). Fauna d'Italia. Aves I: 366-371.
- 10 - BRICHETTI, P. & B. MASSA, 1998. Check-list aggiornata degli uccelli italiani aggiornata a tutto il 1997. Riv. Ital. Orn., 68 (2):129-152.
- 11 - BULGARINI, F., E. CALVARIO, F. FRATICELLI, F. PETRETTI & S. SARROCCO, (Eds.), 1998. Libro rosso degli animali d'Italia. Vertebrati. WWF Italia, Roma.
- 12 - CASINI, L., 1992. Oca granaiola *Anser fabalis*. In: Brichetti, P., P. De Franceschi & N. Baccetti (eds.). Fauna d'Italia. Aves I:262-271.
- 13 - CASINI, L., 1992. Oca lombardella *Anser albifrons*. In: Brichetti, P., P. De Franceschi & N. Baccetti (eds.). Fauna d'Italia. Aves I:273-279.
- 14 - CASINI, L., A. MAGNANI & L. SERRA, 1992. Ciclo annuale della comunità di uccelli acquatici nella Salina di Cervia. Ric. Biol. Selvaggina, 92:1-54.
- 15 - MADSEN, J., G. CRACKNELL & A. D. FOX, 1999. Goose populations of the Western Palearctic. WI Publication 48.
- 16 - PAZZUCCONI, A., 1997. Uova e nidi degli uccelli d'Italia. Calderini, Bologna, 655 pp.
- 17 - PERCO, F., 1991. Recent changes in size of goose populations in Italy. Ardea 79:169-172.
- 18 - PERCO, F., 1992. Oca selvatica *Anser anser*. In: Bricehetti, P., P. De Franceschi & N. Baccetti (eds.). Fauna d'Italia. Aves I:283-294.

- 19 - PERCO, F. & P. UTMAR, 1992. Edredone *Somateria mollissima*. In: Brichetti, P., P. De Franceschi & N. Baccetti (eds.). Fauna d'Italia. *Aves* I:401-406.
- 20 - SAVI, P., 1827-31. Ornitologia toscana. Ossia descrizione e storia degli uccelli che trovansi nella Toscana. Con l'aggiunta delle descrizioni di tutti gli altri propri a rimanente d'Italia. 1 (1827), 2 (1830), 3 (1831). Nistri, Pisa.
- 21 - TELLINI, G., E. ARCAMONE, N. BACCETTI, E. MESCHINI & P. SPOSIMO (Eds.), 1997. Atlante degli uccelli nidificanti e svernanti in Toscana (1982-1992). Quad. Mus. Stor. Nat. Livorno – Monografie, 1.
- 22 - BACCETTI, N., 1992. Orco marino *Melanitta fusca*. In: Brichetti, P., P. De Franceschi & N. Baccetti (eds.). Fauna d'Italia. *Aves* I:416-422.
- 23 - MOCCI DEMARTIS, A., 1972. Terza cattura in Sardegna dell'Orco marino *Melanitta fusca fusca*. *Riv. It. Orn.*, 42: 248-262.
- 24 - SANTOLINI, R., 1992. Quattrochhi *Bucephala glangula*. In: Brichetti, P., P. De Franceschi & N. Baccetti (eds.). Fauna d'Italia. *Aves* I:422-427.
- 25 - SANTOLINI, R. & M. PANDOLFI, 1992. Smergo maggiore *Mergus merganser*. In: Brichetti, P., P. De Franceschi & N. Baccetti (eds.). Fauna d'Italia. *Aves* I:434-438.
- 26 - BRICHETTI, P., P. DE FRANCESCHI & N. BACCETTI (eds.), 1992. Fauna d'Italia. XXIX Aves I, Gaviidae-Phasianidae. Edizioni Calderini, Bologna, pp. 964+XXVII.
- 27 - MACCHIO, D., A. MESSINEO, D. LICHERI & F. SPINA, 1999. Atlante della distribuzione geografica e stagionale degli uccelli inanellati in Italia negli anni 1980-1994. *Biol. Cons. Fauna*, 103:1-276.
- 28 - SPAGNESI et al., 1988.
- 29 - BRICHETTI, P., M. CAFFI & S. GANDINI, 1993. Biologia riproduttiva di una popolazione di Storno *Sturnus vulgaris* nidificante in una "colombaia" della Lombardia. *Ann. Mus. Civ. St. Naturale, Brescia*, 28(1992):389-406.
- 30 - SPINA F., SERRA L., 2003 - An update of periods of pre-nuptial migration and reproduction for Annex II species in Italy. *INFS*, pp: 1-174;
- 31 - ANDREOTTI A., SERRA L., SPINA F., (a cura di) 2004 - Relazione tecnico-scientifica sull'individuazione delle decadi riferite all'Italia nel documento "Key Concept of Article 7(4) of Directive 79/409/EEC". *INFS*, pp. 1-50.
- 32 - SPINA F., VOLPONI S., 2008 - Atlante della Migrazione degli Uccelli in Italia. *MATM, ISPRA*, 800 pp.
- 33 - BRICHETTI P. & FRACASSO G. 2007. Ornitologia Italiana. 4 Apodidae-Prunellidae, pp: 193-203. Cecere J., Demartini L. Gustin M. 2003. Svernamento e migrazione dell'Allodola, *Alauda arvensis*, nella Riserva Naturale Statale Litorale Romano (RNSLR) - Lazio. *Avocetta*, 27: 32.
- 34 - TOMASINI S. 2001. Analisi delle strategie di migrazione e svernamento del Merlo *Turdus merula* in Italia. Tesi di laurea, Dipartimento di Biologia Evoluzionistica Sperimentale, Sessione III, Anno Accademico 2000-2001.
- 35 - CECERE J., DEMARTINI L. GUSTIN M. 2003. Svernamento e migrazione dell'Allodola, *Alauda arvensis*, nella Riserva Naturale Statale Litorale Romano (RNSLR) - Lazio. *Avocetta*, 27: 32.

