

# Woodcock and Snipe Specialist Group

Newsletter No 23

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## 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.

### Research

In contrast to most other wader species dwelling in more or less open habitats, woodcocks and snipes live secretively, are hardly seen and populations may therefore not be monitored by direct observations. Data on population dynamics are obtained only indirectly by ringing. Since most woodcocks and snipes are quarry species throughout their ranges a considerable rate of the rings are recovered by hunters. Close cooperation between researchers and hunters is therefore essential to increase our knowledge on these species.

Usually only hunters flushing the birds from their cover have at least an idea of their abundance, and bag statistics are useful documents of minimum numbers and trends in certain areas.

Though there are still many gaps in our knowledge the WSSG was able to provide much more realistic data for the Second Edition of "Waterfowl Population Estimates" (P. M. Rose and D. A. Scott, WI Publication No. 44, 1997, p. 76-77) compared with the rather vague estimates of the previous edition. According to this recent edition the western palearctic populations of the Woodcock are in the order of more than 15 million, the Common snipe of more than 20 million birds.

As obvious from this issue the French researchers of the Office National de la Chasse and their colleagues in Eastern Europe have again made good progress in ringing, while in Spain and Denmark efforts for documenting bag data continued.

A study on the African snipe (*Gallinago nigripennis*) was initiated in Kenya; first results will be presented at the workshop in Czempin.

### 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.

## Meetings

After more than six years had passed since the last symposium on the American woodcock (*Scolopax minor*) the Ninth Woodcock Symposium was held in Baton Rouge, Louisiana, January 27 - 29, 1997, thus in a main wintering area of the species. A summary report is included in this issue. From Europe two French colleagues (F. Gossmann and J. - P. Boidot) and the coordinator participated and reported on our work in the Old World. Some of the American colleagues indicated interest in closer cooperation with the WI - WSSG, which is especially appreciated since WI is a global organisation since 1996.

As announced in the precious issue of the Newsletter the **Fifth Woodcock and Snipe Workshop**, a joint venture of WI, IUCN and the CIC-Migratory Bird Commission will be hosted by the European Wildlife Research Institute (EWI) of the Agricultural University of Poznan, under the auspices of the Minister of Environment, Natural Resources and Forestry, Poland, and the Polish Hunters Association. It will take place on **May 3 - 5, 1998, in Czempin, Poland**. More than 30 members have already responded to the second announcement, mailed out in July 1997. Participation and presentations of the colleagues working in the main breeding range of all four species are especially appreciated. Final registration forms had been mailed out to applicants by the end of December 1997. They are kindly requested to submit the forms **no later than February 28, 1998**.

For any further information please contact the coordinator.

## 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.

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## Some Observations on woodcock (*Scolopax rusticola*) migration in Austria and Western Hungary in 1996

Philipp Meran

**Spring migration:** Not before 10 March the first woodcocks arrived in Hungary (Drau valley). The traditional observation areas Somogy and Zala were still covered with patches of frozen snow until 18 March. Intense migration was observed from 18 to 20 March in all study areas of Western Hungary. According to all reports it was again an excellent season, though somewhat less than in the record year 1995. Personally I have counted 86 roding woodcocks (143 in 1995).

The following woodcocks bagged mainly in Hungary during evening flights in spring 1996 were analyzed:

Date	Location	Number seen	Number bagged	Age	Sex	Weight (g)	Bill length (mm)
22.3.	Keresztur/Fr	6	1	juv.	♂	308	70
25.3.	Keresztur/Fr	4	2	ad.	♂, ♀	314, 322	69, 75
25.3.	Nagybajom	8	1	ad.	♂	330	65
26.3.	Keresztur/Fr	5	2	ad., juv.	♂, ♂	310, 326	70, 71
26.3.	Nagybajom	7	2	juv.	♂, ♀	318, 315	68, 60
27.3.	Nagybajom	5	1	ad.	♂	350	70
31.3.	Nagybajom	6	1	ad.	♂	340	72
1.4.	Nagybajom	4	1	juv.	♀	341	73
2.4.	Nagybajom	8	2	juv., ad.	♂, ♂	318, 317	68, 66
8.4.	St.Georg./Att.	3	1	ad.	♂	330	79
16.4.	Weissenkirch	4	2	juv.	♂	277, 279	65, 67

**Fall migration:** Probably due to the unusual cool, rainy and on the hills snowy weather in September migration was less pronounced in the mountainous regions than in previous years. However, in the lowlands of Upper Austria, as well as of Hungary considerable numbers of woodcock, up to 40 per day, had been flushed during drive hunts on small game, especially from 25 October until 10 November. As late as 30 November/1 December 9 woodcocks had been flushed from fresh-fallen snow during a wild boar hunt.

The following woodcocks were bagged in Austria (Steiermark) mainly during evening flights in fall 1996:

Date	Location	Number seen	Number bagged	Age	Sex	Weight (g.)	Bill length (mm)
8.10.	Reinischkogel	4	1	ad.	♀	330	73
11.10.	Rosenkogel	2	1	juv.	♂	316	72
20.10.	Reinischkogel	4	1	ad.	♀	343	80
12.11.	Rosenkogel	1	1	juv.	♂	326	70

The "number seen" in both lists concern only observations made at outings when birds were shot. In fall 1996 I have been out for 37 evenings from 4 October until 19 November, but had registered not more than 30 contacts with woodcocks.

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## Wing sampling in Denmark - Season 1996/97

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. 201, edited by Ib Clausager provides the following results:

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

476 wings had been sent in, 170 more than in the previous season. The good fall flight in Denmark was obviously a consequence of a good season in the north-eastern European breeding range. This was also evident from the high rate of 2.6 juveniles per adult bird, one of the highest ever recorded in Denmark.

(This high age ratio of 72% juveniles is in contrast to the rather low ratio of 61% reported from France [see page 7]. This may be an indication, that woodcocks migrating through Denmark originate from other breeding areas than those wintering in France. - HK).

More than half of the woodcocks had been bagged in the first half of November, the majority in western Denmark.

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

499 submitted wings, slightly less than in the previous season (530), also revealed an extremely good breeding season for this species: 4.2 juveniles per adult, in comparison to 3.4 on average of the last 12 years.

More than 50% had been harvested in the first half of September, most of them along the coastal regions of western Denmark.

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

57 wings had been sent in, slightly less than in the previous season (62).

This species migrates later than the Common snipe, with a peak in the first half of October. The latest report was from 20 December.

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# Les activités de Réseau Becasse en France - Saison 1996/97

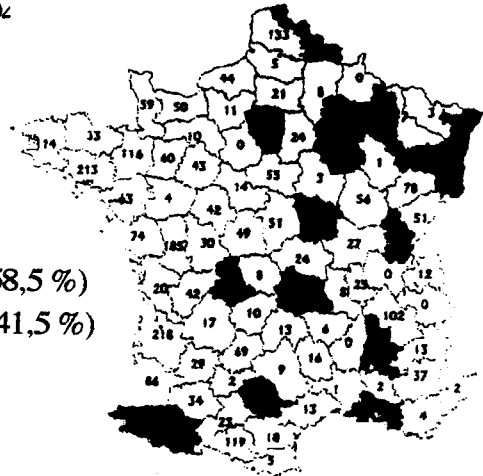
Francois Gossmann et Claudine Bastat-Lequerré

## LE BAGUAGE

Au cours de cette saison 1996-1997, marquée par le coup de froid de fin décembre - début janvier, 2724 bécasses (*Scolopax rusticola*) ont été baguées, soit un résultat quantitativement très proche de celui de la saison précédente. Un plus grand nombre de sites de baguage ont été visités, 470 contre 404 en 95-96, dans 65 départements. Le nombre moyen de contacts par sortie pour l'échantillon des 17 départements retenus depuis 1989-1990 est de 8,2. Il est inférieur à celui de la saison précédente mais cependant plus fort que ceux enregistrés de 89-90 à 94-95.

### La saison de baguage en chiffres:

Nombre de départements:	<b>65</b>	
Nombres de sites de baguage:	<b>470</b>	
Nombre de bagueurs:	<b>250</b>	
Nombre de sorties nocturnes:	<b>1656</b>	1579 jeunes (58,5 %)
Nombre de contacts:	<b>10906</b>	1118 adultes (41,5 %)
Nombre de bécasses baguées:	<b>2724</b>	
Nombre de contrôles:	<b>209</b>	
Taux de réussite:	<b>27 %</b>	



Carte 1: Répartition des 2724 bagues posées en 1996 - 1997

### Nombres moyens de contacts par sortie sur un échantillon de 17 départements:

1989 - 1990 : 6,35	1993 - 1994 : 7,02
1990 - 1991 : 7,02	1994 - 1995 : 7,30
1991 - 1992 : 6,55	1995 - 1996 : 9,90
1992 - 1993 : 5,45	1996 - 1997 : 8,21

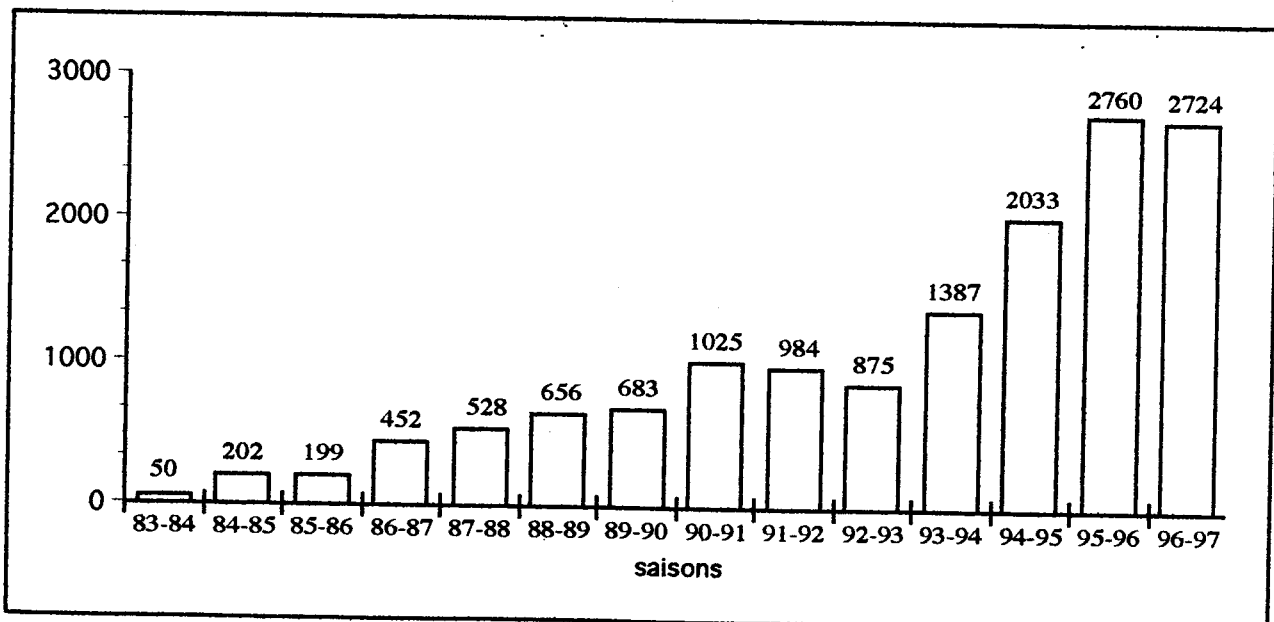


Fig. 1: Evolution interannuelle des résultats de baguage (Source: ONC - Réseau de correspondants "Bécasse")

