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Compiled by Yves Ferrand
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Office national de la chasse et de la faune sauvage
Research Department
Migratory Birds Unit
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44323 Nantes Cedex - France

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This Newsletter seeks to be a contact organ to inform the members of the Woodcock and Snipe Specialist Group (WSSG), a research unit of Wetlands International (WI) and of IUCN, the International Union for Conservation of Nature. The subjects of WSSG are species of the genera *Scolopax*, *Gallinago* and *Lymnocryptes* that in several respects differ remarkably from all other wader species. For this reason a separate research unit was established.

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Editorial

The publication of the proceedings of our 7th Woodcock & Snipe European workshop was one of the events in 2013 for the WSSG. This is the final point of this workshop which allows everybody to remember important information on our work in the Woodcock & Snipe world.

A very exciting news published in 2013 is the rediscovery of Moluccan Woodcock *Scolopax rochussenii* during a French ornithological survey of the Obi archipelago in 2010. This species has not been observed since the beginning of 1980s and is classified as “Endangered” by IUCN and BirdLife International. During the expedition, its vocalization was registered for the first time and knowledge about its habitats was improved.

In addition to usual papers published in the WSSG Newsletters, you will find in this issue two new articles which show the dynamism of biologists involved in Woodcock & Snipe research. First, Spanish colleagues have launched a study of migration of Common Snipe and Jack Snipe using geolocators (GLS). Thirty birds were equipped in 2013 and results are expected in the coming months. Secondly, Russian colleagues have explored the Woodcock roding behaviour in Sakhalin Island. To my knowledge, it is the first time we get this kind of data at the eastern side of the breeding range, close to the Pacific coast, and their contribution is precious.

In the western part of Europe, the major research topic remains the migration of Woodcock thanks to satellite tracking. After a pioneer period instigated by Spanish colleagues, the biologists of the Game Conservancy Trust in Great-Britain are now the leaders with near 30 tagged birds. One of the main results so far is a higher proportion of Siberian birds than expected among woodcocks wintering in Western Europe. Technological improvements should encourage other countries to participate in this very exciting research field, using also GPS.

Finally, I remind you that the whole WSSG Newsletters’collection is now available on the Wetlands International website at the page of our Specialist Group. It is a great opportunity to have a look on our work carried out during near 40 years.

I wish you a very happy New Year and much success with your scientific work.

Yves Ferrand
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The Moluccan Woodcock Scolopax rochussenii*, a species recently rediscovered.*
(from « La Bécasse des bois – Histoire naturelle », Effet de lisière – Editeur ; © P. Tatre)

2013 Belarus Woodcock Report

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Woodcock ringing and study of migration were conducted in the Berezinski Reserve vicinities from the 23rd September to the 28th October. It is the tenth season of ringing. This autumn was very warm and moderately rainy. Total rainfall during September – October was less than the last year quantity (92.4/81.9 mm). The sum of minimal temperatures in September and October was significantly higher than in previous years (405/269 - 385). Light ground frosts occurred only in the second half of October.

Night ringing trips were carried out 2-4 times per pentad. A high abundance of woodcocks was recorded during these trips in the fourth pentad of October (Figure 1). Passage dynamics of woodcock according to grouped observations per pentad are presented in Figure 2. The peaks of migration were recorded in the end of September and the fourth pentad of October. Late migration of woodcock in the second half of October is probably related to the high temperatures during this month.

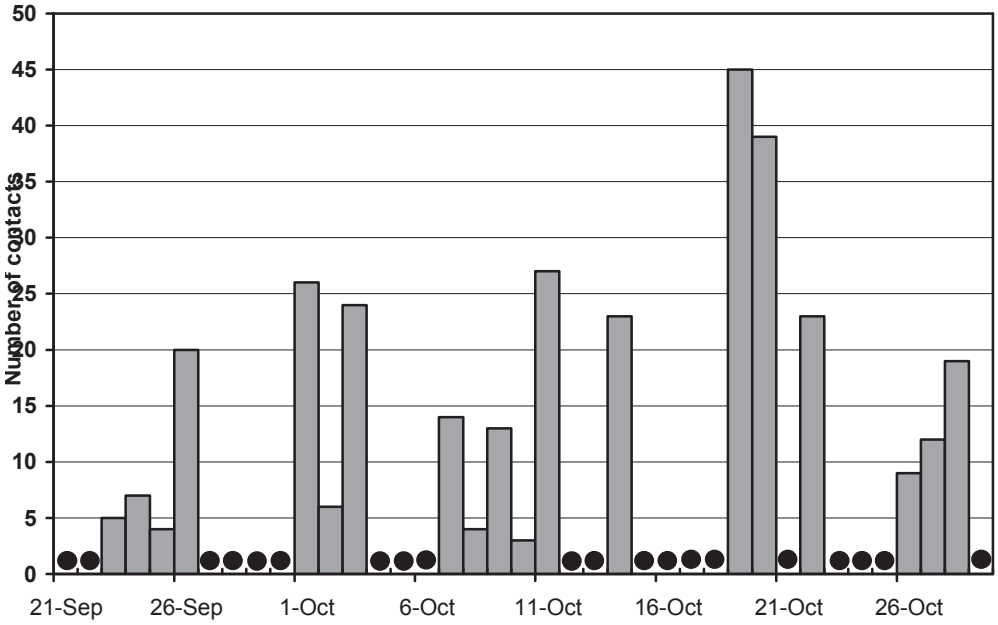

Figure 1. *Passage dynamics of Woodcock according to records of nocturnal contacts in vicinities of the Berezinsky Reserve in 2013. The black dots indicate days without counts on stationary census plots.*

This year, 323 contacts were registered during 38 hours and 62 birds were caught. The mean number of contacts per hour recorded during the ringing trips was 8.5. It is the highest value for the last 9 years (Figure 3). The proportion of juveniles among caught birds was also very high (79.6 %). Juveniles of late broods represented 36.6 % of the total juveniles. Many contacts during the ringing trips and a high proportion of juveniles probably confirm a good breeding success.

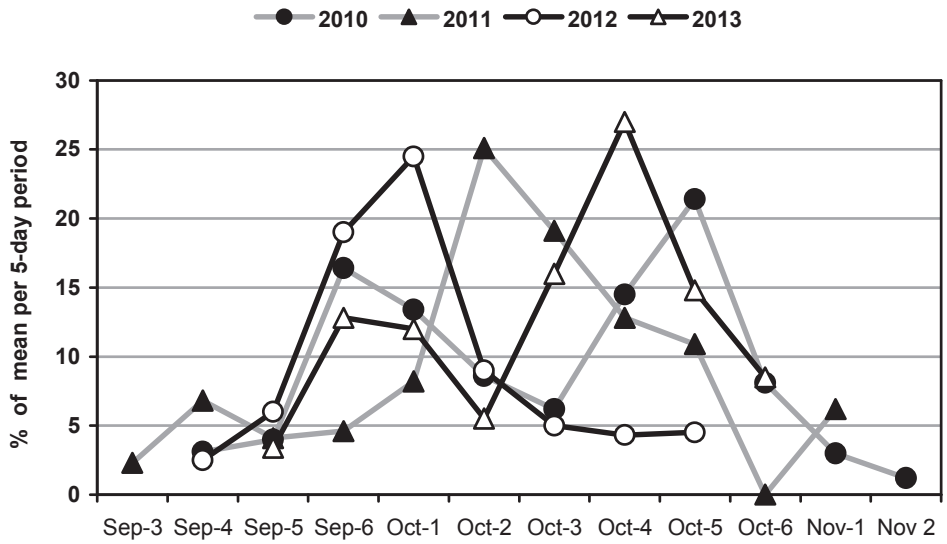

Figure 2. *Passage dynamics of Woodcock according to records of nocturnal contacts in 2010 - 2013. Data grouped in five-day periods.*

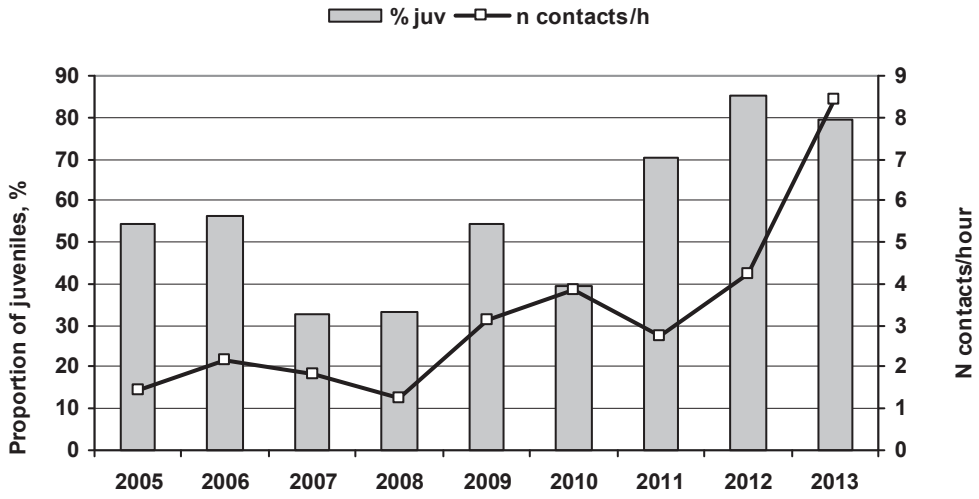

Figure 3. *Annual fluctuations of the number of contacts per hour during ringing trips and proportion of juveniles among caught woodcocks.*

Year	N ringed birds	N direct retraps	N indirect retraps	N direct recoveries	N indirect recoveries
2004	16	-	-	1	2
2005	33	2	-	2	-
2006	46	-	-	1	1
2007	54	-	1	1	5
2008	40	2	2	5	2
2009	34	1	1	2	4
2010	74	6	2	9	2
2011	54	4	-	3	1
2012	46	6	1	1	-
2013	51	8	2	-	-
Total	**448**	**29**	**9**	**25**	**17**

Table1. *Ringing results collected for the 2004-2013 period.*

This autumn, we ringed 51 woodcocks and 8 birds ringed this year were retrapped at the same places after 5-29 days. Two birds ringed in the last year were also retrapped. The catching success rate was only 20.4 %, which was less than the last year (28.3%). Trapping was conducted on grasslands where vegetation and soil were treated with ammonia solution. The noise when walking on dry vegetation and high density of feeding birds (up to 25-30 birds per 10 ha) sometimes prevented successful trapping. In total, 448 woodcocks were ringed during ten years, 2004-2013 (Table 1). Now 42 recoveries of Belarusian rings have been received from France (28), Spain (5), Italy (5), Great Britain (2), Ireland (1) and Russia (1).

New studies of the Great Snipe population in Belarus

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The Great Snipe is currently classified as "Near Threatened" at global level or SPEC 1 (IUCN 2002; Birdlife International 2004). Thus its conservation is among the nature conservation priorities in Europe. One of the large breeding populations of Great Snipe is located in Belarus and estimated at 4,600 – 6,000 males (Mongin 2002). The first important data concerning the numbers and biology of this species in Belarus were collected during the implementation of a special project in 2000-2001. According to the gathered data it was supposed that during the past 40 years, a 2-2.5-fold decline of the breeding population in Belarus was caused by habitat loss. Support from the Rufford Small Grant and the Flagship Species Fund allowed us to significantly extend our field studies of the species and to develop the National Conservation Action Plan (Mongin 2008, Mongin *et al.* 2009). The project contributed to the successful protection of Great Snipe which was included in the list of protected birds.

Nevertheless, some factors increase the negative impact of habitat loss on the breeding population, and other threats still remain. The gathered data indicated the disappearance of some leks or the reduction of bird numbers due to habitat overgrowth as in the Sporovo Reserve. Unfortunately, the hunting lobby is trying to exclude the species from the Red Data Book of Belarus and to re-authorize its hunting.

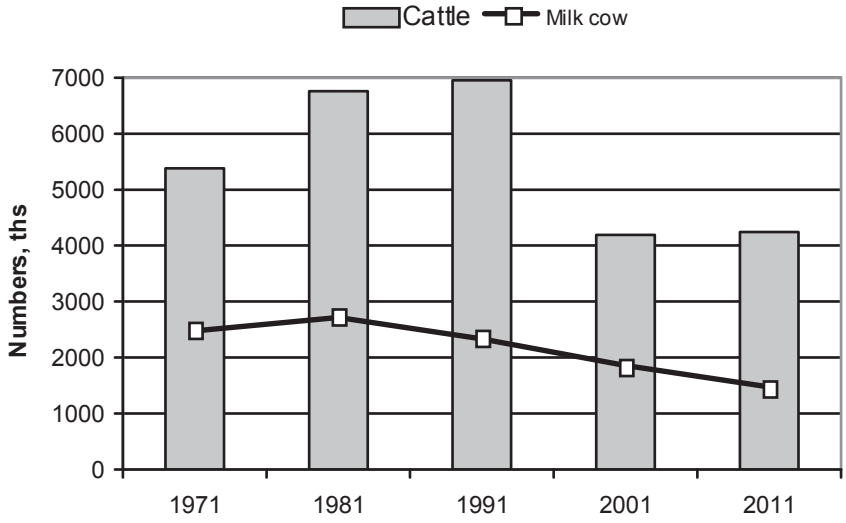

Figure 1. *Trend in the numbers of livestock in Belarus, 1971-2011.*

This year we are supported by the Rufford Small Grant to continue the study and conservation of the species within the project "Breeding population of Great Snipe in Belarus: Trends, Current Threats and Pilot Restoration of Habitats". During the implementation of the project, we plan: (1) to estimate conditions of key breeding habitats of Great Snipe discovered in 2001-2006 and to identify current threats; (2) to compare numbers of males in key breeding sites with data of previous censuses; (3) to conduct a training workshop with the Sporovo Reserve staff on ecology of the species and possible measures for maintaining the breeding population; (4) to perform a pilot restoration of the breeding habitats in the Sporovo Reserve using a special combine for mowing and cutting bushes; (5) to increase public awareness and attract attention to the issue of the species conservation.

Preliminary Results

Censuses of Great Snipe on the leks were conducted in floodplains of Pripyat, Neman, Shchara, Berezina and Gayna Rivers. As a result of very high floods until mid-June, many leks moved in other places. We recorded the disappearance of two leks in the valley of the Shchara River caused by the stop of grazing and overgrowth of floodplain meadows. The study of breeding habitats in the Sporovsky Reserve also showed a significant reduction in the number of birds due to overgrowth and the deterioration of conditions for nesting. The number of displaying males was reduced five-fold in these habitats.

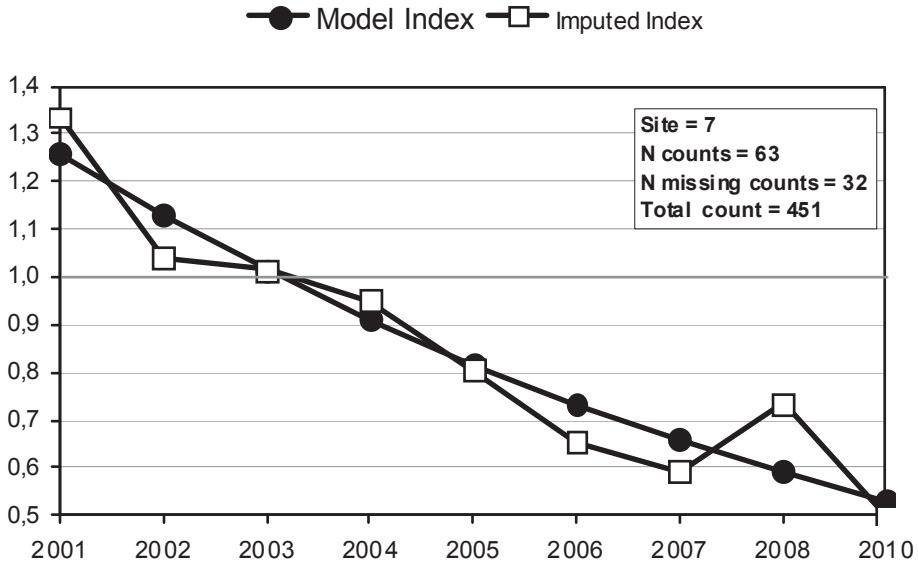

Figure 2. *Linear trend model with change points for the number of Great Snipe males on leks. Overall slope model: moderate decline ($p<0.05$); overall slope imputed: moderate decline ($p<0.05$). A moderate decline is a significant decline, but not significantly more than 5% per year.*

Floodplain grazing meadows and rich fens are the main breeding habitats of Great Snipe. Unfortunately, further reduction of breeding habitats will obviously occur, since even the official statistics show a decline in numbers of dairy cattle (Figure 1), which graze mainly on floodplain meadows. Besides, some cows were transferred to stalled keeping.

To determinate the species trend in key breeding habitats, we used the TRIM program. TRIM (version 3.53) is a program for the analysis of count data obtained from monitoring wildlife populations. It analyses time series of counts, using Loglinear Poisson regression and produces estimates of yearly indices and trends. Preliminary analysis of count data for the period 2001-2010 showed a moderate decline of male numbers on leks (Figure 2).

Woodcock report from Hungary – Spring 2013

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The woodcock monitoring program started in 2009 at a national scale in Hungary (Schally *et al.* 2010) continued in 2013. The main purpose of the project is to collect reliable information about the species and to maintain an adaptive harvesting. We gather information about the temporal intensity and the spatial pattern of roding activity, which we use as an indicator of the status of migration. This brief report presents the basic data collected in spring 2013 compared to the results of the previous years of the program.

Roding surveys (Ferrand 1993) were weekly performed by participating observers. The synchronized censuses took place every Saturday night from 16 February to 4 May in 2013. The number of observation points was 907 and the total number of observation forms was 10013. The locations of the points were chosen by the observers and they are similar from one spring to another. The observers recorded on standardized forms the number of contacts (woodcocks seen), and additional information (estimated size of the visible area, duration of observation, weather conditions and land cover types surrounding the observation point).
In order to describe the characteristics of migration, we used the following methods of data analysis:

- Descriptive statistics were calculated from the number of contacts for each observation week. Their variation represents the temporal dynamics and intensity of roding.
- Temporal dynamics of the national occupation rate were calculated for each year. These rates correspond to the % of listening points at which at least one detection was recorded (positive site) (Ferrand *et al.* 2008) at each week. It can also be used as an index of the spatial pattern of roding.
- Temporal dynamics of the rate of high abundance sites were calculated for each year. These rates correspond to the % of positive sites at which at least five detections were recorded at each week. They also can be regarded as a spatial pattern concentrated on preferred areas.