LATVIA

- 1 - LOB 1998. Latvijas lauku putni. Rīga.
- 2 - LOB 1999. Latvijas lauku putni. Rīga.
- 3- LOB 2002. Latvijas meža putni. 2. izdevums.
- 4 - STRAZDS M., ĶUZE J. (red.) 2006. Ķemeru nacionālā parka putni. Jumava, Rīga.; www.putni.lv
- 5 - VĪKSNE J. 2008. Melnspārnu kaija ligzdo Kaņjerī. Putni dabā 2008/4 (in press); Cramp S. (ed.) 1983. Handbook of the Birds of Europe, the Middle East and North Afrika (used to estimate the total breeding season based on the data from Vīksne 2008)
- 6 - www.putni.lv
- 7 - CELMINS, A., BAUMANIS, J., ROZE, V. 1995. Udensputnu pavasara migrācija jurā pie Papes 1989. – Putni dabā 5.1: 17-29

LITHUANIA

1. KURLAVICIUS, P & RAUDONIKIS, L. 1999: Assessment of the Lithuanian breeding Bird Abundance, 1999-2001 (in Lithuanian). *Ciconia* 7: 52-57.
2. KURLAVICIUS, P & RAUDONIKIS, L. 2001: Assessment of the Lithuanian breeding Bird Abundance, 1999-2001 (in Lithuanian). *Ciconia* 9: 92-97.
3. JUSYS, V., MASIULIS, M., MECIONIS, R., POSKUS, A., GRAZULEVICIUS, G. & PETRAITIS, A. 1999: The Breeding Bird Atlas of the Kleipeda region. Vilnius.
4. SVAZAS, S. & RAUDONIKIS, L. 2003: New wintering grounds of waders and terrestrial birds in the Eastern Baltic region. A report. OMPO, Lithuanian Ornithological Society. Vilnius.
5. ZALAKEVICIUS, M., SVAZAS, S., STANEVICIUS, V. & VAITKUS, G. 1995: Bird migration and wintering in Lithuania. *Acta Zoologica Lituanica* 2. Vilnius.
6. KURLAVIČUS, P. (Ed) 2006: Lithuanian Breeding Bird Atlas. Lithuanian Ornithological Society, Kaunas: LATUTĖ
7. VILNIUS, MOKSLAS 1991: Fauna of Lithuania. Birds, Volume I.
8. VILNIUS, MOKSLAS 1991: Fauna of Lithuania. Birds, Volume II.

LUXEMBOURG

- 1 - MELCHIOR et al., 1987. Atlas des Oiseaux Nicheurs du Grand-Duché de Luxembourg.
- 2 - Ornithological database of LNLV (Lëtzebuurger Natur- a Vulleschutzliga).
- 3 - LORGÉ, P., HEIDT, C., KONTER, A. & WEISS, J. 2002. Tätigkeitsbericht der AG Feldornithologie 1985 - 1997.. *Regulus Wiss. Ber.:* Nr. 19.

