International Waterfowl and Wetland Research Bureau

WOODCOCK AND SNIPE RESEARCH GROUP

Newsletter No 17 December 1991

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EDITORIAL

This Newsletter number seventeen of the Woodcock and Snipe Research Group (WSRG) shall inform about research going on and on schedule, preliminary results, short notes and literature of interest.

Research

Fortunately the studies conducted by Graham Hirons in the frame of the International Woodcock Project are carried on in the two British study areas (Cornwell and Whitwell Wood) by Andrew Hoodless from The Game Conservancy, U.K. In Whitwell Wood he is effectively assisted by John Ellis in nest searching and ringing.
As obvious from this issue the French colleagues have again increased their activities in several fields of woodcock research. Their efforts have led to an unprecendented number of woodcock ringed during the season 1990/91. Due to the relatively high rate of recoveries these activities may provide statistically valid numbers of data, not only on migration, but also on population dynamics and the impact of hunting. Furtheron, members of the Office National de la Chasse, France, have again extended their activities into the main breeding areas of the European Woodcock. Considerable numbers were ringed in Sweden (see page 29) and Russia in fall 1991.
Thanks to the political change between east and west we could intensify our contacts to colleagues working in Russia. As indicated on page 26 there are considerable research activities in several parts of Russia, mainly due to the interest in hunting roding birds in spring. Several colleagues from Eastern Europe have shown their interest in joining our meeting in April 1992 (see below).
Woodcock wing sampling is carried on in several European Countries, mainly Britain, Denmark, France and Italy. These studies are coordinated and evaluated by John Harradine (B.A.S.C., Marford Mill, UK), coordinator of the Duck Wing research Group of IWRB. Wings of the Common Snipe have been collected in Denmark and France since some years, and this issue presents the conclusions from the wing survey of the International Club of Snipe Hunters, Paris (page 23).
Generally, more attention will be paid to the three snipe species in the future. Apart from relevant activities in Italy and France a joint project of The Game Conservancy and WSRG will be conducted in Britain by Andrew Hoodless, and generously sponsored by Harry Wells. One of the main goal of this study is to demonstrate the true status of the three snipe species as indicators of intact wetlands. In a first step all available research and information will be collected and analyzed.

Meetings

From April 7-9, 1992, the Fourth Woodcock and Snipe Workshop - a joint meeting of IWRB and CIC will be hosted by the European Wildlife Research Institute (EWI) of Saarland University. Due to the high number of applications for participation we can not hold it at EWI Black Forest, but have to rent a larger conference room near EWI Saarbrücken. Simultaneous interpretation in English, French and German will be provided, sponsored by the Working Group of Migratory Birds in the Western Palearctic within CIC.
Immediately after this workshop the IWRB Wing Research Group (coordinated by Dr. J. Harradine) will meet on April 10 at the same place. Most participants are obviously interested in joining both meetings.

Personalia

Andrew Hoodless (AH) from The Game Consevancy is acting as assistent coordinator for the U.K. in WSRG. I further wanted to be assisted by a French expert, and Dr. Yves Ferrand (YF) from the Office National de la Chasse agreed with his nomination. I am very grateful to both colleagues for their contributions to this Newsletter.

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NATIONAL NOTES

AUSTRIA

Some observations on Woodcock migration in Austria and Western Hungary, 1990.

Philipp Meran

Spring migration: After a rather mild winter with hardly any snow in the lowlands first woodcocks arrived as early as 2. March in Hungary (Drau-valley) and 5. March in Austria (Burgenland). Real migration startet with first batches from March 11 to 15. Due to the drought conditions the birds didn't stay long, but tended towards their northerly breeding areas after 2 to 3 days. During their stay they crowded at some few moist spots, especially in Western Hungary, many of them in poor body condition.

Due to very little snow cover even in mountaineous regions record numbers of migrating woodcocks were observed in the Alpes of Upper Austria, all through the second half of March 1990 (St. Georgen, Nussdorf).

After 1. April only few observations have been documented in mountaineous forests of Northern Hungary.

The following birds bagged during evening flights in spring 1990 were analyzed:

Date	Location	Sex	Age	Weight(gr.)	Bill length (mm)
Austria					
14. 3.	Klingenbach	♂	juv	275	71
14. 3.	Klingenbach	♂	ad	295	76
Hungary					
19. 3.	Balatonfenyves	♂	juv	290	70
20. 3.	Ujvarfalva	♀	ad	270	70
20. 3.	Ujvarfalva	♂	ad	276	69
26. 3.	Ujvarfalva	♂	juv	280	72
26. 3.	Ujvarfalva	♂	juv	342	78
27. 3.	Balatonfenyves	♀	ad	332	73
27. 3.	Ujvarfalva	♂	ad	328	68
29. 3.	Balatonkeresztur	♂	juv	310	67
30. 3.	Balatonkeresztur	♀	ad	400	70

Fall migration: Woodcock arrived unusually early in the mountaineous regions of Austria, even before 10 October, and didn't stay for long. Early frosts, full moon, north wind and clear skys obviously supported migration. It peaked between 18 and 23 October, at higher altitudes (Eastern Steiermark) the first week of November, and was over by 10 November. Highest numbers observed during one evening were 7 on 11 October (Rosenkogel) and 9 on 23 October (Gasselsdorf).
Very few woodcock were observed during mild periods in December.

The following birds were bagged in Austria during evening flights over meadows and fields near woodlands in fall 1990:

Date	Location	Sex	Age	Weight (gr.)	Bill length (mm)
11.10.	Rosenkogel	♂	juv	314	73
11.10.	Rosenkogel	♀	ad	334	70
11.10.	Rosenkogel	♂	juv	308	71
16.10.	Rosenkogel	♂	ad	325	76
18.10.	Gasselsdorf	♂	juv	293	63
18.10.	Gasselsdorf	♀	juv	331	75
23.10.	Gasselsdorf	♂	juv	313	71
24.10.	Rosenkogel	♀	ad	331	73
1.11.	Rosenkogel	♂	ad	310	68
5.11.	Gasselsdorf	♀	juv	384	62

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FINLAND

Observations on Woodcock, Common Snipe and Jack Snipe in eastern Finnish Lapland

Erkki Pulliainen & Lennart Saari

Studies on the breeding bird fauna have been conducted since 1968 at the Värriö Subarctic Research Station (67°44' N, 29°37' E). The study area and the study methods have been described e.g. by Pulliainen & Peiponen (1981) and Pulliainen & Saari (1989). The main study area consist of the Värriötunturi fjell terrain and its surroundings. The fjell has an alpine zone (almost treeless summit), and a subalpine zone (a typical mountain birch forest), which is bounded by a coniferous forest zone (pine, spruce and mixed forest, swamps, rather deep ravines, brook valleys etc.). Most of the study area lies above 300 m a.s.l. and the swamps are usually small, comprising 13.5 % of the main study area. Less systematic studies have also been made outside the main area. The density estimates are based upon 943 km line-transect censuses carried out in 17 different habitats (both virgin and managed) in eastern Lapland in 1985-87 (Pulliainen & Hildén, unpublished). (Pulliainen 1980) Additional data were collected at the reservoir of Lokka in 1972-74, mostly around the village of Mutenia (68°02' N, 27°25' E). In this report we summarize the data collected by the Värriö Subarctic Research Station up to 1990 on the Woodcock Scolopax rusticola, Common Snipe Gallinago gallinago and Jack Snipe Lymnocryptes minimus and compare these with those found in the literature.

Result and Discussion

Woodcock

Only three woodcocks have been recorded near the Research Station (27 July 1970, 14 June 1971 roding, 11 June 1981), and one in the line-transect censuses in 1985. North of our study area it has been recorded near Kilpisjärvi on 21 June 1975, 8 June 1977 (2 exx.), 3 July 1978 and in 1979 or 1980 (Jokimäki & Punnonen 1985), at Utsjoki on 19 September 1971 and 16 June 1975, and at Inari from 25 to 30 April 1982 (Iso-Iivari 1986). Woodcocks breed regularly in the southwesternmost corner of Lapland (see Hyytiä et al. 1983). In the area around Kemi and Tornio Rauhala (1980) estimated a population of 150 'pairs'. According to Jokimäki & Punnonen (1985) woodcocks have been recorded at Pello and Rovaniemi regularly since 1977. The most recent data indicate a slight expansion of the breeding range although the northern limit of the range has not changed much since the 1950s (compare distribution maps in Merikallio 1958 and Hyytiä

et al. 1983). The records from the northwesternmost Finland (Kilpisjärvi) most probably relate to the Norwegian population (see map by Cramp & Simmons 1983), those from Utsjoki and Inari may be of Finnish or Norwegian origin.

Jack Snipe

Owing to its secretive habits the Jack Snipe is difficult to observe and its distribution in Finland is less well documented than for many other species. Von Haartman et al. (1963-72) listed several summer expeditions to Lapland where Jack Snipes were either not recorded at all or seen only in very small numbers, although some studies in the 1960s resulted in more birds than previously. Merikallio (1958) reported an overall density of 0.1 pairs/ sq. km in Forest Lapland, but his line-transects were concentrated to areas where the swamps were much more numerous than in our study area. According to the Finnish Bird Atlas (Hyytiä et al. 1983) Jack Snipes seem to be absent in the surroundings of Värriötunturi, which according to our data is not the case. Between the Värriötunturi fjell and Lake Ainijärvi it was recorded in five years between 1969-74 (a total of 12 displaying birds). On extensive excursions between the Värriötunturi and Saariselkä fjells in late June - early August 1971 displaying birds were recorded at two sites near the River Kemijoki (one of these was found on the study plots on flark fens totalling 84 ha, Saari 1973). In 1974 and 1980 a total of three displaying birds were recorded at two additional sites near the River Kemijoki. All these records combined amount to 12 different territories, probably not occupied each year, but increased study efforts probably will reveal additional sites. However, in the extensive line-transects in eastern Lapland in 1985-87, no Jack Snipes were observed on the main belt (±25 m from the observer) on the 943 km surveyed in different habitats in the area, so the density is probably very low. Outside the main belt, records were made in 10 of the 17 habitats studied, but the density thus calculated was only once 0.1 pairs/sq. km, in the rest less than 0.05 pairs/sq. km. These were presumably displaying birds heard at a distance and could not necessarily be assigned to the habitat censused. In the area around Värriötunturi the average density is thus well below 0.05 pairs/sq. km, perhaps about 2-3 pairs per bird atlas square (10 x 10 km), a figure that is quite consistent with the records made on the field excursions. In lowland areas with many bogs the density is probably somewhat higher. Additional line-transects were censused in 1990 and on two bogs near the River Kemijoki 3 + 1 Jack Snipes were recorded. No Jack Snipe nests have been found near the Värriötunturi fjell. The earliest Jack Snipe was recorded on 23 May 1971 and displaying birds have been recorded up to 3 July.

Around the Lokka reservoir the Jack Snipe was much more abundant. In 1972 one nest was found but details are lacking. In 1973 it was recorded displaying almost daily at Mutenia between 2 June and 10 July (max. daily count 5 displaying birds), and in 1974

one nest was found on 17 June (2 eggs) on a fairly dry bog growing Betula nana. In 1973-74 the total number of displaying birds recorded was about 10 annually, but Jack Snipes were not especially sought for. Jack Snipes were observed displaying at any time of the day above the small village of Mutenia and the nearby swamp and above the rafts of floating peat at the reservoir. The density appeared manyfold to the Värriötunturi area, but as the study was concentrated at the reservoir itself and its immediate surroundings the abundance is somewhat exaggerated. On the swamp north of Mutenia the density was most probably well above 1 pair / sq. km, although no exact censuses were carried out. The building of the reservoir of Lokka has apparently caused a considerable loss of breeding habitat of Jack Snipes, as some of the highest numbers of Jack Snipes recorded have been made in that area before the building (see von Haartman et al. 1963-72).

Common Snipe

Of the species treated in this report the Common Snipe is clearly the most abundant. As the habitats around the Värriötunturi fjell are not optimal for this species it is not very numerous, however. In the line-transect studies in 1985-87 Common Snipes were recorded on the main belt only on fens (1.5 pairs / sq. km), in seedling stands 50 yrs old (0.3) and in mixed birch-juniper forest (0.4). Including the data from the supplementary belt Common Snipes were recorded in all the 17 habitats studied with a density range of 0.1 - 1.9 pairs / sq. km, and a mean of 0.55. Since these transects have not necessarily been performed in proportion to the habitats in our study area, this figure is still somewhat tentative. However, we believe it to be of correct magnitude. This would mean an average density of 55 pairs / atlas square, some 20-fold to that of the Jack Snipe which seems reasonable. The Common Snipe is also able to occupy small patches of peatland within forests, which is an advantage in the Värriötunturi area. In an area north of Värriötunturi the density of the Common Snipe was 0.5 pairs / sq. km on 431 ha censused (the proportion forest: peatland: fjell = 7:2:1, Saari 1973) and thus in close agreement with the line-transect studies. Merikallio (1958) reported an overall density of 0.4 pairs / sq. km in Forest-Lapland. According to Väisänen (1983) Common Snipes have increased in northern Finland during the past 40 years; the population indices were as follows: 1941-49 32, 1952-63 71 and 1973-77 100, based upon 470 pairs recorded in the line-transects.

At the reservoir of Lokka the densities seemed higher, but the difference was not as pronounced as in the Jack Snipe. In 1973 all the birds encountered were counted daily between 30 May and 11 July (Table 1). A total of 67 Jack Snipes and 223 Common Snipes were recorded, the ratio thus being 1:3.3. In 1973 the highest daily total at Lokka was c. 20 (7 July) and in 1974 c. 40 (4 June).Of the 15 species of waders recorded at Lokka in 1973 Common Snipe was the third most abundant (or actually visible) and Jack Snipes the

tenth. The wader community was greatly dominated by Ruffs Philomachus pugnax, owing to a big lek at Mutenia.

