

# Wetlands International

## Woodcock and Snipe Specialist Group

Newsletter No 24

December 1998

### CONTENTS

### PAGE

Editorial	2
Some Observations on woodcock ( <i>Scolopax rusticola</i> ) migration in Austria and Western Hungary in 1997	5
Wing sampling in Denmark - Season 1997/98	7
Les activites de Reseau Becasse en France - Saison 1997/98	8
Effects of Hunting on Survival and Habitat use by American Woodcock on Breeding and Migration Areas.	14
On Woodcock and Snipes in the former USSR	18
Bibliography	28

## Editorial

This Newsletter was issued as a contact organ to inform members of the Woodcock and Snipe Specialist Group (WSSG), a research unit of Wetlands International (WI) and likewise of the World Conservation Organisation (IUCN). Subjects of the WSSG are species of the genus *Scolopax*, *Gallinago* and *Lymnocyptes* that differ in several respects remarkably from all other wader species. For this reason a separate research unit was established.

## Organisation

Since 1 January 1996 Wetlands International is acting as a global organisation. Two years later the WI-WSSG has extended its activities to the New World. Since 1974 there have been contacts to the colleagues in North America working on the American woodcock (*Scolopax minor*). Some of us had joined all their interesting symposia and workshops, held in 1974, 1977, 1980, 1990 and 1997. During the Ninth American Woodcock Symposium in February 1997, Baton Rouge, Louisiana, the cooperation was intensified. After negotiations with the Laboratory Director of the well-known Patuxent Wildlife Research Centre in Maine, Dr. Jim Kushlan, it was suggested to nominate Dr. Daniel G. McAuley as "Joint Coordinator (New World)" of the WSSG. After approval by WI The Americas Dan was officially appointed by the WI-Board of Members during the last meeting in November 1998 in Dakar.

This is certainly an exciting development. Dan is in charge of the coordination of highly interesting research projects on the American Woodcock (see p. 14) and of the edition of the proceedings of the last symposium. So I am looking forward to fruitful cooperation in the future.

There are not yet official contacts to the eastern Asian and Pacific countries, the breeding range of several woodcock and snipe species. However, Taej Mundkur of University of Malaysia and WI-Asia Pacific, is very interested in cooperation with the WSSG and occasionally provides information on these species.

## Meetings

Six years ago, during the Fourth Woodcock and Snipe Workshop, 1992 in Saarbrücken, it was suggested to hold the next meeting closer to the main breeding range of the four European woodcock and snipe species, in order to enable more of the colleagues working in Eastern Europe to attend. Finally, this plan was realized in May 3 – 5, 1998.

The **Fifth Woodcock and Snipe Workshop**, a joint venture of WI, IUCN, International Council of Game and Wildlife Conservation (CIC) and the European Wildlife Research Institute (EWI) of the Agricultural University of Poznan, Poland, was under the auspices of the Polish Minister of Environment, Natural Resources and Forestry. It was hosted by the well-known Re-

search Station of the Polish Hunters Association in Czempin, Western Poland.

Thanks to the generous financial support of the Working Group on Migratory Birds of the Western Palearctic (OMPO), the French "Office National de la Chasse" (ONC), the CIC-Migratory Bird Commission and EWI not only most of the colleagues working in Russia and the Baltic states, but also one of Kenya (East Africa) could attend the meeting.

26 presentations of participants of eight European and on African countries informed about research projects on *Scolopax rusticola* and *S. minor*, *Lymnocyptes minimus*, *Gallinago gallinago*, *G. media* and, for the first time in the WSSG, *G. nigripennis* (African snipe). The latter species was introduced to us by an excellent presentation of the results of a three-years study on habitat use and breeding biology in Kenya. Most of the other papers concerned the territory of the former USSR, where our colleagues worked with enthusiasm in spite of sometimes enormous economic problems. Bag statistics, continuous wing sampling and a remarkably increase of ringing results, thanks to the activities of ONC during recent years provided insight into several aspects of the biology of these secretively living species, such as age-related migration patterns, moult sequences or reproductive rates. Telemetric and nutritional studies revealed habitat and dietary preferences and thus provided facts for guidelines for habitat management. Since these species are huntable in most of their range hunters have provided valuable data and thus contributed considerably to our knowledge. On the other hand, the interest in hunting proved to be a strong incentive for conservation and restoration of habitats, especially for the snipes.

As usual, this meeting with most European experts assembled provided excellent opportunities for informal discussions on a variety of open questions and thus objectives for future research.

The staff of the Czempin Research Station was extremely helpful in organizing the meeting. They provided not only all the facilities for an effective workshop, but also a friendly atmosphere by side programs, such an excursion to a historic site, followed by a romantic wild boar dinner which was highly appreciated by all participants.

As almost all papers had been submitted to the coordinator the manuscripts will be ready for printing by February 1999, and hopefully the proceedings published by WI by early summer.

From November 8 – 14, 1998, the **First Board Meeting of WI** was held in Dakar, Senegal. Members of the Board are representatives of the about 40 member states of WI, coordinators of the 20 Specialist Groups and representatives of member organisations. A main item was the future positioning of the now global organisation, which was intensively discussed. Finally, there was a clear message to WI to consider research as the main task, as in the former IWRB. This is the niche for WI among other conservation organisations. The importance of this objective was stressed by creating the position of a Science Coordinator. Dr. Nick Davidson is now in charge of the Specialist Groups and coordinates their activities. Nick is now promoting the publication of our proceed-

ings, which is highly appreciated.

The Board Meeting was interrupted by the **Second International Conference on Wetlands and Development** which was attended by almost 500 wetland experts from 90 countries. An enormous variety of subjects was covered by four simultaneous workshops.

### Publications

Thanks to Dr. J. Shergalin, director of „Merktrans“, Estonia, we again received literature on woodcock and the snipes in the former USSR. Some of the papers translated by Merktrans are published in this issue. Especially interesting are aspects of the life history and population dynamics of the rarer species.

We also appreciate the activities of Mr. Gilles Avot (Paris) for the in the meanwhile incredible amount of scientific literature and quotations concerning woodcocks and snipes in the world he constantly provides to the WSSG.

The Proceedings of the Second and the Fourth Woodcock and Snipe Workshops (Fordingbridge 1982 and Saarbrücken 1992, respectively) are still available, while those of the First and Third Workshop are out of print.

### Acknowledgements

In the name of the WSSG the coordinator wants to express sincere thanks to the International Council of Game and Wildlife Conservation (CIC) and the CIC-German Delegation, for financial support received to produce and distribute our annual Newsletter and to enable the coordinator to join relevant conferences.

Dr. habil. Herby Kalchreuter (H.K.)

Global coordinator

European Wildlife Research Institute (EWI)

D-79848 Bonndorf-Glashütte

Germany

Telephone ++49(0)7653-1891, Fax ++49(0)7653-9269

## Some observations on woodcock (*Scolopax rusticola*) migration in Austria and Western Hungary in 1997

Philipp Meran

**Spring migration:** After a few sightings of probably wintering birds the first migrants arrived almost simultaneously on March 3 and 4 in SW-Hungary, Upper Austria, Salzburg and Burgenland. Especially near Luising (Burgenland) record numbers of migrants had been observed in humid regions until April 20. In the more dry regions of western Hungary, however, later birds stayed only briefly or didn't stop at all, due to the warm and relatively dry weather at the end of March.

Personally, I have counted a total of 83 roding woodcocks (86 in 1996) during 39 outings (30 in the evening, 9 in the morning).

The following woodcocks bagged mainly in Hungary during evening flights in spring 1997 were analyzed:

Date	Location	Number seen	Number bagged	Age	Sex	Weight (g)	Bill length (mm)	Time of the day (h)
10.3.	Ujvárfalva	2	1	juv.	♂	276	65	18.15 – 18.20
12.3.	Keresztur	3	1	ad.	♂	300	69	4.55 – 5.31
15.3.	Ujvárfalva	6	3	2 ad., 1 juv.	♂, ♂, ♀	266, 294, 319	71, 69, 75	18.11 – 18.37
17.3.	Ujvárfalva	5	1	juv.	♂	320	63	18.08 – 18.32
18.3.	Ujvárfalva	1	1	juv.	♂	313	72	18.33
20.3.	Keresztur	6	1	ad.	♂	345	66	5.35 – 5.48
23.3.	Ujvárfalva	4	2	ad.	♂, ♀	327, 352	72, 75	18.30 – 18.46
24.3.	Ujvárfalva	5	1	juv.	♂	320	72	18.38 – 18.55
25.3.	Ujvárfalva	6	2	ad.	♂	349, 328	73, 66	18.25 – 18.52
26.3.	Keresztur	3	1	juv.	♂	314	65	5.03 – 5.22
3.4.	Kogl/Rehberg	5	1	ad.	♂	315	73	20.07 – 20.19

**Fall migration:** Overall, this was the most intense fall migration since decades. During 46 outings (all in the evening) I have observed a total of 131 woodcocks (30 in 1996), more than ever before. Woodcocks migrating or stopping over were seen from October 2 through December 4, in spite of a cold spell with snow by the end of October. But from mid-November throughout December the weather was relatively mild. During drive hunts on other game species in Steiermark (Austria) large numbers of woodcock had been flushed.