MALTA

- 1 - BONAVIA, E., BORG, J.J., MERCIECA, C. & SULTANA, J. 2005. Systematic List 1996 - 1999. *Ii-Merill* 31: 1 - 34.
- 2 - MERCIECA, C., MALLIA, M. & SULTANA, J. 1999. Systematic List 1993 - 1995. *Ii-Merill* 29: 30-57.
- 3 - SULTANA, J. & GAUCI, C. 1982. A new guide to the Birds of Malta. The Ornithological Society, Valletta, Malta.
- 4 - Sultana, J. 2001 L-G_asafar ta' Malta. Publikazzjonijiet Indipendenza, il-Pjeta, Malta.
- 5 - Sultana, J. 2006 (updated in 2008). Report on the Key Concepts of Article 7(4) Country: Malta.

NETHERLANDS

- 1 - EYGENRAAM, J.A., 1957. The sex ratio and the production of the mallard, *Anas platyrhynchos* L. *Ardea* 45 (3/4):117-143.
- 2 - PLATTEEUW, M., N. F. VAN DER HAM & J.E. DEN OUDEN. Zeetrektingen in Nederland in de jaren tachtig. *Sula* 8 (1/2, special issue):1-203 & annex.
- 3 - BIJLSMA, R.G., 1978. De Houtduif als broedvogel op de ZW-Veluwe. *Tijftjaf* 23(1):9-34.
- 4 - BIJLSMA, R.G., 1980. De invloed van predatie op de broedresultaten van de Houtduif *Columba palumbus* op de Zuidwest-Veluwe. *Limosa* 53(1):11-20.
- 5 - BIJLSMA, R.G., 1984. Over de broedassociatie tussen Houtduiven *Columba palumbus* en Boomvalken *Falco subbuteo*. *Limosa* 57:133-139.
- 6 - DOUDE VAN TROOSTWIJK, W.J., 1964. Some aspects of the Woodpigeon population in the Netherlands. *Ardea* 82:13-29.
- 7 - LWVT *in prep.* - Bird migration in the Netherlands, 1976-1993.
- 8 - *Limosa* 58:17-22.
- 9 - ZOMERDIJK, 1988. *Graspieper* 8:55-65.
- 10 - HELLEBREKERS & VOOUS, 1964. *Limosa* 37:5-11.
- 11 - VLOEDGRAVEN, 1990. Mestwetgeving en weidevogels: knelpunten en oplossingen.
- 12 - VAN DIJK & VAN OS, 1982. Vogels van Drenthe.
- 13 - VAN KOERSVELD, 1958. *Ardea* 46:58-62.
- 14 - VAN DER WINDEN EA, 1994. *Limosa* 67:137-145.
- 15 - BOER et al., 1974. De Meerkoet.
- 16 - EYKMAN, 1937-1941. De Nederlandsche Vogels.

- 17 - HUSTINGS & GANZEVLES, 1984. *Limosa* 57:37-42.
- 18 - MULDER, 1972. De Grutto in Nederland.
- 19 - SOVON in litt., March 1999 and June 1999.
- 20 - SWENNEN, 1991. Ecology and population dynamics of the Common Eider.
- 21 - HUSTINGS et al, 1985. Vogelinventarisatie.
- 22 - CAMPHUYSEN & VAN DIJK, 1983. *Limosa* 56 (3).
- 23 - GLUTZ VON BLOTZHEIM et al, 1973. Handbuch der Vögel Mitteleuropas, 5.
- 24 - NIEWOLD & NIJLAND, 1988. De Sallandse Heuvelrug als reservaat voor het Westeuropese heidekorhoen.
- 25 - LEYS, 1964. *Limosa* 37:232-263.
- 26 - WALTERS, 1988. *Limosa* 61:33-40.
- 27 - Personal communication dr A.L.Spaans, June 1999.
- 28 - BEEKMAN, 1991. Laying date and clutch size ... in the Mute Swan. Wildfowl Suppl.
- 29 - BOER et al, 1974. De Meerkoet.
- 30 - Calandra, 1982. *Limosa* 54:137-140.
- 31 - EBBINGE, 1992. *Ardea* 80:203-228.
- 32 - FOX, A., 1999. EU management plan for the Jack Snipe *Limnocyptes minimus* (draft).
- 33 - KLUYVER, 1933. Bijdrage tot de biologie en de ecologie van de Spreeuw gedurende zijn voortplantingstijd.
- 34 - MEININGER & DE KRAKER, 1992. *Limosa* 65:49-55.
- 35 - ROELL, 1978. *Behaviour* 64:1-124.
- 36 - SPAANS, 1977. *Ardea* 65:83-85.
- 37 - PLATTEEUW et al, 1994. *Sula* 9 (1/2).
- 38 - BIJLSMA, R., 1999. Drentse Vogels 12:1-8.
- 39 - DAVIDSON & WILSON, 1992. Wader Study Group Bulletin 64 (supplement):39-51.
- 40 - PIERSMA et al., 1992. Wader Study Group Bulletin 64 (supplement):52-63.
- 41 - PIERSMA & JUKEMA, 1990. *Ardea* 78:315-337.
- 42 - SOVON, 1987. Atlas van de Nederlandse Vogels.
- 43 - DE KROON, G. H. J., 1982. De Waterral. Kosmos, Amsterdam.
- 44 - MEININGER et al., 1994. Watervogeltellingen in het zuidlijk Deltagebied.
- 45 - DE KROON, G. H. J., 2000. Over nesthabitat en nest van Waterral Rallus aquaticus in actief laagveen. *Vogeljaar* 48:145-151.