Common Snipes arrive at Värriö around mid-May, the mean date of first arrival was 16 May. To southwesternmost Finland it arrives about 1.5 months earlier (Table 2). The table gives a fairly good idea about the arrival to different parts of Finland. Most of these areas have been recently well studied by ornithologists, but in some of the areas mentioned by von Haartman et al. (1963-72) the data were collected by few observers and are thus less reliable (compare Raahe with Kokkola and Oulu; Joensuu with Lieksa; and Kuopio with Pieksämäki). Even the data from Helsinki were collected mainly in the 1950s when the number of birdwatchers was much smaller than nowadays.

Kemi-Tornio lies c. 600 km north of Turku and the Common Snipe arrives there 27 days later, an average speed of 4.5 days / 100 km. Värriö lies c. 200 km further north of Kemi-Tornio (and c. 200 km east). To travel this distance c. 10 days / 100 km are needed. The Snipes arrive earlier to the western coast of Finland than at the same latitude inland (cf. arrival dates for Pori-Tampere-Lahti & Heinola, Vaasa-Kuopio-Joensuu; and Raahe-Kajaani) and this probably somewhat influences the results, but on the other hand Muonio and Värriö are approximately as far north and the arrival dates are almost the same.

In the files of Värriö Subarctic Research Station there are 12 nest records of Common Snipe (nine around Värriötunturi, three at Lokka). The nest were found between 31 May and 11 July (mean 16 June ± 14 days). The hatching dates were 19 June 1973, between 19 and 23 June 1977, between 18 and 21 June 1978 and 15 June 1984. One clutch found in the laying stage was commenced on 31 May 1977. These dates indicate a commencement of laying approximately between 23 and 31 May, mean 28 May. Two nests were probably repeat layings: c/4 found on 11 July 1977 and 1984, respectively. The c/1 found on 18 June 1974 may have been a repeat clutch in the laying stage.

Two of the nest were completely destroyed: in one nest all the eggs disappeared, and in another two eggs disappeared, one egg was pecked and one intact. In two nests there was partial losses: in one of these three fully developed chicks died at hatching, and in the other two dead chicks were found beside the nest. Both these clutches hatched during an extremely cold and snowy period in June 1977 (see Pulliainen 1978). Calculated according to the Mayfield (1975) method the daily survival rate of nests was 0.973 (2 nests lost in 75 days), which with an incubation period of 20 days corresponds to a 58 % survival of nests. Perttunen (1980) recorded an almost idential daily survival rate for whole Finland (0.971; 23 nests lost in 803 days).

All the completed clutches in our study contained 4 eggs (n=5). Most of the nests (n=9) were found on bogs or fens, often close to the forest edge. Three nests were found next to brooks: in spruce forest, in Salix-shrubbery and on a meadow. Usually the nests were found more or less openly on tussocks, twice , however, they were concealed by a Salix-shrub.

Conclusions

Of the species studied Common Snipe is the most numerous one with a mean density of about 0.5 pairs / sq. km. It may breed even on small patches of peatland and it is not much restricted by habitat availability, although the density seem to be higher near Lokka than at Värriö. The breeding success in Lapland seems similar to that of whole Finland. Jack Snipes are concentrated to wet peatlands and are thus much more common near Lokka than at Värriö. Woodcock is an accidental species at Värriö but it may be slowly expanding in northern Finland. No Great Snipes Gallinago media have been recorded in our study areas.

Table 1. The proportion of different species of Waders recorded at Lokka in 1973. The number of individuals is the sum of the daily totals recorded between 30 May and 11 July.

Species	Exx.	%
Philomachus pugnax	2255	57.5
Tringa glareola	609	15.7
Gallinago gallinago	223	5.7
Phalaropus lobatus	140	3.6
Tringa erythropus	135	3.4
Numenius phaeopus	128	3.3
Pluvialis apricaria	101	2.6
Tringa nebularia	97	2.5
Actitis hypoleucos	85	2.2
Lymnocryptes minimus	67	1.7
Limicola falcinellus	33	0.8
Calidris temminckii	23	0.6
Charadrius hiaticula	23	0.6
Vanellus vanellus	1	0.0
Numenius arquata	1	0.0
Total	3921	100.0

Table 2 .Dates of first arrivals of Common Snipe to different parts of Finland.

Area	First	Mean	Latest	Years	Reference
Turku	24.3	- 30.3	- 9.4	22	Laine 1989
Lågskär (Åland)	19.3	- 31.3	- 9.4	8	Hildén et al. 1979
Helsinki	28.3	- 6.4	- 20.4	13	von Haartman et al. 1963-72
Karkkila	30.3	- 7.4	- 16.4	18	Degerstedt et al. 1985
Pori	27.3	- 8.4	- 24.4	(31?)	Kaukola & Lampolahti 1981
Tampere	29.3	- 9.4	- 23.4	26	Vuoristo 1980
Eastern Satakunta	23.3	- 12.4	- 28.4	(26?)	Valkama 1982
Lahti-Heinola	31.3	- 12.4	- 22.4	18	Hilden et al. 1979
Vaasa	31.3	- 16.4	- 28.4	11	Hilden et al. 1979
Suomenselkä	5.4	- 16.4	- 26.4	19	Ihantola 1989
Joensuu	10.4	- 17.4	- 26.4	11	Pursiainen 1981
Kuopio	8.4	- 19.4	- 29.4	23	Rissanen 1990
Raahe	9.4	- 19.4	- 26.4	10	Karjalahti 1985
Kokkola	14.4	- 23.4	- 8.5	12	von Haartman et al. 1963-72
Oulu	13.4	- 25.4	- 8.5	12	von Haartman et al. 1963-72.
Kemi-Tornio	16.4	- 26.4	- 4.5	13	Rauhala 1980
Kajaani	16.4	- 26.4	- 3.5	15	Hildén et al. 1979
Lieksa	18.4	- 30.4	- 10.5	9	von Haartman et al. 1963-72
Pieksämäki	11.4	- 1.5	- 14.5	10	von Haartman et al. 1963-72
Rovaniemi	30.4	- 7.5	- 19.5	15	von Haartman et al. 1963-72
Muonio	6.5	- 15.5	- 26.5	11	von Haartman et al. 1963-72
Värriö	5.5	- 16.5	- 28.5	15	this study

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France

Suivi des populations de Becasses en 1990-91

Office National de la Chasse - Club National des Becassiers - CNERA Avifauna Migratrice

CH. Fadat, Y. Ferrand & F. Gossmann

Summary

This report summarizes research activities on the woodcock in France. Roding activities were monitored in 54 departments, an area that almost entirely comprises the breeding range of woodcock in France. The data revealed a similar density of roding males as in previous years.
Ringing has been intensified, and a record of 1025 birds were ringed in winter 1990/91. 146 of them were recovered in the same season, and 69 that were ringed in earlier years. Most of them were shot near the ringing places (average distance 2.7 km), but 4 from abroad (1 NW-Spain, October and 3 from former USSR, spring). Recaptures have revealed overwintering for the third and fourth time. Recovery rate is as high as 25% (in Britain only 8%). Direct recoveries were made after an average of 30 days.
Woodcock densities in winter have been estimated by the number of birds flushed by hunters. After a slight decrease the index has reached the value of the early 1980ies.
Sex ratio (from birds shot) revealed a slight, but constant increase in favour of males. From 5847 wings analyzed 70% were of juveniles, which coincides with the values of earlier years.

During the cold spells of 1985 and 1987 numerous woodcock were found dead along the Atlantic coast. All of the 250 dissected have died from exhaustion after their body weight had decreased by more than 50%.

HK

1. Suivi de l'aire de reproduction française.

Quinze départements nouveaux ont participé cette année au comptage des mâles à la croule. De ce fait, la quasi-totalité des régions où la bécasse est connue comme nicheuse régulière a été couverte par les observations (54 départements au total).

La figure 1 traduit les variations régionales du taux d'occupation global (T.g) des aires de croule en mai-juin. Au niveau national il est égal à 0,236 (23,6% des sites visités étaient occupés).

Ce taux est en légère baisse, (non significative) par rapport à celui de la saison précédente (fig 1 bis).

Les taux de forte et de faible abondance qui traduisent, outre les augmentations et les diminutions d'effectifs, les échanges d'un site à l'autre, ont aussi peu varié.

En conclusion, il est probable que l'effectif de mâles présents en mai-juin ainsi que l'ensemble des aires de croule françaises qu'ils occupaient sont restés stables par rapport aux années antérieures.

2. Suivi de la migration et de l'hivernage.

2.1. Baguage des bécasses en transit en Suède.

Une mission de baguage dans le sud de la Suède fin octobre début novembre 90 (station d'Ottenby dans l'île d'Oland) a permis de baguer 51 bécasses en deux nuits de forts passages. Ce nombre est supérieur au total des bécasses baguées dans cette station en 45 ans (39).

L'application de la méthode de capture utilisée permettra probablement aux bagueurs suédois d'augmenter considérablement à l'avenir les baguages de bécasses, et donc d'accroître nos connaissances sur ce flux migratoire qui concerne particulièrement la France. Parmi les reprises effectuées en automne 90, 6 l'ont été, en effet, sur la façade Manche-Atlantique, et une seule dans les Iles Britanniques, alors que ces proportions furent inversées pour les reprises issues de Norvège.

2.2. Baguage des bécasses en hivernage en France

Le baguage a été poursuivi sur la façade Mancne-Atlantique avec un succès accru par rapport aux années antérieures puisque le millier de bécasses baguées a été dépassé (1025 - meilleur résultat européen).

Les plus gros scores ont été réalisés dans le Pas de Calais (180), la Seine-Maritime (155), le Finistère (135), les Deux Sèvres (119), le Morbihan (92) suite à de fortes densités de bécasses et à l'efficacité croissante des bagueurs (28% des bécasses vues ont été capturées, taux de réussite record depuis 1983).

2.2.1. Taux de reprises

Ces baguages ont donné lieu à 146 reprises directes (= baguées au cours du même hivernage). Par ailleurs 69 reprises indirectes (= baguées au cours des hivernages antérieurs) ont été enregistrées, la plupart sur les lieux où elles ont été baguées.

Enfin, 4 autres ont été reprises à l'étranger, 1 à ORENSE, au N-W de l'Espagne, 6 jours après son baguage fin octobre dans le Pas de Calais, 3 en Union Soviétique (Lettonie, Russie et Biélorussie) au printemps.

Les taux de reprises pendant le ler hivernage est proche de 15% (tableau 1) et de 6% pendant l'hivernage suivant.

Compte tenu que quelques reprises sont encore effectuées au cours des 3ème et 4ème hivernage, le taux de reprises total est proche de 25%, soit 15 points environ au dessus du taux Européen (8% en Grande Bretagne).

2.2.2. Parcours migratoire

La distance moyenne entre le point de baguage et le point de reprise pour les 146 reprises directes est de 52 Km. Si l'on exclut les déplacements migratoires (reprises à l'étranger) qui représentent moins de 10% des reprises, la distance moyenne parcourue en hivernage est de 2,7 Km, malgré une météorologie peu favorable. Ceci confirme une nouvelle fois le stationnement des bécasses près de leurs remises d'hivernage respectives.

2.2.3 Espérance de vie des bécasses hivernantes

Le temps de port de bague a été, cette année, de 29,2 jours, soit en augmentation d'environ 5 jours par rapport aux années antérieures. (fig 2)

Cette augmentation peut traduire celle de l'espérance de vie des bécasses, mais elle peut être aussi la conséquence du plus grand nombre de bécasses baguées en migration, dans le Nord de la France, par rapport aux années antérieures. On a constaté, en effet, que les bécasses qui se déplacent beaucoup ont une espérance de vie supérieure à celles qui stationnent en hivernage.

Les résultats à venir permettront de préciser l'influence de ce facteur par rapport à celle de la survie.

2.3. Analyse des tableaux de chasse

2.3.1. Rappel des conditions météorologiques

Après 3 hivers particulièrement doux et secs, celui de 1990/91 a été précoce et long, sans, malgré ce, présenter des vagues de froid comparables à celles de janvier 1985 et 1987.

La pluviométrie a été irrégulière, accentuant ainsi les variations de la capacité d'accueil due au froid.

2.3.2. Densités des bécasses

La figure 3 traduit les variations des densités de bécasses rencontrées par les chasseurs. On constate une diminution d'ensemble dans l'Ouest, exceptée la Haute Normandie et une augmentation dans les autres régions. Ce phénomène a entraîné une certaine homogénéisation et la disparition du gradient croissant de densités que l'on constatait habituellement du Centre de la France vers la Bretagne.

L'indice cynégétique d'abondance national est égal à 0,17 et présente une augmentation sensible par rapport aux 3 années antérieures (fig 4). Il se situe au même niveau que ceux du début des années 80.

Pratiquement, il correspond à un tableau annuel de 14 à 15 bécasses (contre 13 en 1989/90) réalisés en 30 sorties de chasse dont 11 furent positives (une bécasse au moins prélevée) par un chasseur spécialiste moyen, reflet des 600 qui ont répondu à l'enquête.

2.3.3. Composition des tableaux de bécasses

2.3.3.1. Proportion des sexes (sexe-ratio)

La proportion des mâles (43%) est légèrement supérieure à celles des années antérieures, (42%) (fig. 6). Ils furent plus nombreux dans les tableaux surtout en début de campagne de chasse et dans la moitié sud du pays (fig 5). Il est possible que les irrégularités de la capacité d'accueil liées à la sécheresse soient la cause de ces variations.