We used Kruskal-Wallis Test with Dunn's multiple comparisons test to detect differences in the number of contacts reported at the annual peaks of roding intensity.
Data management and statistical analyses were performed using Microsoft Excel 2003; R (v2.15.0) and GrahPad InStat (v3.05)

Since the contact numbers in 2013 were similar to the ones of the previous years, the low values reported in 2012 (Schally *et al.* 2012) might not indicate a negative trend in the population. The highest rate of positive sites was 84.3 % and the highest rate of high abundance sites was 22.1 % this year. Woodcock presence and abundance was similar to the previous years at the peak of roding activity, however there was a slight temporal shift. Detections at the end of February and the beginning of March were similar to previous seasons, but at mid-March there was a very rapid and drastic downturn (Figure 1), which can be explained by the decrease in the temperature and the reappearance of heavy snow. A very similar phenomenon was already observed in 2010 (Bleier *et al.* 2010) but at a much smaller spatial scale. One week after this decrease, the number of contacts rose until the beginning of April (6 April); several observers reported that they noticed an unusually high amount of birds at their points in that period.

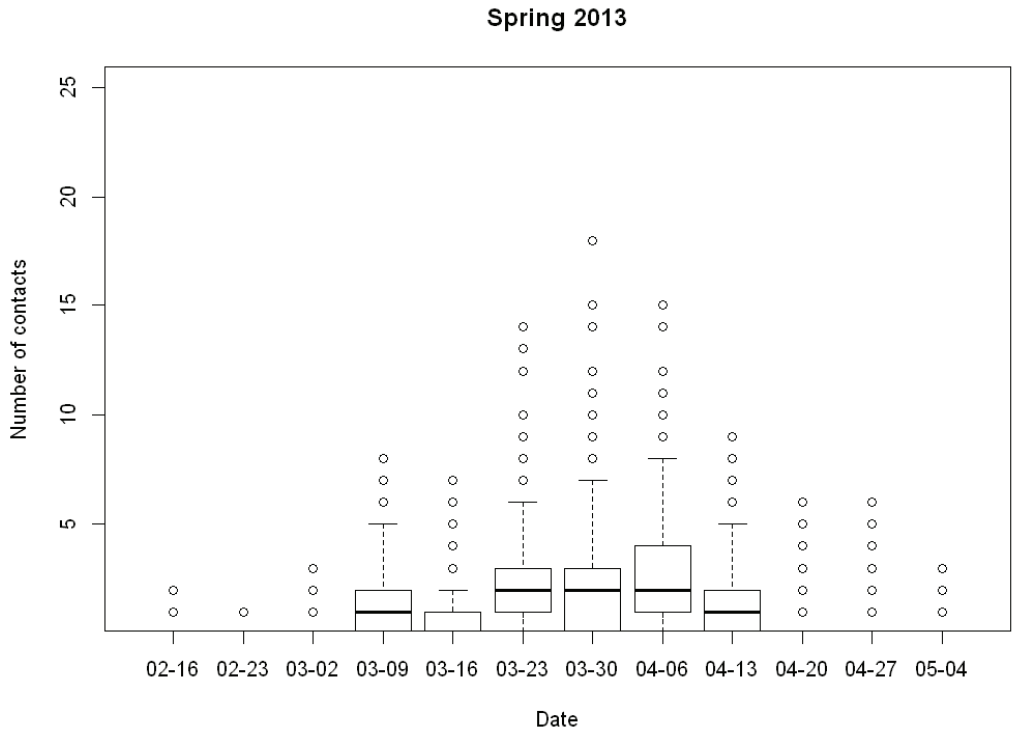

***Figure 1**. Intra-annual distribution and statistics for the number of contacts in spring 2013(empty circles represent outlier data).*

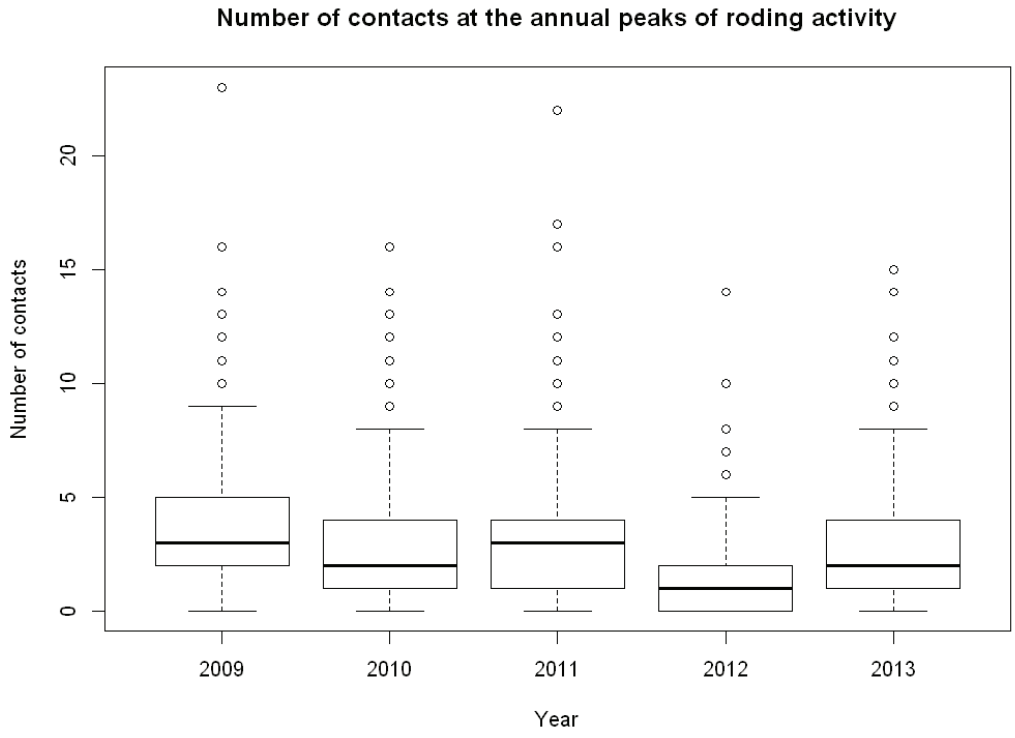

***Figure 2.** Statistics of the number of contacts for the annual peaks of roding intensity(empty circles represent outlier data).*

We found a difference among the annual peaks (Kruskal-Wallis Statistic KW = 339.95 P < 0.0001) (Figure 2). The number of contacts in 2013 differed from the data of 2009, 2011 and 2012, but no difference was found compared to the data of spring 2010.

We suppose that the majority of migrating woodcocks stopped over due to the unfavorable environmental conditions in mid-March but continued their migration more intensively after that. As the snow cover lasted long in several places in the country, the birds may have concentrated in smaller patches.

The monitoring program has been running on a national scale for five years but is planned to continue for one more additional year. Our aim is to continue and improve monitoring of the species in the future based on the knowledge gathered along that period. We are grateful to everyone who persists in collecting woodcock data from the beginning of the program. We are also thankful to the Hungarian National Chamber of Hunters and the Ministry of Rural Development for their help in coordination. The research was also supported by the Research Faculty Grant of the Hungarian Ministry of Human Resources (7629-24/2013/TUDPOL).

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2013, a good breeding season for Common Snipe in European Russia

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In spring 2013, the cooperation between Russian Society for Conservation and Studies of Birds and *Office national de la chasse et de la faune sauvage* (ONCFS) concerning the monitoring of Common Snipe (*Gallinago gallinago*) populations in European Russia has been continued. In April-July 2013, the census of "drumming" Snipe was made at the same control sites and with the same protocol as in 2012 (Blokhin 2012). In addition, some new control sites have been established in the territory of Arkhangelsk, Kursk, Penza, Perm regions and the Moscow Region. As a result, the total number of control sites reached 130 and their total area was 99.95 km^2.

Weather conditions of the 2013 season and their effect on Common Snipe

North region: south tundra and forest-tundra. Spring began at usual time and a sudden warming occurred in early June. In middle June, the flood was prolonged and high. Weather conditions in spring were in the average but summer was hot and dry. Temperature was favorable for Snipe breeding but not humidity.

North region: north taiga. After a snowy winter, spring was late and rapidly settled down but it was dry. Cold weather lasted till the third decade of May, and then a sudden warming occurred. Daily temperatures were above 20˚C till the end of the census works. There was no precipitation till the second decade of June. Draught resulted in a drop of the water level in rivers at the minimum, and many over-damped plots dried out. But despite draught, moisture remained on boggy lake shores and river banks, bogs and swampy clearings. As a result, the year turned out to be favorable for Snipe breeding.

Ural region: south taiga. Spring was late. It was cold in late April - early June, with frost, and no high flood was observed. By the time of the start of the census works in the early third decade of May, it had been raining and cool. Then, the weather conditions became better.

Central region: south taiga, mixed coniferous-deciduous forest and deciduous forest. Spring came late, but turned out to be quick and very warm. As a result of late and massive snowmelt, dampness was sufficient in the Snipe breeding period. A high and prolonged flood was observed. This had not happened for a long time. Flood-land meadows, riverside woods and bogs were covered with water from mid-April to mid-May. As a result of prolonged flood in flood-land habitats, the Snipe census had to be conducted later than scheduled. At the same time, floods guaranteed long-time maintenance of damped habitats, and 2013 turned out to be favorable for Snipe breeding.

Volgo-Vyatsky region: mixed coniferous-deciduous forest. Spring was late and quick. Flood was high and flood-lands were submerged in late April - early May. On the whole, the conditions were favorable for Snipe breeding.

Volga region: deciduous forest. Spring was very early and fairly dry. However, despite weak precipitation, all habitats were highly damped.

Central Black Earth region: deciduous forest and forest-steppe. Winter was very snowy, and a record amount of snow fell in March. From early April the weather became suddenly warmer. As a result, in the beginning of the second decade of April the snow had already melted, most rivers released from ice and flood reached its peak. The rainy spring was favourable for Snipe breeding.

Results

South tundra

In the basin of Pechora river in the north-east of Bolshezemelskaya tundra (Komi Republic) the Snipe density was 8.5 pairs/km² (± 1.6) in flat-hilly peatlands with willow bushes on watersheds and 4.4 in fen bogs in flood-lands.

Forest-tundra

In the south-east of Bolshezemelskaya tundra (Komi Republic), Snipe was less common (3.4 ± 1.0 pairs/km^2) in large-hilly bogs on watershed than in valleys and river flood-lands (5.0 ± 1.2).

In spite of favourable weather conditions in south tundra and forest-tundra, the number of Snipe was lower in 2013 than in 2004-2008 on the whole control sites (Pechora basin, Usa river) but higher than in 2012. The decline was especially noticeable on flat-hilly bogs, river valleys and flood-lands (Figure 1).

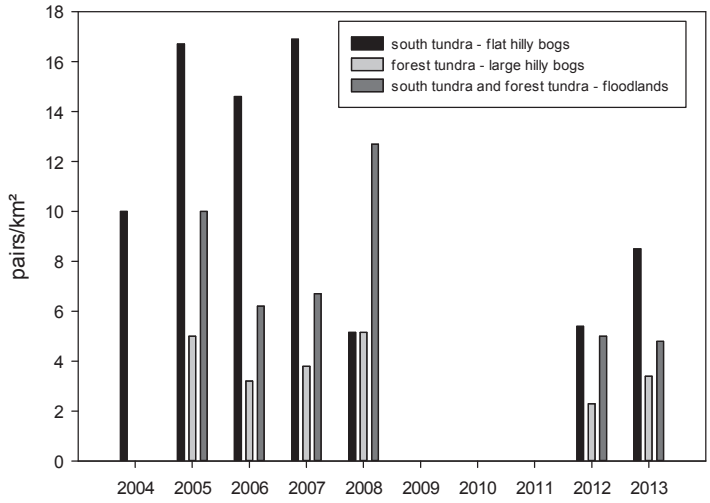

Figure 1. *Breeding Snipe density in swampy habitats of south tundra and forest-tundra.*

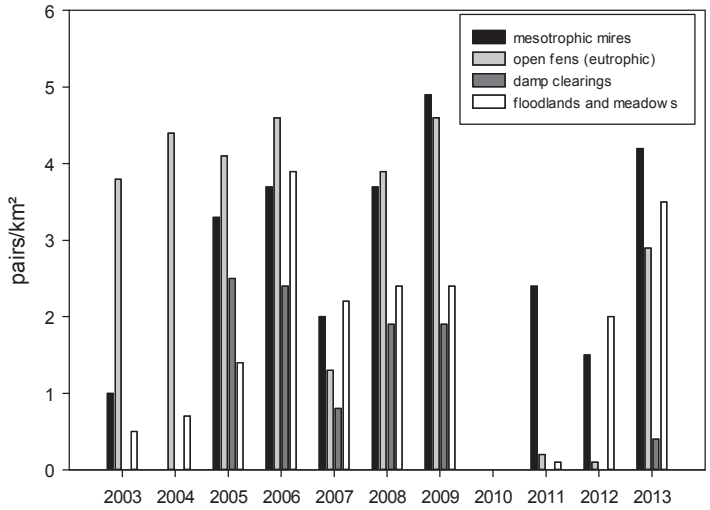

Figure 2. *Breeding Snipe density in swampy habitats of north taiga.*

North taiga

In the basin of Severnaya Dvina river (Pinega river and Pokshenga river, Arkhangelsk province), Snipe was noticeably less common in damp clearings (0.4 ± 0.2 pairs/km^2) than in other types of habitats. The densities were 2.9 ± 0.4 pairs/km^2 on fen bogs, 4.2 ± 0.5 pairs/km^2 in mesotrophic bogs and 3.5 ± 0.6 pairs/km^2 on flood-land damp meadows and meadows mixed with fen bogs. In all habitats (the densities were higher in 2013 than in 2012 but especially in flood-land meadows and mesotrophic bogs (Figure 2).

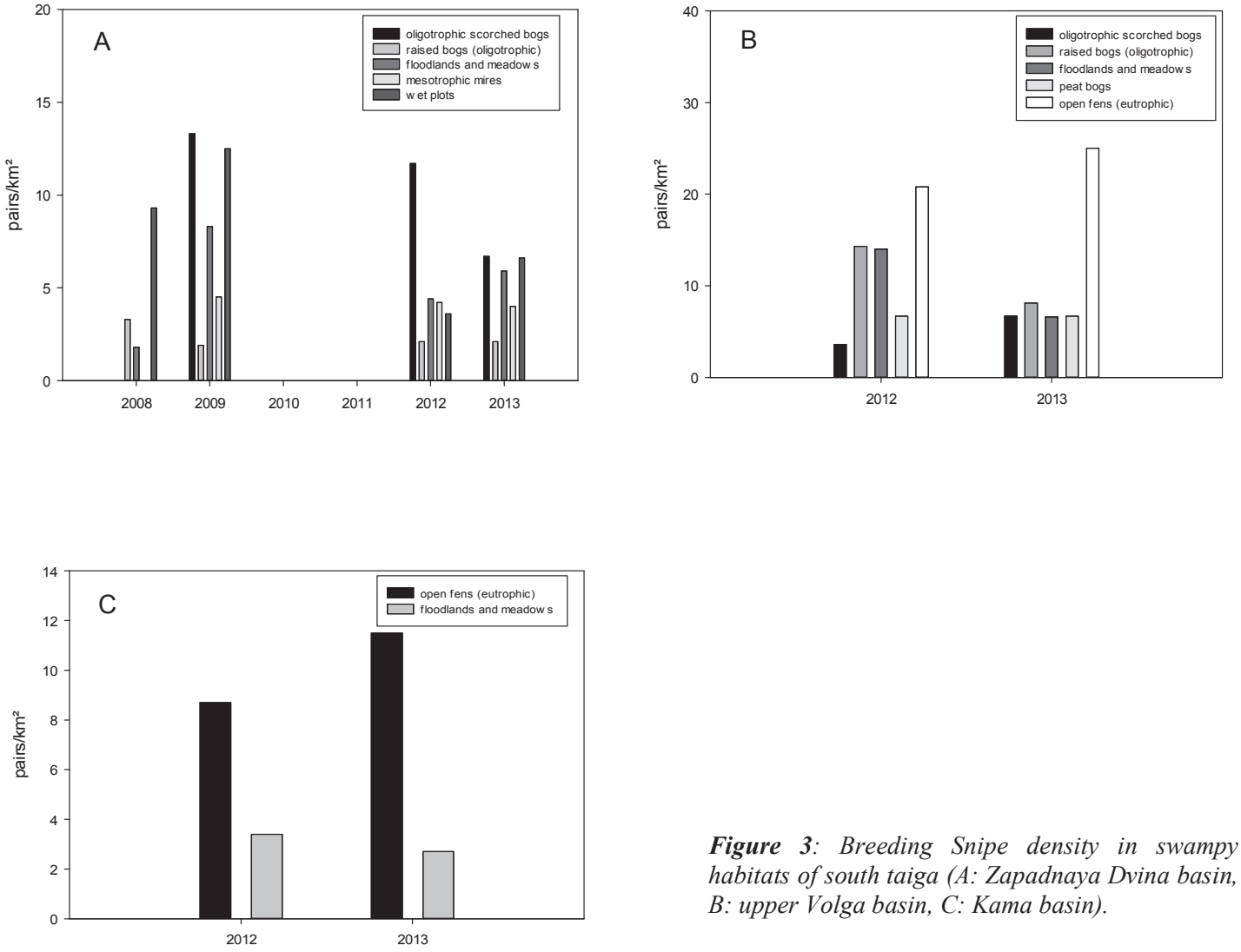

***Figure 3**: Breeding Snipe density in swampy habitats of south taiga (A: Zapadnaya Dvina basin, B: upper Volga basin, C: Kama basin).*

South taiga

In the basin of Zapadnaya Dvina river (Smolensk province), the censuses showed rather high numbers of Snipe in damp kettles near uninhabited villages and wet spots in farmlands (6.6 ± 1.0 pairs/km^2). In river floodlands, Snipe breeds in grass and tussock meadows (5.9 ± 1.8). On the edges of high sphagnum bogs and in mesotrophic bogs, the densities were 2.1 and 4.0 ± 2.8 pairs/km², respectively. The highest density was recorded on burnt high bogs: 6.7 pairs/km².