POLAND

1.- Ptaki (część I). Poradniki ochrony siedlisk i gatunków Natura 2000 – podręcznik metodyczny. (Manual for Natura 2000 habitats and species protection) Tom 7. 2004. Warszawa.

Praca zbiorowa pod redakcją Macieja Gromadzkiego, przy współudziale Jadwigi Gromadzkiej, Katarzyny Mokwy, Arkadiusza Sikory, Marii Wieloch, Magdaleny Zagalskiej-Neubauer, Moniki Zielińskiej i Piotra Zielińskiego

2.- Ptaki (część II). Poradniki ochrony siedlisk i gatunków Natura 2000 – podręcznik metodyczny. (Manual for Natura 2000 habitats and species protection) Tom 8. 2004 Warszawa.

Praca zbiorowa pod redakcją Macieja Gromadzkiego, przy współudziale Jadwigi Gromadzkiej, Katarzyny Mokw, Arkadiusza Sikory, Marii Wieloch, Magdaleny Zagalskiej-Neubauer, Moniki Zielińskiej i Piotra Zielińskiego

3.- TOMIALOJC L., STAWARCZYK T. 2003. Awifauna Polski. Rozmieszczenie, liczebność i zmiany (The avifauna of Poland. Distribution, numbers and trends) Pronatura. Wrocław, 870 s.

PORTUGAL

1 - RUFINO, R., 1989. Atlas das Aves que nidificam em Portugal Continental. SNPRCN. Portugal.

2 - COSTA, L.T. & R. S. GUEDES, 1994. Contagens de Anátídeos Invernantes em Portugal. Invernos de 1992/93. Estudos de Biologia e Conservação da Natureza No.14. ICN, Lisboa.

- COSTA, L.T. & R. S. GUEDES, 1996. Contagens de Anatídeos Invernantes em Portugal. Invernos de 1993/94 a 1995/96. Estudos de Biologia e Conservação da Natureza No.20. ICN, Lisboa.
- 3 - FONTOURA, A.P. & D. GONCALVES, 1998. Contributo para a conservação e gestão cinegética da codorniz (*Coturnix c. coturnix*) em Portugal. CECA - ICETA/UP e DG das Florestas.
- 4 - GONCALVES, D. & P. FONTURA, 1998. Rede portuguesa de monitorização de populações de Codorniz (*Coturnix c. coturnix*). Aspectos metodológicos. CECA ICETA/UP e DG das Florestas.
- 5 - SILVA, L., 1998. Atlas das aves da Reserva Natural da Serra da Malcata. ICN, Lisboa.
- 6 - PIMENTA, M. & M. L. SANTARÉM, 1996. Atlas das aves do Parque Nacional da Peneda Gerês. ICN, Braga.
- 7 - RUFINO, R. & R. NEVES, 1991. Snipe on wet grasslands in Portugal. WSG Bull. 61, Suppl.: 31-32.
- 8 - LEITÃO, D., 1995. Charadriiformes em terrenos agrícolas do Estuário do Tejo. In PERZ-HURTADO, A. & NEVES, R. 1º Encontro Luso-Hispânico de Limícolas. *Airo* 6(1-2): 29-38.
- 9 - RUFINO, R. & A. ARAÚJO, 1987. Seasonal variations in wader numbers and distribution at the Ria de Faro. WSG Bull. No 51: 48-53.
- 10 - ENCARNAÇÃO, V., 1995. Censos de aves aquáticas no Parque Natural da Ria Formosa. Estudos Técnicos nº2. PNR/ICN, Faro.
- 11 - Kazantzdis S. & M Noidou (eds). 2008 Migration phenology of huntable waterfowl species in Greece. Final project report. Ministry of Rural Development and Food. Forest Research Institute – NAGREF, Thessaloniki 255 pp. (in Greek)