2.3.3.2. Proportion des âges (âge-ratio)

La proportion des jeunes dans les tableaux a été de 70% (5847 ailes examinées) soit, tout à fait dans la moyenne de la décennie écoulée (fig.7). La façade Manche-Atlantique demeure toujours la zone où les jeunes sont proportionnellement les plus nombreux dans les tableaux (75 à 80%), alors qu'ils sont à peu près à égalité avec les adultes à l'intérieur du pays (fig. 8).

La Provence, avec un taux de jeunes de 75% (contre 33% en 89/90) fait exception à cette règle, cette année.

L'examen détaillé des ailes montre que ces jeunes étaient originaires en plus grand nombre que d'habitude du Nord Est de l'Europe (41% contre 26% antérieurement). Ce sont eux vraisemblablement qui sont la cause des fortes densités relatives, comparativement aux régions voisines.

2.3.4. Conséquences de la vague de froid

Bien que moins aiguë qu'en 1985 et 1987, le froid a provoqué la mort de nombreuses bécasses, en février, le long des côtes de la Manche. 250 environ ont été recensées en 4 sites différents dans le Pas de Calais, d'autres beaucoup moins nombreuses, en Seine-Maritime. Toutes étaient mortes d'épuisement. Non seulement aucune trace de graisse n'était plus visible, mais les muscles avaient été résorbés, pectoraux notamment. Ces bécasses, de taille normale, qui pèsent habituellement 350g en moyenne durant cette période, n'en pesaient plus que 170 à 180.

2.3.5. Enquête "épidémie-bécasse"

C'est avec cette expression en "objet" qu'une circulaire a été envoyée début novembre 90 à tous les correspondants du réseau.

Plusieurs bécasses avaient été recueillies, mortes ou très fatiguées près de Versailles (78), certaines présentant des symptômes de leucose, excès de globules blancs (diagnostic des Services Vétérinaires des Yvelines).

Il était donc important de connaître l'ampleur de ce phénomène et de savoir quel en était la cause. Celle-ci n'a malheureusement pas été décelée, faute d'autres renseignements précis. Cette pathologie était donc probablement peu développée.

Le hasard a permis de savoir, néanmoins, qu'une bécasse recueillie en plein centre de Paris le 12 novembre 1990 sur une terrasse d'immeuble où elle était morte, avait été baguée en Lettonie le 14 octobre 1990. Elle appartenait peut être au flux migratoire concerné.

Une autre, soignée et relâchée baguée à Versailles le 1er novembre a été reprise en février en Vendée, où vraisemblablement elle avait hiverné.

Conclusions :

Les résultats précédemment indiqués permettent de penser que :

1. L'aire de reproduction française occupée par les mâles en mai-juin a très peu varié au printemps 1991. Ceci n'implique pas néanmoins qu'il en a été de même de la production de jeunes par laquelle on a malheureusement peu de renseignements.

2. L'hivernage 1990/91 s'est distingué de ceux des années antérieures par des densités plus faibles dans l'Ouest, mais plus élevées en zone interne. Ceci est dû essentiellement à un meilleur taux de survie et de retour des adultes sur leur aire d'hivernage dans les régions internes qu'en zone littorale. Localement (Provence), un contingent inhabituel de jeunes nordiques est venu grossir les effectifs adultes hivernants habituels.

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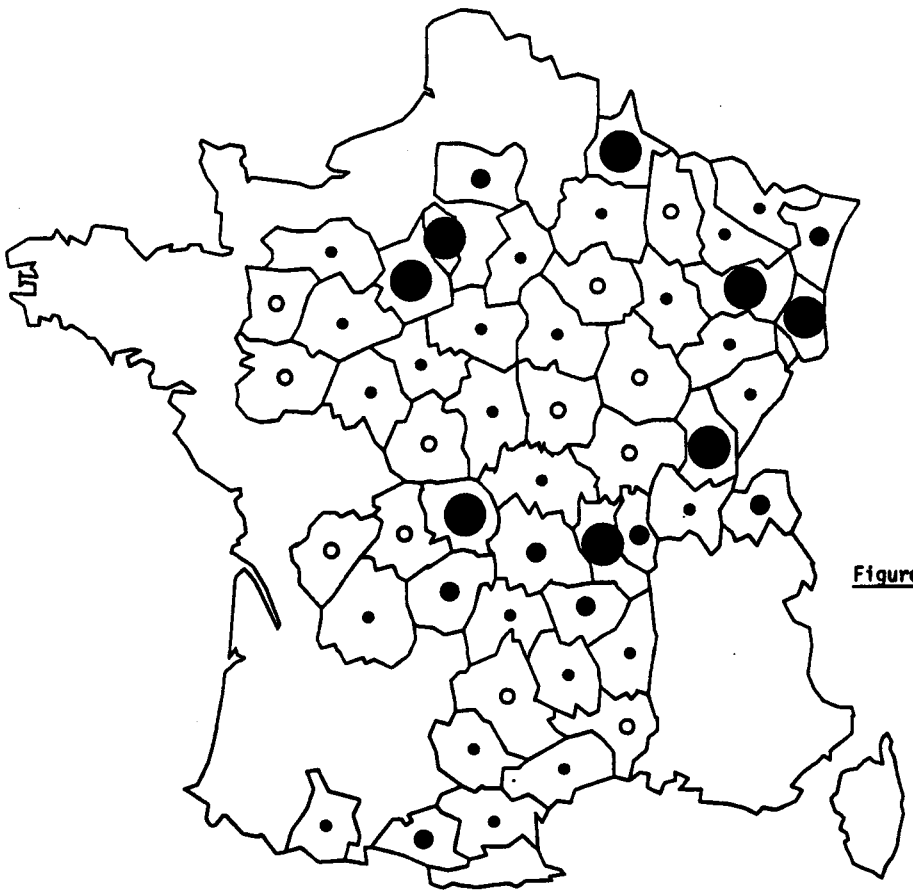

Figure 1 : Localisation des départements qui ont participé au suivi en 1991 et taux d'occupation pour chacun d'eux (○ : 0% , ● : 1 - 25% ● : 26 - 50% ● : > 50 %

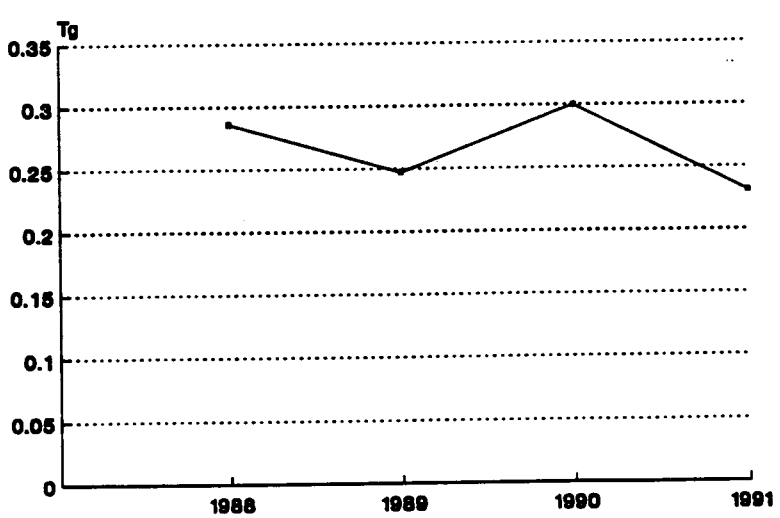

Figure 1 bis : Variation interannuelle du taux d'occupation global (Tg) du milieu forestier par les bécasses mâles à la croule en France (mai-juin).

Saisons	Taux de reprises pendant le 1er hivernage (= intra-annuel)	Taux de reprises pendant le 2ème hivernage (= inter-annuel)	Taux de reprises après deux hivernages
1986/87	15,9 % (n = 452)	6,2 %	22,1 %
1987/88	14,3 % (n = 519)	5,8 %	20,1 %
1988/89	14,7 % (n = 664)	5,8 %	20,5 %
1989/90	10,8 % (n = 677)	6,6 %	17,4 %
1990/91	14,2 % (n = 1025)	-	

Tableau 1 : Variation du taux de reprises des bécasses après deux hivernages. On constate qu'environ les 3/4 sont reprises au cours du premier hivernage, et seulement quelques % après le 2ème. Le nombre de bécasses baguées est indiqué entre parenthèses, pour chaque saison.

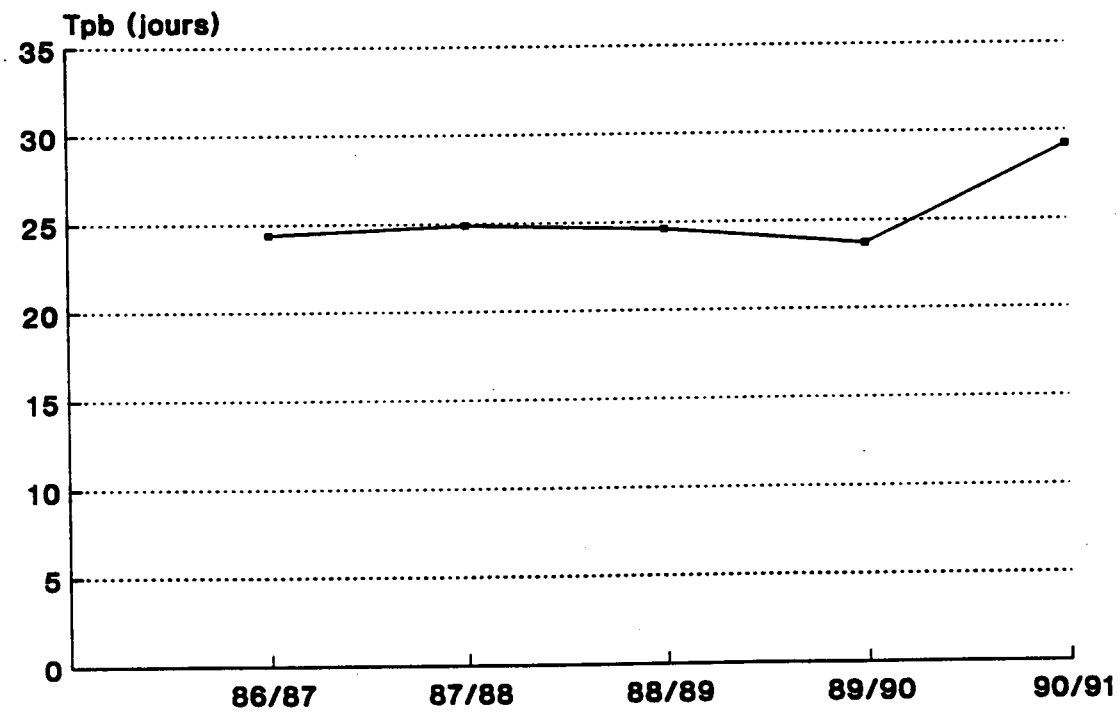

Tableau 2 : Variations interannuelles du temps de port de bague (Tp b) des reprises directes (bécasses baguées reprises au cours de l'hivernage où elles ont été baguées).

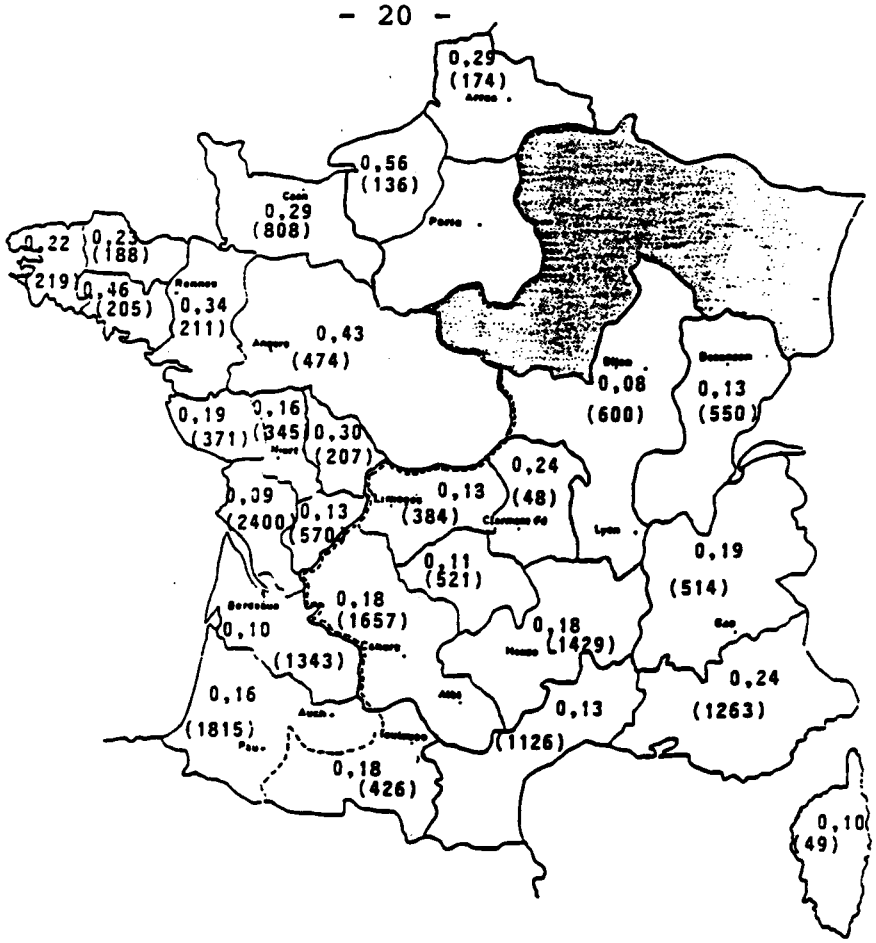

Figure 3 : Densités de bécasses exprimés en Indices cynégétiques d'abondance (I.C.A. 2p) pour la saison 1990/91 (octobre à février inclus). Entre parenthèses, le nombre de sorties de chasse retenues pour le calcul. Ces indices sont proportionnels aux nombres de bécasses prélevées par chasseur et par jour de chasse, ainsi qu'au nombre total de bécasses présentes dans la région considérée.