The following woodcocks bagged in Steiermark during evening flights in fall were analyzed:

Date	Location	Number seen	Number bagged	Age	Sex	Weight (g)	Bill length (mm)	Time of the day (h)
13.10.	Rosenkogel	5	1	ad.	♂	331	69	18.39 - 18.54
26.10.	Gasselsdorf	5	1	juv.	♂	312	60	17.11 - 17.22
27.10.	Gasselsdorf	6	1	ad.	♀	345	72	17.12 - 17.20
30.10.	Gasselsdorf	18	1	juv.	♂	297	70	17.03 - 17.28
4.11.	Gasselsdorf	7	1	ad.	♀	373	74	17.00 - 17.18
8.11.	Rosenkogel	4	1	juv.	♂	298	62	17.01 - 17.08
19.11.	Gasselsdorf	7	1	ad.	♀	405	61	16.42 - 17.00

The "number seen" in both lists concern only observations made at outings when birds were shot.

An unusual behaviour was observed during February 2 to 4, 1998: In spite of still frosty weather once four and once five woodcocks were flushed from a ditch near Gasselsdorf (Steiermark).

When temperatures rised around February 10, they were all gone. Never before have woodcocks been observed during winter or spring in this region.

Author's address:

Elisabethstr. 41

A-8020 Graz, Austria

## Wing sampling in Denmark - Season 1997/98

Since 1979 wings of waterfowl, snipes and woodcock bagged by Danish hunters are sampled by the National Environmental Research Institute (NERI), Kalø. The DMU report No. 242, edited by Ib Clausager provides the following results:

### **Common snipe** (*Gallinago gallinago* )

646 wings have been submitted, 147 more than in the previous year. They indicated an age-ratio of 6.8 juveniles per adult, against an average of 3.5 in the previous 13 years. Obviously, the breeding season of 1997 was the most successful one since 14 years. More than half of the snipes were harvested in the first half of September.

### **Jack snipe** (*Lymnocyptes minimus* )

35 wings were primarily obtained in October, thus considerably later than the Common snipes. Since there are no distinct age criteria known so far, no age-ratios could be calculated.

### **Woodcock** (*Scolopax rusticola* )

313 wings, 163 less than in the previous season were submitted. With an age-ratio of 2.2 juveniles per adult they pointed to an average breeding success in 1997. 71 % of woodcocks had been shot flushed by pointing dogs, and 15 % during battues.

Author's address:

National Environmental Research Institute

Grenåvej 12

DK - 8410 Rønne

Denmark

# Les activités de Réseau Bécasse en France - Saison 1997/98

Francois Gossmann et Claudine Bastat-Lequerré

## LE BAGUAGE

Au cours de cette saison 1997-1998, 74 départements ont participé aux opérations de baguage, une couverture géographique jamais atteinte (65 départements en 1996-1997).

### La saison de baguage en chiffres:

Nombre de départements:	74
Nombres de sites de baguage:	481
Nombre de bagueurs:	276
Nombre de sorties nocturnes:	1741
Nombre de contacts:	10631
Nombre de bécasses baguées:	2809
Nombre de contrôles:	222
Taux de réussite:	29 %

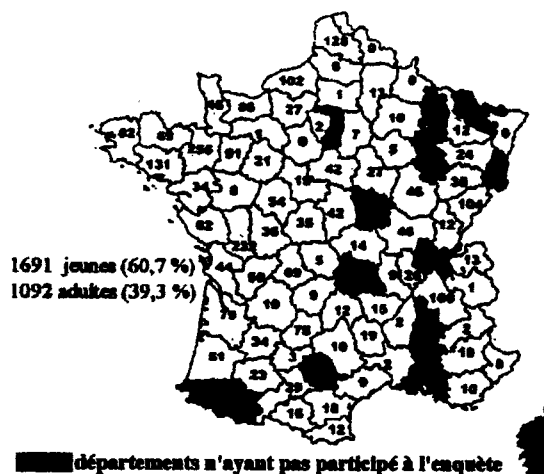


Fig. 1: Répartition des 2 809 bagues posées en 1997-1998. (Source: ON - Réseau Bécasse)

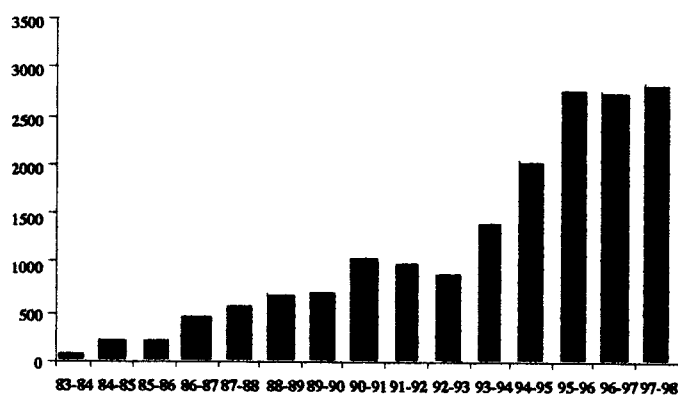


Fig. 2: Evolution interannuelle des résultats de baguage. (Source: ONC - Réseau Bécasse)

Les 2809 bécasses baguées constituent le meilleur résultat enregistré depuis le début des opérations de baguage. Deux départements se distinguent, l'Ille-et-Vilaine et les Deux Sèvres avec plus de 200 oiseaux marqués. D'une manière générale sur la côte Manche - Atlantique les résultats oscillent entre 50 et 106 bécasses baguées par département. Le Doubs et l'Isère, dans l'Est et le Sud Est de la France, obtiennent des résultats de baguage remarquables pour des régions aussi éloignées du littoral (respectivement 104 et 160 oiseaux marqués).



Le taux de réussite, calculé à partir du total des oiseaux capturés, y compris les contrôles, s'élève à 29 %.

Comme pour les saisons précédentes, le tiers des bagues a été posé en novembre. L'effort de marquage à cette période est intéressant car il permet de mieux mesurer l'évolution de l'activité cynégétique sur la Bécasse dès le début de la saison, pendant les mois où les prélèvements sont les plus forts.

En 1997- 1998, **222 contrôles** ont été enregistrés dont **126 contrôles directs** et **96 contrôles indirects**.

L'âge-ratio des oiseaux bagués s'élève à **60,7 %**. C'est un des plus faibles avec celui de 1996-1997 (58,5 %).

513 reprises de bagues françaises ont été enregistrées en 1997-1998 dont **237 reprises directes** et **276 reprises indirectes**.

Le taux des reprises directes est de **8,5 %**.

Le délai moyen de reprise pour les reprises directes à moins de 20 kilomètres du lieu de baguage est de **31 jours**.

#### Les reprises de bagues françaises à l'étranger

Les 24 nouvelles reprises à l'étranger connues au cours de la saison 97-98 portent à 196 le nombre total de reprises de bagues françaises à l'étranger. Ces 24 reprises se décomposent comme suit:

Reprises directes:	- 1 en Biélorussie	- 3 en Russie
	- 2 en Lettonie	- 1 en Espagne
	- 1 en Lituanie	- 1 en Suède
	- 1 en Pologne	
Reprises indirectes:	- 1 en Autriche	- 2 en Lettonie
	- 1 au Danemark	- 2 en Lituanie
	- 1 en Finlande	- 5 en Russie
	- 2 en Italie	

#### Analyse statistique des reprises de bagues

Environ 3800 reprises issues des 17400 bécasses baguées entre 1983 et 1998 vont être analysées dans le cadre d'une convention ONC-CNRS de Montpellier. Le calcul des taux de survie constitue l'essentiel de ce travail. L'analyse portera notamment sur une différenciation spatiale et par classes d'âge.

Les taux de reprise et le temps de port de bague feront également l'objet d'une analyse pour de meilleures interprétations.

L'étude est confiée à Giacomo Tavecchia dans le cadre d'un DEA.

## L'ENQUÊTE CROULE

En 1998, les observations ont été réalisées dans 60 départements (figure 3). Les observations faites à nouveau dans la Manche et dans l'Aveyron confirment l'absence d'effectifs reproducteurs conséquents dans ces départements. Au total, 963 sites ont fait l'objet d'observations.

