



Woodcock News

Issue 1: Winter 2010/2011

Welcome to our first newsletter about woodcock. I hope it is the first of many! It reports on the progress we are making on many aspects of our woodcock research and hopefully will keep you updated on our progress.

Andrew Hoodless
Woodcock Biologist

Origins of wintering woodcock

The origins of woodcock wintering in Britain and Ireland have intrigued sportsmen for generations. Better knowledge of woodcock origins and the composition of populations in different wintering areas will enable us to piece together migratory routes and gain an understanding of weather-related movements, so this research is very important. Until recently, recoveries of ringed birds provided the only information on these topics. Ringing requires a huge effort to catch and mark birds and until recently numbers of recoveries have been low. However, the invention of a new technique has revolutionised how we might be able to determine the origin of our birds. Stable-isotope analysis enables us to discover where a bird was hatched from the chemical composition of its feathers. This analysis has the considerable advantage over ringing, in that birds do not need to be marked and subsequently recovered, and that any bird can provide a sample. It therefore enables large numbers of samples to be processed and gives a contemporary snapshot of migration patterns.

This section of work seeks to find out what proportion of woodcock in shooting bags are British. Conservationists concerned by the failing conservation status of woodcock (their concerns, not ours!) would have their arguments strengthened if the bag was made up of a high proportion of British birds.

This work, funded by the Countryside Alliance Foundation, is being carried out

by our research student, Adele Powell who is working towards a D.Phil at Oxford University. Much of her work has involved calibrating the scientific technique so we have confidence in our eventual findings. So far, our estimate of the proportion of British birds in the national bag is 17%, in other words, not a large proportion. The rest were from Russia (51%) or Scandinavia (32%).

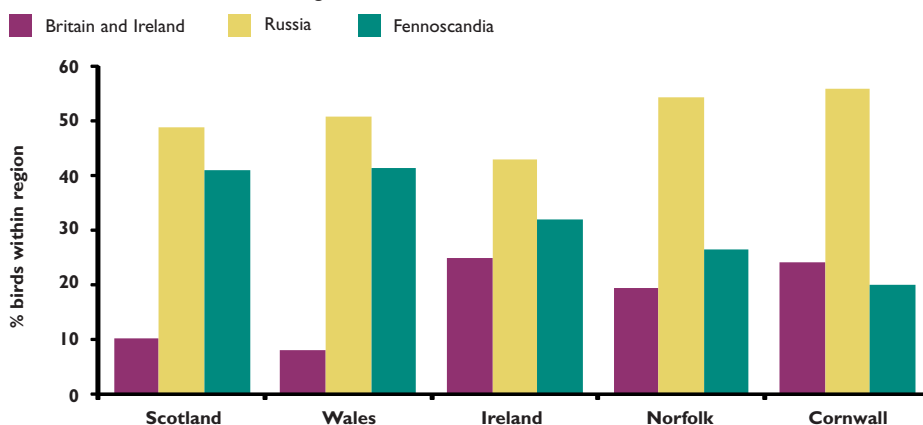
Adele's work will continue into 2011, when she will analyse another 250 feathers, some from known breeding areas in Europe and some from museum collections. Then her funding ends and she will be producing final results for her thesis. Tempting as it is, please do not send any more feathers for

now unless we specifically ask for them.

The relative proportions of woodcock from three European breeding areas varied across five wintering regions of Britain and Ireland – Scotland (Borders, Fife), Wales (Ceredigion, Pembrokeshire), Ireland (Galway, Mayo), England (Norfolk, Cornwall). The data suggest that woodcock from Russia and Belarus travel to Britain across a broad front, because each of the five wintering regions sampled had a broadly similar proportion of Russian birds (see Figure 1). However, Scandinavian birds appear more restricted to the north and west, with a lower proportion reaching Norfolk or Cornwall.

Figure 1

Estimated proportions of woodcock from three breeding areas within five distinct wintering regions of Britain and Ireland. Values are averages for the winters of 2004/05 and 2008/09.



Tracking individuals with geolocators

Our analysis of feather isotopes is starting to provide information on the origin of migrants at a broad geographical scale, but we still know very little about the routes taken by individual birds back to the main breeding grounds in Russia, Belarus and Scandinavia, stop-over locations in Europe or total journey times.

In March 2010, thanks to funding from the *Shooting Times* Woodcock Club, 23 woodcock were fitted with geolocators on the Lizard Peninsula, Cornwall, as a trial. These tags are much smaller and cheaper than satellite tags and have the potential to yield similar information on migration routes. They have been used successfully to follow arctic terns to Antarctica and work by logging daylight levels, from which the time of sunset and sunrise can be determined and hence latitude and longitude can be deduced to an accuracy of about 100km. We are collaborating with Dr Yves Ferrand of the Office National de la Chasse et la Faune Sauvage, who attached 25 geolocators to woodcock in Brittany at the same time.



We have fitted woodcock with geolocators to find out about the routes they take back to their breeding grounds.

Geolocators need to be retrieved to download the data and hence the tagging locations chosen were places with relatively high shooting pressure and known high site fidelity (from previous ringing).