In the basin of upper Volga river (Ivanovo province) at burnt places, the Snipe density was 6.7 ± 1.2 pairs/km^2. On high bogs with isolated shortish pines Snipe occupied areas closer to bog edges and their density was estimated at 8.1 ± 2.7 pairs/km^2. On peat quarries fully covered with floating bog, the Snipe density was 12 pairs/km^2. On damp

flood-land meadows, the density reached 13.9 pairs/km^2. In a reed eutrophic bog in flood-lands, a high Snipe density was registered: 25 pairs/km^2.

In the basin of Kama river (Perm Territory), the highest Snipe density was noticed on an open fen bog (20.0 pairs/km^2). Densities were 3.0 in a mesotrophic bog located in an old peatery and 3.1 ± 0.7 in a damp motley-grass meadow on the site of a drained fen bog and in a damp meadow (former pasture).

At the boundary of south taiga and coniferous-deciduous forest (Zapadnaya Dvina basin, Yelsha river), the density of drumming males increased in 2013, compared with the previous year, on wet spots in farmlands near uninhabited villages and flood-land meadows. In high and mesotrophic bogs the densities turned out to be similar to those of the previous years. The Snipe density substantially dropped only in high burnt-out bogs (Figure 3A). In other areas of south taiga (Ivanovo province and Perm Territory), the Snipe density increased in fen bogs compared with 2012 but decreased in meadows (Figures 3B, 3C).

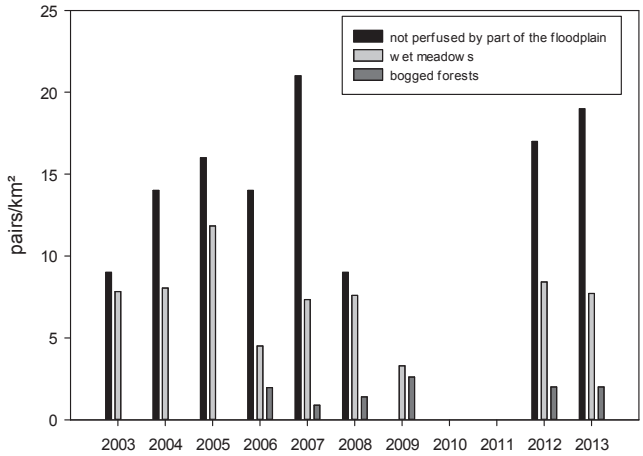

Figure 4. *Breeding Snipe density in swampy habitats of coniferous-deciduous forest.*

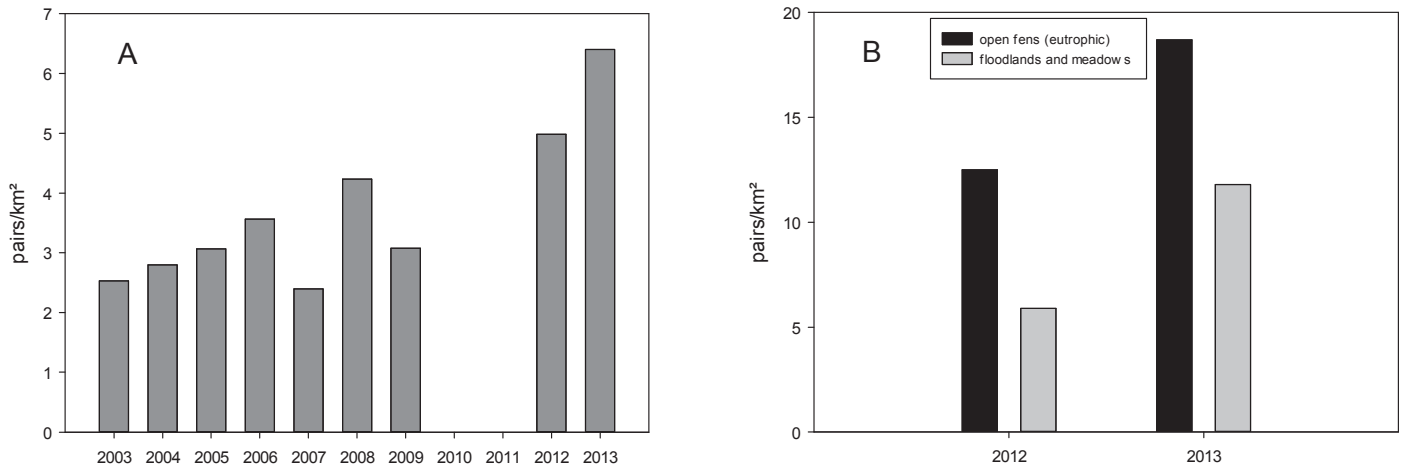

Figure 5. *Breeding Snipe density in swampy habitats of deciduous forest (A: Moskva river,B: Sura river).*

Coniferous-deciduous forest

In the basin of upper Volga river (Vladimir province, Moscow Region, Ryazan' province), the following densities were registered: 6.0 ± 0.8 pairs/km^2 in flood-lands where flood-land meadows alternate with sedge fen bogs and temporary pools,19 pairs/km^2 in dry areas of flood-lands and 2.0 ± 0.6 pairs/km^2 in waterlogged forest. 11.7 ± 2.9 pairs/km^2 were found in meadow areas adjoining waterlogged depressions and 14.9 ± 1.7 pairs/km² in mesotrophic bogs.

In the basin of middle Volga river (Mordovia), the Snipe densities were 6.7 pairs/km^2 in mesotrophic bogs, 11.8 ± 3.7 in river valleys in open fen bogs, 6.7 in forest fen bogs, 8.6 in peateries, 5.7in damp flood-land meadows and 2.7 in high bogs.

The 2013 breeding season was remarkable for its much higher moisture compared with 2012 and the Snipe densities were high in watersheds (Taldom Eminence) and in areas outside of flood-lands (Volga basin, Dubna river). In flooded flood-lands (Volga basin, Klyaz'ma river), the Snipe density was also found to be high compared with the previous years (Figure 4).

Deciduous forest

In areas of sedge fen bogs in combination with hydromorphic meadows, river flood-lands of upper Volga river (Moscow Region), 6.4 ± 1.1 pairs/km^2 were recorded. In similar Snipe habitats in flood-lands of middle Volga basin (Penza province) we found 10.4 ± 3.1 pairs/km^2. The Snipe density reached 5.7 pairs/km^2 in the basin of middle Volga in a watershed fen bog located in a former peatery and 5.1 ± 1.4 pairs/km² in flood-land fen bogs. The lowest Snipe density was observed on damp meadows in interfluves (3.8 pairs/km^2).

In flood-lands of the Dnepr basin (Kursk province), the Snipe density on damp meadows in combination with fen bogs was 8.3 ± 1.7 pairs/km^2.

The flood-lands of rivers in central Russia were immersed for long time in the 2013 season. In "Faust" flood-land (upper Volga basin, Moskva river) a strong second flood occurred, and almost all first clutches had been lost, therefore Snipes re-nested with a great delay. Nevertheless, the highest number of snipes for all study years was registered here (Figure 5A). In Volga region (middle Volga basin, Sura river) the number of snipes in flood meadows and fen bogs was noticeably higher than in 2012 (Figure 5B).

Forest-steppe

In flood-lands of the Dnepr basin (Kursk province), the Snipe density in damp meadows in combination with fen bogs reached 4.2 ± 0.2 pairs/km^2 and 5.8 ± 2.0 pairs/km^2 in fen bogs.

In 2013, the number of Snipe in artificial fen bogs (former peateries and former fish ponds) was slightly higher than in 2012, and lower on flood meadows (Figure 6).

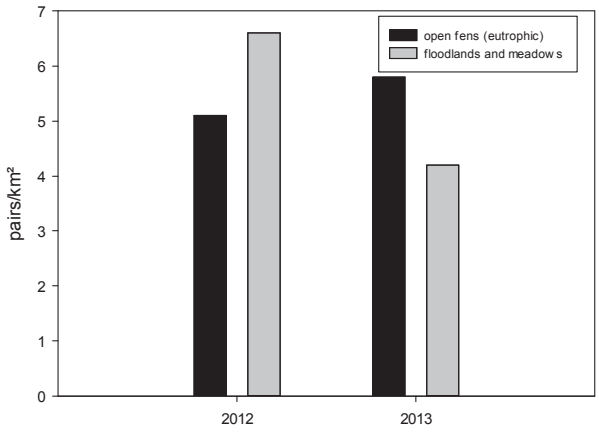

Figure 6. *Breeding Snipe density in swampy habitats of forest-steppe.*

Conclusion

We should note that the last season turned out to be very favourable for Snipe breeding in a great part of European Russia. The censuses showed that in 2013 the Snipe density was higher than in 2012 in tundra (4.4 - 8.5 pairs/km² depending on habitats), in forest-tundra (3.4 - 5.0), in the deciduous forest subzone (6.4 – 18.7), in open fens in forest-steppe (5.8) and in north taiga (0.4 - 4.2). The densities remained at the same level in south taiga (2.1 - 25.0) and in the coniferous-deciduous forest subzone (2.0 - 19.0).
The highest Snipe density was registered in flood-land fen bogs in south taiga (25.0) and the lowest in damp clearings in the north taiga subzone (0.4).

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Reference

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2013 European Russia roding census and Woodcock ringing report

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The weather conditions were good for Woodcock during the 2013 breeding season in Central Russia: wet, rainy and warm. This occurred after a high snow level and heavy precipitation before spring migration. On the opposite, the spring and summer weather conditions were bad (too dry) in North Russia.

The 15th National Woodcock Roding Census

The 15th National Woodcock Roding Census was organized by the Moscow Woodcock research group, the Russian Hunting Association *Rosokhotrybolovsoyuz*, several hunting offices and the "Russian hunter" newspaper. It was carried out on May 25, 2013.
In total, 2 500 forms were sent to 35 regions of the European part of Russia and Ural through the system of hunter societies of *Rosokhotrybolovsoyuz*. The form and the census methods have remained exactly the same since 1999.

By 2013, 2 746 forms (= census points) were collected from 33 regions of the European part of Russia. 667 (24.3 %) were rejected. In the remaining forms, selected for the analysis, all regions were more or less represented, but mainly the Central and North regions. 677 forms came from Vologda, 145 from Sverdlovsk, 135 from Yaroslavl, 94 to 99 from Kostroma, Leningrad, Ryazan' and Tula regions. The other regions provided few forms.
In total, 17 637 birds (15 280 contacts; 1.2 birds/contact) were registered at 2 079 census points. No roding birds were observed at 83 points (4.0 %) in 10 different regions. The highest number of contacts and birds were

registered in the Perm region (36 contacts/ 41 birds), Pskov (32/40), Kirov and Kostroma (31/36) and Kaluga (29/36) regions.

A "weak" roding intensity (1.7 - 5.0 contacts per 2 hours of observation) was observed in 7 regions: Belgorod, Voronej, Lipetsk, Ryazan, Saratov, Tambov, Tula, and in the Komi Republic.
An "average" roding intensity (5.1 – 10.0 contacts) was recorded in 14 regions: Bryansk, Chelyabinsk, Ivanovo, Kostroma, Kursk, Leningrad, Novgorod, Orel, Sverdlovsk, Tver, Ulyanovsk, Yaroslavl, Vologda, Perm, and in 3 republics: Mordovya, Tatarstan and Udmurtya.

Finally, a "good" roding intensity (11.2 – 14.3 contacts) was registered in the Kirov and Pskov regions.

On average, 7.4 contacts (8.5 birds per observation) were registered in 2013. This is slightly higher than in 2012 for which the values were the lowest of the previous 14 years of census.

Ringing results

In autumn 2013, 7 teams of ringers worked in the Moscow, Vladimir, Ivanovo, Tver', Kostroma, Vologda regions and in the Mordovia Republic. The weather conditions during autumn migration were suitable for Woodcock feeding, especially in September when rainy weather occurred. For example, the rainfall reached 202 mm in the Vladimir region (388 % above the average) and 83 mm in the Kostroma region (136% above the average). This warm, wet and long autumn slowed migration down. In total, 230 woodcocks were ringed. The last birds were ringed on 6 November.

2013 ringing season in numbers
N. regions: 7
N. sites: 25
N. ringers: 13
N. night trips: 112
N. contacts: 621
N. ringed woodcock: 230
N. direct retraps: 14
N. indirect retraps: 1 (at the same place after 3 years)
Success rate: 37.0 %
Proportion of juveniles: 83.4 %
Proportion of "early broods" among juveniles: 6.4 %
Proportion of "late broods" among juveniles: 23.6 %

In **conclusion**, 2013 was a rather good season for Woodcock both during the breeding period and autumn migration.

Alexander Kormilitzin, member of the Moscow research woodcock group (© S. Fokin).

Observation of roding woodcocks in Khabarovsk region and Sakhalin Island

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Observations of roding woodcocks in Ulchski district (Khabarovsk region) and different parts of Sakhalin Island were conducted during the wildlife monitoring in relation with the construction of the oil and gas complex. Until now, information on roding in the concerned regions was lacking (Babenko 2000) and data on roding in Sakhalin Island was scanty (Nechaev 1991). This paper deals with the northern part of Sakhalin Island and includes data obtained before 2010 (Tiunov & Blokhin 2011).

Characteristics of study regions

Despite the fact that the study sites are situated on the opposite coasts of Tatarski strait, they are similar in terms of environment, with especially significant seasonal differences in phenological events. Indeed, in these regions, a late spring occurs and the spring delay appears both from south to north and from west to east.

The Ulchski region is 39,000 km^2, 75 % of which is covered with forests.
The total area of Okhinski, Timovski, Makarovski and Tomarinski districts of Sakhalin Island is 26,500 km^2, 87 % of which is covered with forests. Spruce-fir and larch forests (or secondary mixed forest) form the major part. Flood-plain forests are distributed on the banks of rivers and brooks. Low mountains and waterlogged lowland relief dominate. Okhinski and Ulchski regions are characterized by the roughest climate with monsoon features. In the Makarovski region, the environmental conditions are gentler, and they are the most favorable for woodcocks in Tomarinski and Timovski regions. In all these districts, economic activity is weak and the population density is low (0.7 person per square kilometer in the Ulchski region; 2-4.1 persons per km^2 in the cited districts of Sakhalin Island).

Region	Study areas	Coordinates	N. observation points	Study periods
Khabarovsk region	Ulchski region, urban village of De-Kastri	51°30´ N, 140°46´ E.	3	May-June 2002, 2003, 2007 June 2005 May 2008
Sakhalin Island	Tomarinski region, Novoselovo village	47°39´ N, 142°00´ E.	1	June 2001 July 2008
	Makarovski region, «Vzmorie» village	47°51´ N, 142°31´ E.	1	June 2008
	Okhinski region, near Odoptu gulf	53°26´ N, 143°04´ E.	1	June-July 2010 June 2011 May-July 2012
	Timovski region, Pilenga River	51°06´ N, 142°43´ E.	1	June-July 2011

Table 1. *Characteristics of study sites and data collection.*

Materials and methods

Roding was observed in different districts of Sakhalin Island and Khabarovsk region (Figure 1, Table 1). The number of days of observation varied from 4 in 2008 to 47 in 2002 [average: 21 days (n=5)]. The number of days per observation point varied from 1 in 2001 and 2008 to 8 in 2012 [average: 3 days (n=7)].

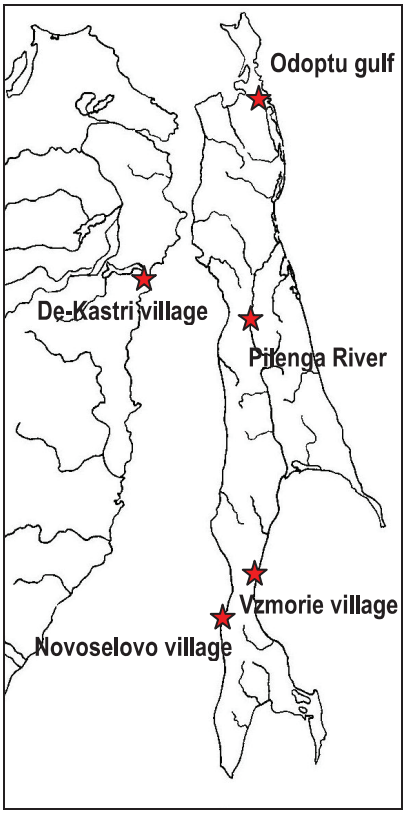

Figure 1. *Location of study sites in Khabarovsk region and Sakhalin Island from 2001 to 2012.*

On the mainland and Sakhalin Island, the observation points were located near hill foots, in flood lands bordered by mixed forest. One point near the Pilenga river was an exception: it was situated in mixed forest on the border of a vast old water-logged burnt forest. Observation points were chosen in biotopes that are the most attractive for woodcock nesting and convenient for roding counting. Roding observation points were situated in the places with the highest bird abundance for a given district. Observations began one hour before sunset and lasted until the end of roding. All seen and heard woodcocks were registered. Observations were stopped during stormy weather or heavy fog and roding duration decreased. Short notes about weather conditions and phenological events were made during observations. The average contact number in one night was used to characterize the roding rate during the season (Fokin *et al.* 2000).