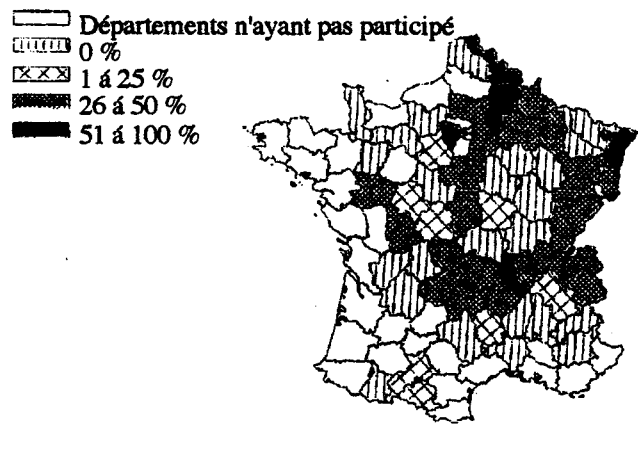


Fig. 3: Localisation des départements qui ont participé au suivi en 1998 et taux d'occupation pour chacun d'eux. (Source: ONC-Réseau Bécasse)

### Taux d'occupation national

Rappelons que ce taux correspond au pourcentage de points d'observation sur lesquels la présence de croule est notée. Ce taux (Tg) s'élève à 0,222 pour l'année 1998. Cette valeur est la plus faible enregistrée depuis 1988.

Le taux d'occupation des sites à forte abondance (nombre d'observations > 4: TF) est de 0,063. Cette valeur est très proche de celle de 1997 (0,064).

Le taux d'occupation des sites à faible abondance (nombre d'observations < 5: Tf) est de 0,159. Cette valeur est en retrait par rapport à celle de 1997 (0,173).

### Taux d'occupation régional

Les résultats pour les 7 régions sélectionnées sont présentés dans le tableau ci contre.

Comme les années passées, l'Alsace enregistre le plus fort taux d'occupation. En revanche, le Massif Central arrive en deuxième position devant la Lorraine. Les valeurs relevées pour l'Alsace et la Lorraine sont plus faibles que celles de la saison dernière mais toutes les autres régions présentent des taux d'occupation plus élevés.

Régions (Nombre de départements pris en compte)	Taux d'occupation
Alsace (2)	0,463
Lorraine (4)	0,302
Massif Central (14)	0,364
Bassin Parisien (21)	0,252
Alpes (7)	0,278
Bourgogne-Franche Comté (6)	0,179
Pyénées - Lanquedoc Roussillon (3)	0,150

### Tendance démographique 1992 à 1998

Nous disposons à l'heure actuelle d'un suivi en continu sur 7 années pour 48 départements couvrant l'aire principale de nidification de la bécasse en France (figure 4).

Le détail des données est présenté dans le tableau ci-dessous et les variations interannuelles du taux d'occupation global (Tg) et du rapport des fortes aux faibles abondances (TF/Tf), respectivement en figures 5 et 6.

L'analyse de la tendance démographique s'appuie sur un nombre annuel de points d'écoute compris entre 750 et 800.

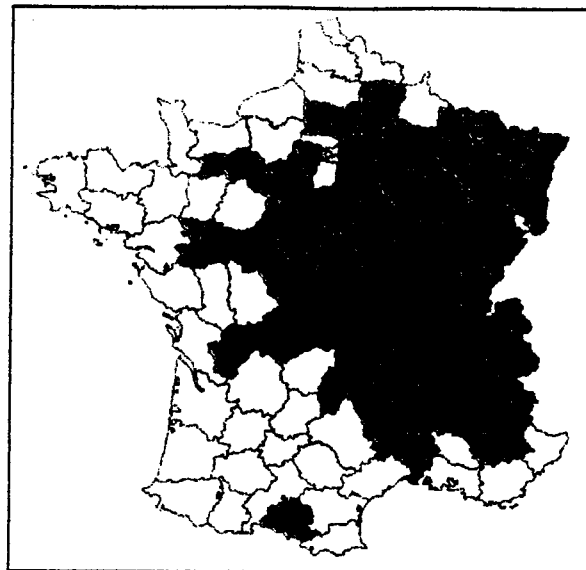


Fig. 4: L'aire principale de nidification de la bécasse en France (Source: ONC-Réseau Bécasse)

Année	1992	1993	1994	1995	1996	1997	1998
Nombre de points d'écoute	753	760	762	802	784	775	796
Nombre de points positifs	208	202	201	223	182	192	189
Nombre de points à faible abondance	145	141	134	152	125	129	137
Nombre de points à forte abondance	63	61	67	71	57	63	52

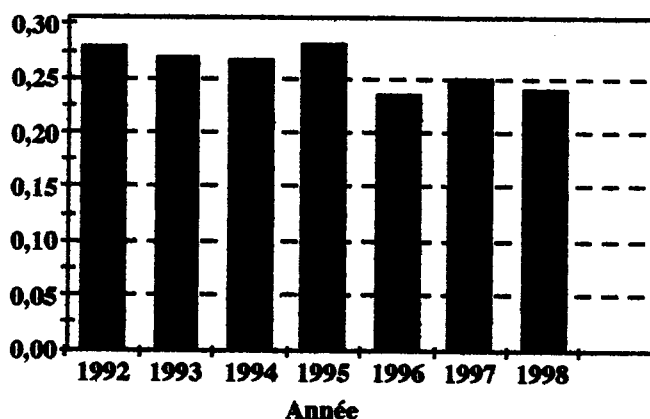


Fig. 5: Variations inter-annuelles de Tg

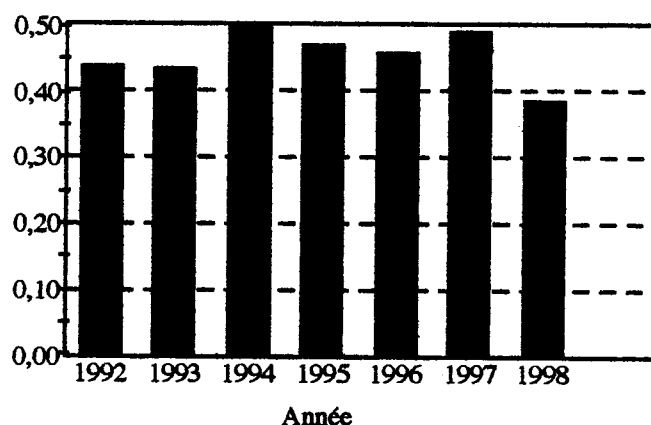


Fig. 6: Variations inter-annuelles de TF/Tf

Le taux d'occupation global présente une bonne homogénéité ( $Ki2 = 8,91 < 12,59$ ) ainsi que le rapport des faibles aux fortes abondances ( $Ki2 = 2,07 < 12,59$ ).

Autrement dit, aucune tendance démographique particulière n'est statistiquement significative.

Les effectifs nicheurs de bécasses en France sont probablement restés stables entre 1992 et 1998.

## ENQUETE TABLEAUX DE CHASSE

L'enquête tableaux de chasse selon un plan d'échantillonnage a été reconduite pendant la saison 1997-1998 en Loire-Atlantique, Morbihan et Vendée. Au total, 358 ailes ont été récoltées. Le détail par classes d'âge est donné dans le tableau ci-dessous.

	Nombre d'ailes	Age-ratio
Loire-Atlantique	39	66,6 %
Morbihan	214	75,2 %
Vendée	105	85,7 %
TOTAL	358	77,4 %

Une estimation des prélèvements annuels départementaux est disponible pour la Vendée et la Loire-Atlantique depuis la saison 1992-1993 sans interruption. Les résultats sont présentés dans les figures 7 et 8. Il est clair que d'une année à l'autre, les prélèvements de bécasses subissent d'importantes variations qui, globalement, se suivent d'un département à l'autre. La saison 1995-1996 apparaît comme celle des plus forts prélèvements. Le protocole de recueil des données étant identique à celui de l'enquête 1983-1984, il est possible de comparer les résultats. Dans les deux départements concernés, les prélèvements sont du même ordre de grandeur, à l'exception bien sûr de la saison 1995-1996 où l'on enregistre une augmentation d'environ 50%.

La saison de chasse 1998-1999 fait l'objet d'une enquête nationale sur les prélèvements selon un protocole très proche de celui de 1983-1984. Les comparaisons seront donc très intéressantes.

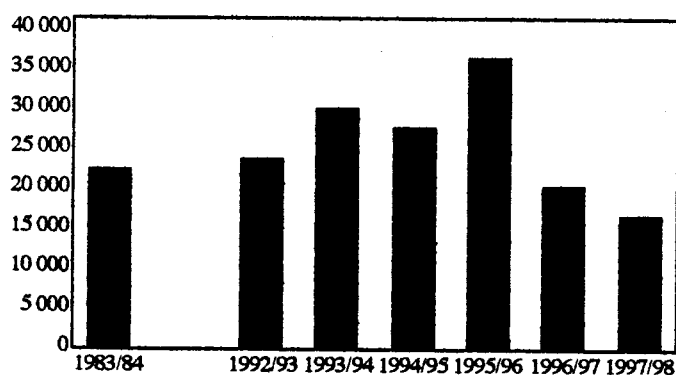


Fig. 7: Estimations des prélèvements de bécasses en Loire-Atlantique (Source: ONC et Fédération départementale des chasseurs de Loire-Atlantique)

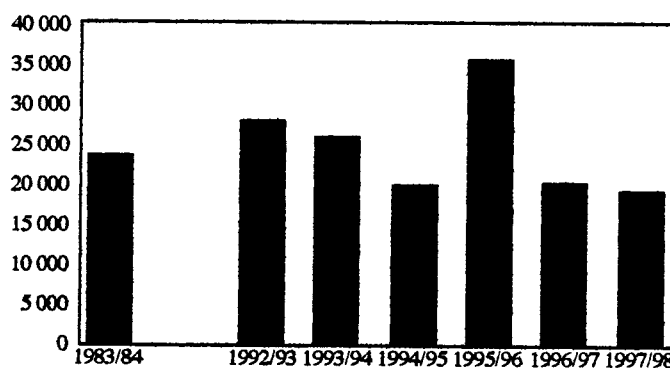


Fig. 8: Estimations des prélèvements de bécasses en Vendée (Source: ONC et Fédération départementale des chasseurs de Vendée)

Dans le cadre du réseau, l'enquête tableau de chasse est suspendue pour la saison 1998-1999.