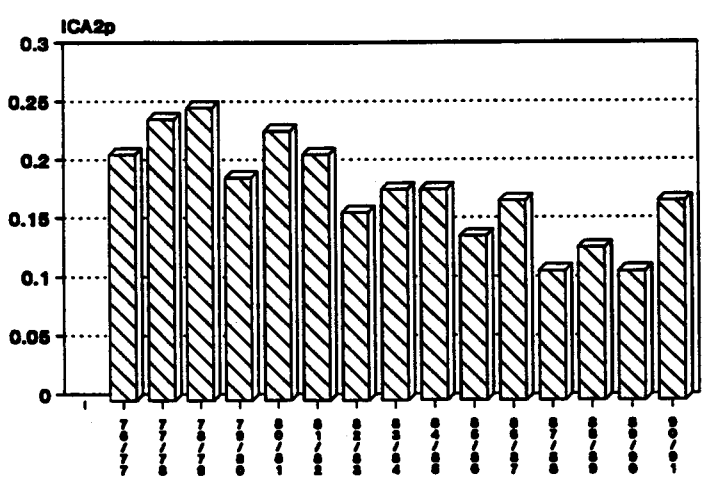

Figure 4 : Variations Interannuelles des densités de bécasses rencontrés par les chasseurs, exprimés en indices cynégétiques d'abondance (I.C.A. 2p) au cours des 15 dernières campagnes de chasse, sur l'ensemble du territoire national.
Cet indice correspondant à un tableau moyen de 14 à 15 bécasses, prélevées en 30 sorties de chasse d'une demie journée chacune dont 11 seulement furent positives (une bécasse au moins prélevée).

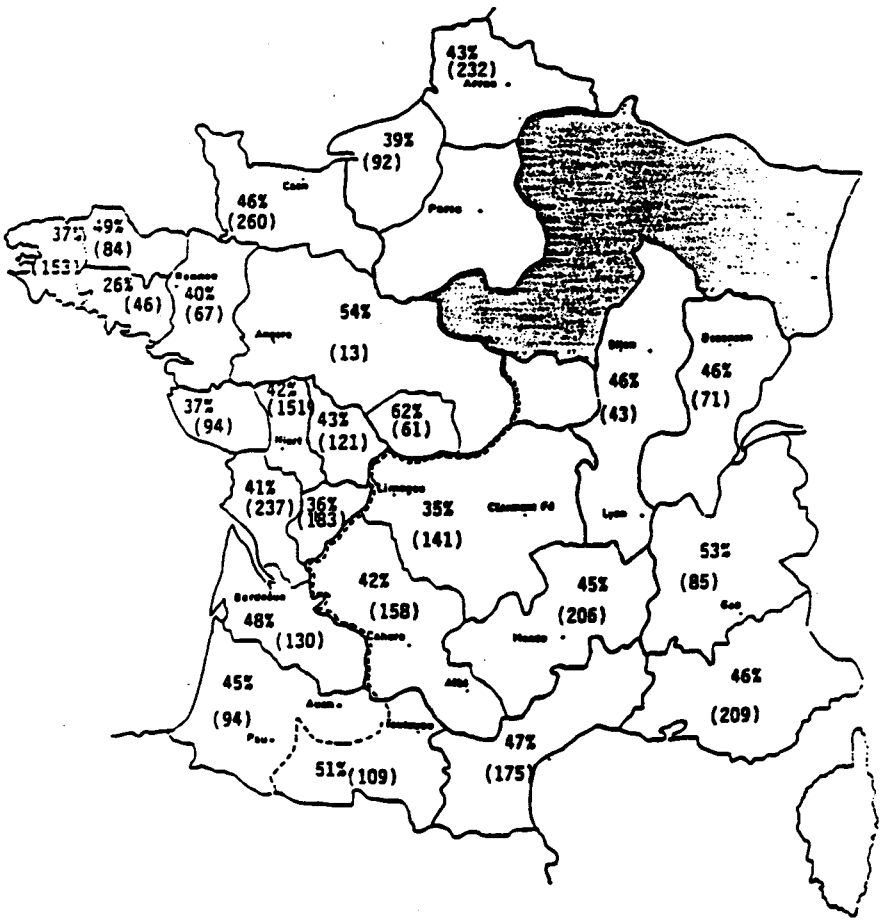

Figure 5 : Variations régionales du sexe-ratio (% de mâles) des tableaux de chasse de la saison 1990/1991. Entre parenthèses est indiqué le nombre de bécasses examinées. On constate une augmentation sensible dans la moitié sud par rapport aux années antérieures.

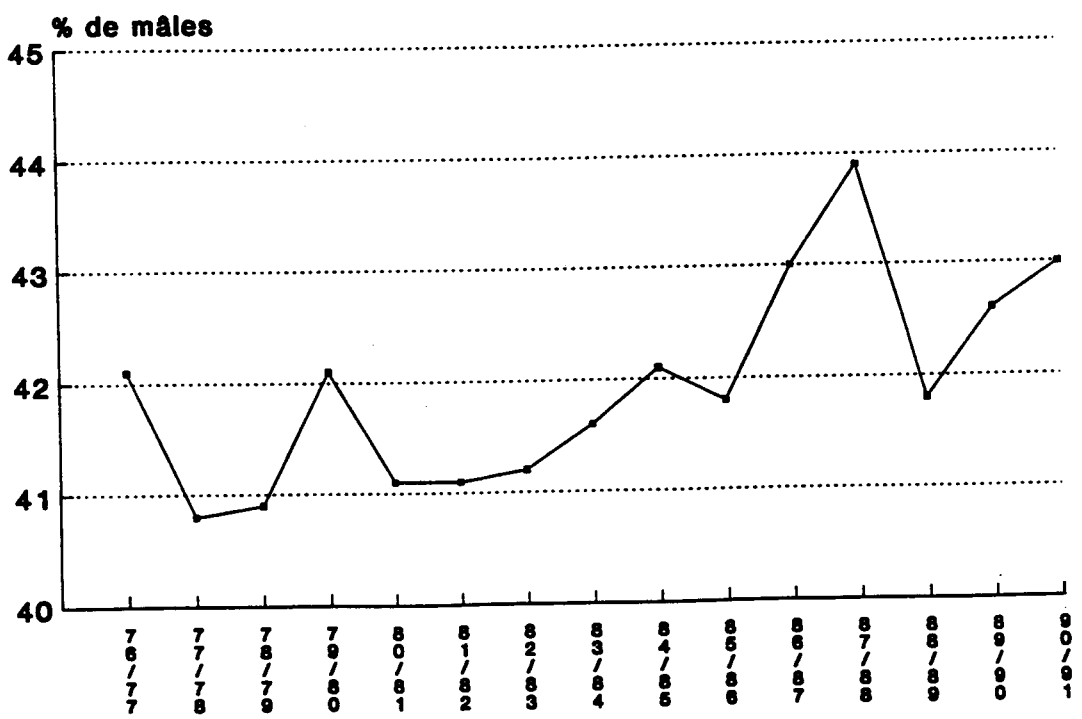

Figure 6 : Variations interannuelles des sexes-ratio des tableaux de bécasses en France. On observe une tendance à une légère augmentation (1,5 point en 10 ans).

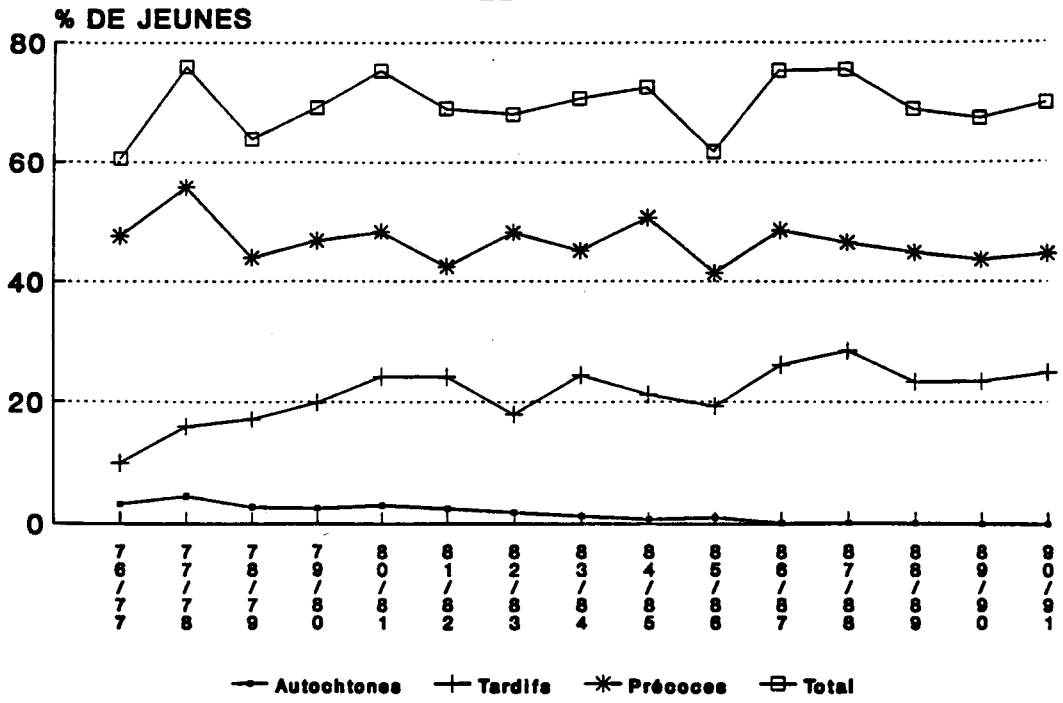

Figure 7 : Variations interannuelles des âges-ratio des tableaux prélevès en France (le total des jeunes et la somme des jeunes précoces, tardifs et autochtones).

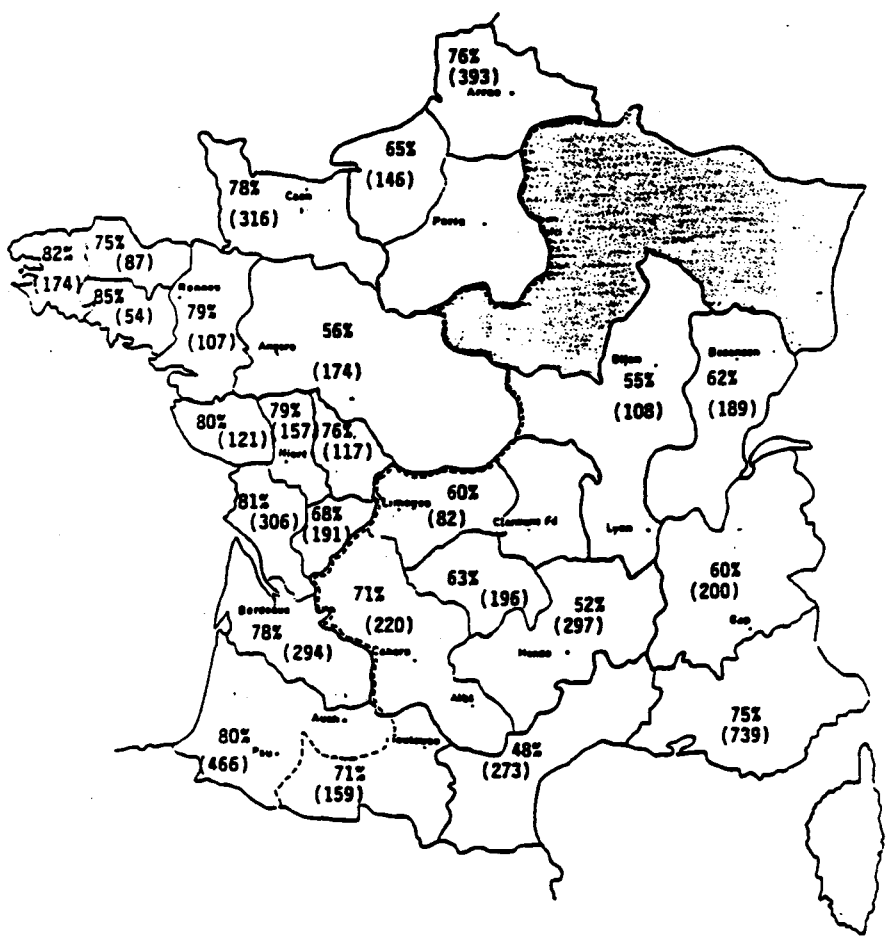

Figure 8 : Variations régionales de l'âge-ratio (% de jeunes des tableaux de chasse de la saison 1990/1991. Entre parenthèses est indiqué le nombre de bécasses examinées dans chaque région.

Snipe wing and tail survey 1989 - 1990.

Report of the International Club of Snipe Hunters, Paris, 20 pp.

Conclusions:

The great similarity in age and sex ratios shown over the last two years allow us to think that the dryness and mildness overall have had the same effect on the birds as in 1988-89.
The young birds through lack of favorable wetlands have once again reached more southerly areas than when the winter conditions were more normal weatherwise.

The significant lessening of age-ratio in the extreme North of France could, in this context, be due to several reasons:
- a slight reduction in productivity as shown by the danish age-ratio,
- a still faster and more direct passage of young birds towards the South as the dutch observations would seem to confirm, ... "These observations suggest that the Common Snipe crosses our country very quickly" (Sieben Siebenga pers. comm.) the age ratio in the South-West and the very early arrival of birds in Portugal in mid-September.
- the choice of some young birds, having found too dry conditions in the North of Europe, of a migratory flight towards the British Isles (a classic solution, see Hemery and Nicolas-Guillaumet) and backed up again this year by a young bird ringed in August in Poland and taken in Ireland in November. This would explain the very strong concentrations of snipe found in Ireland which could not be linked up to an exceptional breeding success.