De nouveaux départements ont participé pour la première fois cette saison à l'enquête baguage . Il s'agit de l'Ain, des Hautes-Alpès, des Alpes-Maritimes, des Ardennes, de la Moselle et du Var. Les équipes de bagueurs des départements méditerranéens ayant effectué des sorties baguage voient leurs efforts récompensés par le marquage de quelques oiseaux. Le taux de réussite, calculé à partir des oiseaux capturés y compris les contrôles, s'élève à 27 %. Dans l'Est de la France, les départements du Doubs, de la Haute-Saône et de la Côte d'Or ont obtenu des résultats remarquables avec plus de 50 oiseaux bagués pour chacun d'eux. Des résultats tout à fait remarquables également dans les Pyrénées et en particulier en Ariège où 119 bécasses ont été marquées. Enfin, des départements littoraux tels la Gironde et le Morbihan ont également réalisés des marquages importants à la faveur des fortes concentrations d'oiseaux au moment du coup de froid.

Les marquages ont été faits pour 34 % en novembre et, comme les années précédentes, novembre et décembre totalisent 60 % des captures. Les conditions météorologiques de janvier ont réduit les opérations de marquage, sauf pour quelques départements cotiers. La proportion plus faible de marquage en janvier est rattrapée par un mois de février plus fort que les années précédentes.

bagues posées en 1996-1997	
octobre	82
novembre	919
décembre	732
janvier	400
février	403
mars	187
avril	1
total:	2724

Tab. 1: Evolution mensuelle des captures (Source: ONC - Réseau de correspondants "Bécasse").

En 1996-1997, **209 contrôles** ont été enregistrés dont **84 contrôles directs** et **125 contrôles indirects**.

L' **âge-ratio** des oiseaux bagués est de 58,5 % (jeunes), soit le plus faible taux enregistré ces dernières années. Cette baisse de l'âge-ratio s'observe également sur tous les départements littoraux de la Manche et de l'Atlantique où il est de 67 % cette saison contre 76 % en 94-95 et 73 % en 95-96. Cette **diminution de la proportion de jeunes** est donc générale et ne tient pas seulement aux marquages plus importants dans les départements intérieurs.

Nous avons enregistré **556 reprises** de bagues françaises en 1996-1997 dont **280 reprises directes** et **276 reprises indirectes**. Les taux de reprise pour les reprises directes est de 10,5 %, soit comparable à celui des années précédentes.

Le **délai moyen** des reprises directes pour les oiseaux repris à moins de 20 km du lieu de baguage est de **25 jours**.

Compte-tenu de l'augmentation du nombre d'oiseaux bagués dans les régions intérieures de la France, et donc des reprises engendrées, nous procéderons à des calculs régionaux des taux, délais et distances des reprises, par grandes régions biogéographiques pour l'hivernage des bécasses.

## Les reprises de bagues françaises à l'étranger

Les 16 nouvelles reprises à l'étranger connues au cours de la saison 96-97 portent à 172 le nombre total de reprises de bagues françaises à l'étranger. Ces 16 reprises se décomposent comme suit:

Reprises directes: 4 en Espagne, 1 en Hongrie et 1 en Biélorussie.

Reprises indirectes: 1 en Autriche, 1 en Grande-bretagne, 1 en Belgique, 1 en Lettonie, 2 au Danemark, 1 en Russie, 2 en Espagne et 1 en Suisse.

## La Vague de froid de décembre 1996 et janvier 1997

La bécasse des bois est un oiseau sensible aux vagues de froid. Le gel intense gêne considérablement son alimentation et elle est peu adaptée physiologiquement à résister aux températures négatives.

Le sévère coup de froid qui a touché la France de la dernière semaine de décembre à mi-janvier a fortement bousculé les populations hivernantes de bécasses, provoquant des déplacements vers les régions littorales. Plus intense et plus long dans le Nord de la France, le froid a maintenu le sol profondément gelé durant 5 semaines. Ainsi, des cas de mortalité ont été signalés sur les côtes du Pas-de-Calais où 40 cadavres ont été retrouvés. Des densités d'oiseaux très élevées ont été observées sur le littoral Manche-Atlantique avec localement des concentrations exceptionnelles comme dans les Côtes d'Armor et en Gironde où jusqu'à 100 oiseaux ont pu être vus au moyen d'un projecteur au cours d'une seule sortie nocturne. Les régions du Sud-Ouest, peu touchées par la vague de froid, ont constitué des zones de repli et donc de refuge pour de très nombreux oiseaux.

Une note a été rédigée par le réseau Bécasse début janvier à l'attention de l'union nationale des Fédérations de chasseurs. Cette note décrivait l'impact et les conséquences de la vague de froid sur les bécasses hivernant en France. Elle recommandait notamment la prolongation de la suspension de la chasse de 5 à 10 jours après le dégel afin de permettre aux oiseaux de se rétablir et de se redisperser sur le territoire.

Environ 40 départements ont suspendu la chasse de la bécasse pour des périodes variant de 7 à 20 jours et trois d'entre eux ont procédé à une fermeture anticipée (Seine-Maritime, Somme et Pas-de-Calais).

Les reprises de bagues apportent de précieux renseignements grâce aux taux de reprise, aux distances parcourues et aux temps de port de bague, permettant d'analyser les déplacements des bécasses et les prélèvements. Les reprises directes et indirectes réalisées en janvier et février sur des oiseaux bagués en novembre, décembre et janvier ont été prises en compte pour l'analyse. Les pourcentages ainsi obtenus sont comparés à ceux des années précédentes pour les mêmes périodes de baguage et de reprise.

### - les reprises directes:

*Taux* : pour la saison 96-97, l'échantillon ainsi analysé est de 114 reprises représentant 5,6 % des oiseaux bagués. Cette valeur est comparable à celle obtenue pour les saisons 83-84 à 95-96, soit 5,9 % pour 559 reprises.

*Distance* : 46,5 % des reprises directes ont été effectuées à plus de 20 km du lieu de baguage en 96-97 contre une moyenne de 13 % pour l'ensemble des saisons 83-84 à 95-96.

### - les reprises indirectes

En 96-97, les reprises indirectes (n=276), réalisées un an ou plus après le baguage, donc d'oiseaux adultes, mettent également en évidence les déplacements liés au froid intense. En janvier et février 97, 62 % des reprises indirectes ont été effectuées à plus de 20 km sur un total de 91 reprises d'oiseaux bagués en novembre, décembre et janvier des années précédentes. Lors des trois hivers précédents et



pour les mêmes périodes, seules 19 à 24 % des bécasses reprises s'étaient déplacées à plus de 20 km du lieu de baguage. Quelques reprises illustrent particulièrement ce phénomène, comme cet oiseau bagué dans le Cher en février 96, contrôlé sur le lieu de baguage le 23 décembre 96 et prélevé en Charente-Maritime le 13 janvier 97.

Le taux des reprises directes sur l'ensemble tout de la saison (10,5 %, n = 280) n'a pas varié en 96-97. La suspension de la chasse pendant une à trois semaines, voire davantage selon les départements, n'a donc pas eu d'incidence sur le taux de reprise, cette variable étant liée au nombre d'oiseaux prélevés. La suspension de la chasse a évité les prélèvements en janvier mais de nombreuses reprises ont eu lieu à la réouverture fin janvier et en février. Le délai de reprise global de 31 jours est plus élevé que les saisons précédentes avec des prélèvements quantitativement comparables.

## L'ANALYSE DES TABLEAUX DE CHASSE

La saison de chasse 1996-1997 n'a pas été aussi faste que la précédente. Cependant, les régions du littoral atlantique ont été favorisées par la vague de froid de fin décembre et de début janvier.

L'enquête tableau de chasse, réalisée selon le protocole utilisé depuis ces vingt dernières années, a permis l'analyse de 4800 ailes et de 480 relevés de sorties de chasse. Les résultats obtenus sont détaillés dans les encadrés ci dessous.

### Échantillon analysé

Nombre de sorties de chasse : 11201  
 Nombre de relevés fournis : 477  
 Nombre d'ailes analysées : 4826  
 Nombre d'oiseaux sexés : 2075

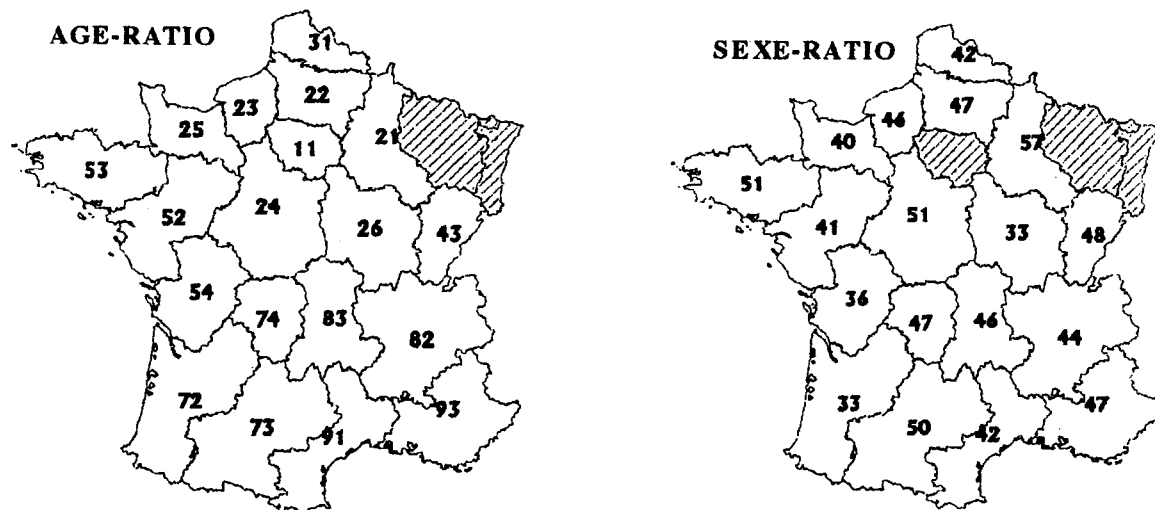
En 1996-1997, les chasseurs du réseau de correspondants ont prélevé en moyenne 11 bécasses en 23 sorties dont 9 sorties positives.