Les données recueillies depuis les dix dernières années seront analysées pour évaluer les différents biais statistiques et, éventuellement, proposer un nouveau protocole.

**SUMMARY (by HK)****Activities of the woodcock - network in France 1997/98.**

At 481 (470 in 1996/97) sites in 74 (65) French departments (Fig. 1) a network of 276 (250) ringers, organised by the Office National de la Chasse (ONC) has caught and ringed a total 2 809 (2 713) woodcocks at night by using spotlights and handnets. During 1 741 (1 656) nocturnal outings a total of 10 631 (10 906) woodcocks have been contacted. As obvious from Fig. 2 this season has provided a record number of woodcocks ringed since the start of this Programme in 1983/84. About one third of the birds were ringed in November.

The overall age-ratio of captured woodcocks was 61% juveniles and 39% adults, thus slightly higher than in the previous season (58% juv., 42 % ad.).

222 (209) ringed woodcocks were recaptured, 126 (84) of which had been ringed during this and 96 (125) during previous seasons.

During this period a total of 513 (556) recoveries of woodcocks ringed in France had been reported by hunters. 237 (280) of them had been ringed during this season (direct recoveries). The recovery rate (direct) was 8.5 (10.5); the average time lag between ringing and recovery of those reported within 20 km from the ringing place was 31 (25) days.

During this period 24 (16) more recoveries of woodcocks ringed in France have been reported from abroad, increasing the total number of this category to 196.

Overall, the total number of 17400 woodcocks ringed since 1983 provided about 3800 recoveries which now will be subject of a statistical analysis of survival rates conducted by ONC-CNRS de Montpellier.

In spring 1998 counting of roding males was continued on 963 (1000) listening points in 60 (65) departments. The highest densities of roding woodcocks were reported from Alsace, the lowest from the Pyrenees. The data obtained from 48 departments investigated now for 7 years point to rather constant breeding ranges and densities of the woodcock in France (Fig. 5 and 6).

358 wings had been sampled in 3 departments of which age-ratios are presented. Numbers of woodcock bagged in two of these departments since 1983/84 are presented in Fig. 7 and 8. The trend seems to be rather stable.

Adresse des auteurs:

Office National de la Chasse

Station des Pays de Loire

53, rue de Russeil

F-44000 Nantes, France

# Effects of Hunting on Survival and Habitat use by American Woodcock on Breeding and Migration Areas (Project Abstract – state as of November 1998).

Daniel G. McAuley, Jerry R. Longcore, R. Bradford Allen, Greg F. Sepik (†), Scot Williamson, Bill Palmer, John Dunn and Kevin Evans

*These are results from the second year of a 3-year study supported by the 1997 Webless Migratory Game Bird Research Program (U.S. Fish and Wildlife Service [USFWS] and the USGS - Patuxent Wildlife Research Center, USFWS: Region 5, Moosehorn NWR, Erie NWR, and Migratory Bird Management Office, Maine Department of Inland Fisheries and Wildlife, Pennsylvania Game Commission, the Ruffed Grouse Society, Champion International Corporation, Dartmouth College, and New Hampshire Fish and Game.*

*Expected Completion Date: December 31, 2001*

## Introduction

The American woodcock (*Scolopax minor*) population has declined during the last 29 years at an annual rate of 2.5% in the Eastern region and 1.6% in the Central region. In 1996, the breeding population index in the Eastern region was the lowest on record. The major causes of the decline are thought to be degradation and loss of suitable habitat on breeding and wintering areas. Although hunting is not thought to be a cause of the decline, hunting mortality can be controlled and research on the effects of hunting mortality on woodcock populations at both local and regional levels is lacking.

We will use radio-telemetry to determine sources of mortality, survival rates, habitat use, and movement of woodcock during fall on local areas within the breeding range of woodcock. Also, we will relate fall survival on local study areas to local singing ground surveys. If funding and partner interest can be obtained we will attempt a similar effort on staging areas during migration.

## Survival and mortality factors of radio-marked birds

The woodcock survival study administered jointly by PWRC and USFWS personnel has progressed as planned, although the death of Greg Sepik last May left us all stunned and saddened. This year all partners secured funding and the study proceeded as originally planned. We monitored woodcock on 3 sites in Maine, 1 in New Hampshire, 1 in Vermont, and on 2 sites in Pennsylvania.

*Studies in Maine*

In Maine in 1997, cold, wet weather in April caused plant and brood phenology to be 2-3 weeks later than usual. This year (1998) April was warm and dry and phenology was 1 - 2 weeks earlier than usual. In April and May, the equivalent of 12 Singing Ground Surveys (SGS) were completed at MNWR; 105 males were recorded. This number was greater than the 92 heard in 1997 but below the 120 recorded in 1995. We conducted 18 SGS on Champion International Corp. land, associated with the Champion study area, and recorded 132 males, which was higher than the 109 counted in 1997. We captured and banded 25 males on the Champion site and 18 at MNWR. The age ratio among the dominant singing males was skewed toward adult (ASY) birds (Champion: 16 ASY vs 9 second year [SY]) (MNWR: 14 ASY vs 3 SY). The low ratio recorded at MNWR probably reflects the poor

survival of young in 1997 caused by the summer drought. At MNWR, we caught 5 females with broods and 9 at the Champion site. The age ratio of the females also was skewed at MNWR with all 5 being ASY but at the Champion site the ratio was nearly equal with 5 of 9 being ASY, but these are small samples.

The peak of the woodcock hatch in 1998 was approximately 7-10 days earlier than the average at MNWR. During May and June we searched for broods for 40.5 hours with a pointing dog and located 36 different broods (11 on MNWR and 15 on Champion land). The production indices (broods located / hour of search time) were 0.6 at MNWR and 0.7 at the Champion site, indicating that brood production was similar between the 2 areas. Based on previous work at MNWR, however, and compared to last year's results, these production indices are low. Again these results probably reflect the poor production and recruitment from the previous year.

Abundant rainfall in June and early July kept soil moisture levels high and probably enhanced survival of young during the summer. We initiated radio-marking of woodcock at MNWR on 12 August and at the Champion site on 24 August. Age ratios (young / adult female) were low at MNWR compared to previous years but were higher than in 1997 (2.7 vs 1.1). The age ratio at the Champion site was lower (2.1 vs 3.1) than in 1997. During summers of 1976-82, age ratios at MNWR averaged 5.0 for birds caught by nightlighting and 12.3 for birds caught in mist nets (Dwyer et al. 1988).

We radio-marked 67 woodcock at the Champion site and 63 at MNWR. Five birds from the Champion Site and 12 from MNWR slipped radios and were censored. Nineteen radio-marked birds died at the Champion site and 10 at MNWR. Eight birds on the Champion site were killed by hunting, one of which was a lost cripple. At MNWR 1 bird was shot off the refuge before the hunting season began and 1 bird was shot off the refuge during the hunting season. Migration started on 26 October when 4 birds left the Champion study area and 5 left MNWR. Nine birds left the Champion site on 1 November and 21 left between 6 and 9 November. Although 12 birds left MNWR

during the 6-9 November period, 19 radio-marked woodcock were still on the area until 16-17 November when 13 left. As of 20 November 5 birds were still at MNWR and 2 on the Champion site.

At the Frye Mountain Wildlife Management Area, ME (FMWMA) personnel from ME Department of Inland Fisheries and Wildlife (MEDIFW) recorded 20 singing males in April. Fourteen singing males were captured. The age ratio was skewed toward SY (9 SY vs 5 ASY), which differed from the other sites in Maine. No brood work was done at FMWMA. Personnel from MEDIFW radio-marked 43 woodcock. The age ratio was 1.8 young adult female. Two birds slipped radios, 1 bird was killed by a raptor prior to the start of the season, and 8 birds died during the hunting season, but only 2 were shot. Migration from FMWMA began on 28 October, 4 birds left on 30 October and 15 left between 1 and 9 November. Six more left on 17 November, with 4 still remaining on site.