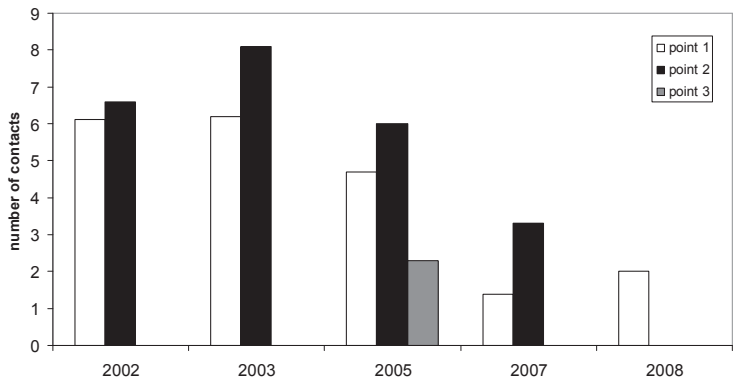

Figure 2. *Average number of contacts per day during woodcock roding at the observation points at De-Kastri.*

Year	Observation points	Date	Latest roding start	Earliest roding start	Maximal roding activity (in minutes)
2002	**1**	08.05.	22:07		
		25.05.		21:29	
		31.05.			52
		10.06.		21:30	
		17.06.			58
		24.06.	22:34		
	2	08.05.	21:56		
		17.05.			60
		25.05.		21:30	
		10.06.		21:33	
		17.06.			61
		23.06.	22:35		
2003	**1**	04.06.		21:16	99
		17.06.	22:25		
	2	02.06.		21:16	
		05.06.			65
		13.06.	22:10		
2005	**1**	06.06.		21:39	64
		26.06.	22:18		
	2	12.06.		21:57	51
		22.06.	22:15		
	3	10.06.		21:43	38
		24.06.	22:28		
2007	**1**	28.05.		22 :04	
		31.05.	22:12		15
		02.06.		22:07	
		03.06.	22:26		
		24.06.			21
	2	13.06.	22:10		
		15.06.		22:08	20
2008	**1**	23.05.		21:48	26

Table 2. *Characteristics of roding start and duration at the observation points in De-Kastri village (mainland).*

Woodcock hunting bags

A long-term spring hunting ban was established in the Khabarovsk region, but the ban was lifted in 2013. On Sakhalin Island, the spring woodcock hunting bag ranged from 3,920 to 9,260 birds during the period 2002-2006 (average: 6,107; Fokin *et al.* 2011). Most of the hunting bag was carried out in the southern part of Sakhalin Island. For example, in 2001 and 2002, 29 % and 27% of the total woodcock hunting bag were birds shot in the south-western part of Sakhalin Island (Novoselovo village). At the same time, only 16 % and 2 % were shot in the central part of the Sakhalin Island (near the Pilenga river). The proportion of the woodcock hunting bag was less than 1% in south-eastern (Vzmorie village) and north-eastern (near Odoptu gulf) Island areas. The popularity of spring hunting during roding decreases from south to north and is correlated with woodcock abundance in hunted areas. The time schedule of spring hunting in the northern part of Sakhalin Island is unfavorable for hunting during roding because of frost and high snow pack in May. From time to time, cyclones cause longstanding cold and snowstorms in spring that influence hunting success in the central and southern parts of Sakhalin Island.

Results and discussion

Mainland (Khabarovsk region)

From 2002 to 2008, 570 contacts were registered during 103 days of roding observation (5.5 on average) at the main study site (De-Kastri). No birds were observed on 10 occasions (7 in May and 3 in June) which represents 9.7 % of total observation time. The earliest roding male was registered on 8 May

2002, the latest ones on 27 June 2003 and 28 June 2005 (Table 2). The longest roding season lasted 48 days (2002). The lowest average number of contacts (1.5) was recorded in 2008; the highest (7.2) in 2003. The average contact number varied from 1.4 to 8.1 for the three observation points (Figure 2). Maximum number of contacts per night varied from 4 (2007 and 2008) to 21 (2003) (Figure 3).

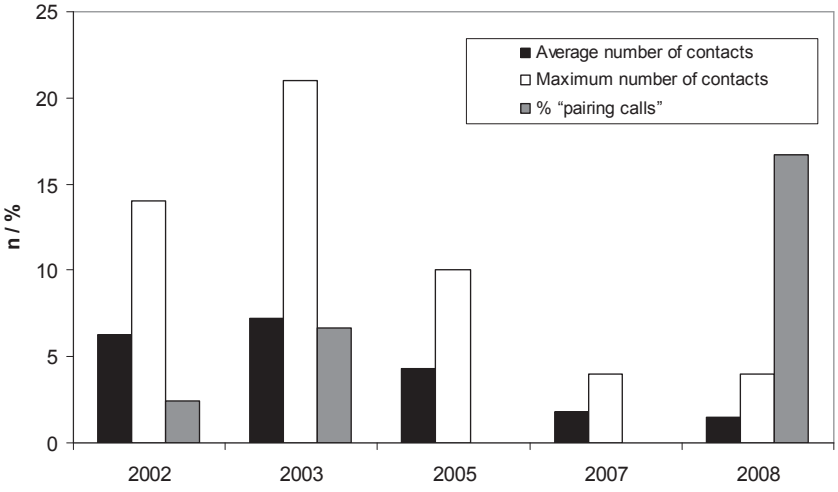

Figure 3. *Characterization of woodcock roding activity at De-Kastri.*

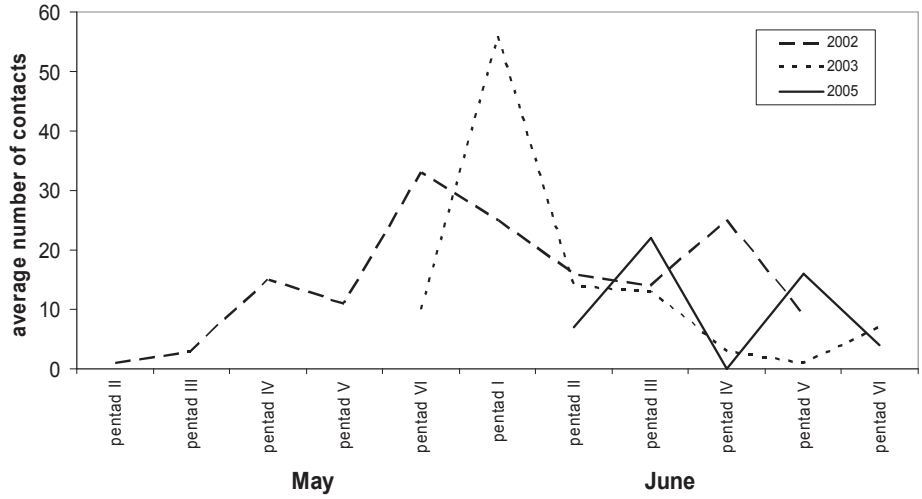

Figure 4. *Woodcock roding activity at De-Kastri in 2002-2003 and 2005.*

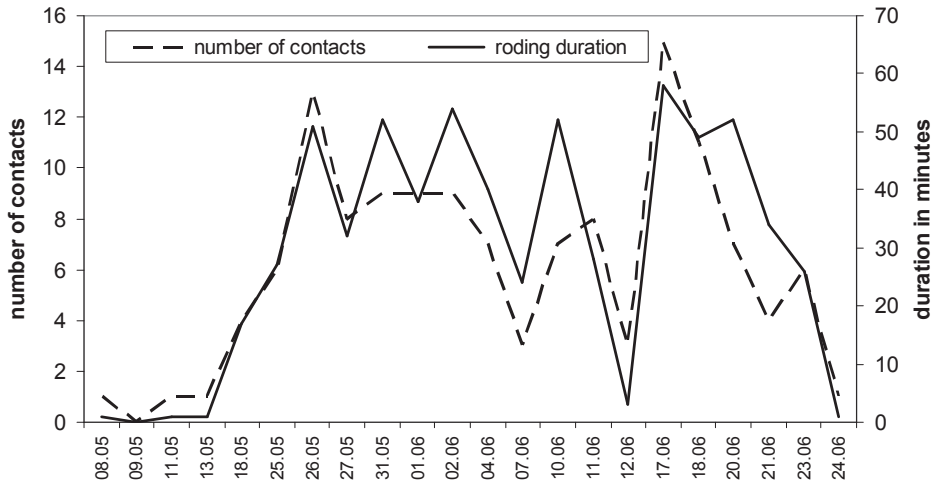

Figure 5. *Duration and activity of woodcock roding at the observation point N1 at De-Kastri in 2002.*

Seasonal dynamics of roding activity in May-June was analyzed based on data collected in 2002-2003 (Figure 4). A gradual increase of roding activity was registered during May 2002. Activity peaks were noticed in the second decade of May and at the end of May. A gradual decrease of roding activity was observed in June 2002 with a renewed activity at the end of the second decade. In 2003, the maximum of roding activity was registered at the beginning of the first decade of June, then activity decreased by the end of the month. The days of good roding (> 10 contacts) in 2002 represent 19 % of the total in May and 15 % in June. In 2003, they represent 23 % of days in June. In May 2005, good roding days were not observed but 27 % of observation days were characterized by a moderate roding (5.1-10 contacts). In May and June 2007 and May 2008 only a weak roding (< 5) was registered at the observation points. In the beginning of May, roding activity was weak, but increased by the end of the month. The opposite situation was observed in June: roding activity was maximal in the beginning of the month and decreased by the end of the month.

The proportion of "pairing calls" (male pairs, triplets and quadruples) was 2.4 % in 2002 and 6.7 % in 2003 (Figure 3). "Pairing calls" were not registered in 2005 and 2007; in 2008 only one was registered. In total, "pairing calls" were observed 21 times. Three "pairing calls" were once observed on 13 June 2003. One "pairing call" was observed 10 times during the same night, two were registered 4 times and three were noted once. Only 5 "pairing calls" were registered in May including 4 in the last decade of the month. In June, 16 "pairing calls" were observed, including 14 contacts in the beginning of the month. Consequently, the highest roding male activity lasted approximately 20 days.

The beginning of roding was delayed as the length of day increased (Table 2). From 12-13 June, roding started mainly after 22:00. In May, the earliest roding start was observed at 21:29 (25 May 2002), the latest at 22:07 (31 May 2007). In June, the earliest roding start was registered at 22:16 (2 and 4 June 2003), the latest at 22:35 (23 June 2002).

In the first decade of May, the roding duration is short but usually increases by the end of the month. In May, the longest roding durations were registered on 17 May 2002 (60 min), on 31 May 2003 (50 min) and on 31 May 2007 (15 min). In June, the longest roding durations were registered on 17 June 2002 (61 min), on 4 June 2003 (99 min), on 6 June 2005 (64 min) and on 15 June 2007 (21 min). On the basis of data collected in May 2002-2003, we observed that the higher the number of contacts, the longer the roding duration. Sometimes this positive correlation was not observed. For example, on 10 June 2002, 7 contacts were registered for 52 min and on 11 June 2002 when 8 contacts were noted for 28 min (Figure 5).

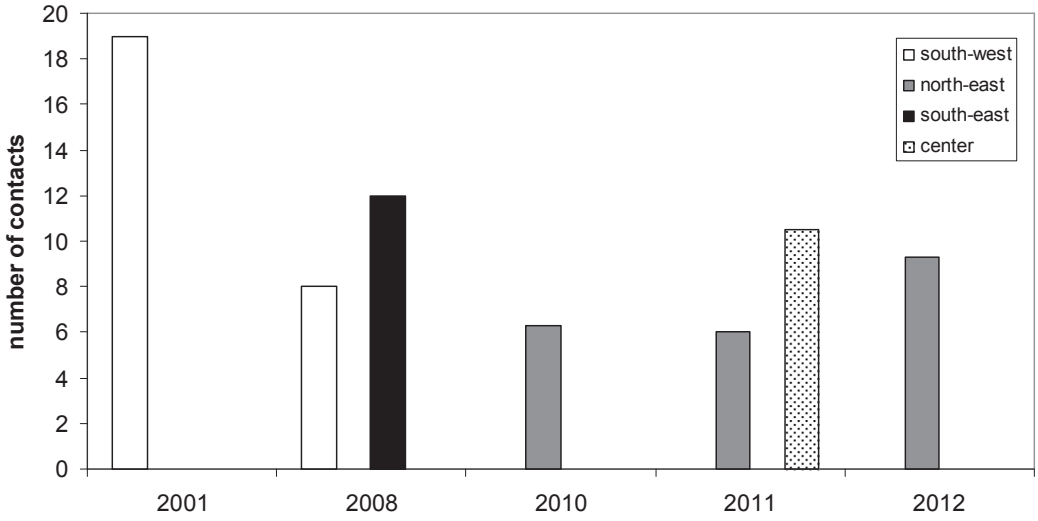

Figure 6. *Average number of contacts per day during woodcock roding in the different parts of the Sakhalin Island.*

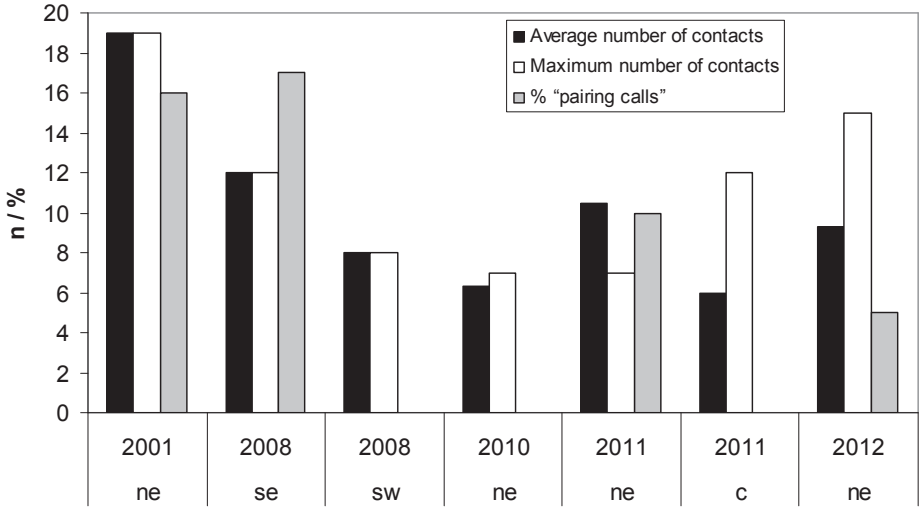

Figure 7. *Characterization of woodcock roding activity in different parts* of Sakhalin Island.*

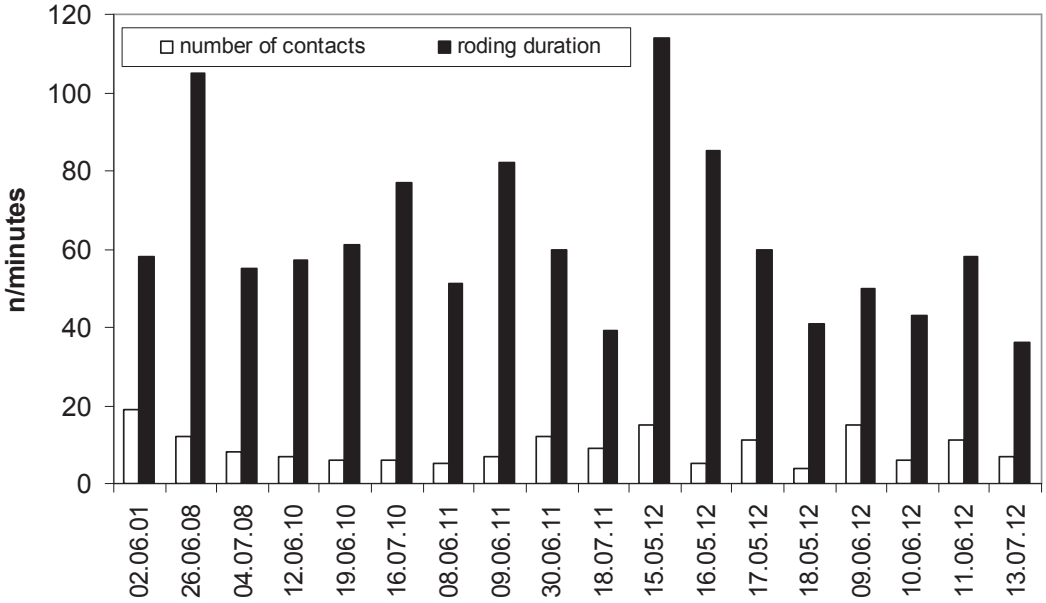

Figure 8. *Duration and activity of woodcock roding in different parts of Sakhalin Island.*

Island (Sakhalin Island)

In Sakhalin Island, a total of 165 contacts were registered during 18 roding observation nights (9.2 on average). The earliest roding start was registered near the Odoptu gulf (15 May 2012) and the latest near the Pilenga River (18 July 2011). The longest roding season (59 days) was registered in 2012.

Roding intensity varied depending on year and district (Figures 6 & 7). The maximal roding activity fluctuated from 7 contacts per day (2010 and 2011) to 19 (2011). We were not able to study the seasonal activity at all observation points due to the lack of data.

The proportion of "pairing calls" varied from 5 % of total contacts in 2012 to 17 % in 2008 (Figure 7). The total number of "pairing call" was 11.

In May, the earliest roding start was registered at 21:00 on 15 May 2012, near the Odoptu gulf (Figure 9). At the same place, the latest roding start was noticed on 17 May at 21:20 (Table 3).

In June, the earliest roding start was registered at 20:55 on 2 June 2001 at Novoselovo village.

The latest roding start in June was observed at 22:04 on 10 June 2012, near the Odoptu gulf.
In May, maximal roding duration was 114 min (15 May 2012, near Odoptu gulf). In June, maximal roding duration was 82 min (9 June 2011, near Odoptu gulf). In July, roding duration was 77 min. The roding duration depends on the number of contacts (Table 3). As in the mainland, the increase in contact number is usually positively correlated with roding duration, but rare exceptions are known. For example, on 19 May 2012, 5 contacts were registered for 85 min near the Odoptu gulf, and on 17 May, 11 contacts were recorded for 60 min (Figure 8).
Near the Odoptu gulf, woodcock roding was noted in the morning. It began between 3.30 – 3.58 a.m. and lasted 16-90 min. From 2 to 7 contacts per morning were registered (4.3 on average, n = 4). One "pairing call" contact was recorded.