### Résultats

ICA : 0,18  
 Age-ratio : 61,3% (jeunes)  
 Sexe-ratio : 43,9% (males)

L'âge-ratio enregistré au cours de cette saison de chasse s'élève à 61 % jeunes. Cette proportion de jeunes est la plus faible jamais enregistrée.

Il faut remarquer qu'en utilisant le même protocole d'enquête, c'est-à-dire une collecte d'informations auprès de chasseurs spécialistes volontaires, le Club national des bécassiers obtient un âge-ratio de 71 % pour un échantillon quantitativement comparable. Cette différence de 10 points entre les deux échantillons analysés confirme l'importance de la définition et de l'application d'un protocole de collecte des ailes/. Des pressions de collecte variables d'une année à l'autre dans les différents départements entraînent de fortes fluctuations des âges-ratios calculés aux niveaux départemental, régional et national.



Carte 2: Les résultats de l'analyse des tableaux de Chasse (Source: ONC - Réseau de correspondants „Bécasse“)

## L'ENQUÊTE CROULE

Cette enquête est en cours de réception et de traitement. Plus de 1000 points d'écoute ont été choisis de façon aléatoire dans 65 départements au printemps 1997.

Quelques cas de nidification nous ont été signalés: 1 dans l'Allier, 2 en Côte d'Or, 1 dans le Doubs, 1 en Haute-Loire, 1 en Meurthe-et-Moselle et 2 en Haute-Saône avec une première nichée de 4 bécasseaux bagues le 28 avril et 2 poussins d'une seconde nichée bagués le 16 juin. Félicitations à l'équipe de bagueurs de ce département.

## LE RÉSEAU A L'ÉTRANGER

La collaboration avec nos collègues russes de Moscou et de St-Petersbourg se poursuit en 1997 selon la convention engagée. La moisson d'informations récoltées dans les différents domaines étudiés nous permet de préparer des articles de synthèse sur la reproduction (croule), la migration post-nuptiale et l'importance des prélèvements cynégétiques (enquête réalisée pour l'ensemble de la Russie au printemps 96).

## SUMMARY

### Activities of the woodcock - network in France 1996/97.

At 470 (404 in 1995/96) sites in 65 (61) French departments (Carte 1) a network of 250 (240) ringers, organized by the Office National de la Chasse (ONC) have caught and ringed a total 2713 (2724) woodcocks by using nets and spotlights (Fig. 1). During 1656 (1368) nocturnal outings a total of 10906 (10225) woodcocks have been contacted.

Again, most woodcocks were ringed in November and December. However, in contrast to previous years the number caught in February even slightly exceeded that of January (Tab. 1). This may have been a consequence of the extraordinary weather conditions.

The overall age-ratio of captured woodcocks was 58 % (64 %) juveniles and 42 % (36 %) adults. Again, the percentage of juveniles was higher near the Atlantic coast than in the interior departments, but it was generally the lowest recorded since the beginning of this project in 1983. This phenomenon was in line with the age-ratio of 61 % (67 %) derived from wing sampling of 4826 (6921) shot birds. This low ratio of juveniles was obviously a consequence of the low reproduction rate (because of a drought in Russia in 1996) which was already documented by the ringing results of fall 1996 (see WSSG-Newsletter No. 22, page 13).

209 (223) ringed woodcocks were recaptured, 84 (134) of them had been ringed during this, and 125 (89) during previous seasons.

During this period a total of 556 (502) recoveries of woodcocks ringed in France had been reported by hunters, 280 (289) of them were direct (ringed this season) and 276 (213) indirect recoveries (ringed in previous seasons). The recovery rate (direct) was 10.5 % (10.7 %); the average time lag between ringing and recovery of those reported within 20 km from the ringing place was 25 (28) days.

During this period 16 (26) more recoveries of woodcocks ringed in France have been reported from abroad, making the total number of this category to 172.

The cold spell in Europe from the last week of December 1996 to mid-January 1997 also had consequences for the woodcocks wintering in France. The flight to the coastal regions led to unusual high densities. Up to 100 woodcocks were seen by some network members in one night. Natural mortality was considerably increased, as indicated by 40 starved woodcocks found along the coasts near Calais. About 40 departments have issued a suspension of woodcock hunting between seven and 20 days during the cold spell.

The cold weather movements also became evident from the ringing results. 46 % of ringed birds recaptured directly (the same season) were found more than 20 km from the ringing place, while this category was only 13 % on average of the previous years.

Members of the network had altogether conducted 11201 outings, on average 23 per hunter, of which 9 were successful, with an average bag of 11 woodcocks per hunter during the season. 2075 sexed birds revealed a sex-ratio of 44 % males and 56 % females.

In spring 1997 counting of roding males was continued on 1000 listening points in 65 departments. Eight observations of breeding woodcocks had been reported.

The cooperation with the Russian colleagues in Moscow and St. Petersburg concerning ringing and counting roding males was continued.

HK

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# The Spanish Woodcock Project - harvest data of 1993-94

Antonio J. Lucio and Mario Sáenz de Buruaga

## 1. Introduction

During the third year of the Woodcock project, 1.646 Hunting Notebooks were distributed to 324 hunters from 28 provinces. 165 of them were new members and 159 had joined the project in previous years. Compared to the 1992-93 season there was an increase of 27% in the distribution of notebooks, of 24% in valid data and of 25% in participants.

Location	Number of hunts	Number woodcocks bagged
<b>REGION</b>		
- Cantabria	861	534
- Alava	388	321
- Vizcaya	298	130
- Navarra	204	167
- Guipúzcoa	197	77
- Asturias	130	52
- Lugo	64	64
- La Coruna	57	32
- Pontevedra	29	10
- Orense	24	9
<b>Total of the region</b>	<b>2.252</b>	<b>1.396</b>
<b>REGION</b>		
- Girona	191	136
- Mallorca	89	87
- Barcelona	88	90
- Menorca	51	117
- Lleida	8	6
<b>Total of the region</b>	<b>427</b>	<b>436</b>
<b>REGION INTERIOR</b>		
- Burgos	292	246
- Palencia	32	36
- Leon	25	16
- Huesca	17	23
- Soria	11	7
- Zaragoza	9	20
- Guadalajara	5	4
- Madrid	5	4
- La Rioja	4	12
- Jaén	3	
- Cáceres	3	0
- Zamora	2	2
- Salamanca	1	1
- Valladolid	1	0
<b>Total of the region</b>	<b>410</b>	<b>372</b>

Table 1: Regional hunting data of the Woodcock Project

Data collected concerned 3.089 hunts (31% more than in the previous year), and 2,204 harvested woodcocks (75% more) in 1.098 distinct areas (55% more) - see Table 1. In total 4,859 woodcocks were analyzed (84% more). They were obtained during 13.934 hours of hunting. On average 1.78 hunters and 2.12 dogs hunted for of 4.51 hours per hunting day, mostly (91%) in the morning.

Data from every participant were thoroughly analyzed, excluding incomplete notebooks or those with "odd" information. Only hunts with observed or bagged woodcocks had been considered in the calculations. Therefore, of the 3.089 hunts, only 2.883 had been analyzed.

As in previous years, we used the "weekly game abundance index" (ICA2p) for the calculation of woodcock abundance from week 1 (4-10 October 1993) till week 17 (24-31 January 1994). Only Cataluña also provided information on week 18 (31 January-6 February). The hunting season for small game is closed by 31 January in most provinces, except in Cataluña, where the season is extended to 6 February.

For the time after the hunting season, February and March, a follow-up plan on woodcock abundance in Cantabria was worked out, in which 16 hunters familiar with this project and the Forestry Department of the region participated. Hunting areas of high habitat quality for woodcocks, that were familiar to the participants were selected for the study. These areas were investigated at least 4 times between February 1 and March 27 in the same way as during hunting (with dogs and the same period of time) but, of course, without a firearm, in total 86 investigations..

At the same time, in the Principado de Asturias, Pablo González, José L. Benito and Fernando Ballesteros, carried out a similar project, financed by the Regional Department of Natural Resources and under the umbrella of the national project, that provided information of 54 investigations.

The data of these 140 investigations in Asturias and Cantabria were pooled in order to get information on the spring migration, but also to the question of the end of the hunting season from a biological point of view. To assess woodcock abundance between week 18 (31 January-6 February) and week 25 (21-27 March) an abundance index was created similar to the ICA-2p (based on harvested woodcocks) but referred to the observed woodcocks (ICA2p-obs.).

In order to get an overview on the development of woodcock abundance between October and March within these two zones, the same ICA2p-obs. was calculated for all weeks from the opening of the shooting season until the end of March.

## 2. Results

### 2.1 Abundance

The first woodcocks were observed during the second week (11-17 October). According to our personal observations, woodcocks were recorded during the second half of September in the Cantabrian zone, in non-breeding areas and in different geographical zones during the first two weeks of October.

Starting by 24 October there was a significant increase in abundance of woodcocks (Fig. 1) with a peak in week 7 (15-21 November) with an ICA2p of 0.65. Towards the end of November the abundance decreased to a level of 0.30, which was kept throughout December.

By the end of the year, woodcock abundance further decreased to a minimum index of 0.11 during the 13th week (27 December-2 January). In January, woodcocks slightly increased, with a peak during week 16 (17-23 January) immediately after a snowstorm in parts of the northern peninsula. The overall abundance index in the season 1993/94 was 0.26.

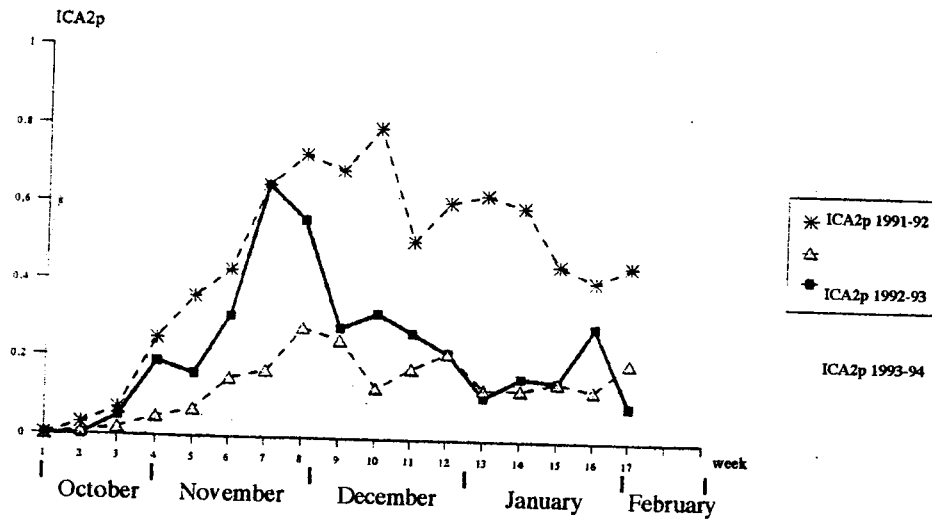


Fig. 1: Abundance (ICA 2p index) of woodcock wintering in Spain in three consecutive years in weekly intervals.