It seems to us important to lay stress on the role of refuge for adults which the Manche and Britany play on the snipe population migrating through or wintering in France. We must therefore watch carefully over the protection of wetlands in this area; if not, these adult birds, pushed to a wider dispersion, would see their mortality rate increased considerably due to well known biological reasons.

The observations made this year in France on the speed of migration, varying during the season and probably quicker this season than in preceding years but always slow for the size of the country, seems interesting and merits confirmation in the future.

Finally it becomes more and more likely that adult females form the greater part of the reluctant migratory population.

We would like to thank the O.N.C. for supplying us with a computer without which we would not have been able to control this work properly, and of course all our correspondents, french as well as foreign, who, in spite of the time needed in collecting tails and wings have accepted to take part in these studies that the shooting world must necessarily follow.

ITALY

"Minor" Wetlands as a habitat for snipes in Italy: Present situation and perspectives

R. Massoli-Novelli

With the aim of analyzing the dramatic decrease in the habitat of the Snipe in Italy, a questionnaire was sent to 50 experienced contributors. For the research, habitats were classified as natural (swamps, marshlands, grasslands) and artificial (rice paddies).
For the first group, data came back from 146 questionnaires related to the same number of swamps, marshlands, grasslands existing in 24 Italian provinces, from Venice to Palermo. In 1965 these 146 wetlands extended over 32.068 ha; in 1987 they were reduced to 6.036 ha, with a decrease of 81%. The Snipe bags on the same 146 natural wetlands, diminished from 8.1 in 1965 to 1.0 in 1987 (average bag for one hunter in 4 hours activity); bag reduction was 88%.
Research in the habitat of the Snipe in Italian rice paddies gave somewhat different data. The total area covered by rice paddies in Italy, mostly concentrated in Piemont and Lombardy regions, went from 160.000 ha in 1965 to 190.000 in 1987. This 19% increase brought no increase in Snipes: data from 12 questionnaires from six provinces showed that the average bag went from 10.4 (1965) to 2.2 (1987), with a reduction of 79%. Italy has in fact recently reached a worldwide supremacy in rice production per hectare: more than 6000 kg. This means a highly negative impact on Snipes, caused by the continuous use of herbicides (Molinate), perfect field drainage, a high degree of mechanization with complete cutting of rice plants. Data on these impacts are given. Snipe bag statistics are thought to be reliable environmental indicators.
The immediate application in Italian Snipe areas of the 1986 Agreement between farmers' and hunters' Associations, to work together for a better wildlife habitat conservation, is necessary.

Summary from the author's study published in Ricerche di Biologia della Selvaggina 82, 1989. 19pp.

NORTH AFRICA

Some notes on the woodcock season 1990/91 in Morocco

J.A. Wadsack

The first woodcock of this season was noticed on November 11, 1990, others on 19.11. near Birjdid, 23.11. near Rabat and 24.11. near Rafsai/Rif. The only real influx of many birds was observed between December 6 and 8, 1990. Return migration obviously started by February 20, 1991, as since then fewer woodcock were seen by hunters and heardsmen.

Altogether during 11 outings with two to three hunters between 0 and 8 woodcocks (average 3.5) were flushed within an average time of 3.5 hours spent hunting in Mamora and near Ain Kheil/Ben Slimane. Woodcock densities in both areas were similar and slightly higher than in previous years. Following several requests the ban on hunting on Saturdays was lifted by January 1991.

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POLAND

Some notes on Scolopacidae in Poland

L. Tomialojc

There is no doubt that the most widespread wader in the past landscape was the Woodcock Scolopax rusticola, a species now inhabiting most types of the Bialowieza stands, including those in the forest-interior 3-5 km away from the nearest man-made or natural clearing. However, Woodcocks were probably at somewhat lower densities, since natural clearings and forest edges were less frequent in space than the present, man-made, ones. The second forest inhabitant was the Green Sandpiper Tringa ochropus, which nowadays occurs throughout the interior of Bialowieza Forest, with a total of over 100 pairs, especially in good (wet) years. The third is the Common Snipe Gallinago gallinago, which is a bird of open marshlands and of the forest-edges. These three species would have been widespread breeders throughout Central-Europe, though now they are restricted much due to forest and marshland reduction. The Common Snipe was the most numerous wader for many millenia, and only quite recently and locally has it been superceded in numbers by the Lapwing Vanellus vanellus.

The Jack Snipe (Lymncryptes minimus). In the 19th century it bred in several places, including Lublin province, Pomerania and Silesia. Now only a few pairs occur in Biebrza Marshes (Okulewicz and Witkowski 1979).

The Great Snipe. In the 19th century it was still a widespread breeder in the most of our lowlands, including southerly located Silesian or Lublin Province marshlands. Comprehensive knowledge of its distribution and abundance has only been achieved during the 1980s. Recently there have been 550-600 displaying individuals recorded on several leks in the country. Until now the species has managed to thrive in several incompletely reclaimed river valleys of Eastern and even Central Poland.

However, further intensification of meadow- and marshland-use will lead to its extinction there, as has already happenèd in the southern provinces of Poland, and in neighbouring republics of Soviet Union.

These notes were taken from:

Tomialojc, L. 1987. Breeding waders in Poland - their past and present status. Wader Study Group Bull. 51: 38-41.

RUSSIA

On the success of spring hunting on roding Woodcock (Scolopax rusticola).

V.I. Litun (Research Institute of Game Management and Fur Farming, Kirov)

This study is based on the results of processing the questionnaires distributed among hunters and also personal observations of the authors in 1981-1986 in the Kirov Region. Usually during spring hunt, the flight of woodcocks is given only minor attention compared with the hunt of drakes with a decoy duck or that of black grouse or wood grouse at mating sites. All hunters hunted only in the evening, although, according to our observations, in the morning, woodcocks rode more intensively than in the evening. For instance, in 1983 on the average 8 birds passed per morning hunt. The duration of morning hunt was about 1 to 1.5 hrs, and started, depending on weather conditions, at 3.30 - 4 a.m.
Of the 108 respondents, only 8 did not miss a single hunt during the entire hunting period, and 36% hunted only once. The number of days spent by one hunter on woodcock is essentially the function of flight intensity. The most intensive flights were in 1981, 1983 and 1985, when on the average 4-5 woodcocks passed per hunt. Respectively, during these years, the number of hunting days averaged 3.1, 3.5, 2.9. In 1982 and in 1986 the intensity of flight was much lower, and the average duration of the hunt declined (2.5 days in 1982 and 2.2 days in 1986).
Woodcock rode most intensive at sunset, i.e. from 21.30 to 22.30. Sometimes the flight lasts for 2 hours. On average, hunters hunt for one hour during most intensive roding (Table 1).

Year	Number of hunts	Duration of roding mean	Duration of roding limit (min)	Time spent hunting mean	Time spent hunting limit (min)
1981	41	45	10-20	60	25-100
1982	28	35	10-85	50	30-100
1983	29	45	10-100	55	30-110
1985	33	35	10-80	60	30-100
1986	41	30	10-70	50	25- 90
Total	172	40		55	

Table 1: Annual variation in roding intensity and hunting efforts in the Kirov region (In 1984 spring hunt was banned in this region).

The intensity of roding largely depends on weather conditions. The love performance of woodcock is most influenced by wind. Roding intensity at quiet, windless weather is 2.5-3 times higher than at windy weather. Precipitation also affets love performance. The mean number of birds passing over per evening in clear windless weather was 6.1 (maximum number 15). On rainy evenings the number of roding birds averaged 3.8 (maximum number 10). At clear, but windy weather an average of 2.6 woodcocks passed (maximum 6), and in rainy, windy weather 1.4 birds (maximum 6).
Hunting success on roding woodcock in 1981-1986 is summarized in Table 2. Taking of one woodcock required 2.8 to 5.0 cartridges, on average 4.4 birds (wounded or not found are excluded). In general, hunting of woodcock in spring is not intensive, averaging 0.5 to 1.8 birds per hunter per season (Table 3).

Year	Number of hunts	Number of passing Woodcocks per hunt		Number of shots	Number of birds taken per hunt		Wounded and not found birds	
		mean	limit	mean	mean	limit	mean	limit
1981	56	5.0	1-12	2.7	0.6	0-5	0.20	0-2
1982	46	3.6	1-10	1.4	0.5	0-2	0.11	0-1
1983	37	5.0	1-13	3.0	0.6	0-3	0.24	0-1
1985	41	4.2	1- 9	2.4	0.6	0-2	0.27	0-2
1986	48	3.8	1-15	1.5	0.3	0-2	0.21	0-2
Total	228	4.3	-	2.2	0.5	-	0.20	-

Table 2: Annual variation in roding intensity and hunter success in the Kirov region.

Between 20-44% (average 29%) of birds shot got lost. This high percentage of loss is explained by the features of the habitat. Woodcocks rode most intensively over clearings overgrown with young deciduous trees. In such habitats it is rather hard to find a shot woodcock in the dark. When the bird is wounded and moves away from the place where it fell it becomes hopeless to find it. The loss of birds could be substantially reduced if the use of pointers and spaniels were permitted.

Year	Number of responding hunters	Hunting bag/ season/hunter		Wounded or/and non-found birds	
		mean	maximum	meam	maximum
1981	19	1.8	5	0.6	3
1982	19	1.2	6	0.3	1
1983	14	1.6	5	0.6	2
1985	20	1.2	4	0.5	3
1986	24	0.5	4	0.4	3
Total	90	1.2	-	0.5	-

Table 3: Data on woodcock harvest in spring in the Kirov region.

Waders as game birds at Azov-Black Sea region in Ukraine. (Only some notes on woodcock are extracted)

B.J. Lisenko

In total the bag of 1351 hunters was examined in 1979-85 in the Zaporozh, Herson and Crimea districts. In addition some 789 questionnaires on hunting bags from the hunters of Doneck, Odessa and Nikolaevsk districts were examined. Primarily waders of medium and large size are shot. Most intensively woodcocks are hunted during the autumn migration period. The largest gatherings occur at coastal areas of the Sea where hunting is more productive. Depending on weather conditions duration of migration period lasts 4-9 weeks. In years with high precipitation the migration period is extended. During wet rainy autumns hunting is much more productive: 1-12 woodcocks per hunter's day (on average 3 birds). Some 50 thousand woodcocks are shot on average in the region during wet autumns. The majority of the bag is taken from woodlands of Crimea, North-West of Azov Sea and lower reaches of Dnepr. In autumns with drought conditions only some 15.000 woodcocks are shot mostly in Crimea. Recently woodcocks are pursued more intensively than earlier. In 1960s from all hunters only 2-5% hunted woodcocks but in late 1970s and early 1980s already 75-88% hunters were envolved in woodcock hunting. Recently at good habitats "hunting pressure" is very high and some localities are traced by hunters several times during one day. Presumably such pursuit causes untimely departure of woodcocks.

Both articles are taken from: Charadriiformes in the USSR: Distribution, Biology and Conservation. Proceedings of the 3rd Conference on Distribution, Biology and Conservation of Charadriiformes (October 29-30 1987). Moscow 1988 (translated by P. Aleimikov and P. Blums).

SWEDEN

Report of a mission of O.N.C. France on woodcock (Scolopax rusticola) ringing in Sweden

F. Go..ssmann & F. Ibanez

I - INTRODUCTION

After two missions in Norway (1987 and 1988) and one in Finland (1989), this new mission in Sweden, the fourtienth in Scandinavia, has perfected our knowledge of the biology of the Woodcock (*Scolopax rusticola*) in this part of Europe.

With its prime habitats for the species (23 million hectares of woodlands) and a relatively temperate climate, Sweden is probably the most beautiful breeding area of Scandinavia (Fig. 1).

In spite of high densities, only some 20 chick or juvenile woodcocks are ringed every year. This low number limits the analysis of ringing results. However, these data show that an important part of the Swedish population is flying across France during post-nuptial migration or is wintering in this country.

The mission took place from the 22nd of October to the 7th of November 1990. Our objectives were to look for habitats favorable for catching and to ring an optimal number of birds. Besides, discussions with Swedish ornithologists and biologists and an exchange of catching experiences made up a great part of our activities : this has been essential for the success of this mission and the development of woodcock ringing operations in Sweden.

II - PLACE OF THE MISSION

The whole mission took place in Öland Island, located in the Baltic Sea in the South-east of Sweden (Fig. 2). We worked in the Royal Reserve of Ottenby with the Ottenby Birds Observatory located in the south of the island. The latter depends on the Swedish Ornithological Society.

This observatory, like Fälsterbö, is among the most active ones in this country. Two hundred and fifty thousand birds are ringed each year in Sweden.

The 700-ha reserve is made up of woods (250 ha) surrounded by permanent meadows and moors extensively pastured by bovines, a few horses, and numerous fallow deer which is rather unique. The main species of trees are oaks, birches, willows, in scattered woodstands.

The island is flat and at sea level.

Figure 1 : Breeding area of the Woodcock (*Scolopax rusticola*) in Sweden (from Sveriges Fåglar, Lennart Risberg and al. 1990).