#### *Studies in New Hampshire*

We added a study site in New Hampshire that was administered by Dartmouth College in association with New Hampshire Fish and Game Department. The equivalent of 7 singing ground routes were surveyed, which recorded 27 males. We searched for broods for 6 hours and located only 1, indicating poor production, which was confirmed by captures in August. Although we caught and radio-marked 31 woodcock at the Dartmouth College site, the age ratio was less than 1 (0.82 young / adult female). Three birds slipped radios and 5 birds died. Although this site is hunted, no birds were shot. Migration began on 26 October and most of the birds left during the week of 1-7 November.

#### *Studies in Vermont*

Also, we radio-marked woodcock at a study site in Vermont (Vermont Military Department land). Cooperators include Vermont National Guard, Wildlife Management Institute, University of Vermont, and Vermont Fish and Game Department. The area is closed to hunting (although at least 1 hunter was seen on the property). Forty-five birds were radio-marked. The age ratio was 2.0 young / adult female. Three birds slipped radios and were censored. Ten mortalities were recorded; 6 by mammalian, 3 by avian, and 1 by unknown predators. Nine birds were lost and probably migrated between 19 and 20 October, 8 more left between 5 and 9 November.

#### *Studies in Pennsylvania*

The study in Pennsylvania is a joint effort between personnel of PA Game Commission and Erie NWR (ENWR). Approximately 16 singing ground surveys were conducted at both sites, but data are unavailable at this time. Pennsylvania had drought conditions over much of the summer. On State Game Land 314 (SGL 314), which was the site open to hunting, 57 woodcock were radio-marked. The age ratio was 1.6 young / adult female. On ENWR, the non-hunted site, 49 woodcock



were radio-marked and the age ratio was 1.2. The low age ratios probably reflect poor survival of young related to the dry conditions. On SGL 314, 4 woodcock were shot and 7 died from predation; 8 birds slipped radios, 4 of these during the first week of hunting season. On ENWR 4 birds slipped radios and 10 woodcock were killed by predators. Migration probably began on 29 and 30 October from ENWR when 9 birds left the area and on 30 October and 1 November from SGL 314 when 13 birds left.

*Initiatives in other states*

We are lacking participants states in the Central Management Unit, or from staging/migration areas. Michigan DNR personnel expressed some interest in 1997 and have an ideal study site that was being used for a similar study on grouse. At this time Michigan has declined to participate. New Jersey has expressed interest but funding is lacking. Personnel from Cape May NWR are cooperating by searching sites along the Cape May, NJ Peninsula for migrants from our ME and VT study areas. To date, 4 radio-marked birds have been located (2 from the Champion site, 1 from MNWR, and 1 from VT).

Address of senior author:

USGS, BRD, Patuxent Wildlife Research Center

5768 South Annex A, Orono, ME 04469-5768

USA

## On Woodcock and Snipes in the former USSR

Thanks to the political changes we have now access to the colleagues working in the main breeding range of all four species. Most of their publications are in Russian only. But the translation bureau "Merktrans" of J. Shergalin in Estonia provided an extensive list of literature of this century, and also translated the following articles I had selected for this issue. This series will be continued during the next years.

Copies of original Russian publications as well as translations from Russian into English can be ordered by

Dr. J. Shergalin, Merktrans,  
Vaike-Ameerika 8  
Tallinn  
EE 0001 Estonia  
Fax: 3722-453956

These publications provide insight in the efforts of our colleagues in Eastern Europe to investigate abundance and breeding biology of woodcocks and snipes in their main breeding range. Due to the vastness of the "study areas" some of the results are of course rather sporadic, but nevertheless add to the mosaic of our knowledge.

Bakeev, N. N. (1973): On distribution and numbers of Woodcock and Woodcock hunting in some regions of the European part of the USSR. // Fauna and ecology of waders. M. Issue 1. 25 - 26.

Observations of Woodcock (*Scolopax rusticola*) were conducted for many years in the "bairak" forests of the Stavropol plateau, in deciduous forests of forest-steppe zone (Korochanskiy district of the Belgorod Region) and in the middle taiga forests of the Kirov Region (Zuev district).

"Bairak" forests of the Stavropol plateau are close to the winter quarters of Woodcocks in Northern Caucasia. Woodcock winter here in small numbers almost annually. In the period from 1948 until 1972, together with Ye. N. Bakeev, we could observe Woodcocks from December to February. They are staying here on unfrozen spots of swamps near springs along forest gullies. Woodcocks disappeared from these sites only in the extremely severe winters of 1950, 1954 and 1972.

Spring migration of Woodcocks on the Stavropol plateau starts at the end of March and is terminated by the first decade of April. No typical roding of Woodcocks has been observed here. Spring hunting, as performed here several years ago, concerned primarily birds moving in the evening "na zhirovku" (to feeding sites), and so both males and females were shot. In the oak forests of the Korochanskiy district of the Belgorod Region the Woodcock is not nesting, though this district is

considered part of the breeding range (Dement'yev *et al.* 1951). The data on the breeding range of the Woodcock, from the beginning of this century, may not be valid any more because of changing habitats. Dry oak groves with springs, falling dry in summer, are not suitable any more for breeding.

Woodcocks arrive in the Korochanskie forest summer-houses from the beginning to the end of April, sometimes with conspicuous concentrations of intensively roding birds. During dawn in the evening often 10 - 17 roding Woodcocks may be seen and from 2 - 3 up to 5 males may be shot per evening. In May, neither we, nor foresters and hunters interviewed have observed roding Woodcocks. This again proves Woodcocks are not nesting in this district.

In the swamped forests of the middle-taiga of the Kirov Region the Woodcock inhabits deciduous young forests, formed after forest clearing. The Woodcock population density is comparatively low here, as on average only 3,2, and maximum 9 roding Woodcocks were counted per evening. In the Tula Region in different years on average 5,4 - 8,2, maximum 20 Woodcocks were counted (Sapetina, 1965), and in the Leningrad Region on average 6,9 - 14,7, maximum 24 Woodcocks (Voronin, 1967).

In 1971 and 1972 the All-Union Institute of Hunter Industry and Fur-Farming conducted a complete investigation of Woodcock shooting during roding. In 1971, 34 hunters shot 69 Woodcocks and in 1972, 32 hunters shot 61 Woodcocks during 129 hunting-days on an area of 36 000 ha of forest area. That equals 1,9 and 1,7 birds respectively per 1 000 ha. About 15 % of the number seen roding have been shot. In 1972, 10 of 32 hunters have shot no Woodcock, 10 hunters have shot 1 Woodcock, 5 got an average of 2,4 and 3,0 respectively, and 3 hunters have shot 5 - 7 birds during the 10-days hunting period.

In other habitats more favourable for roding Woodcocks 10 - 13 males were shot on certain places on forest edges 1.5 - 2.0 km long and 0.5 km wide, thus comprising an area of 0.75 - 1.0 km<sup>2</sup>. This harvest did not recognisably affect the roding intensity. Up to 7 Woodcocks per evening were still counted on the last hunting days on such sites. Roding intensity is depending on weather conditions. On cold evenings, with temperature of about -3° C, Woodcocks hardly flew. In contrast, on warm, calm evenings, roding intensity increased up to 7 - 9 times. On 30 April at the latitude of 58° 20 Woodcocks started roding at 20 hours 40 minutes for about 1 hour. On each subsequent day Woodcocks began roding 5 minutes later (on 7 May at 21 hours 10 minutes). In cloudy weather roding began 30 minutes earlier.

All observations in the Kirov Region suggest that the 10-days spring hunting period on roding Woodcocks may not be harmful to the populations.

Grekov, V. S., Sidenko, V. P., Stepankovskaya, L. D., Malikova, M. V., Nekhoroshikh, Z. N., Varisheva, T. N., Berezyuk, I. V., Volkova, G. K. (1973): On biology of the Woodcock in the South-West of Ukraine. // Fauna and ecology of waders. M. Issue 1. 34-36. Tabl. 1.

During 1959-1972 data on the Woodcock (*Scolopaxrusticola*) in the Odessa, Nikolaev and Kherson regions. Of 328 birds bagged morphometrical data were taken and stomach contents analyzed. Age was determined by gonad development and the stage of the Bursa Fabricii; fat deposits were recorded in five degrees. Apart from sex and age the birds were distinguished by their colouring (light, medium, dark) in order to add information to the question of "Gipsy" (little, dark) and "Royal" Woodcocks (large, light). The organs and blood of some specimens were investigated serologically and for virus infections.

The numbers of fall migrants decreased considerably from 1947/48 till 1959/60 and again from 1961 till 1965 and were on very low level in 1967-1970. But in the autumn of 1971 suddenly the level of 1965, was obtained: there were at least three large waves of migrants, and 2 - 3 Woodcocks were recorded per 1 km of forest-belt.

Spring migration is rather short. The first specimens were seen on 12 March (1969) and 20 March (1964); larger numbers were recorded from 30 March till 15 April and the last observations was of 30 April (1965).