Year	Places of monitoring	Date	Latest roding start	Earliest roding start	Maximal roding activity (in minutes)
2001	Southwest - near «Novoselovo» village	02.06		20:55	58
2008	Southwest - near «Novoselovo» village	04.07		21:15	55
	Southeast - near «Vzmorie» village	26.06		21:00	105
2010	Northeast - near Odoptu gulf	12.06	21:50		
		19.06		21:12	61
		16.07	21:43		77
2011	Northeast - near Odoptu gulf	08.06	21:55		
		09.06		21:20	82
	Center of Sakhalin Island - near Pilenga River	30.06		21:30	60
		18.07	22:10		39
2012	Northeast - near Odoptu gulf	15.05		21:00	114
		17.05	21:20		
		10.06	22:04		58
		11.06		21:32	
		13.07	22:14		36

Table 3. *Characteristics of roding start and duration at the observation points in Sakhalin Island.*

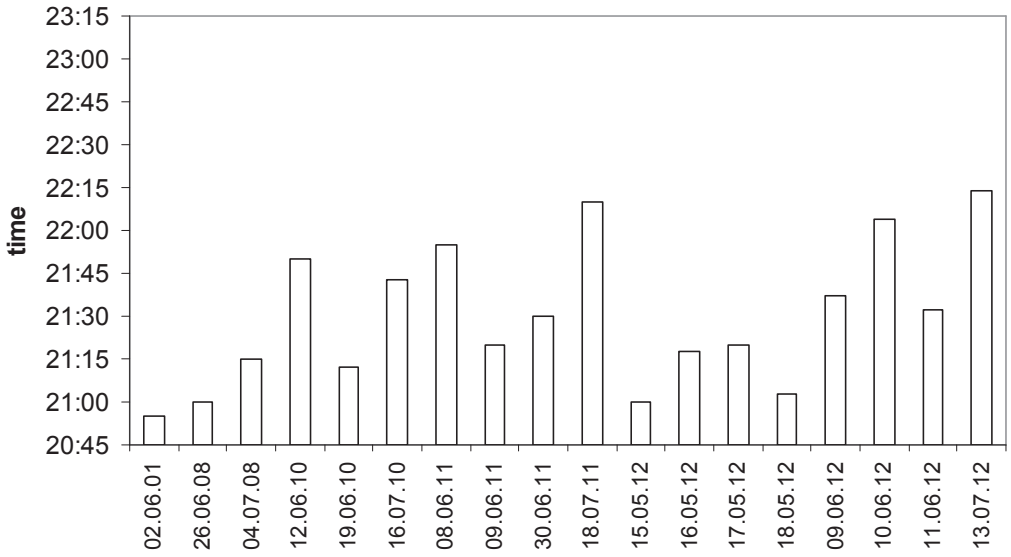

Figure 9. *Time of beginning of woodcock roding in different parts of Sakhalin Island.*

Conclusions

From the average number of contacts, we can compare the roding intensity in different parts of the region. The highest number was registered in the south-western part of Sakhalin Island and the lowest in the north-eastern part of Sakhalin Island. These results correlate with biotopes suitable for Woodcock nesting. In the mainland, the roding intensity registered in 2002-2005 was similar to those of the north-eastern part of Sakhalin Island in 2010-2012. The roding intensities in the south-western part of Sakhalin Island in 2001 and 2008, in the south-eastern part in 2008 and in the centre of the Island in 2011 were often above those observed in the mainland in 2007-2008.

The maximal numbers of roding birds were not different in the mainland and in Sakhalin Island. In May and June, roding started earlier (time of day) on Sakhalin Island than in the mainland. The daily roding duration was twice longer in the north of Sakhalin Island than in the mainland in May, but similar in June. The maximal annual roding duration was 10 % longer in the north of Sakhalin Island than in the mainland. This reflects a similarity of environmental conditions needed for woodcock nesting and the peculiarity of roding in the studied region.

In our opinion, the postponed roding start (mid-May) in the north-eastern part of Sakhalin Island
(comparing to other districts) and the roding activity increase for the island Woodcock population in June-July (comparing to the mainland population) could be considered as typical differences between the mainland and Island. A roding activity concentrated in the second and third decades of May and in the first half of June is typical for the mainland woodcock population. A decreasing roding activity toward the end of June is clearly visible in the mainland. In Sakhalin Island (including the north-eastern part), roding stops in the end of the second decade of July. Compared with the southern parts of Island and the mainland, the north-eastern part of Sakhalin Island is characterized by an annual roding duration reduced by 2-4 weeks. This could be connected with snow melting and vegetation starting which determine the dates of birds' arrival, roding start and roding activity in the mainland and Island.
In the north of Sakhalin Island, roding is quite long and active, which could be linked to the high number of birds in suitable habitats. Spring hunting during roding is very popular in the southern parts of Sakhalin Island but is not possible in the northern parts because of the late incoming of spring.

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2012-2013 French Woodcock report

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From a meteorological point of view, the 2012/13 season was rather good for migrating and wintering woodcocks in France. Two cold waves in Scandinavia in the beginnings of November and December pushed the birds to France where temperatures remained mild during the whole winter. Moreover, heavy precipitation offered suitable habitats in terms of feeding. However, the prenuptial migration was delayed because of very low temperatures in Eastern Europe till April.

Ringing results

Quantitative ringing results

In total, 6 782 woodcocks were ringed during the 2012/13 season and 402 retrapped. This excellent result can be explained by high densities in the majority of French regions. During the 3 241 ringing trips carried out by French ringers, 26 728 woodcocks were found and a high success rate (27 %) was registered.
As in 2011/12, 30 % of birds were ringed in December. November and January accounted for 20 % of captures and March 14.5 %. This last result shows that many birds were still in their wintering sites during this month because of a delayed prenuptial migration.

Proportion of juveniles

The proportion of juveniles among ringed birds was 62 %. This value is in the average of the 2000s.

Monitoring of abundance during the migratory and wintering period

Two indices allow the monitoring of woodcock migratory and wintering numbers in France: the mean number of contacts/hour (IAN) registered during ringing trips and a hunting index [ICA: number of seen woodcocks / standardized hunting trip (duration = 3.5 hours)] collected by the *Club national des bécassiers.*
In 2012/13, IAN rose to 4.12 (Figure 1). This is the second highest value in the 17 last seasons. ICA estimated from a sample of 1 240 hunters and 34 217 hunting trips amounted to 1.70 which is also one of the highest values of the last seasons. The statistical tests always show an increase trend for ICA since 1996/97 ($r = 0.79$; $p = 0.0003$) and for ICA and IAN since 2002/03 (resp. $r = 0.86$, $p = 0.0012$ and $r = 0.88$, $p = 0.0006$).
At the beginning of the season, the numbers were in the average of the previous ones then a high value was registered in December (Figure 2). Unusually, this high value was maintained till March due to cold and unfavourable winds for migration.

As in the last 10 seasons, a monitoring "in real time" was carried out in the course of the 2012/13 season.

2012-2013 ringing season in numbers

N. *départements*:	91
N. ringing sites:	1 556
N. ringers:	382
N. nocturnal trips (hours):	3 241 (6 468)
N. contacts:	26 728
N. ringed woodcocks:	6 782
Success rate:	27 %
N. direct retraps:	191
N. indirect retraps:	211
N. direct recoveries:	405
N. indirect recoveries:	588
Annual direct recovery rate:	6.0 %

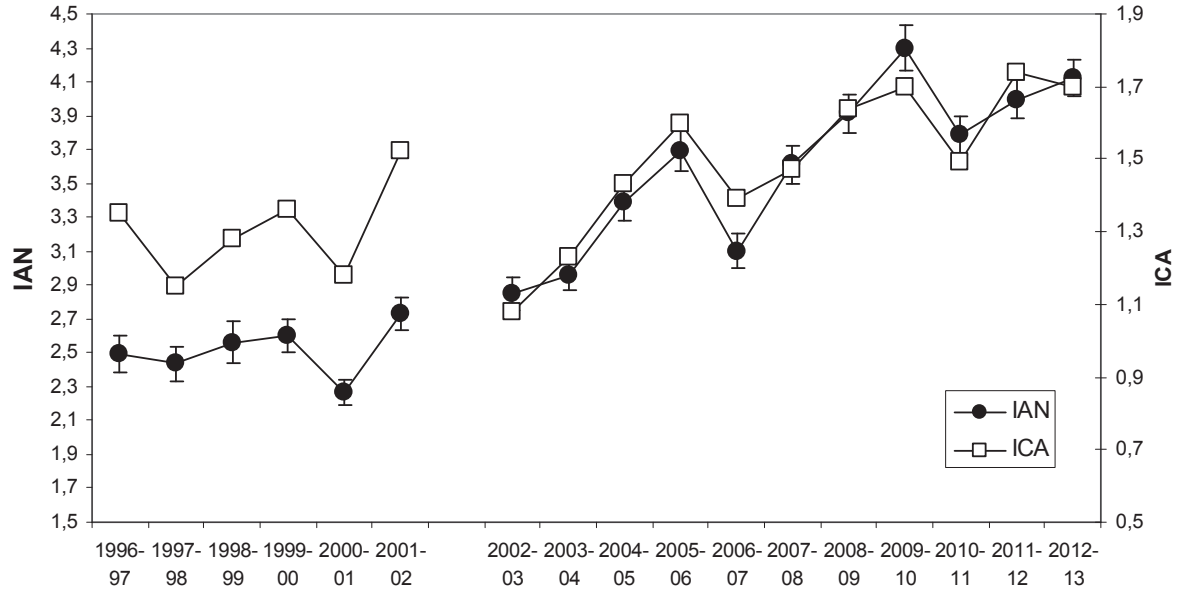

Figure 1. *Annual fluctuations of the number of contacts/h during ringing trips (IAN: nocturnal index of abundance) and hunting trips (ICA: hunting index of abundance; Source:* Club national des bécassiers*). The data were divided into two periods due to a change in the method of calculation of IAN in 2002/03(see Newsletter 34).*

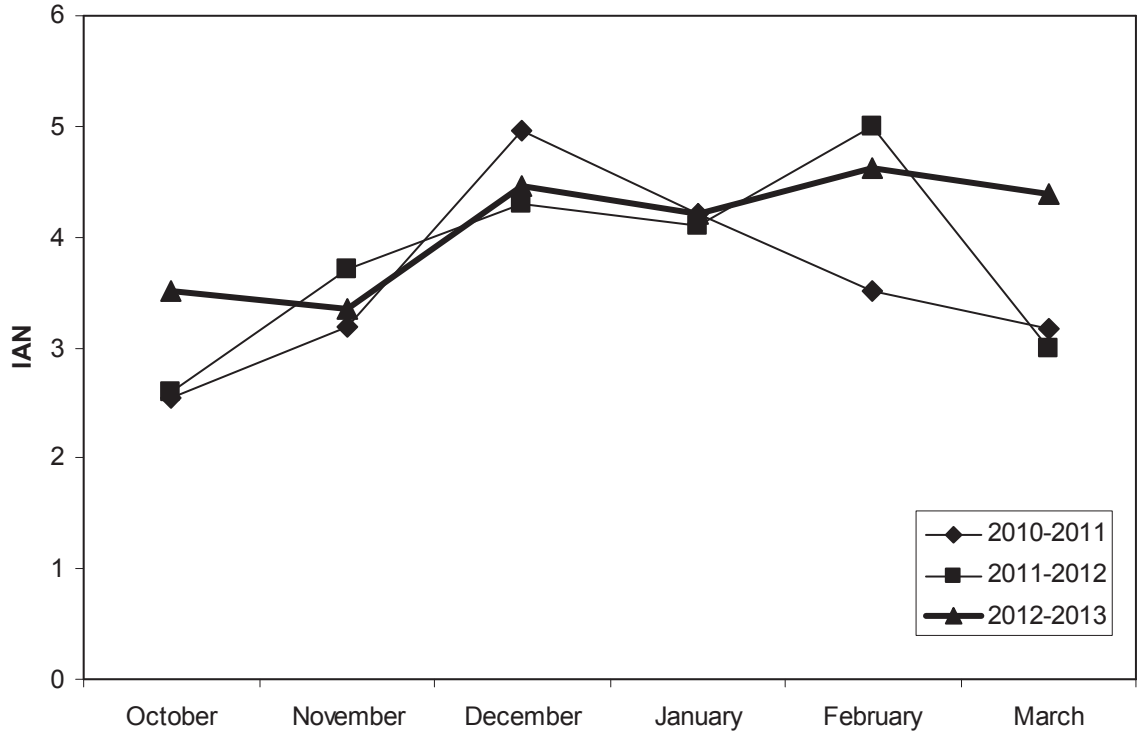

Figure 2. *Monthly fluctuations of IAN in 2010/11, 2011/12 and 2012/13.*

Roding results

As announced in the Newsletter 38, the sampling design for roding censuses was revised in 2013 to reach two objectives: optimize the sampling effort while maintaining a good accuracy and take into account ecological variables. From now, the listening points are chosen at random in 7 "large ecological regions" (GRECO) defined mainly on the basis of forest habitats. These GRECO are themselves divided in classes of 1:50 000 maps.
The number of randomly chosen points on every map is selected on the basis of historical data to weight the sample, but the reduction at a national level is about 30 %. Finally, the listening points are allocated to a French *département*.
In total, 604 listening points were selected at random for the spring 2013 census and 522 were visited (Figure 3). As in the past, the random sample will be renewed every year.

Because of the change in sampling strategy and the increase of the sampling base (number of possible listening points) linked to the use of a better habitat database, it is not possible to directly compare the 2013 values with the previous ones. However, statistical analysis will be performed to reallocate the historical data in this new protocol and test again the trend of Woodcock breeding numbers in France since 1992.

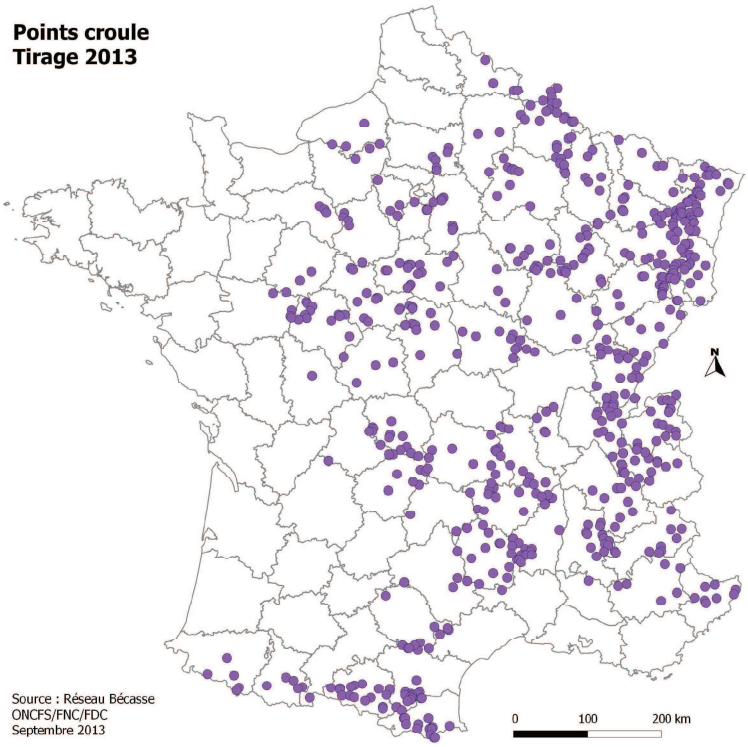

Figure 3. *Location of randomly chosen listening points for the 2013 roding census in France.*

Acknowledgements

This report is the result of an important field work carried out by members of the ONCFS/FNC Woodcock network. We thank all of them: professionals of ONCFS, *Fédérations départementales des chasseurs* and volunteers. We also thank the *Club national des bécassiers* for allowing us to use the data collected by Club members.

Evaluation of the 2012/13 Woodcock hunting season in France

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This report is the 19th to be published by the *Club national des bécassiers* (CNB; a French Woodcock Hunter Association). It is based on the same protocol as in the previous years.
In 2012/13, 1 240 CNB members sent information on their hunting trips and 1 175 participated in the wing collection. In total, 9 766 wings were analysed. 8 924 birds were weighed and 1 713 were sexed. The data were collected in the major part of the Woodcock wintering area in France (Figure 1).

Hunting index of abundance (ICA)

The hunting index of abundance (ICA) used by CNB has been defined as the number of different woodcocks seen during a hunting trip, the standardized duration of which was 3.5 hours (Cau & Boidot, 2005)
In 2012/13, ICA was estimated from 34 217 hunting trips. Its national annual value is 1.70. This value is slightly lower than in 2011/12 (1.74). The monthly variations of ICA show high values in November, December and January (1.56, 1.99 and 1.83, resp.; Figure 2).
In 2012/13, a "mean" French Woodcock hunter made 28 hunting trips, saw 47 woodcocks and shot 11 of them.

Juvenile/adult ratio

For 2012/13, the proportion of juveniles in the French Woodcock hunting bags is estimated at 69.4 %, i.e. 2 points above the average of the 19 last seasons.

Male/female ratio

In 2012/13, the proportion of Woodcock males in the CNB members' hunting bags was 38 %. This value is exactly the same as in 2011/12 and shows a remarkable stability from one year to another.

Variations in weight

The mean weight of a woodcock shot in 2012/13 was 316g (313g in 2011/12). As usual, the weight of adults was slightly higher than that of juveniles (320 g *vs* 314 g).
Adult females were the heaviest, 323 g in average. The mean weight of juvenile females and adult males was 316 g and 317 g, respectively. The mean weight of juvenile males reached 312 g. These are usual values.

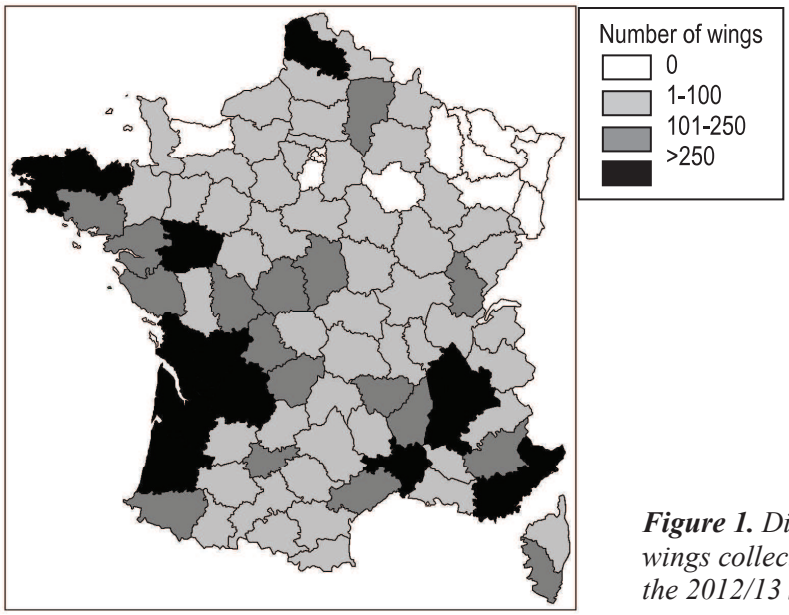

Figure 1. *Distribution of the number of Woodcock wings collected in every French* département *during the 2012/13 survey.*

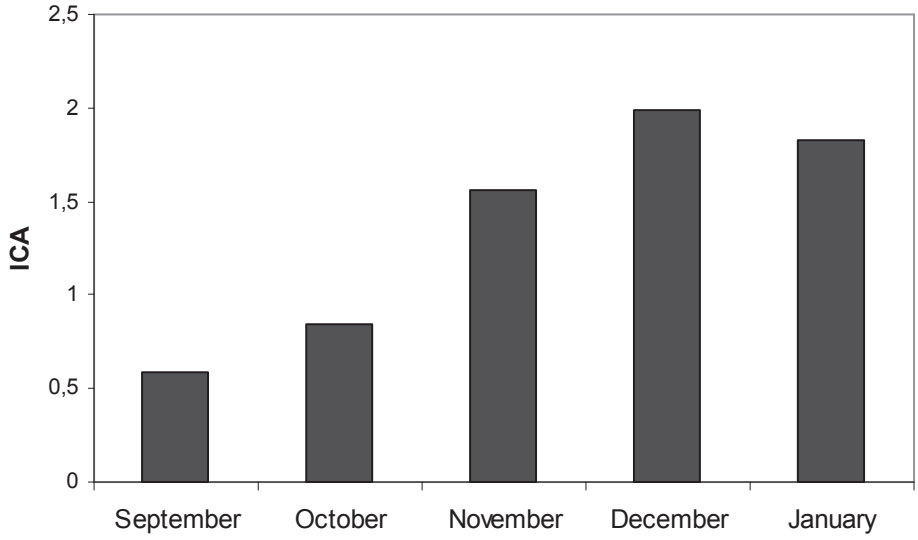

Figure 2. *ICA monthly variation in France for the 2012/13 hunting season.*

Conclusion

The 2012/13 season can be considered as one of the best of the 20 last ones. It is the third in terms of abundance on the basis of ICA. From December to February, the birds were observed in rather high abundance (ICA ≥ 1.8) in some regions. Age-ratio and weights were around the average.