ROMANIA

- 1 - CIOCHIA VICTOR, 1992. Păsările clocitoare din România. Editura Științifică. București (România) .
- 2 - DAN MUNTEANU. 1996. Changes and trends in Anatidae populations in Romania after Second World War. *Gibier. Faun Sauvage, Game Wildl.* 13:573-582.
- 3 - DIONISIE LINTIA, 1955 Păsările din Republica Populară România. Editura Academiei R.P.R., București.
- 4 - MUNTEANU DAN, PAPADIPOL AUREL, PETER WEBER.1994. Atlasul Provizoriu la Pasarilor Clocitoare din Romania. Publicațiile Societății Ornitologice Române.
- 5 - SZABO JOZSEF 1997. Observații Ornitologice privind avifauna acvatică a rezervației naturale Refugiul Ornitologic Sânpaul". *Analele Banatului* 3: 149-153.
- 6 - VASILE COTTA, MIHAI BODEA 1969. Vânatul României. Editura Agrosilvică. București. România
- 7 - BOTOND KISS, MIHAI MARINOV jr. 2005. The first recording of Black-Tailed Godwit (*Limosa limosa*) nesting in Romania to the south of Carpathians. *Scientific Annals of the Danube Delta Institute for Research and Development.* Tulcea Romania.
- 8 - Ornitorama Database.

SLOVAKIA

- 1 - DANKO, Š., DAROLOVÁ, A., KRIŠTÍN, A. et al., 2002, Rozšírenie vtákov na Slovensku / Birds Distribution in Slovakia. VEDA, vydavateľstvo Slovenskej akadémie vied, Bratislava, 688 pp.
- 2 - Vtáky Európy, 2004, Ikar a.s., Bratislava, 448pp.
- 3 - HUDEC, K., et al., 1994, Ptáci 1, Fauna ČR a SR. Academia Praha, Nakladatelství Akademie věd České republiky, 672 pp.
- 4 - HUDEC, K., ČERNÝ, V. et al., 1977, Ptáci 2, Fauna ČSSR. Academia Praha, Nakladatelství Československé Akademie věd, 896 pp.
- 5 - HUDEC, K., et al., 1983, Ptáci 3, Fauna ČSSR. Academia Praha, Nakladatelství Československé Akademie věd, 1235 pp.
- 6 - DUNGEL, J., HUDEC, K., 2001. Atlas ptáků České a Slovenské republiky. Academia nakladatelství Akademie věd České republiky, 252 pp.

- 7 - RIDZON J., LABER J., GUGH J. & SLABEYOVA K. 2006: Hromadné zimovanie divých husí na Podunajsku v zime 2005/06. - Tichodroma 18: 59-63. 2) Hudec K. (ed.) 1994: Ptáci 1. - Academia, Praha.
- 8 - SLABEYOVA K., RIDZON J., DAROLOVA A., KARASKA D. & TOPERCER J. 2008: Správa zo zimného sčítania vodného vtáctva 2004/05. - SOS/BirdLife Slovensko, Bratislava. 2) Hudec K. (ed.) 1994: Ptáci 1. - Academia, Praha.
- 9 - SANIGA M. 1996: Distribution, habitat preferences and breeding biology of the capercaillie (*Tetrao urogallus*) population in the Veľká Fatra mountains (West Carpathians). - Biologia 51(2): 201-211.
- 10 - SLABEYOVA K., RIDZON J., DAROLOVA A., KARASKA D. & TOPERCER J. 2008: Správa zo zimného sčítania vodného vtáctva 2004/05. - SOS/BirdLife Slovensko, Bratislava.
- 11 - www.birding.sk
- 12 - TRNKA, A. 1999.: Vtáky rybníkov severozápadnej časti Podunajskej níziny časť. – Pedagogická fakulta trnavskej university. Trnava.
- 13 - CEPÁK J., KLVÁNA P., FORMÁNEK J., HORÁK D., JELINEK M., SCHRÖPFER L., ŠKOPEC J. & ZÁRYBNICKÝ J., 2008: Atlas migrace ptáků České a Slovenské republiky. Aventinum, Praha, 607pp.
- 14 - HUDEC K. & STASTNY K. eds Fauna CR. Ptáci 2/II., Academia Praha , 622 pp.
- 15 - ROZŠÍRENIE vtákov na Slovensku, Veda, Bratislava, 686 pp.