Fall migration is more protracted. In the Black-Sea Nature Reserve the first observations were recorded on 7 September 1935 (Klimenko, 1950), and around Kherson on 22 and 24 September (Pachoskiy, 1909). In Odessa Region Woodcock were shot in the first decade of September (1966) and later observed on 21 September (1961), 24 September (1964) and 30 September (1970), when one bird per km was flushed in almost each forest-belt. In the 1. and 2. decade of October migration increases, peaks in the 3. decade, and terminates in the 2. and 3. decade of November. Cold spells at the end of October / beginning of November accelerated migration which then terminated by 3 - 5 November (1965, 1969). In years with later light frosts (1959-1964) migration extends till the end of November / first days of December. About 2 % of young birds stay until first frosts (22 December 1962; 25 December 1961; 15 January 1961). Data of many years revealed a peak (29 %) migration at the 3. decade of October. 40 % of the birds bagged in fall were adults and 60 % young birds. 47 % of the adults were females and 53 % males; the corresponding ratio in juveniles was 47 and 53 %.

Almost all birds bagged in fall were moulting, mainly concerning down on the body, neck, head, more seldom contour feathers of the body or primaries. In two males shot on 30 December 1960, down was moulting on the neck and head, and in a young female intensive moulting with replacement of rectrices was observed.

Data on the Woodcock's diet are presented in the Table. During migration birds continue to feed during light day too, which was proven by mud on the bills of shot birds, worms and beetles in the

oesophagus; however stomachs were empty in some birds. Presence of surface species (*Grylloidae*, *Dermoptera*, *Coleoptera*, *Carabidae*, *Curculionidae* etc.) in the stomachs indicate that in addition to probing soil Woodcocks collect food from the surface too. Aquatic species in the stomachs (*Dytiscidae*, *Notonectidae*, *Naucoridae*, larvae of Dragonflies) are an indication for feeding in pools.

Colour variations ("Gipsy" and "Royal") are typical for all age and sex groups. The same holds for biometrical data which are the same in the light-, medium-, and dark-coloured specimens. Any categorizing in this respect is therefore subjective. As a rule, experienced hunters considered all large specimens as "Royal", irrespective of colouring (the maximum weight of 411 g was recorded of a medium-coloured old female). Dark-coloured specimen show some peculiarities: during migration in the second half of October, and the second half of November instead of forest-belts they prefer overgrown old vineyards and kitchen-gardens. In the river floods some of the birds are hiding in reeds and surrounding forest. More data, including ringing data are required to finally answer the question of "Gipsy" and "Royal" woodcocks. In some samples of the Woodcock blood serum, it was cleared up the positive immunological shifts to virus of the tick-born Encephalitis. Studies of brain and the parenchymaous organs allowed to select (determine, excrete) virus of ornithosis from these birds.

Khokhlov, A. N., Tel'pov, V. A., Kharchenko, L. P. (1993): Breeding records of the Woodcock in the vicinity of Kislovodsk.// Caucasian Ornithological Bulletin. Issue 5. Stavropol. Pp. 100 - 101.

Data on the Woodcock (*Scolopax rusticola*) breeding in Stavropol Territory are inconsistent. According to N. Ya. Dinnik (1886) it breeds in forests near Stavropol city. Yu. A. Averin and A. A. Nasimovich (1938), R. L. Boehme (1958) and V. I. Tkachenko (1966) considered the Woodcock as breeding species in the forest massives of Northern Caucasia. Other authors (Bakeev, 1973; Loshkarev, 1971) however, observed Woodcocks only during migration. N. N. Bakeev (1973) saw no roding birds in these sites. S. B. Skiba (1989) confirmed Woodcock roding in forest massives of this region. Hardly fledged young Woodcocks were observed in summer 1975 and 1980 (Khokhlov, 1989).

On 21 April 1991 we have conducted observations in the forest "urochishche" (part of old wild forest) "Kosaya". This artificial forest of 30 years age is situated 12 km south-east of Kislovodsk city (Stavropol Territory), 1 100 m above sea level. Dominant species of trees are birch and alder. Forest is bordering on a "mochakovym" (swamped) open area with springs.

On this day a nest of Woodcock was discovered 12 m from the edge of the birch forest. It was located on a small hummock, 30 cm from a birch trunk. Between the trees it was very wet, and there

were small pools. The clutch consisted of 4 eggs (two of them were destroyed completely; the third one was pierced).

The nest was lined with a 3 cm wall of dry birch leaves. Diameter of tray 12,5 cm, depth 4 cm. Sizes of eggs: 47,0 x 33,9 and 47,7 x 34, 6 mm. Both were slightly incubated. The weight of the undestroyed egg was 28,9 g. The colour was light-cream. Some small brown spots of up to 3 mm were scattered over the surface. These spots form an almost continuous band of brown colour on the obtuse pole. These eggs very much resemble those described by W. Makatsch (Makatsch, 1974. P. 441 - fig. 3) in size, shape and colouring.

One pair of Woodcocks was flushed later in this forest "urochishche". The nest was obviously destroyed by the Forest Dormouse (*Dryomys nitedula*). Correctness of the species identification of discovered clutch was confirmed by Head of Ornithological Department of Zool. Museum of Moscow State University, Dr. P. S. Tomkovich. It was the first record of Woodcock nesting in the Kislovodsk city of Stavropol Territory. The clutch is kept in the Zoological Department of Kislovodsk Station of Young Naturalists.

Komarov, Yu. Ye. (1993): A record of breeding Woodcock in the Alpine region of Osetia. // The Caucasian Ornithological Bulletin. Issue 5. Stavropol, 1993. P. 71.

On 22 July 1992, a brood of two chicks of the Woodcock (*Scolopax rusticola*) was found in a sub-alpine birch grove of the Tsekhsirtsit mountain range, 2 250 m above sea level, on a slope exposed to north-west. Accompanied by an adult bird, probably the female, the chicks crouched in moss with cowberries. The adult was approached quite close before it took off carrying a non-fledged chick by the legs. After having flown awkwardly downhill for about 50 m it dropped in the grass. The other chick, about 2/3 the size of an adult could be grasped by hand. Then it flew off abruptly in a zigzag flight and landed in dense grass after 25 – 30 m. These were the first observations of woodcocks in the reproductive period in the region of Northern Osetia.

Morozov, V. V. (1993): Territoriality and mating behaviour of pintail snipe (*Gallinago stenura*) males in the European tundra // Russ. J. Ornithol. 2 (2): 181 – 189.

Territorial and mating behaviour of pintail snipe males was studied near Vorkuta, Amderma and in the Polar Urals Mountains during 1982-1992. Territorial relations between males varied with local density and sex-ratio in population. Three types of territoriality can be recognized. The size of encircled display areas varied enormously and depended on the type of territoriality. The obtained data suggested that song flights of males chiefly served to attract partners. In densely populated areas song flights also had a territorial function. With pintail snipes, many flights were observed to take place at the same time. It is the author's opinion that mass flights do not depend on the dispersion patterns or latitude and serve pair formation.

Shevtchenko, V. L., Debelo, P. V., Gavrilov, E.I., Naglov, V. A., Fedosenko, A. K. (1993): On the ornithofauna of the region between Volga and Ural Rivers. // Fauna and biology of birds of the Kazakhstan. Almaty. pp. 7 - 103. Pp. 72 - 74.

**Jack Snipe** (*Lymnocyptes minimus*): Migratory species. Several birds were observed on 14 and 18 April 1959 near Furmanovo, and a single bird on 27 April 1958 on the estuary (liman) along the Kushum river near Shevelev. In autumn, single Jack snipes were seen on 29 September and 18 October 1957 on lakes near Kozherakhovo, on 9 October 1958 near Chapaevo, on 10 September 1957 in upper parts of Kushum and on 19 September and 21 October 1958 near Furmanovo.

**Common snipe** (*Gallinago gallinago*): Breeding and migratory species. In the past, this species was quite numerous in the lower parts of Ilek River, in the middle part of the Ural River and on nearby lakes (Zarudnyi, 1888). However, by the middle of the present century it became rare (Raiskiy, 1955), and for last years there was no breeding record. In Volga-Ural sands (ur. Tuma) migrating birds were seen on 12 April 1962 and on 27 April 1963 and near Beketai on 7 April 1959. Between 1958 and 1986 a total of 7 observations of April are recorded from N. Kazanka and near Furmanovo in the mouth of the Kushum river in its middle stream, on Kirov water reservoir and near Ural'sk. Near N. Kazanka migration is most pronounced during the second half of April, when 10 - 15 birds were registered during one excursion and about 100 birds on 17 April 1983. In the mouth of the Kushum river in spring 1970 up to 10 Snipes were counted in one day, but on 31 March 30 Snipes. Approximately the same number was observed on 28 April 1984 on the Lower Uil (ur. Baigundy). In the middle Kushum single birds were seen during the second half of April 1958, but on 26 April 1979 almost 150 birds were counted along the banks of the Dongulyukskiy water reservoir in loose concentrations. On 15 and 22 April 1979 on 10 km near Ural'sk 57 and 34 birds were counted respectively.

Migration is terminated everywhere by the end of April / beginning of May, but on Kushum (Tel'nov, Lobikov) single birds were still seen on 7 and 26 May 1957. A total of 98 observations concerned an average number of 2 (maximum 23) birds.