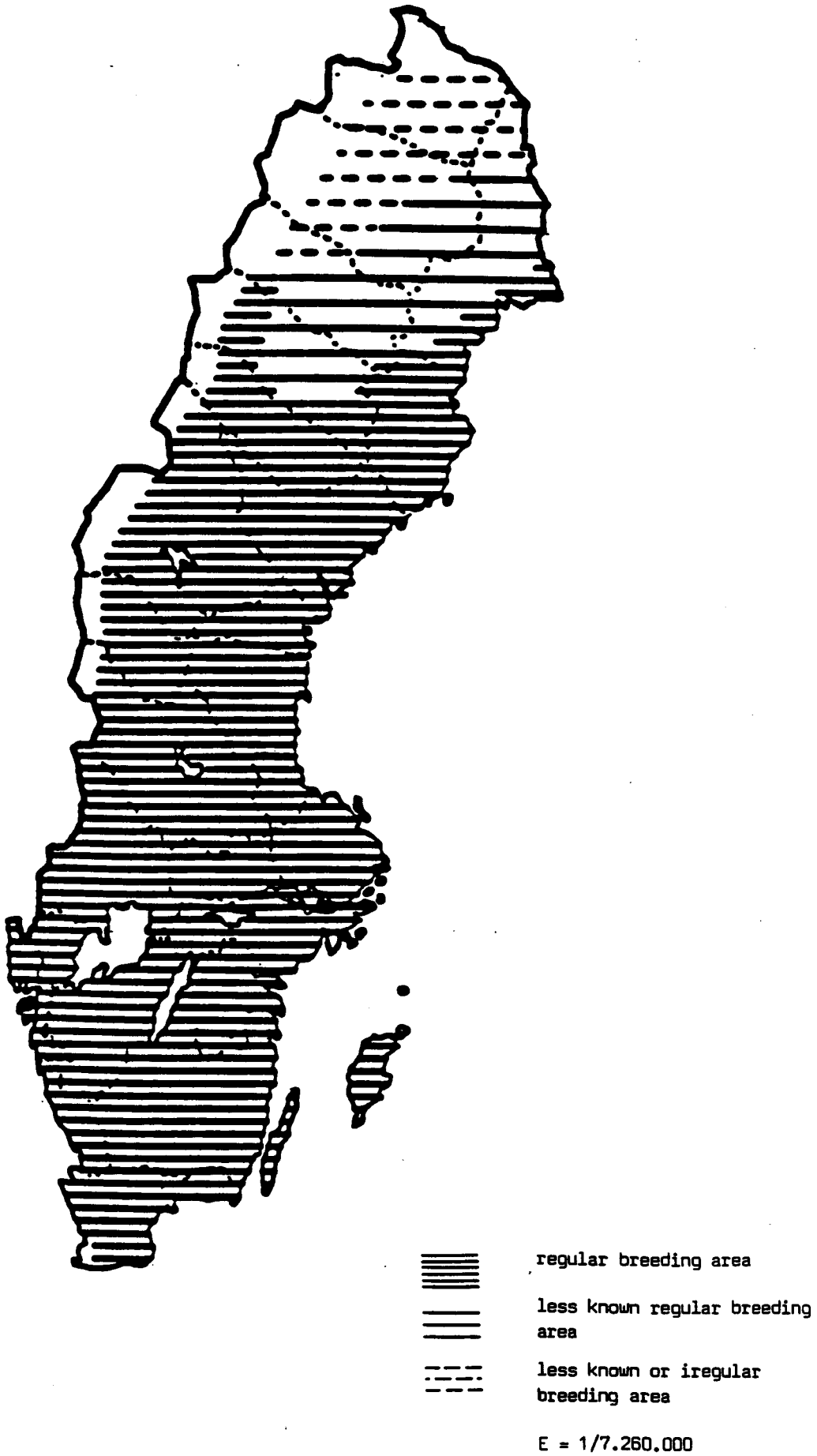
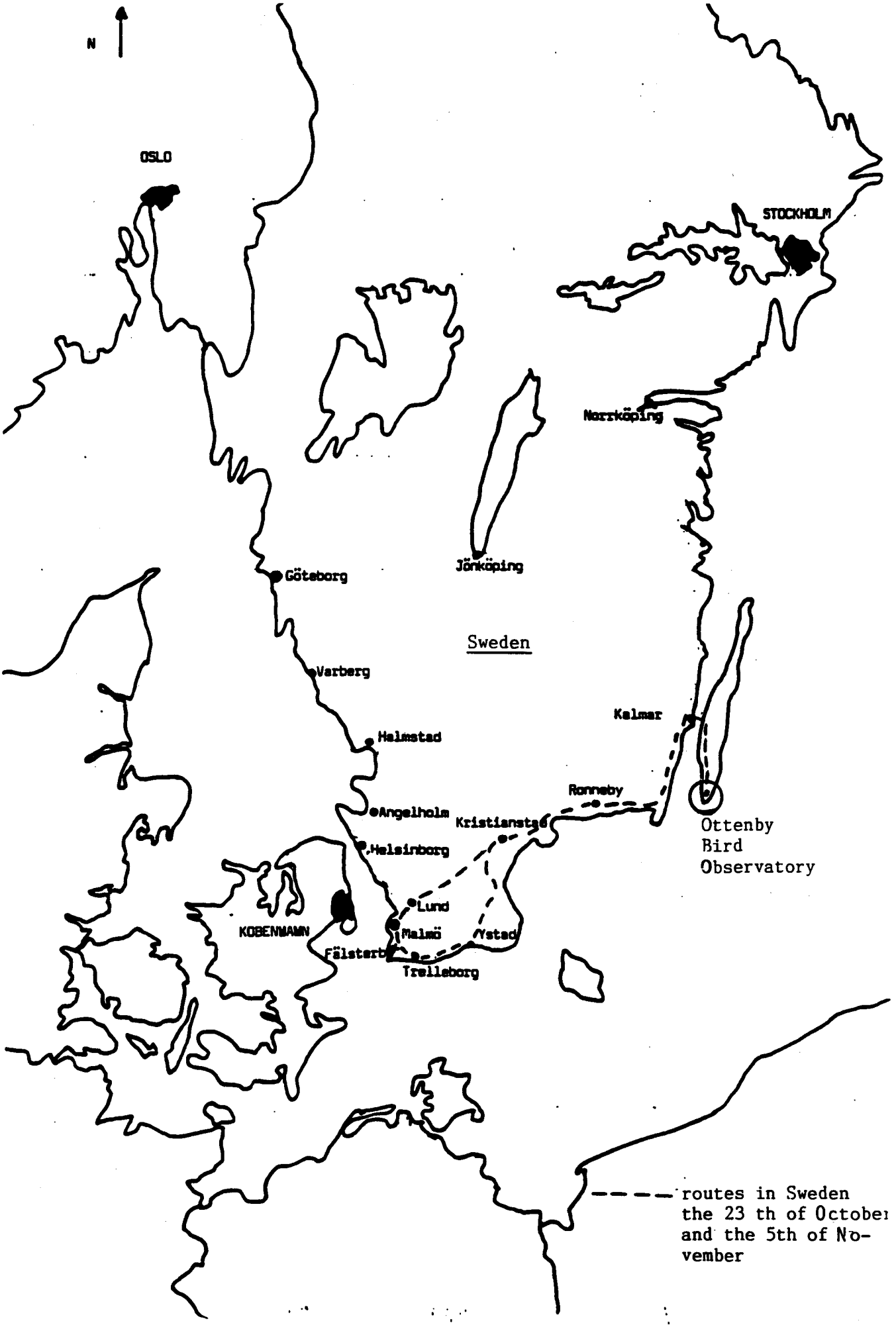


Figure 2 : Location of Ottenby Bird Observatory



III - CATCHING METHOD

Three preliminary phases prepare for capture :

- knowing the fields around the wood

A walk accross all the open habitats and especially the meadows, is necessary to estimate the quality of the nocturnal places. Tracks of birds, their droppings and pecking signs are searched for. They show us the nocturnal activity of the woodcocks.

- walking accross the wood

To estimate the quality of the diurnal habitat and look for tracks, or to observe birds.

- watching at dusk

To watch their crepuscular movements when the woodcocks leave the woods for the open habitats where they spend the night.

After that, the catching operations are well prepared and can be done at night. The general method was described by GOSSMANN and al (1988). We used a portable headlight supplied by a battery to search and to approach the birds. We caught the birds with a hand net of 6 long and 1.5 in diameter.

IV - RESULTS

1 - Favorable habitats

As far as we could judge, Ottenby seemed to be a particularly good area for a migratory stop-over because of its diurnal and nocturnal habitats (Fig. 3). Complementary informations about very large concentrations of migrating birds have confirmed our judgment. Thus, in 1958, 1961, 1976 and 1982, each time in the last week of October or at the beginning of November, such invasions of several hundreds of birds were noticed.

2 - Observations and captures

88 woodcocks were observed and 51 of them were ringed during 12 nocturnal trips (Table 1, Fig. 4).

Only one woodcock could be observed during the four first trips. After these ones, two nights were particularly profitable. The 28th and 29th of October, 21 and 40 woodcocks were seen (70 % of contacts). During these two nocturnal trips, 41 birds were ringed (77 % of the total).