As in previous years woodcock abundance was different in the three zones of the project (Fig. 2). The Mediterranean zone exhibited a higher average index (0.47) than the two other geographical zones. The difference to Cantabria is statistically significant (ICA2p-Cantabria: 0.22  $t=3.406$ ,  $p<0.01$ ), but not to the Interior zone (ICA2p-Interior: 0.36,  $t=31.057$ ,  $p>0.05$ ). The difference between the Interior zone and Cantabria is not statistically significant ( $t: 1.933$ ,  $p>0.05$ ).

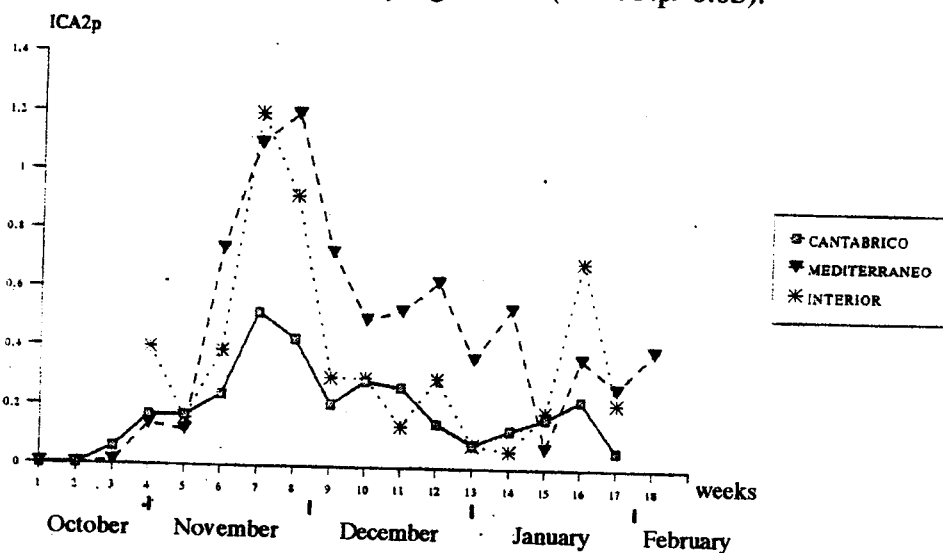


Fig. 2: Abundance (ICA 2p index) of woodcocks wintering in three geographical zones of the Spanish Woodcock Project (see Fig. 1).

The increase of woodcocks in November was first observed in the Mediterranean and somewhat later in the other zones. While in the latter two the abundance decreased afterwards, woodcocks seemed to keep on migrating in the Mediterranean zone until the end of November. Only in this region there was a second peak of abundance by the end of December.

Bad weather conditions until mid-January obviously caused a significant increase of woodcocks in the Interior zone, and to a lesser extent in Cantabria.

The Mediterranean Zone is the only one where harvest data are available in February due to an extension of the season in Cataluña until February 6. The few data of that week seem to indicate a further increase in woodcock abundance, which corresponds with a new flux of birds already recorded in the second half of January.

Figure 3 shows the fluctuations of *observed* woodcock abundance index of (ICA2p-*observ.*) in the Provinces of Asturias and Cantabria. As expected they are very similar to these of the ICA2p derived from bagged birds. Two peaks, in January and February, are evident.

The first peak of week 15 (10-16 January) coincides with snowy weather in the northern part of the Peninsula. The second one of weeks 20 (14-20 February) and 21 (21-27 February) may be caused by the start of the spring migration in the Cantabrian region. Later, woodcocks are hardly seen, with a minimum index of 0.06 during the last week of the study (21-27 March).

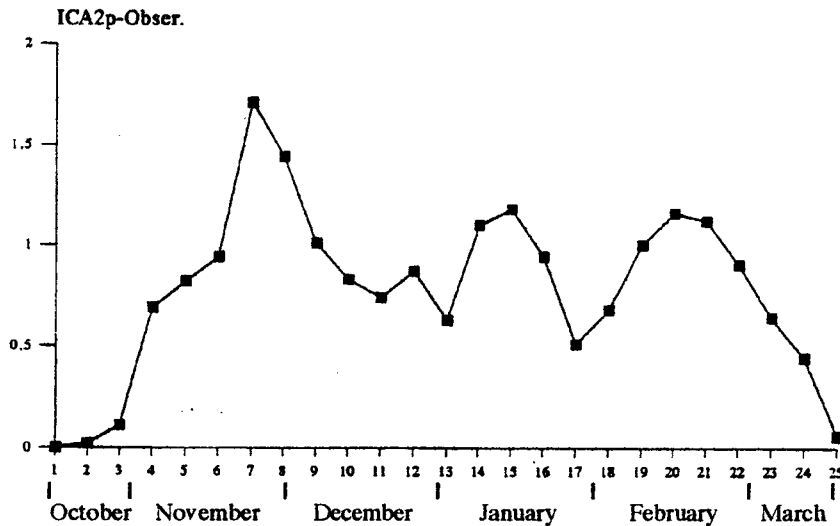


Fig. 3: Abundance of woodcocks observed (ICA 2p - Observ.) in Asturias and Cantabria during the season 1993/94 IN weekly intervals.

## 2.2 Harvest rates

Concerning the harvest the most productive week was from 15-21 November. During this week woodcocks were observed in 81% of the hunts and in 61% at least one was bagged. Over the whole season, in 65% of the hunts at least one woodcock was observed and in 41% at least one bagged. On average, 44% of the flushed woodcocks are bagged by efficient hunters.

As shown in Fig. 4 69% of the woodcocks harvested in Spain were juveniles and 31% adults. The age-ratios in the three regions were similar.

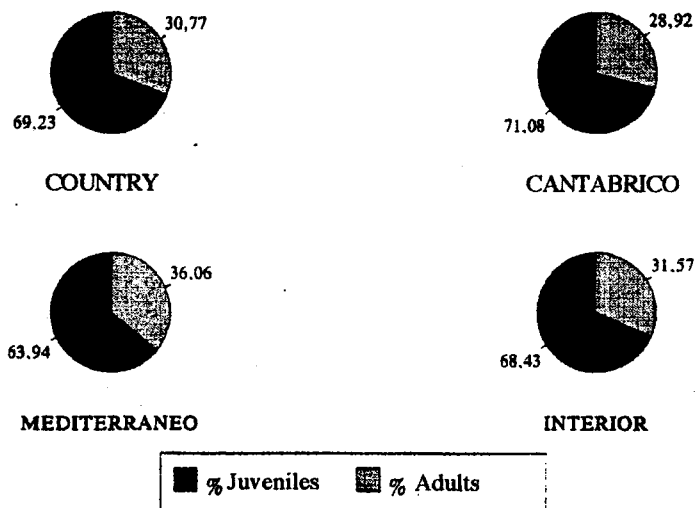


Fig. 4: Age-ratios of woodcocks bagged in 1993/94 in Spain and in the three zones of the project.

### 3. Results of previous years

Figure 5 provides an overview over the total and regional abundance indices during the past three years of the Woodcock Project. There is a similar trend in all four regions in the three years studied.

This variation of abundance is more or less reflected in the age-ratios of the relevant years (Fig. 6). In the year of the lowest woodcock abundance (1992/93) there was the lowest percentage of juveniles in the bags.

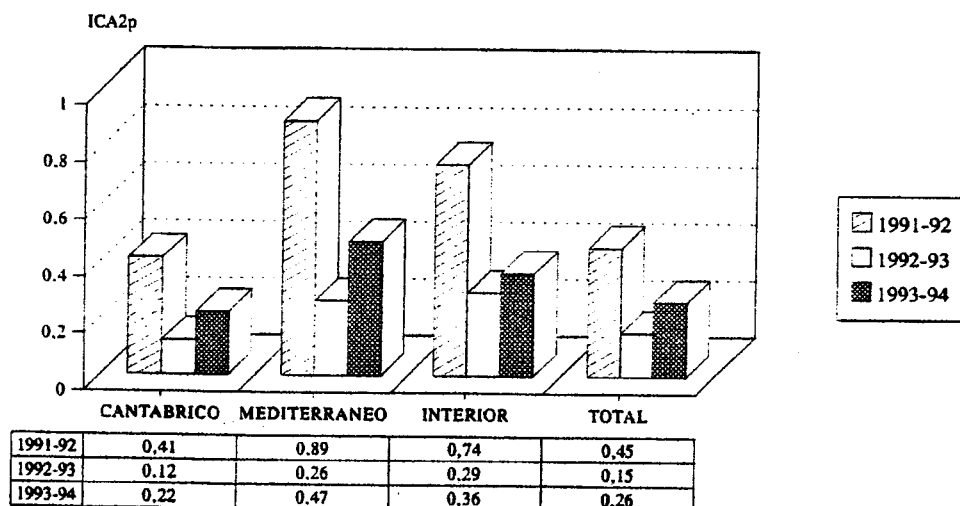


Fig. 5: Comparison of the woodcocks abundance (ICA 2p index) in the three project zones and in total Spain over the three years of investigation.

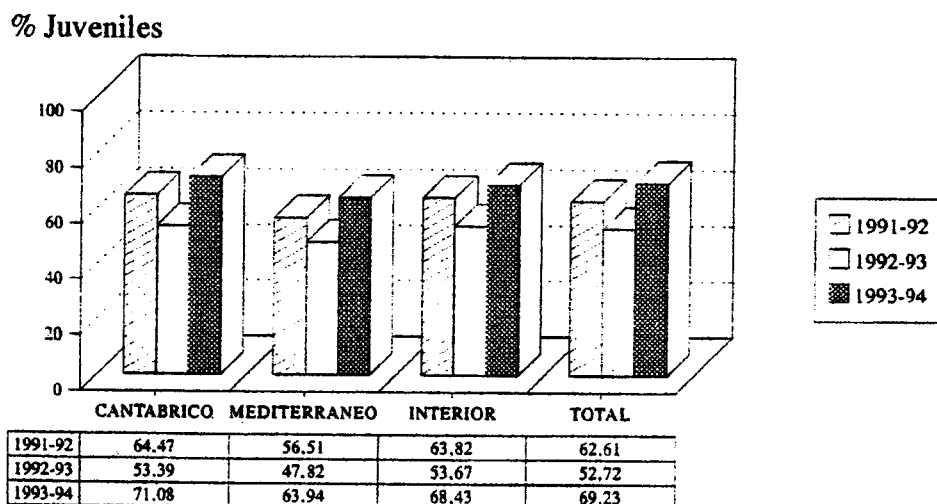


Fig. 6: Percentage of juveniles in the woodcock bags in the three project zones and in total Spain in the three years of investigation.