Fall migration starts at the end of July / beginning of August, but on the Balykty Lake Snipes were seen on 14 July 1959. Between 22 July and 1 August 1983 they were common already on the small lakes of the lower Ilek; on 10 km of coastal line about 40 birds were counted. In the middle Kushum the first birds were seen on 17 August 1957 and 3 August 1958, in Kamysh-Samara system on 27 July 1976 and 29 July 1977. In August they were observed everywhere, on certain sites. Migration peaks in September. At the end of the 1950s up to 90-100 were seen during an excursion along the Kushum River. In the Ural river floods on small drought lakes up to 10 and near N. Kazanka up to 40 birds were recorded in 1 hour.

During the last years Snipes have considerably decreased. On most wetlands hardly more than 10 birds per excursion were recorded; for example near Ural'sk on 17 October 1980, on the Kirov

water reservoir on 13 October 1976, near Chapaevo and Kozhekharovo on 5 November 1957 and on 3 November 1958, near Furmanovo on 21 October 1958, near N. Kazanka on 3 November 1957 and 10 November 1978, in ur. Tuma on 25 October 1962. On 27 sites near Ural'sk an average of 1,9 (maximum 6 birds) were counted, on 24 sites of the Ural river floods near Chapaevo 2,3 (10), on 54 sites along the Kushum river and near N.Kazanka 4,1 (54) birds.

Weight: female, September 132,3 g; males, August 87,0 g; September 119,0 g.

**Great Snipe** (*Gallinago media*). Migrating species. Breeding in habitats along the lower Ilek and in the middle Ural southwards to Uralsk (Zarudnyi, 1888, 1897). However, already by the 1920s even in Orenburg only single birds were seen, and in the following 30 years there were only 3 – 4 records during migration (Raiskiy, 1955). A female with slightly decreased follicles was shot in middle Kushum near Logashkin on 4 May 1958, weight: 162,0 g.

**Woodcock** (*Scolopax rusticola*). Migrating species. Only N. V. Pavlov (1948) considered it breeding at the middle stream of the Ural River. In spring, 6 Woodcocks were seen on 24 April 1958 in a garden near Aleksandrov-Gai. Single birds were observed on 21 April 1973 in "dzhingil" groves in the Lower Uil near Karabau and on 5 May 1978 on Anis'ino Lake near Uralsk. Fall migration is pronounced along the Ural river valley, especially in wet years. Around Yanaikino Chapaevo from 17 September till 1 November 1956 and from 2 till 13 October 1957 42 and 12 solitary birds, respectively, were recorded, but in the dry year 1958 they were seen only on 27 September and 3 October. Further south, near Yesenbai, migration peaked during the second half of October 1982. On 25 September 1983 3 birds were recorded here, and on 16 October 1986 5 birds near Yeltai.

Sometimes Woodcocks show up in extraordinary situations. So, in October 1956, 5 Woodcocks were seen in fog near Karatoba settlement, and several single birds on 7 - 9 October 1987 on an air-field near this settlement. In Volga-Ural interstream area single birds were seen on 10 October 1976 in willow shrubs on the bank of the Kirov water reservoir, later, on 2, 7 and 10 October 1958 near ur.Tyurtkul, Ashche-Sai and on the liman (estuary) near Furmanovo, 3 on 24 October 1970 on the Kazbai Lake in the mouth of the Kushum river, 2 on 16 October 1986 on the Pavel-Kul near the mouth of the Mukhor River. In sands they were met on 28 October 1956, 28 September 1959, 8 October 1985 and 07 October 1987.

Weight: female, October, 317 g.

Skiba, S. B. (1989): Woodcock in the vicinity of Stavropol.// Ornithological resources of the North Caucasia. Abstracts of scient.-pract. conf. 21. -23. 04. 89. Stavropol, P. 85.

From 1984 to 1988 Woodcocks were studied in the vicinity of Stavropol in northern Caucasia, in forests of an area of about 20 000 ha. Gun-dogs were used for censuses. Spring migration coincides with flowering of Blue Snowdrop and beginning of flowering of *Scilla sibirica* (March-



beginning of May). Woodcocks were mainly observed on glades with *Quercus robur*, young stands of *Crataegus curvisepala*, *Crataegus sanguinea*, *Rosa vosagiaca*, overgrown by *Cynodon dactylon*, *Arctium lappa* with obstructions of fallen trees, twigs and branches, left from last year. Before roding the birds leave their diurnal cover and approach edges of cleared space, glade, forest roads and other open spots. In the morning roding is a little shorter than in the evening (about 10 minutes) and less intensive. In the evening the birds rode for 15 - 17 minutes (up to 30 minutes in cloudy calm evenings). During the peak of migration up to 16 birds were counted roding for 15 minutes in the evening. Up to 4 birds were roding at the same time.

Spring migration is terminated during the second half of May, sometimes in June. Autumn migration lasts from the end of September till mid- November. It is most pronounced in October. For example, on 20 October 1987, 48 Woodcocks were flushed from an area of about 40 ha during half a day. On the Stavropol plateau (upland) Woodcocks were observed till snow-fall and even during two weeks after that. On 7 November 1985, 3 birds per 200 m census line were flushed in the acacia forest-belt. On 16 November 1986, in the same way 27 birds were counted in the cherry plum forest-belt. In December, Woodcocks were repeatedly registered along unfrozen streams and rivers in Stavropol city and 2 specimens were shot at the end of December near the Podlesnoe settlement (Mel'gunov, Khokhlov, Bicherev, 1988).

Woodcocks are feeding in gardens, on allotments of rasp-berries, fallows, shelter belts, in old, deserted open-cast mines and in ruts of roads.

Woodcocks are hunted in autumn. Total numbers of birds shot on the Stavropol plateau does not exceed 300 specimens. Hunting on Woodcock in this region is not popular because it is too complicated.

Tomkovich, P. S. (1992): Breeding range and population changes of waders in the former Soviet Union // Brit. Birds 85/7: 344 - 365.

### **Great Snipe (*Gallinago media*)**

The Great Snipe's breeding distribution shows a close association with river valleys in the humid belt. This wader occupies a relatively narrow ecological niche, occurring only on especially rich water meadows with an abundance of earthworms (its main food). The area occupied by meadows on a natural river flood-plain is not great, as they exist only at the early stages of a succession. The transformation of river flood-plains into meadows for hay-making and grazing, which took place in past centuries, encouraged the creation of large and flourishing Great Snipe populations. In the present century, cultivation of river valleys, following drainage (reclamation) and subsequent ploughing has meant the destruction of the water-meadow habitats. The new agricultural land is unsuitable for the Great Snipe and the consequence is a steady decline in numbers and fragmentation of the

breeding range; in such conditions, the species is now endangered according to Nikiforov & Gipet (1981).

This is true, but not entirely so. First, the Great Snipe's decline began at the end of the nineteenth century (Buturlin 1902; Gladkov 1951), so that land reclamation could not have been the original and main cause of the population changes. Secondly, the Great Snipe is typical of boglands rather than meadows (e.g. Buturlin 1902; Popov 1977). The preferred breeding habitat is slightly damp but not wet tussocky bogs with a sparse growth of small shrubs. Breeding in meadows should evidently be viewed as a secondary development. Further, it is for this reason that the Great Snipe, unlike the Marsh Sandpiper, was always widely distributed in the forest zone, even penetrating into the tundra, making do with relatively small bogs in river valleys.

The decline in Great Snipe numbers is probably still continuing. Whereas in the last century and beginning of the present century hunters quite often used to bag hundreds per season in the spring and autumn (Popov 1977; Zinoviev 1980), the maximum bag for a good hunter specifically going after this quarry in the 1950s and 1960s was 38 Great Snipe over an autumn season, and the average was less than one bird per hunting trip (Pavlov 1973). The Great Snipe is now one of the rare waders of the central European USSR and, as suggested reasonably by Zubakin (1988), its present status is due not only to habitat loss, but also to poisoning by toxic chemicals. The species has been proposed for inclusion in the Red Data Book of the RSFSR (Russian Federation). In Latvia, it was a common breeder in the eighteenth and nineteenth centuries, and nesting was confirmed in the republic in 1953 (Viksne 1983). It is included in the Estonian Red Data Book (Kumari 1982). The Great Snipe is rare in Leningrad region, and the 1960s and 1970s saw a decline in the number of leks and of birds visiting them (Mal'chevskiy & Pukinskiy 1983). Drainage has led to a sharp decline in the Ukraine (Voinstvenskiy *et al.* 1981), such that censuses in the years 1982-88 showed a total of only ten to 15 'pairs' in the republic's western regions (Gorban' 1990). Only a few breeding sites are still occupied in Bashkiriya (Ilyichev & Fomin 1988). There is no information on population trends in western Siberia. Information is insufficient to determine the limits of the present breeding range, but data from the sources mentioned above indicate not only retreat in some western and southern parts of the range, but also, above all, a fragmentation of the range (i.e. a change in its structure).