SLOVENIA

- 1 - GEISTER, I. 1995: Ornitološki atlas Slovenije. DZS, Ljubljana.
- 2 - SOVINČ, A. 1994: Zimski ornitološki atlas Slovenije. Tehniška založba Slovenije. Ljubljana.
- 3 - BORDJAN, B. (in preparation): Contribution to knowledge of water birds of Dravsko polje fishponds. *Acrocephalus*, 2008.

SPAIN

- 1 - DÍAZ, M., B. ASENSIO & J. L. TELLERÍA, 1996. *Aves Ibéricas*.
- 2 - Monografía ICONA nº38, 1985.
- 3 - SEO (SANTOS, T., F. J. CANTOS, E. CERCADILLO, R. MARTÍ, P. SOLANO & J. M. VARELA), 1985. Estudio sobre la biología migratoria de la Tribu Turdini (Aves) en España. ICONA, Monografía nº39, Madrid.
- 10 - GALLEGO, J., 1985. Nota sobre el comportamiento migratorio de las poblaciones ibéricas de Paloma Torcaz (*Columba palumbus*). *Ardeola*, 32 (2):379-408.
- 11 - LUCIO, A.J. y M. SÁENZ DE BURUAGA, 1993. Nuevos datos sobre la Becada. *Trofeo*, 281:22-27.
- 12 - ----- 1995. Proyecto Becada. Análisis de la temporada 94-95. *Trofeo*, 306:66-74.
- 13 - PURROY, F.J., 1988. Sobre la invernada de la Paloma Torcaz (*Columba palumbus*) en Iberia. En: J. L. Tellería (ed.), *Invernada de Aves en la Península Ibérica*. Sociedad Española de Ornitología, Monografía nº 1:137-151.
- 14 - SANTOS, T., 1982. Migración e invernada de zorzales y mirlos (genero *Turdus*) en la Península Ibérica. Tesis Doctoral. Editorial de la Universidad Complutense, Madrid.
- 15 - SEO/ BirdLife. 1996. Informe sobre las fechas de migración prenupcial de Becada, Paloma Torcaz y zorzales en Navarra y Guipúzcoa en relación con la caza en "contrapasa". Informe inédito para el Gobierno de Navarra y Gobierno Vasco. Sociedad Española de Ornitología.
- 16 - TELLERÍA, J. L., B. ASENSIO & M. DIÁZ, 1999. *Aves Ibéricas II*.
- 17 - SEO/BirdLife, 1997. Atlas de las Aves de España.

SWEDEN

- 1 - Sveriges Ornitologiska Förening, 1990. *Sveriges fåglar*. 2a upplagan. Stockholm.
- 2 - Åke Andersson (pers. comm.). Swedish Association for Hunting and Wildlife management.
- 3 - ANDERSSON, Å., L. NILSSON & H. PERSSON, 1987. Återfynd och kontroller av hälsomärkta nordiska grågäss. *Vår Fågelvärld* 46:197-201.