A rather good breeding success and harsh weather conditions in North and East of Europe which drove nearly all the woodcock population to the wintering sites could explain these results.

Acknowledgements

We thank all volunteers who contributed to help us in the wing analysis and also the members of CNB scientific and technical commissions or report writers: J.C. Blanchard, P. Launay, J.M. Desbieys, J.F. Cau, N. Lefeuvre, J.P. Lepetit and J.L. Cazenave.

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2012-2013 French Snipes report

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Ringing results

The French Snipes ONCFS/FNC network gathers 132 active snipe ringers spread over 52 French *départements*. All the main regions for migrating and wintering snipes are now covered by the network. In 2012, 1 677 snipes were ringed by the network: 1 460 common snipes (*Gallinago gallinago)* and 217 jack snipes (*Lymnocryptes minimus*). One Great snipe (*Gallinago media*) was also ringed in the *département* of Cantal, in the Centre of France in summer 2013.

Plumage collection

As in the previous years, an analysis of Common Snipe and Jack Snipe plumages (wing and/or tail feathers) collected during the hunting season was carried out in 2012/13.
In total, the plumages of 4 710 common snipes and 855 jack snipes were gathered mainly by the CICB (International Club of Snipes Hunters) members and by the *Fédérations départementales des chasseurs* of *Cantal*, *Lozère* and *Gironde*. This collection is in third position since 2004/05.

Common Snipe

Geographical distribution of analyzed plumage

The plumages were collected in 45 French *départements*. As in the past, the total sample was divided in two parts (Figure 1): one corresponding to the Fennoscandian flyway (n = 2 411), the other to the Continental flyway (n = 2 299).

Temporal distribution of analyzed plumage

Under the same assumption as in the previous reports (i.e. the number of collected plumages is positively correlated with real numbers), the post-nuptial migration was classic with a constant increase in numbers in August and September and one well marked peak around the end of September – beginning of October (Figure 2). Then a constant decrease was noted till the end of November. Finally, the numbers of shot birds fell in December and January.
However, the migration pattern differed slightly between the Fennoscandian and Continental flyways. The snipes using the Fennoscandian flyway arrived earlier with a peak around mid-September. Those using the Continental flyway were more numerous around mid-October. Therefore, the two migratory waves were separated by about fifteen days.
The weather conditions and the hydric situation in the stop-over and wintering sites probably played a role in the phenology of the postnuptial migration. On the one hand, cold appeared early in Scandinavia and could have pushed the birds sooner than usual. On the other hand, heavy precipitation in autumn offered very suitable conditions for snipes in France. From November to January, soil moisture was greatly above the seasonal normal range in the three quarters of the country. This also probably contributed to "dilute" the snipes in many suitable sites.

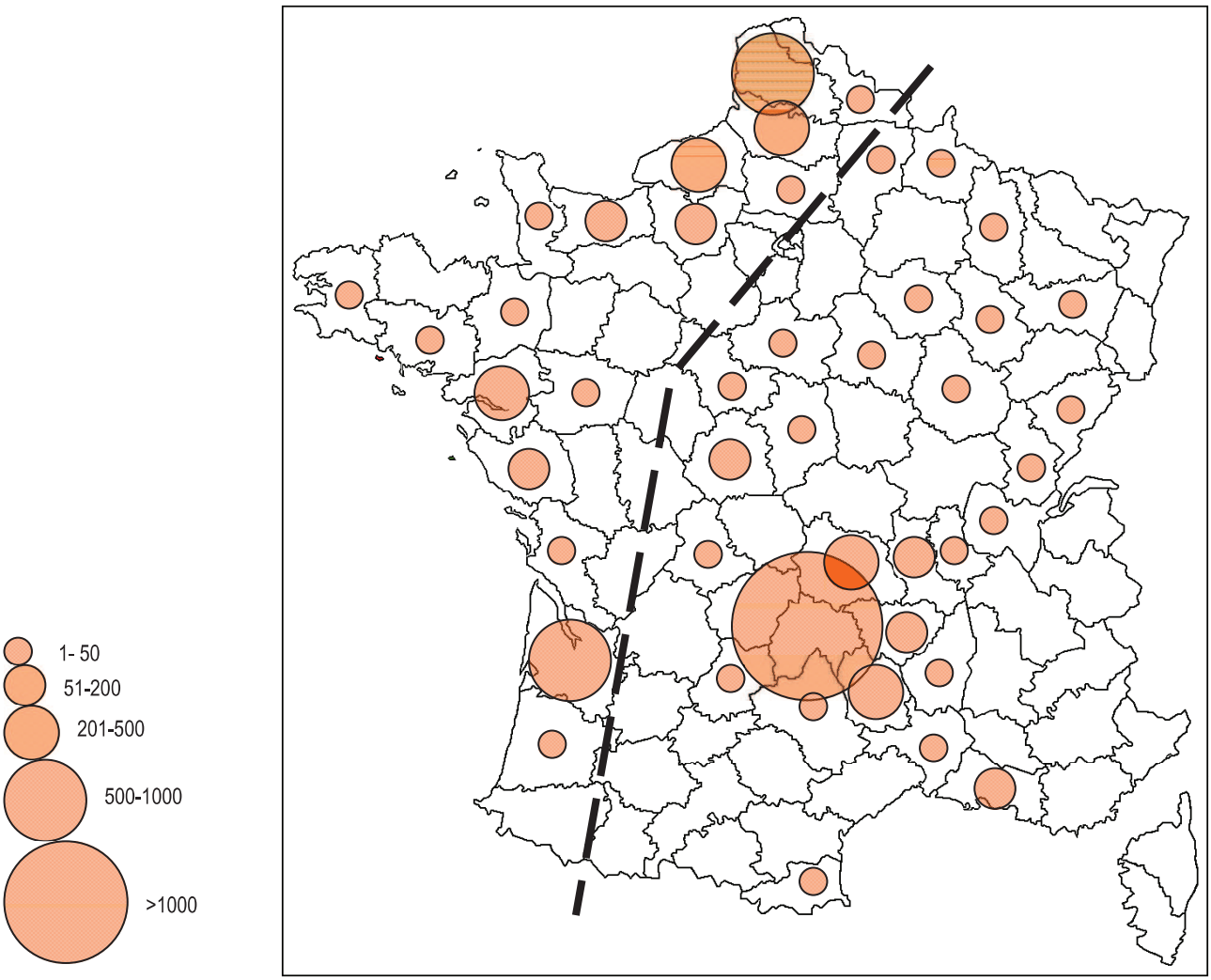

Figure 1. *Geographical distribution of numbers of common snipes whose plumage was collected in 2012/13 and limit between the two sub-samples corresponding to a distinct migratory flyway.*

Proportion of juveniles

The proportion of juveniles among the 4 605 analysed plumages was 74.8 % (age-ratio = 3.0). Without the data collected in August for which almost 100 % of birds are juveniles, this proportion is 71.8 %. These values are slightly above the average of the last 25 years (no data from 1999/00 to 2003/04; Figure 3).

Juveniles represent 77.5 % of birds in the Fennoscandian flyway (n = 2 364) and 72.1% in the Continental flyway (n = 2 241). The difference is statistically significant (Fisher exact test; $p < 0.0001$). However, without August data, no difference appears (Fisher exact test; $p = 0.727$). This result shows that the migration of juveniles in August makes an artificial difference insofar as hunting is forbidden during this month in the major part of France.

The intra-seasonal distribution of the proportion of juveniles is dominated by the Fennoscandian flyway which follows the usual pattern: predominance of juveniles in August then decrease till mid-October when a plateau is reached and maintained till the end of January (Figure 4).

Several factors can have an effect on the age-ratio observed in our sample: breeding success, weather and hydric conditions during migration and wintering, for instance. Moreover, sampling biases can occur. Under the assumption that the analysed sample is representative of the breeding success we can consider that spring 2012 was rather good. This is clearly different from the 2011 situation for which a deficit of juveniles was registered.

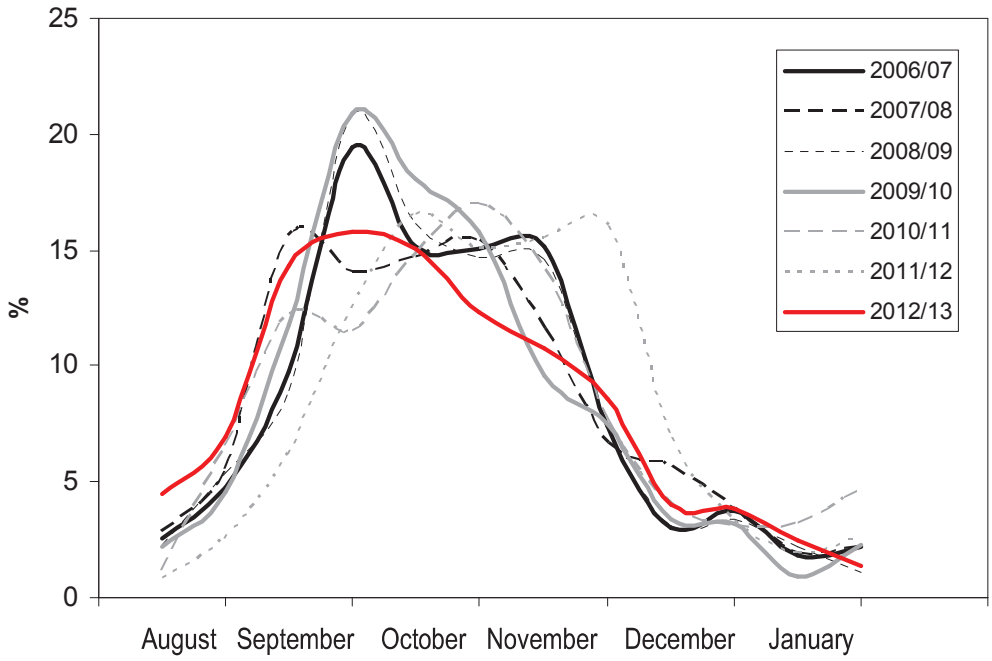

Figure 2. *Intra-annual variations of the proportion of Common Snipe plumages collected from 2006/07 to 2012/13.*

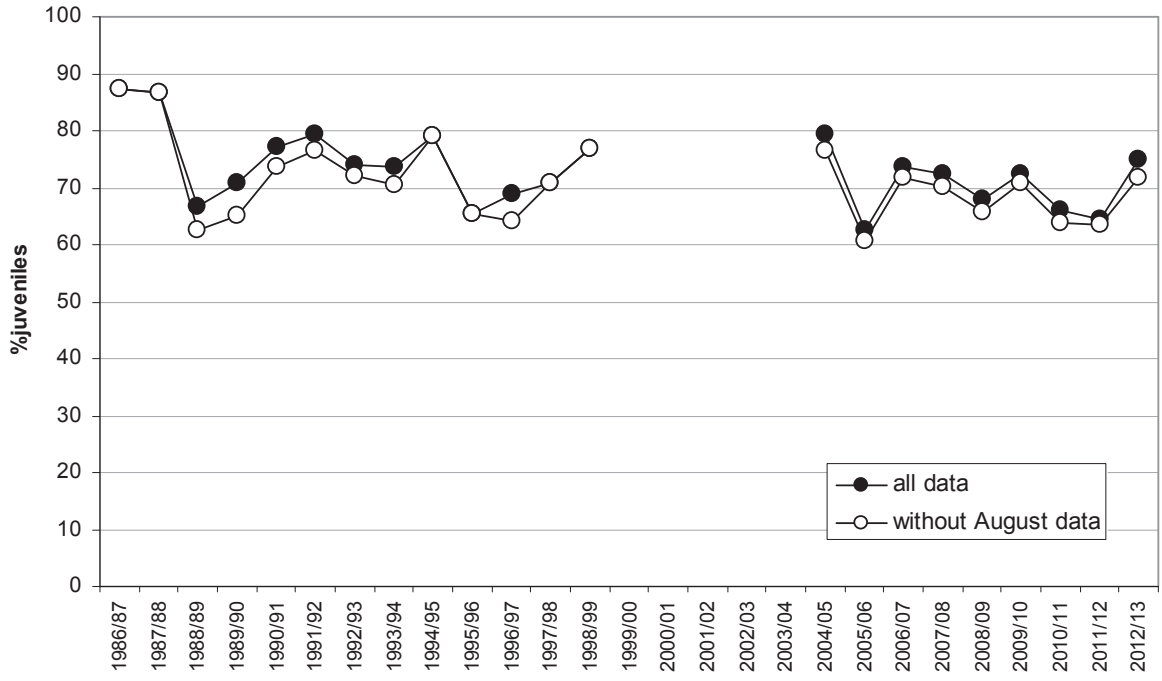

Figure 3. *Inter-annual variations of the proportion of juveniles among Common Snipe plumages collected in the 1986/87 - 2011/12 period for all data and for a sub-sample without August data (No collection in the 1999/00 - 2003/04 period).*

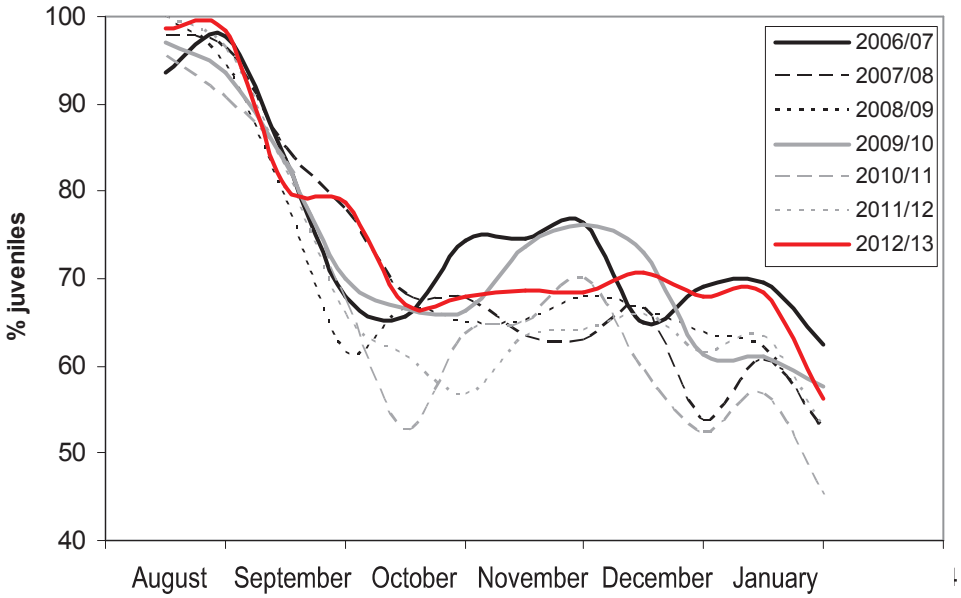

Figure 4. *Intra-annual variations of the proportion of juveniles for the Common Snipe from 2006/07 to 2012/13.*

Proportion of males/females

Sex was defined for 1 041 adult birds and the proportion of males was 38.6 %. If we take into account all birds (juveniles + adults) for which sex determination was possible (n = 4 096), the proportion of males reached 36.2 %. As for the previous seasons, the deficit in males remains clear. No statistical difference appears between the flyways, taking into account or not the juveniles (Fisher exact test; p = 0.018 and p = 0.012, resp.)

Jack Snipe

Geographical distribution of analysed plumage

In 2012/13, the Jack Snipe plumages were collected in 37 *départements* (Figure 5). As for every season, we defined a coastal flyway and an inland flyway for which the difference of sample size is rather slight this season: 462 plumages for the Coastal flyway and 392 for the Inland one.

Temporal distribution of analysed plumage

As for Common Snipe, analysis was made under the assumption that the number of plumages is positively correlated with the abundance of birds in the field. In 2012/13, a peak was observed as usual in the second half of October but the numbers remained at a rather high level during one month, then the migratory wave is usually more dense (Figure 6). In December and January, the numbers fell but remained at the same level as in the past years. This general migration pattern is similar to that of the Common Snipe.
The peak of the Coastal flyway clearly occurred around mid-October then that of the Inland flyway came two weeks later, at the beginning of November. Again, this migration pattern is similar to that of the Common Snipe. The hydric and weather conditions are probably also the cause of this delay.