### 4. Conclusions.

After the first three years the Spanish Woodcock Project is still in its infancies. However, the number of members is still increasing. Moreover, there was progress in the co-ordination between groups of experts in different provinces and the members of the Woodcock Project, which increased exchange of information as well as data sampling and joint actions.

Compared with the rather poor results of the previous season, the 1993-94 actions have revealed a significant increase in woodcock abundance in all zones, in particular in the Cantabrian and Mediterranean Zones. However, this season had provided lower abundance data than that of 1991-92.



The beginning of the season was good with an early and abundant arrival of woodcocks in many zones, with high indices already during the first half of November. Then, however, woodcock numbers declined; there was hardly a second peak in December as in previous years. In December and in the first half of January the data in most parts of the country were average, with a few local exceptions difficult to interpret.

According to our experience of last year, the increase in woodcock abundance was accompanied by an increase in the number of juveniles in all parts studied. Obviously good breeding seasons in Northeastern Europe result in more juvenile woodcocks and consequently in more birds in Southern Europe during the winter. This assumption was confirmed by the results of the Woodcock Project during the last three years, when seasons with large numbers of woodcocks and a high rate of juveniles alternated with seasons of few birds and a low rate of juveniles. This is, however, an overall experience, since we do not know exactly the origin of the woodcocks coming to winter in Spain.

Another interesting aspect is the increase of woodcock abundance in February/March, as shown in Fig. 3. Was it caused by an accumulation of the birds in Asturias and Cantabria as a consequence of inclement weather in other parts of the country? Or is it an indication of the beginning spring migration, and does this consist of woodcocks of more southern (including North African) winter quarters? These questions have to be followed up also under a practical aspect, namely the termination of the hunting season in accordance with the EU-Bird Directive.

## **5. Perspectives of the project**

Apart from the planned extension and consolidation of the network to collect hunting data we intend to add two programs to the project.

The first one concerns follow-up studies on woodcocks abundance during spring migration, from the end of the hunting season until the end of March. The studies carried out in Asturias and Cantabria will be extended to other provinces with important staging habitats for woodcocks.

The second program will start next winter and concerns ringing woodcocks in specific zones in our country. To implement it, we will collaborate with the Woodcock Department of the French Office National de la Chasse, pioneer in this respect in Europe, which will send some experts to work out a ringing program for Spain. Over the past years, this team has carried out similar studies in Norway, Russia and Italy, ringing some 800-900 woodcocks each season.

Analysis of woodcock habitats, phenological data on migration and wintering, including climatic conditions, investigations of breeding populations in Spain, will be also objectives of the project. The final goal will be a monography on the woodcock in Spain.

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# Ringling of Snipes at Jeziorsko Reservoir, Central Poland

Radoslaw Wlodarczyk, Rafal Bargiel, Tomasz Janiszewski

The Ornithological Section of the Student Scientific Association for Biology, University of Łódź, carried out trapping and ringing of waders at the Jeziorsko dam reservoir (Poland, Warta Valley, 51°47'N, 18°40', Fig. 1) during summer (July - mid-September) of 1989-1997. During summer and early autumn, the reservoir was especially suitable for feeding and resting waders migrating across this part of Poland. During this time each year the reservoir was emptied for agricultural use in the Warta Valley.



Fig. 1: Location of the study area in central Poland

This resulted in large muddy beaches, partly covered by vegetation, that are used by different species of migrating waders (and other groups of birds). Waders were captured in traps and nets, although the nets had been used regularly only in 1989. The number of traps was changed from 4 (1989 - 1990) to 22 (1997). During the nine years period 5001 waders were ringed. The most numerous wader species caught at Jeziorsko reservoir was the Common snipe (*Gallinago gallinago*). Great snipe (*Gallinago media*) were trapped only in small numbers. The third species of snipe, the Jack snipe (*Lymnocyptes minimus*) was not caught; it was a very rare bird during this period (only 7 records between 1989 and 1997). It becomes more common in October and November. Ringing results are listed in Tab.1. Because of different types of traps used as well varying capture conditions over the years, the numbers trapped do not necessarily reflect trends in the numbers of migrating birds.

	1989	1990	1991	1992	1993	1994	1995	1996	1997
Common snipe	231	43	153	18	36	309	421	216	507
adult	2 %	19 %	1 %	-	22 %	15 %	11 %	23 %	8 %
young	82 %	74 %	80 %	18 %	55 %	84 %	85 %	67 %	86 %
unknown	16 %	7 %	19 %	82 %	23 %	1 %	4 %	10 %	6 %
Great snipe	-	-	-	-	-	3			1
Total waders (all species ringed)	480	186	377	68	409	952	931	654	944

Table 1: Ringing results at Jeziorsko dam reservoir in 1989 - 1997.

Until 1. 10 1997, we received 45 long-distance recoveries of Common snipes ringed at Jeziorsko reservoir. Nearly all birds were shot by hunters, mostly in Western Europe: France (34), Italy (6), United Kingdom (3), Spain (1) and Russia (1). We have also four long-term local recoveries. Time lag between ringing and recovery of 49 Common snipes ringed at Jeziorsko reservoir is shown by Fig. 2.

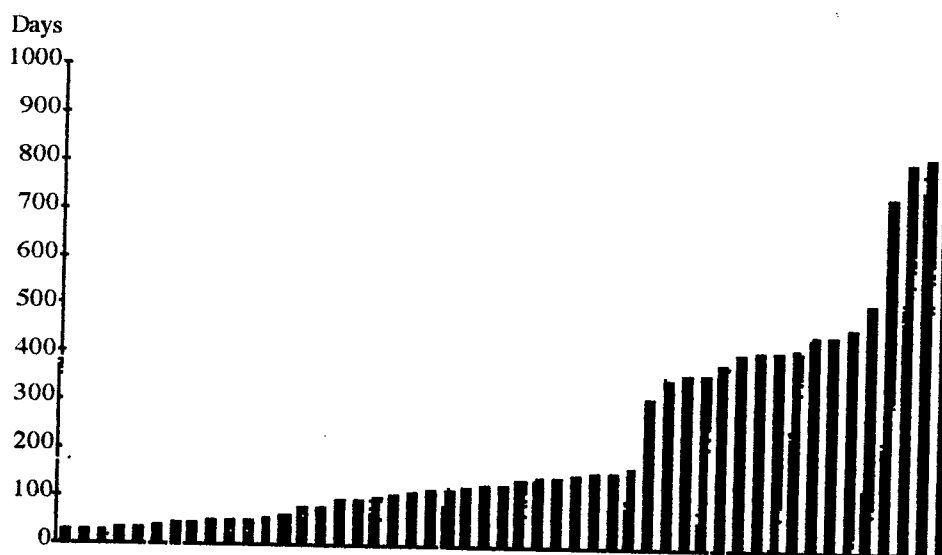


Fig. 2: Time lag between ringing and recovery of common snipes ringed at Jeziorsko reservoir in 1989 -1997.

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## Some impressions of the Ninth American Woodcock Symposium

Herby Kalchreuter

After a time-lag of more than six years since the last symposium (Oct. 1990. La Fayette, Indiana) the American experts met in January 228, 997, in Baton Rouge, Louisiana. There were about 80 registered attendees, slightly less than at the last two symposia.

25 presentations informed on the most recent stage of knowledge on the American woodcock *Scolopax minor* (and four on the European woodcock, see Editorial of this issue).

The papers that will be published soon in proceedings of the symposium, covered a wide range of aspects of woodcock biology.

A total of 100.000 *S. minor* had been ringed from 1940 - 1995, most actively in the 1970ies (30%). The overall recovery rate was 5.4 % (Fig. 1).

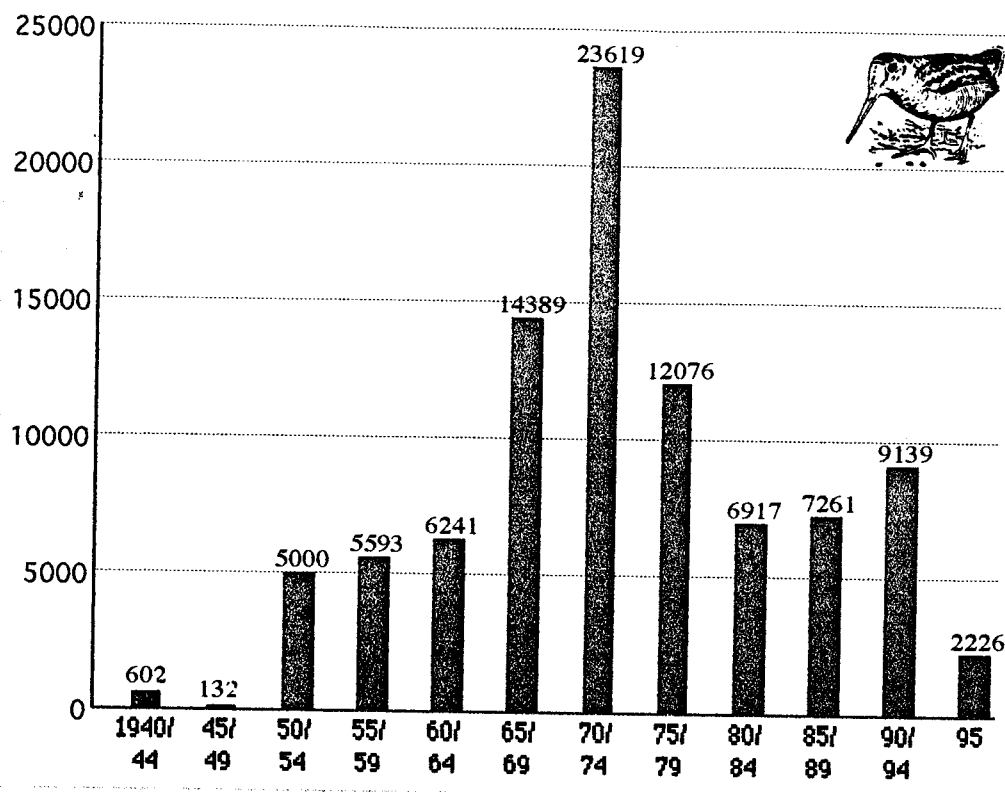


Fig. 1: Number of Woodcock Banded in the United States 1940 - 1995

This rate is considerably lower than the relevant rate calculated by F. Gossmann for *S. rusticola* (about 10%), indicating a lower hunting pressure on the North American than on the European species. Accordingly, hunting mortality was found to be rather low (17% in one specific study) and survival rates high (70% in females).

According to two studies dealing with predation, three times more woodcocks fell victims to raptors than to hunters, especially males. On the Moosehorn refuge 48% of the males, but only 9% of the females were killed by raptors, while the sex ratio in the prey of mammalian predators was vice versa (18% of the males, 45% of the females). Predator management (especially in favour of females) was therefore considered useful, but too expensive to be included in management strategies.