- 4 - MADSEN, J., G. S. CRACKNELL & A. D. FOX, 1999. Goose populations of the Western Palaearctic. Wetlands International Publications.
- 5 - Nordic greylag goose neck-banding project.
- 6 - NILSSON, L. & M. K. PIRKOLA, 1996. The migration pattern of bean geese (*Anser fabalis*) in the Baltic area. *Vår Fågelvärld Suppl.* 11:174-153.
- 7 - ERIKSSON, P. & T. HENRIKSSON, 1990. Sädgåsen *Anser fabalis* I Åsele lappmark. *Vår Fågelvärld* 49:7-14.
- 8 - EKBERG, B. & L. NILSSON, 1994. Skånes fåglar.
- 9 - Ecoscope report 1996.
- 10 - GJERSHAUG, J.O., et. al., 1994. Norsk Fugleatlas. Norsk Ornitologisk Forening, Klaebu.
- 11 - CRAMP, S., 1980. The Birds of the Western Palearctic. Volume II
- 12 - Våra fåglar i Norden, 1960. Red. Kai Curry-Lindahl. Del II.
- 13 - GÖRANSSON, G. & B. FRYLESTAM, 1983. Fältviltet I. Uppsala.
- 14 - MARCSTRÖM, V., 1994. Roding activity and woodcock hunting in Sweden. *In* "Forth European Woodcock and Snipe Workshop", Kalchreuter, H.(ed) 1994. IWRB Publ. 31, 114 pp.
- 15 - BENGTTSSON, K., 1998. Sent häckande ringduvor. *Anser*, nr 4.
- 16 - MÖRNER, T., 1995. Rapport rörande undersökning av ringduvans häckningstid. Mimeogr. (3 pages).
- 17 - Våra fåglar i Norden, 1960. Red. Kai Curry-Lindahl. del I.
- 18 - Christer Olson (pers.comm.).
- 19 - Tommy Tyrberg (pers. comm.)
- 20 - Peder Fält (pers. comm.)
- 21 - Gunnar Andersson (pers. comm.)
- 22 - Jan Loman (pers. comm.)
- 23 - Våra fåglar i Norden, 1961. Red. Kai Curry-Lindahl. Del III.
- 24 - ANTONSEN S. 1983. Habitatvalg og næringspreferanse hos lirypekyllinger (*Lagopus lagopus*). Huvudfagsoppgave. Universitetet i Tromsø. Avd. For arktisk biologi. Tromsø. Norway.
- 25 - BERGSTRÖM R., HULDT H. & NILSSON U. 1992. Swedish Game- Biology and Management. Swedish Hunters Association. Uppsala. Sweden
- 26 - BRITTAS R. 1988. Lär känna Dalripan. Svenska Jägareförbundet. Stockholm. Sweden.
- 27 - BRUUN M. 2002. On starlings and farming. Diss. Thesis. Lund University. Sweden
- Cotton P. 2003. Avian migration phenology and global climate change. *Proc. Nat. Ac. Sci. U.S.A.* 100 (21). 12219-12222.
- 28 - CRICK H.Q.P. 2004. The impact of climate change on birds. *Ibis* 146. 48-56.
- 29 - DUNN P. 2004. Breeding dates and reproduction. *In* *Birds and Climate Change*. Edited by: Moller A., Fiedler W., & Berthol A. *Adv. Ecol. Res.* 35. 69-87.
- 29 - ERIKSTAD, KE, PEDERSEN HC & STEEN JB 1985. Clutch size and egg size variation in willow grouse. *Ornis Scandinavica* 16:88-94.
- 30 - HÖRNELL-WILLEBRAND M. 2005. Temporal and spatial Dynamics of Willow Grouse *Lagopus lagopus*. Diss. Thesis. SLU. Umeå. Sweden.
- 31 - KAALD P. 1992. Project fjellrype- resultat fra fjellrypetakseringen I Nordkapp commune, Finnmark 1976-1985. Rapport nr 2. Norway.
- 32 - LINDSTRÖM Å., GREEN M., OTTVALL R. & SVENSSON S. Övervakning av fåglarnas populationsutveckling. Rapport. Lund University. Sweden.
- 33 - LOMAN J. 1980. Social organisation and reproductive ecology in population of the hooded crow. Diss. Thesis. Lund University.
- 34 - MADSEN J., CRACKNELL G., & FOX A.D. 1999. Goose populations of the Western Pelearctic. A review of status and distribution . Wetlands international Publ. No 48. Wetlands international, Wagening, The Netherlands. National Environmental Research Institute, Rönde, Denmark.
- 35 - MARCSTRÖM, V & HÖGLUND, N. 1980. Factors affecting reproduction of willow grouse, *Lagopus lagopus*, in two highland areas of Sweden. *Swed. Wildlife Research (Viltrevy)* 11:285-314
- 36 - MYRBERGET, S. 1985. Egg predation on an island population of willow ptarmigan – *Lagopus lagopus*, *Fauna norwegica*. Ser. C, *Cinclus*. 8:82 – 87.