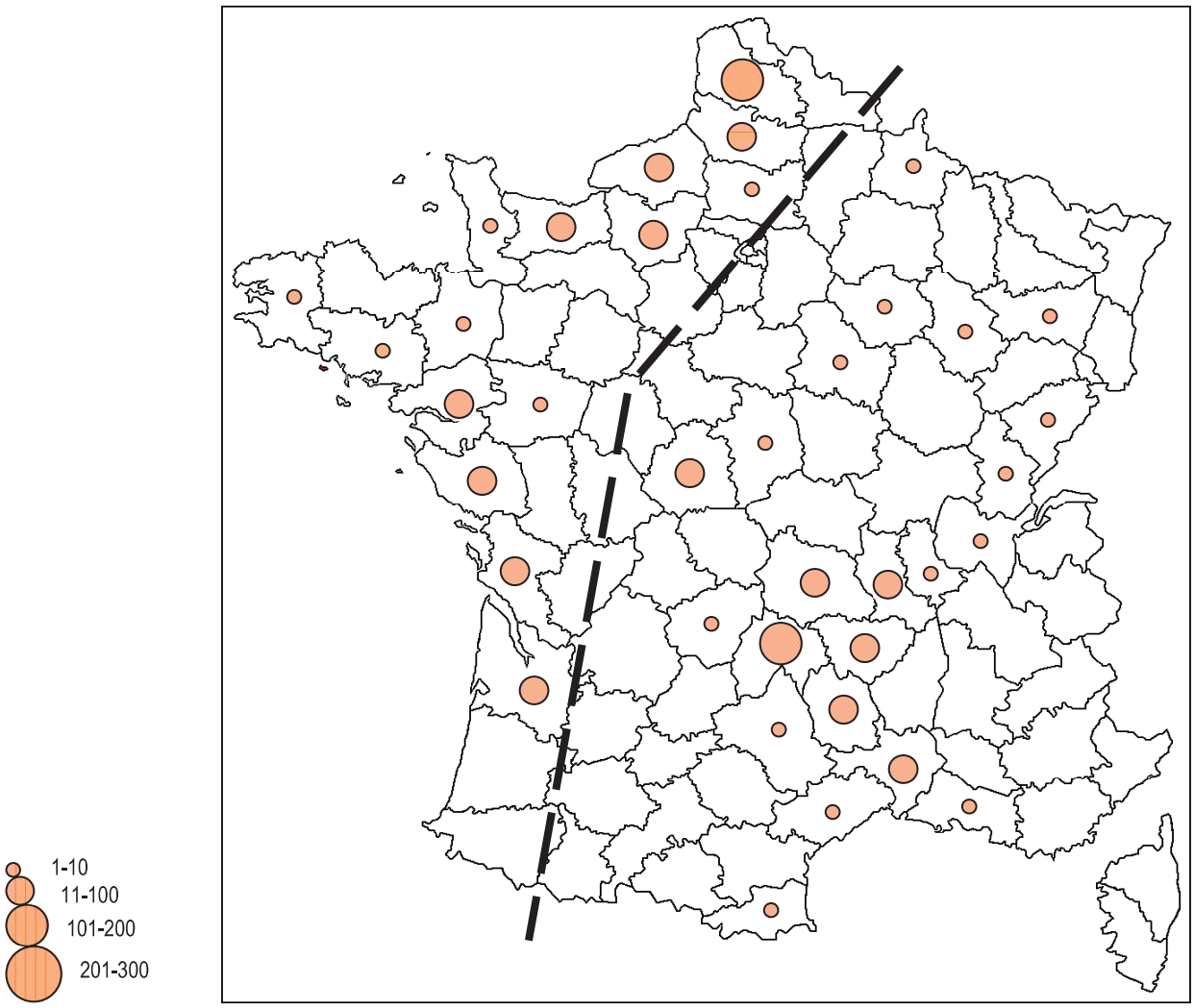

Figure 5. *Geographical distribution of numbers of jack snipes whose plumage was collected in 2012/13 and limit between the two sub-samples.*

Proportion of juveniles

The proportion of juveniles (estimated from examination of tail feathers) in 2012/13 reached 67.1 % (Figure 7). This value is the third one for the last 9 years and 2 points under the average of the last 20 years (no data for 2002/03 and 2003/04). Consequently, we consider that the breeding success in spring 2012 was normal for this species. The proportion of juveniles was 72.1 % in the Coastal flyway and 61.4 % in the Inland flyway. The difference is statistically significant (Fisher exact test; p = 0.0013).

As usual, the temporal distribution of the proportion of juveniles in the course of the season appeared relatively stable (figure 8), in the Coastal and Inland flyways as well. Statistical tests confirm this stability for the whole data set (Cochran-Armitage test; p = 0.139) and for each flyway (Inland flyway, p = 0.687; Coastal flyway, p = 0.311). Again, no rules appear in the migration of juveniles and adults for Jack Snipe.

Proportion of males/females

According to criteria used in the past year (wing length < 115 mm = female; wing length > 117 mm = male; correction of 1.7 mm because of wing drying), the proportion of males in the whole sample was 40.9 %. Again females were more numerous than males and an unsteadiness in the population structure cannot be excluded.
Males appeared more numerous in the Inland flyway than in the Coastal flyway (44.6 % *vs* 37.7 %) but the difference is not significant (Fisher exact test; p = 0.0683).

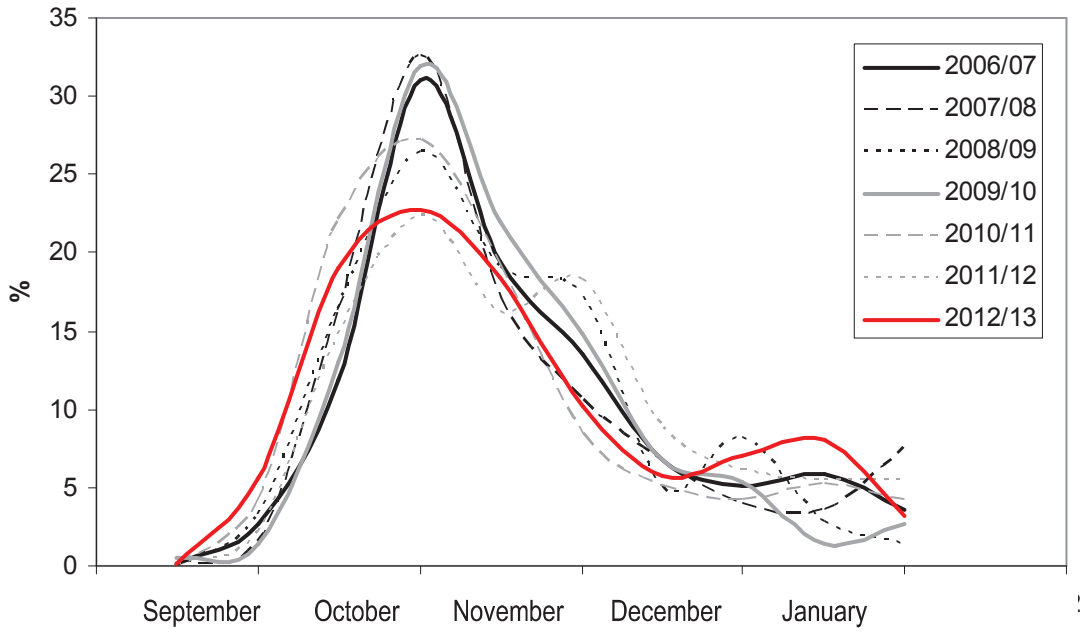

Figure 6. *Intra-annual variations of the proportion of Jack Snipe plumages collected from 2006/07 to 2012/13.*

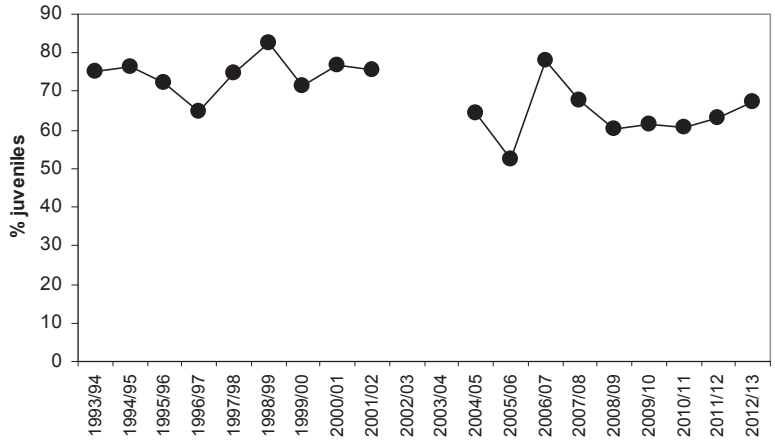

Figure 7. *Inter-annual variations of the proportion of juveniles among Jack Snipe plumages collected in the 1993/94 - 2012/13 period (No collection in 2002/03 and 2003/04).*

Monitoring of hunting bags

At the present time, the inter-annual evolution of hunting bags in reference territories is the only tool for estimating the demographic trend for Common Snipe and Jack Snipe migrating and wintering in France. The assumption is that the hunting bags are directly positively correlated with actual numbers.

The network of reference territories relies on the activity of the members of the *Club international des chasseurs de bécassines*

(CICB) who, on the one hand, hunt regularly in a large enough or managed territory and, on the other hand, agree to fill in a bag notebook which they provide for this study.

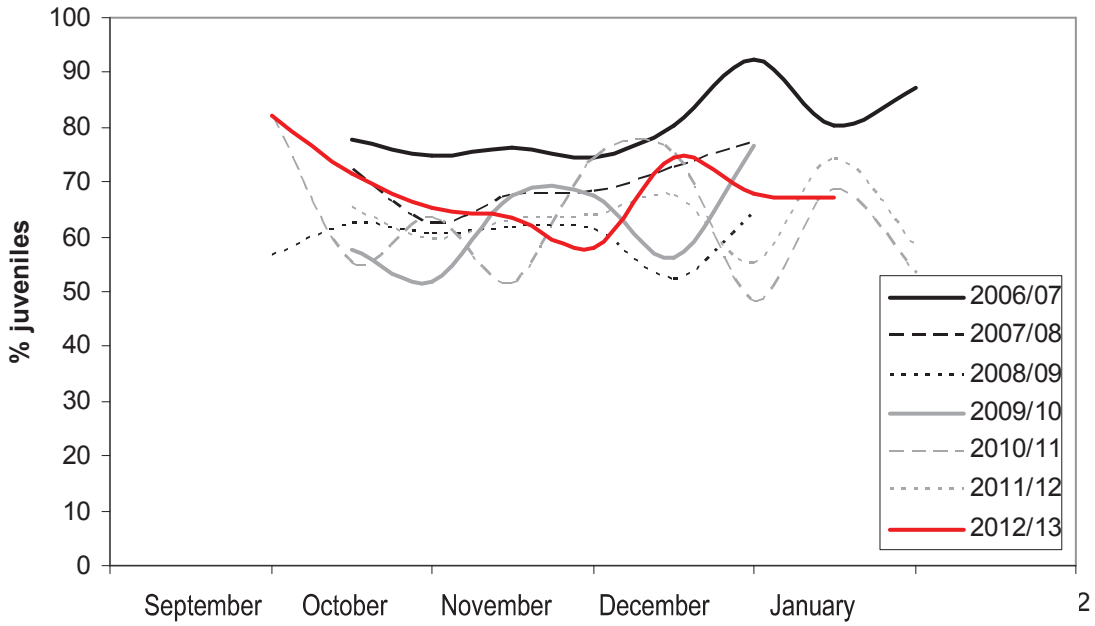

Figure 8. *Intra-annual variations of the proportion of juveniles for the Jack Snipe from 2006/07 to 2012/13.*

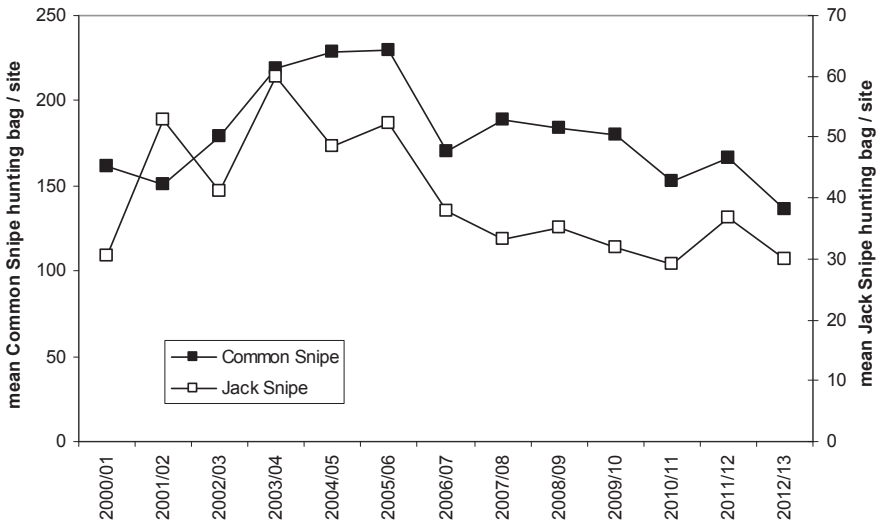

Figure 9*. Average of Common Snipe and Jack Snipe hunting bags for a reference site for the period 2000/01 - 2012/13.*

For the 2000/01-2012/13 period, the analysis covers 22 sites. Details of annual hunting bags are shown in Table 1. The annual mean total hunting bag in the 22 sites is about 2 350 common snipes and 520 jack snipes.

In 2012/13, the bags slightly decreased compared with 2011/12 for Common Snipe and Jack Snipe as well (Figure 9). The mean bag per site was 136.0 for Common Snipe and 29.9 for Jack Snipe. This is the worst value

since 2000/01 for Common Snipe and the second worst for Jack Snipe.
The trend tests confirm a general decrease for the two species (Page test; p = 0.0045/ Common Snipe and p < 0.0001/Jack Snipe).

As usual, the Common Snipe/Jack Snipe ratio is always constant (Figure 10). In 2012/13, the Common Snipe represents 82.0 % of the total Snipe hunting bag, i.e. exactly the average for the 2000/01 - 2012/13 period.

Season	*Common Snipe*	*Jack Snipe*	Total
2000/01	3 561	672	4233
2001/02	3 308	1 161	4469
2002/03	3 933	907	4840
2003/04	4 807	1 321	6128
2004/05	5 038	1 065	6103
2005/06	5 057	1 152	6209
2006/07	3 742	833	4575
2007/08	4 145	730	4875
2008/09	4 038	772	4810
2009/10	3 968	702	4670
2010/11	3 355	642	3997
2011/12	3 654	809	4463
2012/13	2 993	657	3650
Mean and total	**2 345.4**	**519.2**	**63 022**

Table 1. *Details of hunting bags per season for 22 reference sites.*

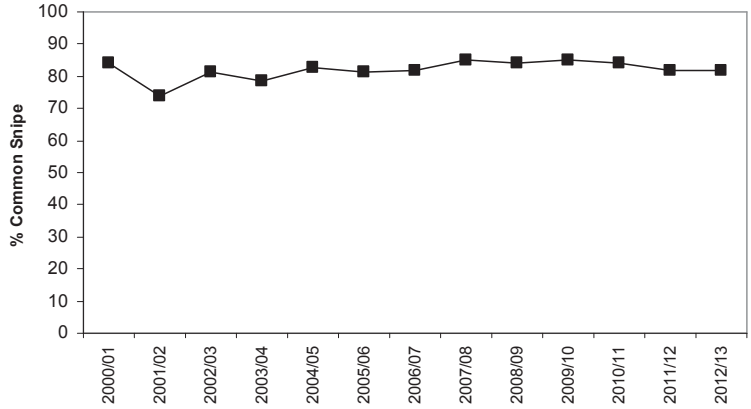

Figure 10. *Proportion of Common Snipes in the total Snipe hunting bag (Common Snipe + Jack Snipe) collected on 26 reference sites from 2000/01 to 2012/13.*

It is important to bear in mind that many biases are associated with the monitoring of hunting bags in the 22 reference sites. Mainly located in the northwest of France, the reference sites do not take into account the continental flyways which provide an important part of migrating and wintering snipes. Because of different weather conditions, availability of hunters or habitat quality, they can be in different situations from one season to another. Finally, age of hunters can also play a role in terms of skill. However, we think that the trends emphasized by our indicators reflect some issues in the demographic situation of Snipe populations that migrate or winter in France. The hunting pressure is probably not in question insofar as the numbers of Snipe hunters in France and in Europe are rather considered to be decreasing. The loss of suitable Snipe habitats, and more generally of wetlands, could be a more important cause of this situation.

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Conclusion

The 2012/13 Snipe season was not particularly exciting even if many hunters probably had the opportunity to encounter this species owing to a very rainy autumn.
Whereas the breeding success in spring 2012 seems to have been rather good for the two species, the demographic trends estimated from our indicators remain worrying. However, a recent analysis of Common Snipe ringing data (Peron *et al.* 2013, see Publications at the end of the Newsletter) are rather reassuring. The Common Snipe population in wintering in France could be considered as stable and its growth rate > 1. This moderates the pessimism stemming from the bag indicators.

Acknowledgements

This report is the result of an important field work carried out by members of CICB and by the ONCFS/FNC Snipes network. We thank all of them: volunteers, *Fédérations départementales des chasseurs* and professionals of ONCFS.

Jack Snipe *Lymnocryptes minimus* post nuptial migration in Northern France in early autumn 2013

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The 2013 Jack-Snipe autumn migration in Coastal Northern France has been unusual in three different aspects: early arrivals, large number of birds and huge presence of the species in all wetlands and their surroundings and, finally, weather conditions and water levels.

We have been studying Jack Snipe as well as Common Snipe (*Gallinago g. gallinago*) for over fifty years in the same 60 hectares wetland located in the *département* of Pas-de-Calais (50°22'N; 01°44' E), ten kilometres from the coast of the English Channel. This wetland is managed mainly for snipes since 1960 to be used as a field laboratory. Thanks to this long monitoring, we have a long-term data set which allows us to characterize this unusual autumnal Jack Snipe migration.

Earlier arrivals

The time schedule was the following:

- no presence of Jack-Snipe till 12 September,
- 2 birds flushed on 13 September (2 birds also flushed by a friend the same day in a swamp 6 kilometres distant),
- 4 birds flushed on 14 September,
- 10 birds flushed on 16 September.

Thereafter their number increased to reach over twenty birds on 20 September during the full moon and it kept increasing all through the end of the month.

Considering our previous data, the 2013 Jack Snipe autumn migration started about 15 days before the average date of over fifty years and in a massive way. Usually, the first birds are observed in very small quantities between 25 and 28 September and the migratory peak occurs in the second or third decade of October.

Large numbers

During the 2013 post nuptial migration, Jack Snipes were massively present during six to seven weeks, which is an extraordinary long period compared with our previous data which show an autumn migration duration of four to five weeks. They were observed in abundance in all wetlands, even in those where their presence is generally noted as being small in number or occasional.
Farmers informed us of their unusual presence in wet fields bordering our study site.
From 15 September to 14 October, the Jack-Snipe densities were very high with over twenty to sometimes thirty birds observed each time we walked across the wetland accompanied by our pointing dog, which is essential for finding this elusive species.
From 15 to 18 October, they practically deserted the study site because of heavy rains and repeated storms lasting day and night.
From 19 October to 4 November, a second massive Jack Snipe arrival occurred. This second arrival was similar in numbers to that of September.
In total, over 420 Jack-Snipes were flushed or pointed from 13 September to 4 November. In comparison with our previous data, the 2013 post nuptial migration was not the record in terms of numbers. These were higher in 1990, 1995, 1996, 2003 and 2005. However, the duration of a massive presence of Jack Snipe was unique.