The question of the termination of the hunting season had led to studies on reproduction. 92% of males collected in February had testes larger than 6 mm (most likely producing spermatozoa) and there was no difference between juveniles and adults. Almost complete eggs were found rarely in females in January, in February more commonly.

There was also no age-relationship found in the dominance of males, juveniles occupy territories as adults. (These findings are in line with those in *S. rusticola* in some European study areas, described by V. Marcström).

Several papers dealt with habitat management for (breeding) woodcocks, which is obviously much more practised than in Europe. This may be explained by the fact, that the main breeding range of *S. minor* is to a much larger extent in areas of high human densities and consequently more intense agriculture and forestry. While the majority of *S. rusticola* is bred in vast and more or less undisturbed regions of Eastern Europe (some birds ringed in France have been even reported from areas east of the Ural mountains, F. Gossmann).

Densities of *S. minor* had increased 10 - 100 fold after habitat management on study areas in Michigan, compared to control areas. Vegetation structure was found to be even more decisive in habitat preference than densities of earthworms. Biomass of the latter was highest under forest plantations up to five years, but decreased quickly with increasing age of the stands.

Too small patches of managed habitat are at risk to attract predators. It was suggested (Krementz) to group patches of various habitat types preferred by woodcocks in a chessboard - like order - an ideal proposal, but of course difficult to realize for economic reasons.

In contrast to *S. rusticola* the population of *S. minor* is monitored over most of its range. The following summary of the status report 1996 of the U.S. Fish and Wildlife Service, Office of Migratory Bird Management in Laurel (Maryland) may provide an overview on the methodology. It revealed a continuous decline of *S. minor* in both management units, while there are no indications like that in the European woodcock.

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## American Woodcock harvest and breeding population status, 1996 (summarized by HK)

JOHN G. BRUGGINK

The American woodcock is a popular game bird throughout eastern North America that provides an estimated 3.4 million days of recreational hunting annually. The management objective of the U. S. Fish and Wildlife Service (FWS) is to increase populations of woodcock to levels consistent with the demands of consumptive and non-consumptive users. Reliable annual estimates of population size, productivity, harvest size and distribution are essential for comprehensive woodcock management. Unfortunately, this information is difficult and often impractical to obtain. Woodcock are difficult to find and count because of their cryptic coloration, small size, and preference for areas with dense vegetation. Also, there is currently no comprehensive sampling frame for woodcock hunters. Because of these difficulties, the Wing-collection Survey and the Singing-ground Survey were developed to provide indices of productivity, hunting success and changes in population size.

### Wing-collection Survey

A total of 2,478 potential woodcock hunters were contacted and asked to participate in the 1995 Wing collection Survey. Fifty-eight percent cooperated by sending in 11,550 wings and information on 8,252 hunts.

**Recruitment.** - In the Eastern Region of the United States, the recruitment index of 1.2 immatures per adult female was 29% below the long-term average (Fig. 1). The recruitment index in the Central Region of the United States was 1.4, which was 18% below the long-term average.

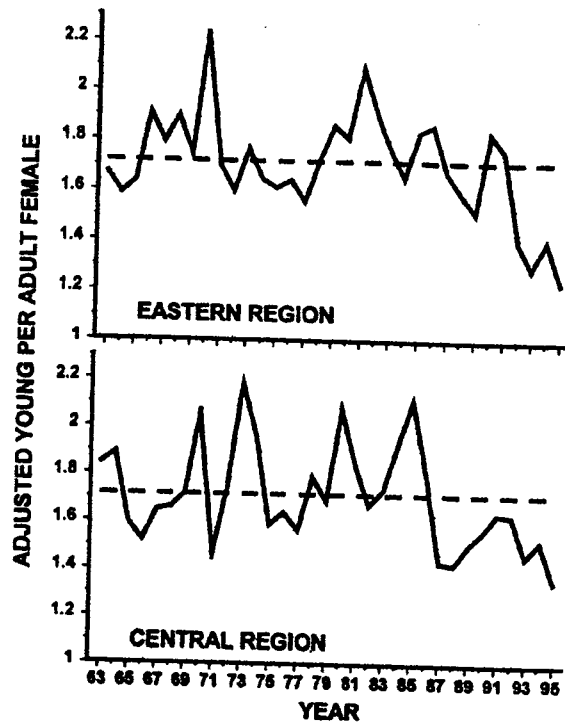


Fig. 1: Adjusted annual indices of recruitment, 1963-95. The dashed line is the 1963-94 average.

### Singing-ground Survey

The more territorial display of *S. minor* males (in contrast to *S. rusticola*) provides an index of the density of the breeding population.

Singing-ground Survey during 1986-96 also were negative (-3.2 and -3.7% per year for the Eastern and Central regions, respectively) ( $P < 0.01$ ). There were long-term (1968-96) declines ( $P < 0.01$ ) of 2.5% per year in the Eastern Region and 1.6% per year in the Central Region.

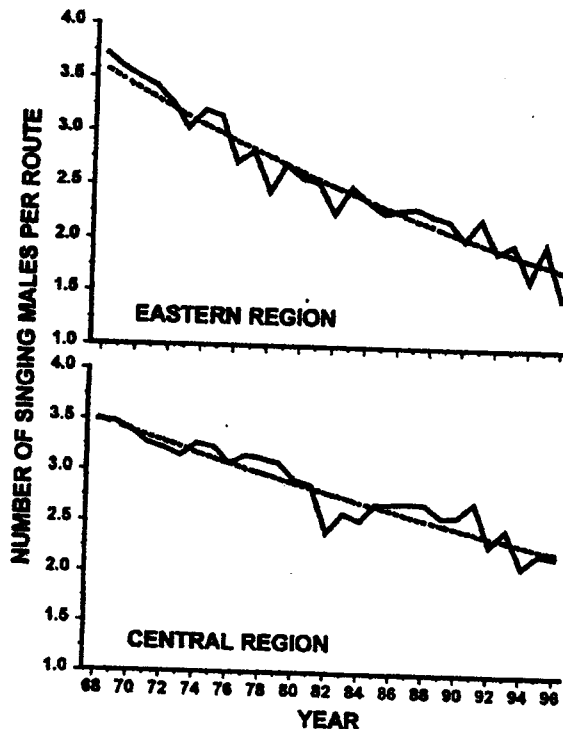


Fig. 2: Long-term trends and annual indices of the number of woodcock heard on the Singing-ground Survey, 1968 - 96.

Besides potentially affecting woodcock survival, adverse weather can result in shorter, less vigorous courtship periods or temporary cessation of courtship activities. Unfavourable weather in 1996 caused more survey cooperators than normal to delay surveying their routes until the last day of the allowable survey period. Both of these factors may have slightly reduced the observability of woodcock.

Although the decreases in breeding population indices between 1995 and 1996 may have resulted largely from short-term events, they continued the insidious declines in recent (1986-96) and long-term (1968-96) trends in the number of displaying woodcock. The major causes of these declines are thought to be degradation and loss of suitable habitat on both the breeding and wintering grounds, resulting from forest succession and various human uses. If current trends in land use practices persist, continued long-term population declines are likely.

### Hunting Success

Daily hunting success in 1995 in the Eastern Region was the same as during the 1994 season (1.2 woodcock per hunter), and seasonal hunting success was virtually unchanged (6.7 and 6.8 woodcock per hunter in 1994 and 1995, respectively). In the Central Region, the daily success index increased from 1.5 woodcock per hunter in 1994 to 1.6 woodcock per hunter in 1995 (7%), and the seasonal success index increased from 9.5 to 10.2 (7%) woodcock per hunter.

The general trends of the number of woodcock hunters as well as of woodcock harvest, however, exhibit the negative trends of the breeding populations in both management regions (Fig. 3).

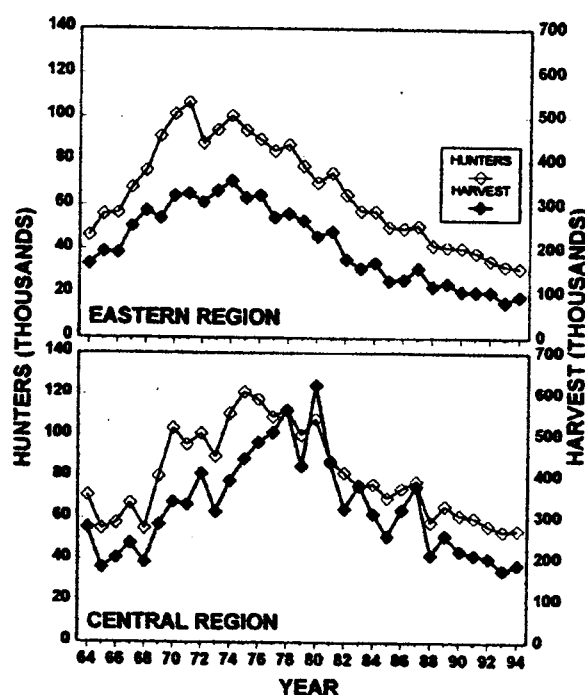


Fig. 3: U. S. harvest of American woodcock by duck stamp purchasers, and hunter numbers, 1964-94.

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## 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

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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.

Bel'skiy, P. (1959): Tyaga valdshnepa (The roding woodcock). Okhota i okhotnich'ye khozyaistvo (Hunting and hunting industry). No 4: 21 - 22.

A description of the roding behaviour of *Scolopax rusticola* in Russia, based on hunters' observations. The author is aware of the problem to conclude from the number of contacts to the number of woodcocks in the area, as the same bird may be seen or heard two or three times per evening.

HK

Gavrilenko, N. (1925): K voprosu o sushchestvovanii odnoi ili dvukh form valdshnepa (On the question of the existence of one or two forms of the woodcock). Priroda i okhota na Ukraine (Nature and Hunting in the Ukraine) No. 1 - 2: 174 - 176.

The author criticized the wide spread opinion of Ukrainian woodcock hunters there were two „races“ of woodcocks: a small one with darker plumage and bluish legs, and a larger one with lighter feathers and flesh-coloured legs. This opinion is also found in some German literature of the last century („BlaufüÙe and „Eulenköpf“). Larger series of study skins in scientific collections have in the meanwhile revealed this opinion to be untenable. There is just some individual variation on size and colouration within this species, or there are age-related differences.

HK



Borodulina, T. L., Formozov, A. N. (1967): O signalnykh pyatnakh opereniya ptits i osobennosti stroeniya rulevykh per'yev valdshnepa (On signal spots on bird feathers and peculiarities of the texture of woodcock retrices). Byull. Mosk. ova isp. prirody. Otd. biol. (Bulletin of Moscow Naturalist Soc. Dept. Biol.) Vol. LXXII (3): 27 - 31.

After introductory examples of some other birds species the authors describe their studies on the importance of signal spots on feathers of the woodcock.