- 37 - NILSSON L. 2008. Internationella sjöfågel- och gåsinventeringarna i Sverige-Årsrapport för 2007/2008. Lunds Universitet. Rapport.
- 38 - NILSSON L. 2007. Internationella sjöfågel- och gåsinventeringarna i Sverige-Årsrapport för 2006/2007. Lunds Universitet. Rapport.
- 39 - NILSSON L. & GREEN M. 2007. Censuses of wintering seabirds in off-shore areas along the Baltic coast of Sweden. Progress report for 2007. Report from Dept. Anim. Ecol. . Lund University.
- 40 - OTTOSSON U., BAIRLEIN F. & HJORT C. Migration patterns of Palearctic *Acrocephalus* and *Sylvia* warblers in north-eastern Nigeria. *Vogelwarte* 41 (4). 249-262
- 41 - OTTVALL R. 2004. Population ecology and management of waders breeding on coastal meadows. Diss. Thesis. Lund University.
- 42 - OTTVALL R., EDENEIUS L., ELMBERG J., ENGSTRÖM H., GREEN M., HOLMQVIST N., LINDSTRÖM Å., TJERNBERG M. & PÄRT T. 2008. Populationstrender för fågelarter som häckar i Sverige. Naturvårdsverkets rapport 5813.
- 43 - RAAB B. & VEDIN H. 2004. Klimat, sjöar och vattendrag. Sveriges National Atlas. Stockholm. Sweden.
- 44 - SAARI L., ÅBERG J., SWENSON J.E. 1998. Factors influencing the dynamics of occurrence of the Hazel Grouse (*Bonasa Bonasa*) in a fine-grained managed landscape. *Cons. Biol.* 12, 586-592.
- 45 - STEEN J.B. 1989. Ryper. 367 pp. Gyldendal Norsk Forlag. Norway
- Svensson S., Svensson M., & Tjernberg M. 1999. Svensk Fågelatlas. Vår Fågelvärld, supplement 31. Stockholm
- 46 - WIDEMO F. 1995. Distribution models and the evolution of lekking. Diss. Thesis. Uppsala University. Sweden.
- 47 - WINKLER D., DUNN P. & MCCULLOCH C.E. 2002. Predicting the effects of climate change on avian life-history traits. *Proc. Nat. Ac. Sci. U.S.A.* 99. 13595-13599.
- 48 - WRETENBERG J., LINDSTRÖM Å., SVENSSON S., THIERFELDER T. och Pärt T. 2006. Population trends of farmland birds in Sweden and England: similar trends but different patterns of agricultural intensification. *J. Appl. Ecol.* 43: pp1110-1120.
- 49 - ÅBERG J., JANSSON G., SWENSON J.E. & ANGELSTAM P. 1995. The effect of matrix on the occurrence of Hazel Grouse (*Bonasa Bonasa*) in isolated habitat fragments. *Can. J. Zool.* 78, 352-358.
- 50 - ÅBERG J. 2000. The occurrence of Hazel Grouse in the Boreal Forest. Diss. Thesis. Swed. Univ. Agricult. Scien. Uppsala. Sweden.
- 51 - Sveriges Ornitologiska Förening, 2002. Sveriges fåglar. 3e upplagan. Stockholm

UNITED KINGDOM

- 1 - SCOTT & ROSE, 1996. Birds of the Western Palearctic.
- 2 - CAMPBELL & FERGUSON-LEES - Bird's Nests.
- 3 - BTO ringing scheme (unpublished information).
- 4 - CROXTON, P. & SPARKS, T. 2005. First and last dates of Migrant Birds in Suffolk 1950 - 2004. Suffolk Bird Report 2005, 16-23.
- 5 - GRANT, M.E., CHAMBERS, R.E. & EVANS, P.R. 1992. The effects of re-seeding heathland on breeding whimbrel in Shetland. II. Habitat use by adults during pre-laying period. *Journal of applied Ecology* 29: 509-515.
- 6 - JOYS, A.C. & CRICK, H.Q.P. 2004. Breeding periods for selected bird species in Enlind. BTO Research Report No 352. BTO Thetford.
- 7 - MOSS, D., JOYS, A.C., CLARK, J.A., JIRBY, A., SMITH, A., BAINES, D. & CRICK, H.Q.P. 2005. Timing of Breeding of Moorland birds. BTO research report No 362. BTO, Thetford.
- 8 - SPARKS, T. & Mason, C. 2001. Dates of arrivals and departures of spring migrants taken from Essex Bird report 1950 - 1998. Essex bird Report 1999, 154 - 164.
- 9 - FOX, AD, BOYD, H, WALSH, AJ, STROUD, DA, NYELAND, J AND CROMIE, R (in prep) Winter warming and habitat shifts in Iceland enable earlier spring migration amongst Greenland White-fronted Geese *Anser albifrons flavirostris* without apparent costs to refuelling rates.
- 10 - HANCOCK, 1991. Common Scoters in the Flow Country. RSPB report; *Irish Birds* (1996) 5:413-422.

11 - MOSS, D, JOYS, AC, CLARK, JA, KIRBY, A, SMITH, BAINES, D, CRICK, HQP
(2005) Timing of Breeding of Moorland Birds, BTO Research Report No. 362.