Volkov, N. I. (1968): On early and late clutches of the Woodcock. // Ornithology. M., Moscow Univ. Press. Issue No 9. P. 342.

In the Central-Forest Nature Reserve (western part of the Kalinin Region) observations during the last 5 years revealed Woodcock start roding between 7 and 17 of April and terminate gradually around 12-22 of July. Small, still not fledged chicks usually are seen during the second and the third decade of June. In 1965, a Woodcock brood of 3 chicks of the size of a Song thrush, i.e. at

the age of about 5 - 7 days, was seen during excursions with a gun-dog on 24 May. One adult bird was with the brood and tried to distract the dog from the chicks. Considering the age of the chicks, and an incubation period of 20 - 24 days, the female may have started egg-laying several days after the onset of roding, when in the forest snow was not melted completely. The first roding Woodcock in this spring was registered on 17 April, while snow cover was melted in the fir forest only by 7 May. This brood was undoubtedly the earliest ever seen.

In the same year on 22 July a nest of Woodcock with 4 slightly incubated (3 - 5 days) eggs was discovered during hay-making. The nest was situated between shrubs and a little fir forest just near a glade, where grass was cut, and later dried for hay. Due to the disturbance the nest was left by the Woodcock, therefore the eggs were taken for the collection. Without this disturbance chicks could have hatched not before August. In the previous year 1964, a local hunter, also July during hay-making, flushed a female woodcock from its nest with incubated eggs. These two cases of extremely late broods of Woodcock strongly suggest, that some females rear chicks twice a year. The long - often more than three months - period of male roding may be an additional proof. In contrast, species nesting only once per season, for example the *Tetraonidae*, terminate the lekking period soon after females start nesting.

These observations may be of interest, to the question of the number of clutches in the Woodcock, which is not yet decided finally and completely.

## Bibliography (reviewed by HK)

Anonymus (1998): Compte – Rendu de la Saison Becassiere 1997 – 1998. Club Nationale des Becassieres, France. 59 pp. (in French).

A detailed report of woodcock (*Scolopax rusticola*) hunting in France 1997/98, based on informations provided by the members of the National Club of Woodcock Hunters (CNB). By 38 outings the average woodcock hunter flushed 43 different woodcocks and bagged 14.

Devort, M., G., N. Olivier & F. Chevalier (1997): The Common snipe – elements of an action plan. Editions confluences CICB, OMPO, Paris, 99 pp.

The study started with autopsies of 600 specimen of *Gallinago gallinago* collected in France from 1975-1985 in order to identify external sex and age criteria, especially on the wings. Sequences of post-fledging and post-breeding moult had also been recorded.

During the following ten years 25 600 Common snipe wings had been collected in eight regions of the range of this species. These actions were organized by the International Snipe Hunters Club (CICB) and the results analyzed with the help of Migratory Birds of the Western Palearctic (OMPO).

Evaluation of age-ratios per months and decades revealed age-specific migration patterns of juveniles and adults, which could be followed over a considerable part of the migration and wintering range, namely western Europe (Ireland, The Netherlands, France, Portugal), northern Africa (Morocco, Tunisia) and western Africa (Senegal, Cameroon). According to the results of France (where about one third of all wings were collected) juveniles initiate fall migration in August, while adults gradually arrive in September and October. Age-ratios recorded in Denmark, where snipes only stop over in fall, but usually don't winter, are a good indicator of annual productivity. In France, however, this indicator is superimposed by weather conditions. French age-ratios do therefore not necessarily reflect variations in breeding success.

Morphological differences have been detected between snipes of the western and the eastern palearctic (China, Vietnam).

Moult studies revealed annual rates of suspended moult, especially in adult females, indicating there was not enough time between breeding and (long-range) migration to complete the moult. The possible relationship between the annual rate of suspended moult and breeding success is discussed.

The large amount of data permitted detailed analyzes of the seasons separately.

Gloe, P. (1994): Eine weitere schwimmende Bekassine (*Gallinago gallinago*). Ornithol. Mitteilungen 46/12: 320 (in German).

On 11 October 1994 seven Common snipes were observed zigzagging over a pond near the coast of Schleswig-Holstein (Germany). Six of them landed at the shore, while one settled on the water, resembling a phalarope (*Phalaropus spec.*). After a while the bird raised easily from the water and joined the other snipes resting ashore. There are so far very few observations like this in literature.

Hoodless, A. N. & J. C. Coulsen (1998): Breeding biology of the Woodcock (*Scolopax rusticola*) in Britain. Bird Study 45 (2): 195 - 204.

This study of the Game Conservancy, Fordingbridge, UK, is based on nest record cards collected by the British Trust of Ornithology during 1945 - 89. They provided information on the timing of nesting and brood production.

Kälås, J. A., A. Kuresoo, L. Luigujoe & S. L. Svartaas (1997): Morphometrical comparisons between Estonian and Norwegian Great snipes (*Gallinago media*). Proc. Estonian Acad. Sci. Biol. Ecol. 46/3: 115 - 122.

Great snipes breeding in Estonia differ significantly from those breeding in central Norway, both regarding morphological measurements (bill, total head, tarsus, wing, weight) and plumage characters (extent of white on tail). Discussion of possible reasons, i.e. selection pressure of environmental conditions.

Krementz, D. G. & J. B. Berdeen (1997): Survival rates of American woodcock wintering in the Georgia Piedmont. J. Wildl. Mgmt. 61 (4): 1328 - 1332.

25 *Scolopax minor* were radio-marked between 14 December 1994 and 30 January 1995 in Georgia, USA, in order to identify survival rates. Overall survival rate in winter was 0.72, and no differences had been found between age- and sex-classes, that were equally represented. Hunting was responsible for about 40 % of the known losses. The results suggest further research with larger samples.

Macikunas, A. (1998): An overview of the breeding Snipe populations in the eastern Baltic region. Acta Zool. Lituanica, Ornithologia 8 (Special issue): 29 - 33.

This paper presented at the OMPO International Meeting, April 1998, at Vilnius, Lithuania, provides information on breeding densities of *Gallinago gallinago*, *G. media* and *Lymnocyrtus minimus*. After decades of absence there was a first breeding record of the Jack snipe in Lithuania in 1993, thanks to a special survey.

Meltofte, H. (1996): Die Zugwege der Watvögel durch Dänemark. Ornithol. Mitteilungen 48/10: 248 - 250. (In German).

### Migration routes of waders through Denmark.

Only few Jack snipes (*Lymnocyptes minimus*) are observed in spring, while tens of thousands are passing through in fall. The number of birds wintering in 1990/91 was estimated between 10.000 and 20.000.

The Danish breeding population of the Common snipe (*Gallinago gallinago*) is estimated between 3.000 and 4.000 pairs. Two peaks of spring migration (around 1 April and 1 May, respectively) suggest passage of different populations (of northern and north-eastern Europe?). Hundreds of thousands are moulting in Denmark in late summer and early fall. The total number of snipes passing in fall is estimated as more than one million, while more than 50.000 may stay over winter.

There are only few observations of the Great snipe (*Gallinago media*) in spring and fall, but the results of wing sampling of shot snipes suggest that in fact thousands of Great snipes pass Denmark on their way to tropical Africa in fall, and several hundreds in spring. Since 1900 there are no breeding records from Denmark.

About 1.500 to 2.000 Woodcock (*Scolopax rusticola*) "pairs" breed in Denmark, while well over one million are passing through, in spring, mainly between 25 March and 20 April, in fall between 20 October and 20 November. If weather conditions are favourable several thousands of woodcocks are wintering in Denmark.

Thorup, O. (1998): Ynglefuglene på Tipperne 1928 – 1992. Dansk Orn. Foren. Tidsskr. 92: 1 – 192 (Danish with English Summary).

The breeding birds of Tipperne, a 700 ha nature reserve in a brackish lagoon in western Jylland, Denmark, were studied since 1928. Common snipes (*Gallinago gallinago*) did not breed in the area before the 1940s, but then increased to about 45 pairs. Due to different practices of habitat management the numbers declined and increased. The timing of grass-mowing was found most decisive for habitat quality.

Vysotsky, V. V. & D. Solovieva (1998): Waterfowl and snipe hunting and hunting bags in St. Petersburg region. Acta Zool. Lituanica, Ornithologia 8 (Special issue): 110 - 114.

This paper, presented at the OMPO International Meeting, April 1998, Vilnius, Lithuania, provides information on Woodcock (*Scolopax rusticola*) and snipes (mainly *Gallinago gallinago*) hunting in north-western Russia. Hunting roding woodcock in spring is traditional in this region. About 3.000 are harvested annually. Using pointing dogs in spring is prohibited.

Winkel, W. (1993): Waldschnepfe (*Scolopax rusticola*) trägt 7-tägiges Küken im Flug fort. Ornithol. Mitteilungen 45/8: 223 – 224 (in German).

Observation of a flying woodcock carrying its one week old chick (27.5.1993, Niedersachsen, Germany) and discussion of some similar cases described in literature.