"From this point of view, the bright-white end-stripe, surrounding the Woodcock's tail from the ventral side is very interesting. During most of the year, these signal spots are concealed, but during display on the ground they are very conspicuous even in twilight under dense forest cover.

During roding - the display flight of Woodcock - males are called down by the reply of the female and sit on the ground. "After that it starts strutting around the female, with lowered wings, the fan-like tail stretched and feathers on neck and head ruffled" (Kozlova, 1962, p. 276).

The visual impression of "luminescence" of the white stripe on the Woodcock's tail was checked by us objectively by means of photography. A simultaneous photo of a tail feather of the Little Egret (*Egretta garzetta*) and of the Woodcock revealed, that much more light got to the film from the white spot on the Woodcock's feather than from that of the Little Egret.

The specific "luminescence" of the Woodcock feathers is caused by small peculiarities of its texture (structure). Usually rami of feathers look like small plates, deviating from the stem and gradually becoming more narrow around the stem. In the Woodcock, vice versa, rami get considerably wider to the feather's tip and are widest in the central part of the white stripe, i.e. almost just in the top of the feather. There it is even several times wider than the rami of other birds; for example 4.5 times the width of the rami of the closely related Great Snipe. Besides that, rami on the white spot of Woodcock retrices are located not as usually, at right angles to the surface of feather fan, but inclinely, at an angle of 70-75°. By this special structure furrows between rami are covered, and so on the ventral side of the feather, unlike in other birds, sleek consisting and shining plates are formed.

Rami, descending from the stem at sharp angles, are inclined always to the side of the stem and the feather's top. Thus, on the one side of the tail fan, plates are put on from left to right and from the other side, vice versa, from right to left. As a result on the two sides of the fan two sleek reflecting surfaces are formed. Thus, the feather can reflect light from either direction.

On the top of each rectrix of the Woodcock there is a saddle-like notch. Seen from below, from the side of the white spot, the edges of the fan are raised slightly forming a concave surface. It could be thought, that the concave surface of the feather focuses the light from edges to the stem of the feather, and disperse the light along the stem. Thus, it should be imagined, that light is reflected fan-likely along the feather and at the top of each feather like a reflector.

Light reflection is improved by the fact, that radii (beams of the second order) covering the feather from the dorsal side, are of grey-brown colour. Thus, the white and sleek structure of the ventral side of the feather has a dark underground, resembling the principle of a mirror. As already mentioned this mirror is of concave shape.

Looking at the microscopical structure of just the rami of the white spot of the Woodcock's tail, we again find the typical peculiarities, undoubtedly for increasing light reflection. Rami generally are of foamy texture, but in contrast to those of other birds Woodcock rami contain separate cells with many air bubbles covered by the thinnest walls of ceratin. These cells are of various sizes - 8,4-25,2 microns - which are in the Woodcock arranged in two layers. Size and number of bubbles in the cells

vary greatly, and so does the depth of the layers. According to M. A. Peshkov the small plates of rami with numerous bubbles, located in different depth, resemble the best cinema screens (the pearl screen), that reflects the light in certain directions.

Thus, the specific "luminescence" of the white stripe on the Woodcock's tail in twilight is caused by peculiarities of the macro- and micro-texture of its retrices. The white stripe on the top of the tail is a system of concave-salient mirrors, collecting and focusing the light like a system of reflectors, each of them working into a certain direction like a pearl screen.

Thus, as in other species of the *Scolopacinae* (*Gallinago gallinago*, *G. stenura*, *G. megala*, *G. solitari* and others) the specific structure of the retrices is again of great importance in the courtship display in the peculiar species“.

Literature cited: Kozlova, Ye. V. (1962): Rzhankoobraznye. Fauna SSRR. Ptitsy [Chardriiformes. Fauna of the USSR. Birds]. Vol.II. Issue 1. Part 3. M.-L. Publ. House of the USSR Ac. of Sc. In Russ.

Borodin, O.V. (1994): Konspekt fauny ptits Ul'yanovskoi oblasti. Spravochnik [Conspectus of bird fauna of the Ul'yanovsk Region. Manual]. Ul'yanovsk. 94 p.

**(92) Jack Snipe (*Lymnocyptes minimus*)**

According to the data of M. N. Bogdanov (1871) the Jack Snipe was sighted in the Simbirsk Province only on passage, outside the southern borders of Ul'yanovsk Region it was not breeding. B. M. Zhitkov and S. A. Buturlin (1906) pointed out, that these birds in autumn are very numerous in the Volga and Sviyaga Rivers valleys. In the flood-beds of Sura and Alatyry' Rivers they sighted Jack Snipes seldom in summer, and on 25 July (1903) on the Sura a young wader was bagged, which just began to fly. At present, the status of the species needs to be clarified, because some rare cases of nesting in the north-western part of the region may not be excluded. Probably a sparse passage species (V. P. Kochetkov considers this wader as common), dwelling on grassy and sphagnum swamps on the passage silty shores and swamps. Very concealed.

**(93) Common Snipe (*Gallinago gallinago*)**

Quite common breeding species, and also common during migration. A nest without clutch was discovered on 15 May 1990 in the Surskiy Zoological Game Reserve and one with a full clutch on 9 May 1993 near the Lebyazh'ye settlement of the Melekesskiy district (pers. comm. D. Karatsuba). Habitat: Swamps, wet meadows, banks of water bodies.

**(94) Great Snipe (*Gallinago media*)**

There are no recent data on breeding in our territory. Unnumerous passage species, probably also breeding. Numbers are subject to considerable fluctuations, which are probably not only caused by anthropogenous factors, but rather by climatic changes. Data of B. M. Zhitkov and S. A. Buturlin (1906) suggest, that at the end of the 1880ies Great Snipes nested everywhere in huge numbers. Hunters took up to 1000 Great Snipes per gun. In the vicinity of the Promzino village (Surskoe) S. A. Buturlin (1922) flushed about 40 birds per day while nowadays in the same places it was sighted by S. N. Spiridonov only once, on 16 July 1987. During draughts numbers usually dropped abruptly. At the beginning of the 1900ies, after severe draughts, the species became really rare. According to S. A. Buturlin (1902) this explained why even during prolonged hunts it was not always possible to bag 2 - 3 Great Snipes per year. I. B. Volchanetskiy (1924) stated that Great Snipes became extra-

ordinarily rare. M. A. Dobrokhotov and Ye. P. Knorre (1941) however recorded, that flood-beds of the rivers of Pravoberezh'ya (the area right of the Volga River), especially of the Sura and Sviyaga rivers are comparatively rich with Great Snipes. The climatically caused decrease in numbers was aggravated by melioration of flood-lands during the second half of the 20th century. Habitat: Grassy and hummocky swamps in flooded areas.

(95) **Woodcock** (*Scolopax rusticola*)

Common breeding and passage species. Once a woodcock was sighted in winter, on 11 December 1986 at the warm stream, flowing from the territory of the Institute of Nuclear Reactors into the Chermshanskiy Gulf in the vicinity of the Dimitrovgrad town (pers. comm. by D. Yu. Karatsuba). Recent data of nests or chicks are missing. Habitat: Forests.

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**Jack Snipe** (*Lymnocyptes minimus*)

Rare migrant through Mordovia. The nearest nesting places are situated in the northern part of the Gorkiy Region (A. N. Formozov, 1935). However, V. M. Artobolevskiy (1923-1924) based on sightings of Jack Snipes near the Bessonovka village (Penza Region) in June considered it as breeding in considerable numbers in the south of this area.

We as well as Ye. S. Ptushenko (1938), did not observe Jack Snipes in Mordovia; it is certainly not numerous nowadays.

Jack Snipes may be seen in the same habitats as Common Snipes, mainly from mid-April till mid-May in spring, and in September-October in autumn. Some earlier observations are recorded: On 13. VII. 1900 one Jack Snipe was bagged in the Alatyr River valley on a *Carex spp.* swamp near the Anyutino village in our Ardatovskiy district (B. M. Zhitkov and S. A. Buturlin, 1906); another exemplar was bagged on 26. VII. 1900 at the Barysh River (Sura tributary) for the collection of the Moscow University.

### **Common Snipe (*Gallinago gallinago*)**

Very common nesting species of the Mordovian ASSR. Common Snipes arrive in our region very early. With the first signs of open water, usually in the beginning of April, the typical display is observed. Display flights are conducted all over the nesting period, with lesser intensity in May and June.

Common Snipes are nesting in tussocky, covered by *Carex spp* swamps and little marshes, located on open flooded areas of large rivers, or along the banks of streams or in the forest. Common Snipes do not avoid man and breed even in the surroundings of human settlements. So, these birds are common in the suburbs of Saransk town, in the flooded areas of the Levzha, Penzyatka and other small streams. Quite often the first clutch is lost and then repeated. Therefore the nesting period lasts from the end of April till the end of June.

A nest of the Common Snipe, discovered in the Sura river floods on 27. 05. 1969, was situated in a pit near a tussock, on a dry elevation amid a swamp. The nest was lined with dry grass. The cup was 11,0 cm wide and 3 cm deep, and contained 4 incubated eggs, measuring 40,2 x 24,2 (40 - 41 x 24 - 25) mm.

Recently we could not observe colonial nesting reported by B. M. Zhitkov and S. A. Buturlin (1906).

After hatching their chicks in July-August, Common Snipes concentrate near flooded swamps and lakes. Similar to other *Scolopacinae* (Woodcock, Great Snipe, Jack Snipe), Common Snipes skilfully camouflage in the vegetation, and take off, suddenly, sometimes just near the foot of man. The flight is very fast and zigzag-like. Hunting Common Snipes is very interesting and sporting. However, without a gun dog this hunt is little effective.

Numbers as well as staging periods of local Common Snipes in Mordovia are subject to fluctuations depending on habitat conditions in each year. In wet years, when swamps are flooded, the numbers are higher than in dry years. As a whole, the overall trend is thought to be declining, which was registered already at the end of XIX century by B. M. Zhitkov (1900).

B. M. Zhitkov and S. A. Buturlin (1906) have determined several (from 2 to 6) "dead" days, between departure of local birds and the arrival of northern migrants. During this period between 18 and 28 August these birds are absent at all. Migration of northern Common Snipes lasts till October, often till snow fall. In our collection there is one exemplar which was bagged even on 13. XII. 1966.