Figure 3 : Royal Reserve of Ottenby - The nocturnal catching sites

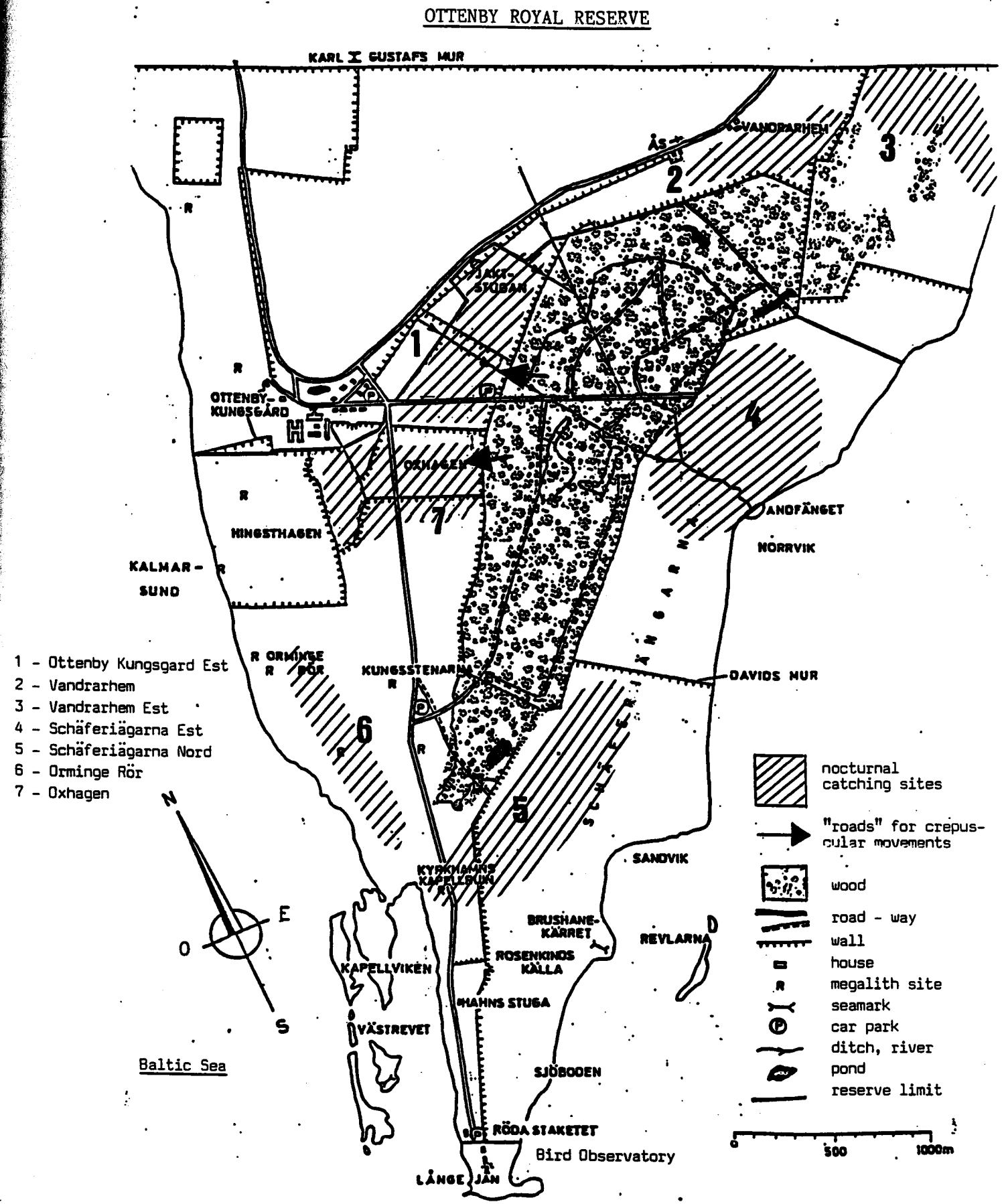


Figure 4 : Contacts with the woodcocks during the nocturnal trips

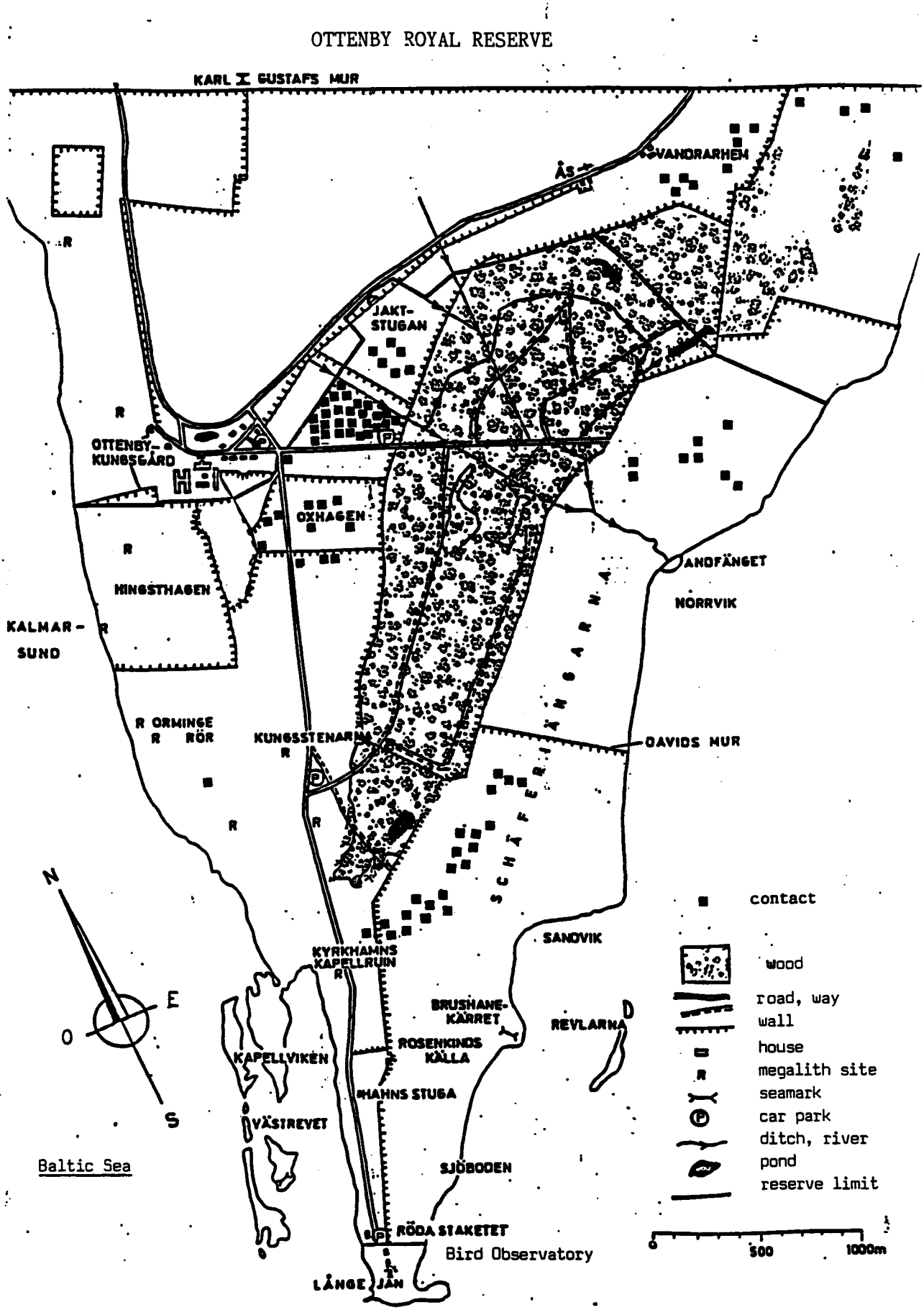


Table 1

Dates	Contacts	Captures	Recaptures
24.10.90	0	0	
25.10.90	0	0	
26.10.90	1	0	
27.10.90	0	0	
28.10.90	21	12	
29.10.90	40	29	
30.10.90	2	0	1
31.10.90	1	1	
01.11.90	5	1	
02.11.90	6	4	
03.11.90	11	3	1
04.11.90	1	1	
Totals	88	51	2

Mean success rate = 60 %

The 30th of October and the 3rd of November, we recaptured two woodcocks which had been ringed two days and one day earlier.

The ringers of the Ottenby Observatory have worked with us for most of these trips.

A high number of contacts were made in the sites of East-Ottenby Kungsgard (n° 1) and Schäferiängarna-South (n° 7) (Fig. 3). The first one, with typical permanent meadows is very similar to the nocturnal habitats we have in France. The second one belongs to an enormous area of permanent pastures but its vegetation is wilder.

3 - Success rate

The success rate (number of captures / number of sighted woodcocks) is about 60 %. This rate is very high compared with those of Norway (36 % in 1987 and 29 % in 1988) and France (between 20 and 25 % for the last five years).

This high rate could be explained by two reasons :

- best factors for catching (wind and rain) during the main movement of woodcocks,

- darkness of the night on the Ottenby site which is far from the lights of town.

4 - Qualitative assessment

4-1 Age-ratio

Three classes of age were distinguished : adult, young (less than one year old) from early broods (moult of the secondary coverts finished), young from late broods (moult of the secondary coverts not finished).

The distribution of captures by class of age is shown in the following Table.

Adults	Early brood young	Late brood young	Total
12 (23.5 %)	17 (33.5 %)	22 (43.0 %) (76.5 %)	51

Young birds represent 76.5 % (39/51) of the captures and late brood young 56.4 % of the total of young, that is to say about 20 % more than the hunting bag in France (FADAT, 1987). This result again confirms the hypothesis of a greater number of late brood young in the Scandinavian populations.

4-2 Weight

Mean weight is 357.5 g (σ= 28.4, n = 51). The comparison of these values with those obtained for the same species in the wintering areas (310 g) (FADAT and LANDRY, 1983) leads us to think that the additional weight is due to fat accumulation at the beginning of the migration period. One of these ringed woodcocks were recovered in France and weighed again. Its weight was about 60 g lighter, which indicates that it had probably finished its migration.

4-3 Wear of primaries

From the degree of wear of the primaries we can divide the young into 4 classes : no wear (U_0), slight (U_1, wear of the end of the inner web), moderate (U_2, wear of inner web with indentations), strong (U_3, wear of inner and outer webs with indentations). The following Table shows that 75 % of the birds present a moderate wear. As it is higher probable that this wear is proportionnal to the distance covered by the birds, we conclude that these birds, like the birds we caught in Norway, had already begun their post-nuptial migration over several hundred kilometers. Some woodcocks could have covered half of their migratory route from their Swedish and Western Paleartic breeding areas when they reached Ottenby.

	U_0	U_1	U_2	U_3	Total
Norway 1987 et 88	7 (6.5 %)	25 (22.7 %)	57 (51.8 %)	21 (19.0 %)	110
Sweden 1990	2 (5 %)	2 (8 %)	19 (50 %)	14 (37 %)	38

5 - Recoveries

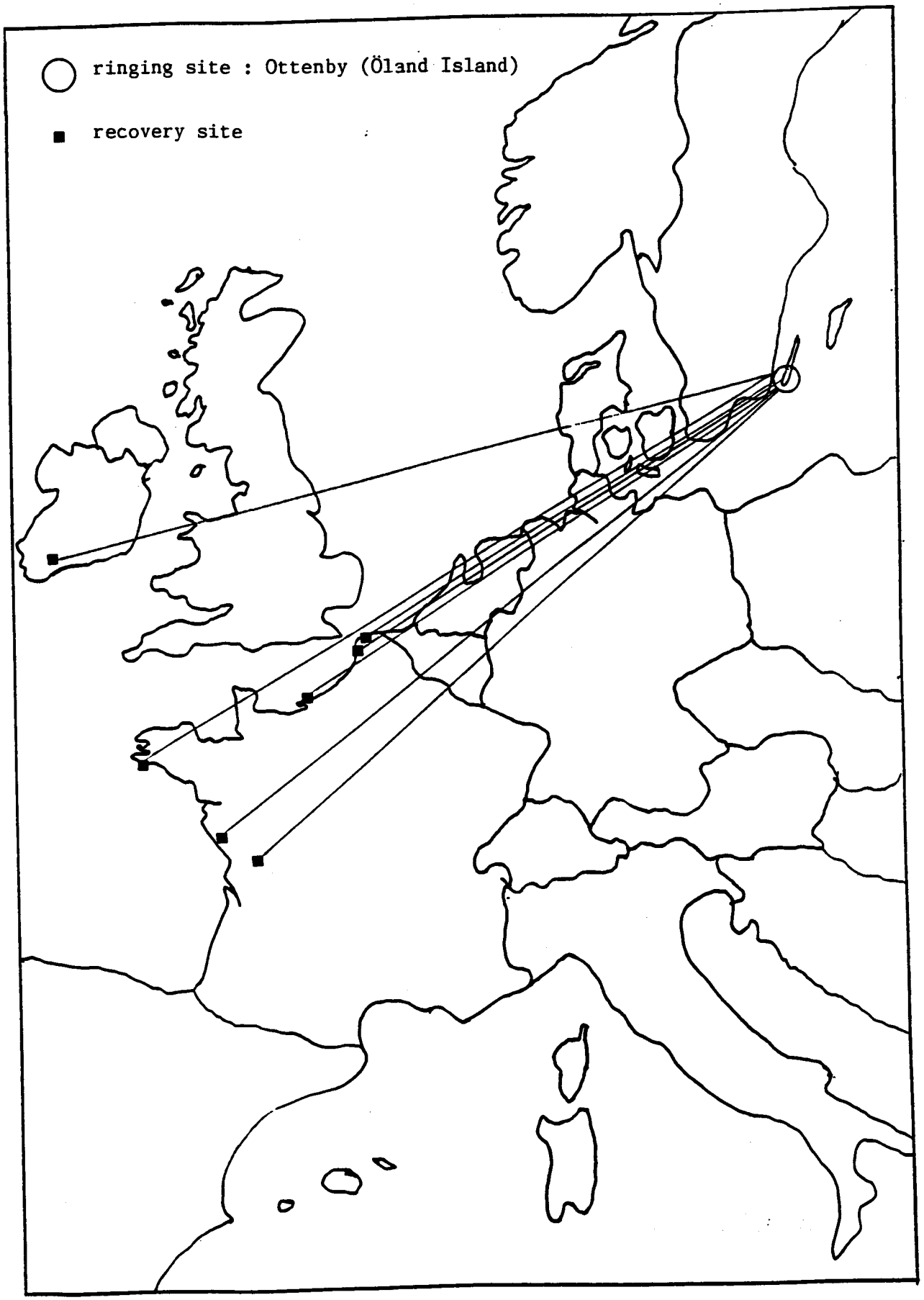
At the present time, we know of 7 recoveries (6 in France and 1 in Ireland). These recoveries are detailed in Figure 5 and the following Table.

Ringing date	Recovery date	Recovery site
28/10/90	25/11/90	St-Urbain (Vendée, France)
29/10/90	09/12/90	Londigny (Charente, France)
29/10/90	16/11/90	Gravelines (Pas-de-Calais, France)
29/10/90	15/12/90	Ballincolling (Cork, Ireland)
30/10/90	24/11/90	Fécamp (Seine-Maritime, France)
30/10/90	29/11/90	Fouesnant (Finistère, France)
03/11/90	25/11/90	Auxi-le-Château (P.-de-Cal., France)

The mean recovery rate of the Swedish woodcocks is nearly 14 % and those of birds marked at Ottenby is around 27 %. We could obtain between 1 and 8 other recoveries.

Figure 5 : Recoveries of woodcocks ringed at Ottenby (Sweden) in autumn 1990

Report at April, the 15th, 1991



IV - DISCUSSION

In Sweden, woodcocks are mainly hunted in summer, as of the 1st of July, during roding. At the present time, the hunting bag is near 30,000 birds.

Woodcocks do not seem to be a priority for the Swedish biologists and ringers. This is certainly not so because of a lack of interest but rather because of the difficulties to catch chicks or juveniles. So, at Ottenby, 56 woodcocks have been ringed since 1937-38 (39 from them in autumn). From this point of view, our mission has shown on the one hand the efficiency of the French capture method and, on the other hand, the potentialities of Ottenby for woodcock ringing, in spite of a lower migratory transit during this autumn of 1990. Indeed, contrary to the last years, only a few ornithologists have noticed woodcocks in the woods. Just two informations were collected : 5 birds were put to flight the 27th of October and one was observed in flight around the light house during the night of the 28th of October.

The woodcocks'autumn migration on Öland island lasts several weeks according to woodcock ringing data of the Ottenby Bird Observatory : the 39 birds ringed since 1946 were caught beetween the beginning of October and the middle of November. However, at some periods the migratory movement is intense because most of the birds were observed during two nights. The "invasions" we have talked about before have revealed this phenomemon and stessed the importance of woodcock concentrations. That leads us to think that a high number of woodcocks could be ringed in a few nights. In that case, efficiency would be highest. The observation of the crepuscular movement East of "Ottenby Kungsgard" can be a very good indicator of woodcock presence.

Recovery rates, i.e the rings which are returned after recovery, are particularly high for the woodcocks in this region. On the assumption of an increase in woodcock ringing in Sweden, the use of these data is possible for the monitoring of the populations.

Some fundamental biological issues could rather quickly be cleared up :

- Insofar as woodcocks are faithful to their breeding area, among the birds which are transiting in autumn at Ottenby, what is the proportion of Baltic, Swedish, Finnish or Russian populations ?

- What is the value of the post juvenile survival rate and does it change each year ?

- Does the annual distribution of the wintering birds vary with the meteorological conditions ?

- Moreover, would it be possible to assess the inter-annual changes in the mean delay of recovery, which are representative of the hunting pressure.

CONCLUSION

The very favorable habitats for the nocturnal catching operations found in Öland Island exist all along the South/South-West coast of Sweden. The potentialities become famous when they are connected with a particular geographical location. So, Sweden has many other good sites like Falsterbö, Torhamms/Utkipplan and Gotland Island.

The quality and motivation of the Swedish ringer teams and ornithologists will certainly allow a development of the woodcock ringing programme, especially if the nocturnal catching method would be used.

ACKNOWLEDGEMENTS

We would like to thank his Majesty the King of Sweden for giving us permission to work in the Royal Ottenby Reserve.

We are grateful to Mr MARCSTRÖM of Uppsala University and Mr TORTORA of the French Embassy in Stockholm, for help with the organization of our mission.

We do have to thank the Swedish Ornithologial Society and Mr PETTERSSON, head of the Ottenby Bird Observatory, for his welcome, his help and efficient support which greatly contributed to the success of the operations.