Weather conditions and water levels

Local wind directions
It is usually admitted that south-east wind is the most favourable for autumn Jack Snipe migration. These conditions occurred twice: from 23 September to 2 October and from 11 to 14 October with slight rain, i.e. during 13 days, out of a Jack Snipe presence period of about 52 days.

Wind came from south-west to north-west during 39 days.
East wind brought a maximum of birds but then the jack snipes were nearly as numerous during west winds, except during 3 days in mid-October.

Gdansk (Poland)	Moscow (Russia)	Minsk (Belarus)	Saint-Petersburg (Russia)
September	26 September	26 September	30 September
+ 2° C in the last 2 decades	+ 1° C (- 2° C on 27)	+ 1° C	+2° C
October	October	October	October
Temperatures above seasonal values	From 2 to 12: + 2°C From 14 to 17: -2° C On 22: -5° C	Fluctuations between high and low temperatures	Fluctuations between high and low temperatures

Table1. *Details on temperatures registered in Eastern countries in September and October 2013.*

Temperatures
Temperatures were abnormally high for that coastal part of northern France: 7 to 8° C on average at night and 16 to 17° C at midday, in September and October as well. On 26 October, they reached 21° C. The first frosty night occurred on 11 November which is late for this region.
Some indications on temperatures in north-eastern Europe during this period are presented in Table 1.

Atmospheric conditions
From 13 September to 15 November, our region had variable weather.
On 17 September, heavy rains raised the water level which was favourable to birds after 2.5 months of drought. The water spread through the whole wetland which is the best situation for Jack Snipe arrivals.
After this rainy day, calm periods alternated with wind favourable for post nuptial migration, including a windy period with rain and temperatures 5° C above normal.

The water levels were suitable throughout the 2013 post nuptial migration.

Conclusions

The 2013 Jack Snipe post nuptial migration in the coastal part of northern France was unusual in many ways: earliness, numbers and duration. To explain this we propose some hypotheses.
On the one hand, the early arrivals could be due to low temperatures in Poland from11 to 30 September which encouraged birds to rapidly leave this country. On the other hand, the large numbers observed during seven weeks suggest an excellent reproduction success in the breeding grounds which could have been above 3 juveniles / female.

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The Woodcock in mainland Portugal: results of four hunting seasons monitoring

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Owing to its discrete habits, the Woodcock (*Scolopax rusticola*) is one of the less known birds of the Portuguese avifauna. As in many other countries where the Woodcock occurs, sporadic observations, and most of all, the empirical knowledge from its hunting, were the main sources for the limited understanding of this species in mainland Portugal. Here, the Woodcock is only present during autumn and winter. The early migrants might be observed from late September and the species may be registered at least until March. The proportion of birds that stay during winter and those that fly through the country remains unknown. Despite the general perception of the inter-annual variations, in mainland Portugal, each year, the first large autumn migratory wave is expected after the second decade (period of ten days) of November. The spring migration should start between February and March. Some birds ringed in Ireland and Russia during the breeding season, and later recovered in Portugal during the hunting season (Bernis 1966 *in* Catry *et al*. 2010) indicate several origins for the woodcock that occur here. Among Portuguese ornithologists it is assumed that Woodcock is more abundant in the north of the country. However, it cannot be ignored that the regular methodologies used by ornithologists usually fail to evaluate the presence of this species.

In response to the lack of knowledge about the Woodcock biology in mainland Portugal, in 2009 the Portuguese National Association of Woodcocks' Hunters (ANCG), in a partnership with the Research Center in Biodiversity and Genetics Resources (CIBIO/InBio-University of Porto) started to collect systematic data during the Woodcock hunting season. Data is collected by ANCG associates and other hunters, external to the association.

For each hunting day, the collaborators fill out a form with the date, the location of the hunting ground (locality, county or district), the period of the day during which hunting took place, as well as its duration (each period, morning or afternoon, is considered as one hunting trip), the number of different birds seen (including those that were shot), the number of birds shot, and the number of hunters and dogs. The dominant vegetation, and the intensity of wind and rain are also recorded.

For each bird shot, the hunters are asked to determine its weight (in grams) and sex (after gonads examination). This data is registered on an envelope (one per bird), together with the location and date of collection. The envelope is then used to store one of the bird's wings for later age determination.

After a first season with a small number of hunters sending information, the network of collaborators expanded each year along the continental territory, increasing the robustness and reliability of the results, and ultimately improving the knowledge about the Woodcock in Portugal.

Distribution and Abundance

The results of the first four hunting seasons confirm the presence of the Woodcock in all the 18 continental districts (Figure 1). Though sampling is not uniform along the territory, mainly due to a low number of collaborators in some regions, the results show regional differences in abundance, suggesting an uneven distribution of the Woodcock in Portugal. The species abundance is evaluated by the estimation of a hunting index of abundance (ICA, *Indice cynégétique d'abondance*), which corresponds to the number of different woodcock seen per hunter and per hunting trip (for a standard hunting trip of 3.5 hours). Contrary to the generalized opinion among Portuguese ornithologists, the results indicate higher levels of Woodcock abundance in the centre/south region of the country.

These results strengthen the importance of systematic collection of data during Woodcock hunting season, and the need for similar monitoring programs for other species, in particular migratory ones.

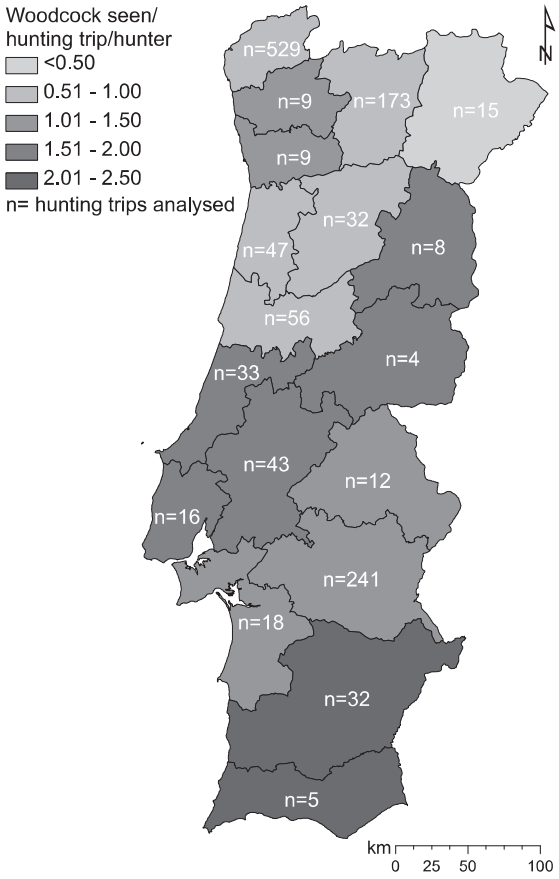

Figure 1. *Variation in the mean value of abundance of Woodcock (hunting index of abundance = woodcock seen/hunting trip/hunter), in mainland Portugal, by district, taking into account all data collected during four hunting seasons (2009/2010 to 2012/2013).*

Migratory phenology

At the beginning of the hunting season (usually the 1st of November), Woodcock had already arrived to Portugal; the available data thus did not enable us to evaluate when first arrivals occur. Similarly, since the hunting season ends before the onset of the spring migration, we cannot assess this aspect of the migratory phenology. Still, the variation of the hunting index of abundance during each hunting season allows us to understand other important parts of migration and wintering, like the peak of autumn migration, or the arrival of migrants during winter, which may occur due to cold spells in the northern parts of the Woodcock's range.

Excluding the first season (2009/2010), for which the limited data does not allow such a detailed analysis, each of the last three seasons had a distinct pattern of variation of the hunting index of abundance (Figure 2), probably reflecting the meteorological differences observed in the wintering areas in the north. In 2010/2011, the abundance slightly increased during November and peaked during the first decade of December; this peak should reflect the occurrence of an important number of migrants during that period; in the second decade of December the abundance reduced and remained roughly stable. In 2011/2012 a first increase in the abundance reached a first plateau at about half of the maximum values of abundance observed in the other periods; the higher values were only reached later (during the third decade of December). In the beginning of the last hunting season (2012/2013), there was an increase in abundance of woodcock, rather similar to that observed in 2010/2011, but the high values were reached earlier, in the last decade of November, and remained high during almost a month, until the second decade of December.

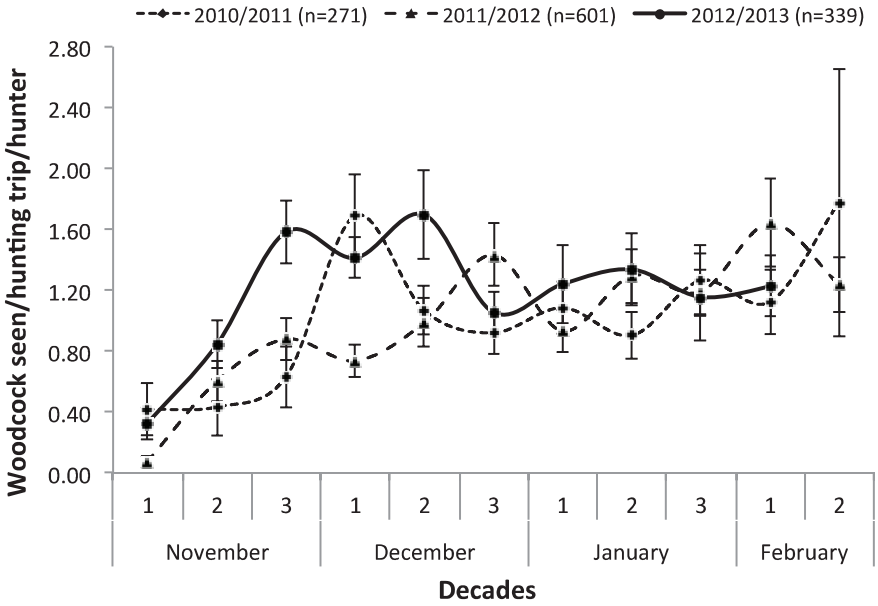

Figure 2. *Variation, by decade (period of ten days), of the mean (± SE) value of abundance of Woodcock (hunting index of abundance = woodcock seen/hunting trip/hunter) in the hunting seasons 2010/2011 to 2012/2013; n = hunting trips analysed.*

Inter-annual variation of abundance

Considering the data gathered in each hunting season, it is possible to evaluate differences between seasons. During the first three seasons we observed a decrease that was reversed in the last autumn-winter (Figure 3). Consequently, in 2012-2013, the proportion of hunting trips in which it was possible to flush more than one woodcock, and to shoot at least one, increased. This variation in abundance is a first indicator suggesting that 2012 should have been a better breeding year for the Woodcock, resulting in the best hunting season of the last four.

Demography

The wings collected by the hunters, as well as the data related to the sex of the birds, allows the evaluation of the demographic structure of the Woodcock in mainland Portugal, as well as inference about the preceding breeding periods.

Among the four hunting seasons studied, the proportion of males and females remained stable (Table 1). Such scenario is common in other wintering areas, but in mainland Portugal, the ratio has been closer to one male per female.

After the breeding season the woodcock moult their plumage. Usually, adults (birds aged more than one year) replace all their feathers, but juveniles (birds hatched in that breeding season) keep some first generation feathers (Ferrand & Gossmann 2009). When autumn migration begins, the moult stops. Some juveniles, mainly those from late clutches, do not have time to finish their moult and the amount of retained feathers is higher. Based on the number of great coverts (secondary coverts) retained, it is possible to infer whether a juvenile hatched earlier or later in the breeding season, since the former should have all the great coverts replaced and the latter are expected to show a large number of retained feathers. Therefore, the analysis of the stage of the moult in the wings sent by the hunters, allows determining whether the bird was an adult or a juvenile, and in the latter case in which part of the breeding season it has hatched.

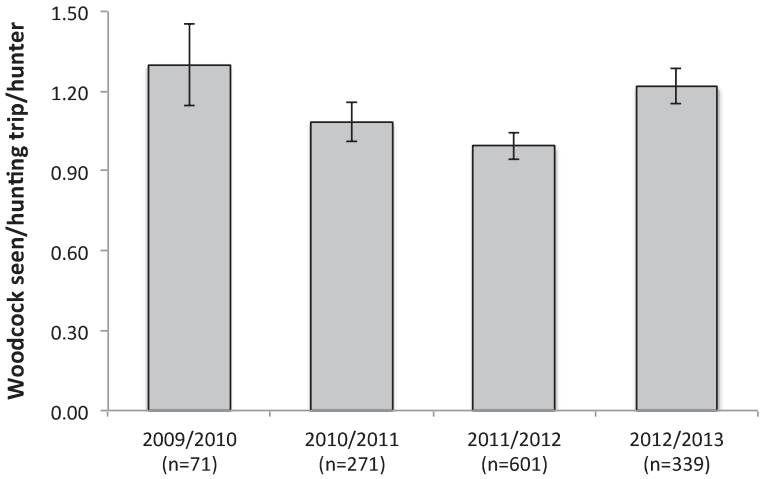

Figure 3. *Variation, by hunting season, of the mean (± SE) value of abundance of Woodcock (hunting index of abundance = woodcock seen/hunting trip/hunter); n = hunting trips analysed.*

Hunting season	% of males	% of juveniles
2009/2010	48.3 (58)	53.3 (182)
2010/2011	48.4 (95)	53.9 (195)
2011/2012	48.7 (193)	55.5 (247)
2012/2013	45.9 (135)	66.1 (218)

Table 1. *Percentage of males and juveniles in each hunting season. The number of birds considered is indicated in parentheses.*

According to the results of the last four hunting seasons in mainland Portugal, as in the majority of the species wintering area, the proportion of juveniles surpasses that of adults. Although the proportion of juveniles depends on their survival after emancipation (about 22% less than adults; Tavecchia *et al*. 2002), the variation of that proportion along the hunting seasons is indicative of how the productivity varies among breeding seasons. In 2012/2013 the proportion of juveniles was higher than that observed in the previous hunting seasons (Table 1). This result is a second indicator suggesting a more productive breeding season in 2012.

Conclusions

During the last four hunting seasons, the collection of data from woodcock hunting allowed us to improve the knowledge about the Woodcock in mainland Portugal. Its presence

was confirmed in all the Portuguese districts, and regional differences in abundance were quantified for the first time. The data also allowed us to note inter-annual differences in the Woodcock migratory phenology, showing the variability of this feature in this species, a characteristic shared with other migratory birds. Its migratory behaviour is partly influenced by the weather conditions. This reinforces the importance of the implementation of flexible national management schemes and international coordination. It was also possible to infer about a more productive breeding season in 2012, as suggested by the increase in the hunting index of abundance and in the number of juveniles in the 2012/2013 hunting season. Even at thousands of kilometres from the species' main breeding grounds, hunting results in Portugal can contribute to the monitoring of Woodcock populations.

Acknowledgments

We would like to thank all hunters who voluntarily participated in this study by collecting and transmitting information.

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News from……. Spain

A new project on the wintering ecology and migratory behaviour of the Jack Snipe (*Lymnocryptes minimus*) and Common Snipe (*Gallinago gallinago*) in southeast Spain

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According to the Wintering Bird Atlas of Spain (SEO/BirdLife, 2012), the Jack Snipe (*Lymnocryptes minimus*) has a wide wintering distribution but an unknown wintering population. This lack of information makes it the poorest known wader species in Spain due to its criptic behaviour and crepuscular habits. Overall, only few studies (Pedersen, 1995; Leray *et al.,* 2006) have looked into the wintering ecology of the species in southern Scandinavia and France, respectively. Therefore there is still a lack of information on this understudied species. Furthermore, its migratory routes and breeding areas are still unknown for most of their populations.

The Common Snipe (*Gallinago gallinago*) is a better known species, although its winter population in Spain is still unknown due to its difficult detectability. Foreign ringing recoveries have shown that some individuals wintering in Spain breed in Finland and Scandinavia but there is still a lack of detailed data on migratory behaviour and wintering strategies (Asensio & Carrascal, 1987; Hering, 2000; Hoodless *et al.,* 2000; Minias et *al*., 2010).

Since winter 2008-2009, we have been catching and ringing both species using mist-nets in southeast Spain (Murcia, 37º42'N, 0º51'W) from October to February. The study area is located in the mouth of a small ravine of the Mar Menor (a small salty lagoon separated from the Mediterranean Sea by a narrow sandbar, La Manga). The vegetation is mainly composed of reeds (*Phragmites australis*) bellow which there are small shallow water puddles making it a good site for Common and Jack snipes for foraging and resting.

In the winter 2012/13, we placed light-level geolocators (Migrate Technology Ltd, Cambridge, UK) on 30 individuals (21 Common Snipes and 9 Jack Snipes) to get data on their migratory routes, stopover sites and breeding areas. In the current winter 2013/14, in addition to start retrieving some geolocators, we are placing radio-transmitters (Holohil Systems Ltd, Ontario, Canada) and have started radio-tracking some individuals to get data on local wintering movements and daily schedules.

The aim of the project is to know more about their migratory behaviour and wintering strategies: stopover and breeding areas, site fidelity, stopover duration as well as movements in winter and during migration.

A better knowledge of these two understudied species will allow us to make a better plan for conservation strategies.

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(© R. Delrieux)

A geolocator on a Jack Snipe tagged in Spain in winter 2012/13 and recovered in France in autumn 2013.

Recent Woodcock and Snipe publications

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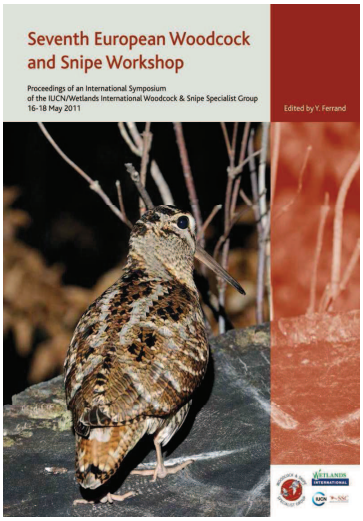

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