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

Recently the Great Snipe, compared with the Common Snipe is a rare bird in Mordovia. However, in the last century the Great Snipe was here very widely distributed. In spring 1879 "20 Great Snipes was common per one gun" near Krasnoslobodsk (unknown correspondent in the journal "Priroda i okhota [Nature and Hunting]", vol. 1, January, 1880). At the end of 1980ies Great Snipes nested in a "huge number" in the dense forests and distant swamps in the Cis-Sur' River and Cis-Alatyr River areas (B. M. Zhitkov, S. A. Buturlin, 1906). Swamps extending along the line Atyashevo-Chamzin-

ka-Maresevo-Saransk were especially famous for Great Snipes. However, after draughts in 1890 and 1891 these authors described an abruptly changing situation. Shrubs in flooded areas, inaccessible earlier, were cut off, and by this activity the temporary consequences of the draughts were sealed. The former wet areas were transferred into arable lands or into pastures. And as a result "Great Snipes from valleys of Sura and Alatyр Rivers and its tributaries disappeared almost at all".

This situation was followed up at the beginning of the 20th century. The decline of the Great Snipe was a wide-spread phenomenon. It was recorded in Byelorussia, Germany etc. (A. N. Gladkov, 1951).

The Great Snipe arrives in spring quite late, usually in the last decade of April. After arrival Great Snipes start lekking, during which males fight, similar like those of the Ruff. We could not observe Great Snipe leks. We have met 2 birds on the flooded swamps in Sabaevo on 18. V. 1968, that may indirectly be taken as an evidence for breeding. Great Snipes nested in the Mordovian Nature Reserve (Ye. S. Ptushenko, 1938), but they were observed considerably rarer than the Common Snipe. However, on certain places, for example on the banks of the Pushta River, both species occurred in equal numbers.

We met single Great Snipes at the end of August and beginning of September in floods of the Sura, Alatyр and Lasha Rivers (Dubenskiy district). It can not be excluded, that these birds were northern specimens, that start migrating around 20. VIII.

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

Breeding bird of Mordovia. This large wader is a favourite subject of many hunters and well known because of its conspicuous roding flights. Woodcocks fly over coniferous as well as over deciduous forests. In forests along the Sura, Moksha, Alatyр Rivers roding was more pronounced than in the insular woods of interstream areas. But even in deciduous forests of the suburbs of Saransk Woodcock roding is commonly observed.

Roding is most obvious in spring, when there is still snow in the forests. Woodcocks arrive in Mordovia at the beginning of April and start roding around 10. IV. They are most active between 15 and 30 April. The intensity of roding in the evening depends on place and weather conditions (best are warm, quiet evenings). Tab. 1 represents the variations of roding intensity reported by hunters of different regions of Mordovia over many years. The questionnaires were distributed and later collected by the hunters' service of the Oka State Nature Reserve.

Location	Number	Reference
Kemlyanskoe forestry-Ichalkovski district	9,8 - 17,5	N. Ya. Peskov
Kovylkino, Zamokshan-skaya summer house	3,8 - 4,2	N. V. Lebedev
Bochino village, Temnikovskiy district, "Barki"	11,4 - 20,0	F. G. Chikin
Kochemirovskoe forestry, Ten 'gushevkiy district	1,8 - 2,0	V. V. Boikov
Permisi village, Bolsheberezchnikovski district	4,6 - 12,0	P. S. Il'kaev

Table 1: Average number of contacts (observations of roding woodcocks) during two hours per evening in April of 1960-1963 in various regions of the Mordovian ASSR

In May, June and even at the beginning of July only Woodcocks breeding in Mordovia are roding. By far not all Woodcocks roding in spring are breeding here. Otherwise it's difficult to explain, why the birds so common in April almost completely disappear from the field in the summer months. Du-

ring 8 years of field investigations in different forestries of Mordovia we sighted Woodcock in summer only 3 times. Probably in all the Primorskiy Territory "only small part of huge passage flocks of Woodcocks stay... on summer"(F. F. Fedorovich, 1915).

However, there are doubtless records of Woodcock breeding in Mordovia. B. M. Zhitkov and S. A. Buturlin (1906) discovered a Woodcock nest with 2 eggs in a coniferous forest. Date and exact nest location are not mentioned. The same authors observed non-flying chicks in the middle of July in Prisur'ye (Cis-Sura River area). In a deciduous forest near Saransk 4 downy chicks were found on 17. V. 1970.

Ye. S. Ptushenko (1938) recorded Woodcocks in small numbers during the nesting period in the territory of the Mordovian nature Reserve. Besides that we were informed about a single case of Woodcock breeding in the Simkinskoe forestry, in Prisur'ye (1965).

A most reliable record on Woodcock nesting was received by us from the upper parts of the Sura River (Penza Region, Sosnovoborskiy district). The nest was discovered on 26. V. 1969 in a mixed forest (aspen, birch, pine). It was located on the ground, amid dry grass of the previous year, in a pit, 30 cm from a pine's trunk. Width of cup was 14 cm, depth 5 cm. The nest contained 4 incubated eggs. On 27. V. 3 chicks have been in the nest, the fourth egg was punctured.

On 28. V. the nest was empty. From literature it is known, that female Woodcocks carry hatched chicks away from the nest.

Autumn migration of Woodcocks is less obvious than in spring. It starts at the end of August and is most pronounced in September. Separate birds may be observed till the first snow.

According to the data of I. M. Sapetina (1965) more than 5000 Woodcocks per year are shot in the Mordovian ASSR. Approximately the same number is bagged in Austria. 70% of the birds are bagged during roding in spring (in years, when spring hunting is permitted).

## Bibliography

Burlando, B., A. Arillo & S. Spano (1997): Amplificazione del DNA con primer arbitrari (RAPD) per la caratterizzazione genetica delle popolazioni di Beccaccia (*Scolopax rusticola*). Suppl. Ric. Biol. Selvaggina XXVII: 941-949. Italian, English summary.

An attempt to investigate genetic variation among different populations of the European Woodcock by using random amplification of polymorphic DNA (RAPD). First results are encouraging to identify the origin of woodcocks bagged on migration or in the winter quarters.

H.K.

Devort, M. (1995): Contribution a l'étude des migrations et de la biologie des becassines. Saisons 1992/93 et 1993/94. Rapport du Club International des Chasseurs de Becassines (C.I.C.B.) Paris, 28 pp. In French and English.

This report concerns an analysis of a total of more than 7.500 wings of several *Gallinago* species (mainly *G. gallinago*) and *Lymnocyptes minimus* submitted by a network of hunters along the flyways during the hunting seasons of 1992/93 and 1993/94. This study, conducted since 1986, is a typical example how hunters may contribute to research. The large number of submitted wings provided insight into age-related migration patterns, reproductive success or moult sequences that could not have been obtained in these secretively living species by other methodology.

H.K.

Haase, P. & T. Ryslavy (1997): Aktuelle Beobachtungen balzender Doppelschnepfen (*Gallinago media*) und Zwergschnepfen (*Lymnocyptes minimus*) in Brandenburg. Vogelwelt 118: 71 - 77 (German, English summary).

During special surveys in spring 1995 and 1996, displaying Great snipes and Jack snipes were recorded in seven different river lowlands and wet meadow areas in Brandenburg, eastern Germany. In April - May, up to six male Great snipes displayed together at dusk on short-term leks in wet meadows, especially in the Havel river lowlands. Only single displaying Jack snipes were recorded in three years. In both species display activity was low and limited to approximately a 40 min. period at dusk. There is no evidence of breeding; more likely the birds observed are staging spring migrants exhibiting territorial and courtship behaviour as other wader species breeding in northern habitats. The authors suggest to survey other potential habitats of this region for these inconspicuous and easily overlooked species.

H.K.

Harradine, Y. (1996): Wings in Waterfowl Research and Management. Proc. Second Meeting IWRB Hunting Research (Wing Studies) Group. Saarbrücken, April 9 - 10, 1992. Publ. by Wetlands International. 49 pp.

Because of the importance of wing sampling for the research on woodcocks and snipes this meeting was held following the Fourth Woodcock and Snipe Workshop in Saarbrücken. Most of the papers concern wing sampling of waterfowl (mainly ducks), one is on snipes and one on the Song thrush (*Turdus philomelos*). General aspects on the methodology, as well as of the future organisation of wing sampling are discussed.

H.K.

Olivier, G.-N. & M. Devort (1996): La Becassine des Marais (*Gallinago gallinago*): Etude de Cas. Proc. Symp. „From Research to Action Plans“, Bologna, Italy, 15 - 17 March 1996, p. 165 - 176. French, abstracts in English and Italian.

More than 20.000 wings and tails of snipes (*Gallinago spec.*, *Lymnocyptes*) submitted by a network of hunters all over the western palearctic from 1986/87 to 1994/95 had been analyzed for age, sex and status of moulting. The data revealed interesting aspects on reproductive success from year to year, age-related migration patterns and moult sequences. There is some evidence of a correlation between suspended moult and breeding success in adult females, which might provide an additional index for the productivity of a population.

H.K.

Racinskis, E. (1996): Ziemeļosas vistilbes *Lymnocyptes minimus* noveroņums. Putni daba 6.2: 21 - 23. (Latvian, English summary).

An observation of a wintering Jack snipe in Latvia. It was found on 23 February, 1996 at an ice-free stream near a hydropower station at Riga. There are only very few records of this species in winter in the past.

H.K.

Spano, S. (1997): Stato della conoscenza sulla biologia della Beccaccia (*Scolopax rusticola*) nell'ottica di una corretta gestione della specie. Suppl. Ric. Biol. Selvaggina XXVII: 909 - 922. Italian, brief English summary.

A summary of the most recent knowledge on reproductive biology, migration, population dynamics and habitat preferences of the woodcock and an attempt to use certain parameters for management strategies. The paper also includes some data on radio activity before and after the Chernobyl nuclear accident.

H.K.

Thomaides, C., G. Logothetis, G. Chistoforidon & T. Karabatzakis (1996): Characteristics of game harvest in Greece. Proc. Symp. „From Research to Action Plans“, Bologna, Italy, 15 - 17 March 1996, p. 25 - 36.

Questionnaires submitted by hunters all over Greece provided an overview about preferences in different species of big and small game, success rates, bag data and seasonal distribution of the harvest. After hares (*Lepus europaeus*) and thrushes (*Turdidae*, all species combined), woodcocks (*Scolopax rusticola*) ranked third in the interest of Greek hunters (19% of all outings). On average 2.76 woodcocks per outing (1.04 per hour) had been flushed and 1.34 (0.44) were bagged; thus the success rate was 43.8%. Woodcocks were bagged from mid-September through the first decade of February, most of them in the winter months. Bags per hunter per outing varied from zero to ten, but rarely more than four were taken.

H.K.

Winter, R. (1996): Beobachtungen der Waldschneepfe (*Scolopax rusticola*) im Raum „Fahner Höhe“ in Thüringen. Abh. Ber. Mus. Nat. Gotha 19: 148 - 151. In German.

Observations on migration and breeding of the woodcock in a woodland in Thuringia (a province in eastern Germany). Faeces on the ground indicated the arrival of the birds in spring. Occasionally, woodcocks seem to perch in trees (or even spend the night there), as some faeces on low branches and leaves indicated. The paper includes tips for taking photographs of this secretively living species.

H.K.