ANNEXE 1 : Swedish mission - Ottenby Bird Observatory
28 th of october - 4th of November 1990

List of the rings from Riks Museum Stockhlom

Results of recoveries at the 15th of April 1991

ring	date	age	wing (mm)	weight (g)	wear	recovery
6.115.400	28.10.90	4	205	340	3	
401	"	3	206	320	2	25.11.90, St-Urbain, Vendée, France
402	"	3	210	375	2	
403	"	4	202	360	2	
404	"	4	199	360	2	
405	"	4	200	340	3	
406	"	4	204	370	2	
407	29.10.90	1	203	355	0	Ballincollig, Cork, Ireland, 15.12.90
408	"	4	199	350	3	
409	"	1	197	340	0	
410	"	3	201	320	3	
411	"	4	202	320	3	09.12.90, Londigny, Charente, France
412	"	1	201	360	0	
413	"	3	203	340	3	
414	"	3	202	350	3	
415	"	1	205	375	0	
416	"	4	200	320	3	
417	"	3	195	360	2	
418	"	1	200	390	0	
419	"	4	205	410	1	
420	"	3	201	380	2	
421	"	3	209	390	3	
422	"	3	205	390	2	16.11.90, Gravelines, Nord, France
423	"	3	201	380	3	
424	"	4	205	320	3	

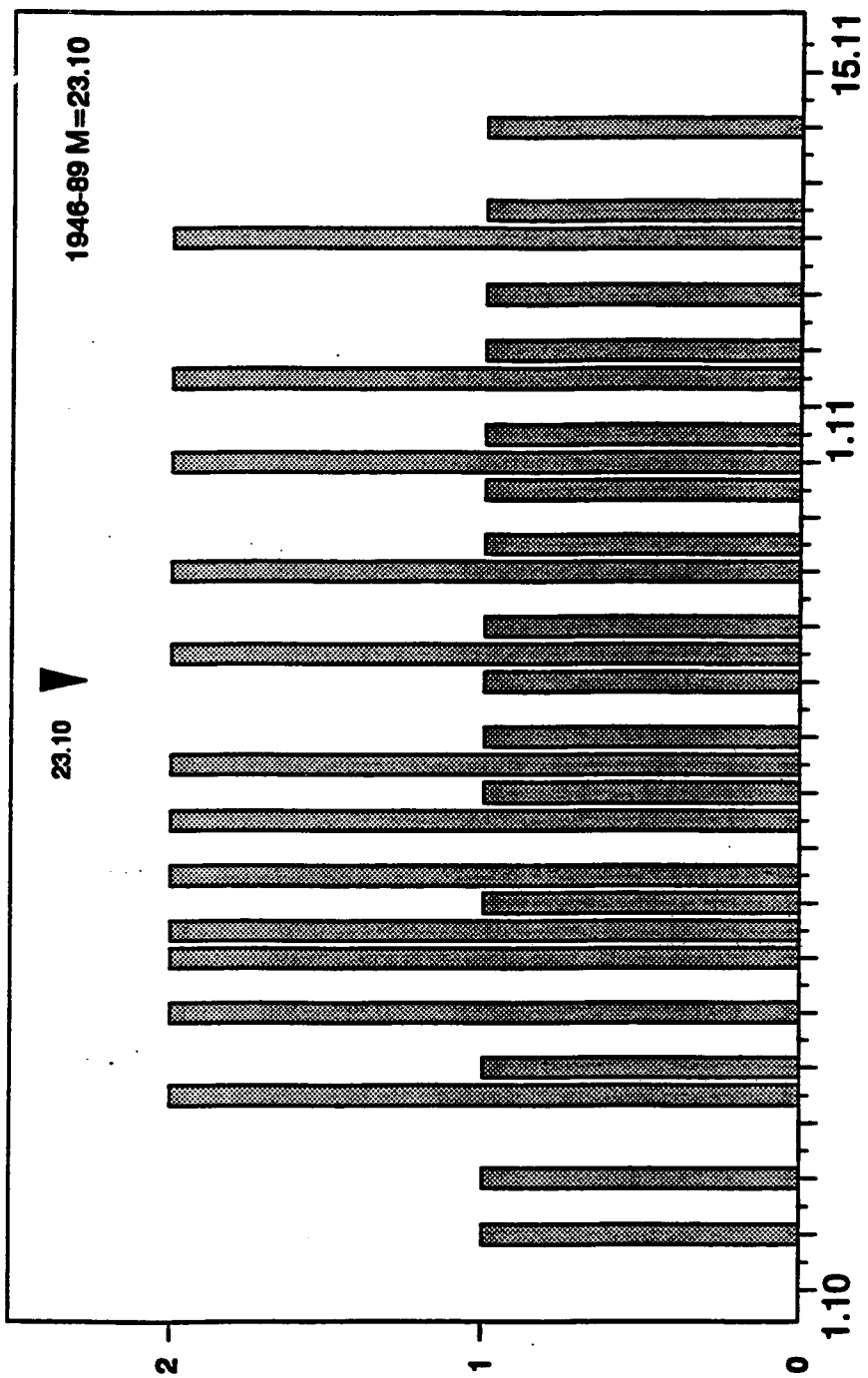
.../...

ring	date	age	wing (mm)	weight (g)	wear	recovery
6.115.425	29.10.90	1	198	330	0	
426	"	4	208	350	2	
427	"	1	204	340	0	
428	"	3	202	400	0	
429	"	4	196	380	2	
430	"	3	205	395	2	
431	"	4	198	390	3	
432	30.10.90	4	196	305	2	
433	"	4	210	400	2	24.11.90, Fécamps, Seine-Maritime, France
434	"	4	205	315	2	
435	"	4	192	365	2	29.11.90, Fouesnant, Finistère, France
436	"	3	199	320	3	
437	"	3	195	345	0	
438	"	4	197	350	1	
439	"	3	206	355	2	
440	"	3	192	320	2	
441	31.10.90	1	209	320	0	
442	01.11.90	4	205	380	1	
443	02.11.90	4	200	370	2	
444	"	1	212	330	0	
445	"	3	210	400	2	
446	"	1	207	370	0	
447	03.11.90	4	211	345	3	
448	"	1	203	425	0	
449	"	3	197	370		25.11.90, Auxi-le-Château, Pas-de-Calais, France
450	04.11.90	1	200	350	0	

age : 1 = adult
2 = indeterminate young
3 = early brood young
4 = late brood young

wear : 0 = no wear
1 = slight wear
2 = moderate wear
3 = strong wear

ANNEXE 2 : Distribution of the woodcocks ringed at Ottenby Bird Observatory between 1946 and 1989 (39 birds)
(Data from Ottenby Bird Observatory)



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Godel, M. (1989). Nesting of the Eurasian Woodcock, *Scolopax rusticola* L., in northwestern Europe. Vogelwarte **35**, 208-214 (German, English summary).

AH

Green, R.E. (1991). Sex differences in the behaviour and measurements of Common Snipes, *Gallinago gallinago*, breeding in Cambridgeshire, England. Ringing and Migration **12**, 57-60.

Field observations of marked birds indicated that common snipe can be sexed during the breeding season according to their behaviour; birds perching on posts and performing arched-wing displays are virtually certain to be males. In addition, birds caught on perches and assumed to be males had shorter bills and longer outermost retrices than birds trapped on the nest and assumed to be females. A discriminant function incorporating these measurements sexed 82-85% of birds correctly.

AH

Green, R.E., Hirons, G.J.M. & Creswell, B.H. (1990). Foraging habitats of female Common Snipe, *Gallinago gallinago*, during the incubation period. J. appl. Ecol. **27**, 325-335.

Radio tracking of ten female common snipe enabled periods of absence from the nest to be monitored and feeding sites to be identified. Female snipe were found to incubate the eggs alone and left the nest only for short periods (about 15 mins.) during daylight. They were absent from the nest for 22% of the time. There were individual differences in the type of habitat used for feeding and the distance of feeding sites from the nest. The use of these feeding sites was influenced by the density of invertebrates and the force required to probe the surface soil. Changes in the diet of birds were observed which related to the degree of surface flooding of feeding meadows.

AH

Hoglund, J., Eriksson, M. & Lindell, L.E. (1990). Females of the lek-breeding Great Snipe, *Gallinago media*, prefer males with white tails. Anim. Behav. **40**, 23-32.

The function of a white tail in intersexual and intrasexual selection was examined since male great snipe have more white than females and the amount of white also increases with age, especially from the first to the second year. By experimentally enlarging the white areas on the tails of some males the authors were able to show that the amount of white did not have any impact on intrasexual selection, i.e. male-male competition, but appeared to play an important role in intersexual selection, i.e. female choice of mate.

AH

Hoglund, J., Kalas, J.A. & Lofaldli, L. (1990). Sexual dimorphism in the lekking Great Snipe. Ornis. Seand. **21**, 1-6.

Measurements of *Gallinago media* showed that females were significantly larger than males for body mass and length of tarsus, wing, bill and bill plus head, whereas males had more white on the tail feathers. The authors believe that constraints on sexual selection set by natural selection, phylogenetic effects and sexual selection working on other traits (such as acoustic cues) may explain why the differences in size and plumage characters are not larger in great snipe.

AH

Hoglund, J. & Robertson, J.G.M. (1990). Spacing of leks in relation to female home ranges, habitat requirements and male attractiveness in the Great Snipe, *Gallinago media*. Behav. Ecol. Sociobiol. **26**, 173-180.

Nearest neighbour distances between leks were greater than expected from the diameter of female home ranges and the detection distance of leks. It is proposed that leks are initially established at a density such that an average female home range should encompass more than one lek, but that females subsequently resettle according to preferences for certain males and/or larger leks. Some leks are then abandoned and the distance between leks is increased as unattractive males become more tightly clumped around attractive ones in an attempt to intercept females.

AH

Hoglund, J. & Robertson, J.G.M. (1990). Female preference, male decision rules and the evolution of leks in the Great Snipe, *Gallinago media*. Anim. Behav. **40**, 15-22.
A male removal experiment showed that the central position of dominant males was a consequence instead of a cause of high mating success. It is suggested that leks have evolved because some males are unable to attract females on their own and the best mating strategy for these birds is to associate with attractive males.

AH

MacKenzie, D. (1991). Where earthworms fear to tread. New Scientist, 10 August 1991, pp31-34.
Further news concerning the predatory flatworm, *Artioposthia triangulata*, that is threatening earthworms in Ireland and Scotland. At present the flatworm appears to be spreading slowly but the impact on local earthworm populations has been dramatic. The current fear is for reduced fertility of agricultural land but it is conceivable that wintering woodcock might also be affected.

AH

Massoli-Novelli, R. (1987): Beccaccino, Frullino e Croccolone in Italia. Ricerche di Biologia della Selvaggina 79, 23 pp. (Italian; English, French and German summary).
The author's 1961-1985 bag statistics and field observations in Sardinia are discussed. These concern 2.834 Common Snipe (Gallinago gallinago), 112 Jack Snipe (Limnocryptes minimus) and 22 Great Snipe (Gallinago media) bagged during 25 years in the same two wetlands. A comparison of the Sardinia migration periods with similar statistics from Italy's central plateau shows a later spring migration in mountain wetlands than in coastal areas.
Other important data come from the ringing recoveries of 307 Common Snipe, 17 Jack Snipe and 6 Great Snipe, all of which were ringed in other countries. Migration routes are discussed in the light of these recoveries.

HK

Muller, H.E.J. & Konigstedt, D. (1989): Biology and identification of the Great Snipe, Gallinago media. Limicola 3, 197-216. (German, English summary).

AH

"NAUKA" (1985): Migrations of birds of Eastern Europe and Northern Asia - Gruiformes, Charadriiformes. Academy of Scienes of the USSR, Moscow. 303 pp. (Russian, graphs with English texts).
Recoveries of Woodcock, Snipe, Great Snipe and Jack Snipe ringed in Eastern Europe and Asia are mapped. Some Gallinago media ringed near Moscow have been recovered in Africa south of the equator. Recovery rates of Woodcocks ringed in Baltic countries between 7 and 26%.

HK

Nyenhuis, H. (1990): Migration routes used by the Woodcock (Scolopax rusticola L.) in north-western Europe. - Vogelwarte 35: 208-214. (German, English summary).
From 1926 until 1985, a total number of 115 ringed woodcocks were registered at the ringing centre situated on the island of Heligoland. The percentage of birds found shot amounted to 83,5%, whilst 9,6% were recovered as cadaver. Age calculations show that ca. 75% of the birds were fully-grown, approximately 21% were juvenil but fully-fledged, and six nestlings had been ringed.
The individual recovery locations are mapped. Of the birds which were ringed during fall migration, 30% were recovered and registered in the same season. Those recovered on return migration amounted to 10%.

HK

Pedersen, M.B. (1990): Projekt Dvärgbeckasin. Vår Fågelvärld 49: 485-487 (Swedish).
Report on a study on distribution, habitat requirements, population densities of the Jack snipe (Lymnocryptes minimus) in Southern Sweden.

HK

Porkert, J. & M. Grosseova´(1991): Datensammeln für zoologische Forschung - II. Waldschnepfe (Scolopax rusticola). Der Präparator 37/3: 112-115 (German, English and French summary).
Analyses of several hundreds of male woodcocks shot when roding in spring in various regions of central and eastern Europe by taxidermists. Detailed measurements of testes.

HK

Ryšavý, B. & J. Farkaš (1982): Occurence of tapeworms in woodcock in Slovakia. Folia Venatoria 12: 261-268 (Slowakian, English and German summary).
During the hunting seasons in 1975, 1976 and 1977 a total of 317 woodcocks killed in Slovakia during spring flight was investigated. Of them, 15 (4.7%) were females.
Helminthological examination was made on 134 woodcocks, and the parasites found were quantitatively analyzed.

HK

Sepik, G. & Blumenstock, M. (1989): The American Woodcock: A species on the decline. Maine Agric. Exp. Stn. Misc. Rep. 336, 260. (Abstract only).

AH