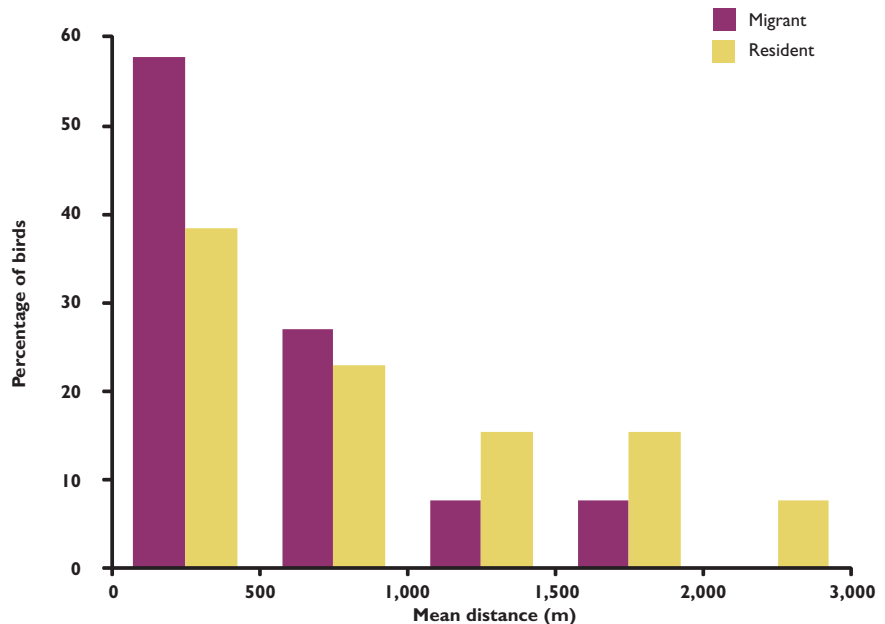
So far, two birds in France and four from Cornwall have been recovered and data analysis is underway.

Winter behaviour of woodcock

Although it is known that woodcock fly to fields at dusk in winter, we know surprisingly little about their foraging behaviour and detailed habitat use. For the last three winters, we have been radio-tracking woodcock on a 33km² study area near Andover, Hampshire, with the aim of comparing the behaviour and habitat use of resident and migrant birds. We radio-tracked 22 woodcock during 2008/09, 20 in 2009/10 and are currently tracking 27 birds. Their resident/migrant status was determined from stable-isotope analysis and in most cases could be confirmed by behaviour in mid-March (ie. either moved away or started breeding). We have tracked several birds for over four months. All birds used several sites by day and night with, on average, four diurnal woodland sites and three nocturnal locations on fields visited in a month. Over the course of the winter, most birds have been more faithful to their nocturnal locations than their daytime

Figure 2

Distances flown between woodland and fields by radio-tagged resident and migrant woodcock at dawn and dusk.



sites, but some have not flown to fields every night. During the first winter, three woodcock spent at least a third of their nights in woodland.

Most of the woodcock have sought out pastures when leaving woodland at night, particularly those that have been recently grazed by cattle, but a few have regularly frequented stubbles. Activity monitoring has shown that some birds fed in woodland for spells during the day. However, most were more active when on fields at night, and the periods of greatest feeding activity were for about 40 minutes after the birds arrived on fields at dusk and again for a similar time before they departed at dawn. It is apparent that individuals differ in their behaviour and, interestingly, this seems to be related to resident/migrant status. Most migrants

used the same field at night and the same woodland stand during the day for many consecutive days, whereas most residents have ranged over a relatively large area, visiting several different day and night sites over the same period. When flying to fields at dusk, birds have typically travelled less than 1.5km, but two birds have, on occasion, simply walked out onto the field adjoining their daytime wood. In contrast, a few birds, all residents, have flown almost 3km, passing over many apparently suitable fields, to reach their chosen night location (see Figure 2).

Not surprisingly, the cold spells during January of both winters disrupted the birds' behaviour patterns. Initially, only minor changes were observed, with most birds shifting their daytime locations short distances of up to a few hundred metres,

typically moving closer to the River Test, where presumably there was a greater opportunity of finding unfrozen ground. At this stage, they continued to visit fields at night even though feeding must have been impossible. After five or six days, however, about 80% of the radio-tagged birds in both years had left the study area and could not be found. Those that remained in 2010 ceased visiting fields at night, but survived the cold weather. In 2009, all of the birds that left returned within 10 days of the thaw, whereas the combination of low temperatures and snow in January 2010 meant that the return of some individuals was more protracted. One bird was reported shot in mid-January about 100km south-west, near the Dorset coast.

Monitoring of breeding woodcock numbers

In 2010 counts of roding male woodcock were co-ordinated at c.40 sites throughout Britain. Counts have been made at most of these sites each year since 2003 and they

provide a measure of annual fluctuations in breeding woodcock numbers. They also provide trend data to complement our 2003 National Breeding Woodcock Survey. The national survey demonstrated that breeding woodcock were far more numerous than previous estimates, based on general bird survey methods, suggested. However, the national survey could not provide information on current population trends. The trend at this smaller sub-sample of sites appears to be stable, but it should be borne in mind that this is a non-random sample of sites, with typically above-average densities of breeding woodcock.

We are already planning the next National Breeding Woodcock Survey in 2013. Although this seems a long way ahead, in reality it is not. If you are interested in volunteering to help us count please email us at

woodcock@gwct.org.uk. Each site needs three visits for an hour's survey at dusk between May and June, so it is not a major drain on your time but provides invaluable data.

We can arrange practise counts in 2011 if you are interested.



Have you seen any woodcock?

We are calling on sportsmen to supply records of wintering and breeding woodcock. We are doing so to help inform the British Trust for Ornithology's (BTO) current Atlas exercise where volunteers record all the birds they see, in winter and summer, in a given tetrad (2 x 2km square). This allows researchers to map the distribution and relative abundance of birds. This current Atlas will be the third to be published and is likely to be a major reference for the Government for the next 20 years. The BTO are claiming that so far, compared with the last Atlas published in 1993, reports of

woodcock sightings are down, especially from Scotland and Wales. We would like to ensure that coverage of woodcock sightings is as representative of their actual distribution as possible. We do not seek to challenge the BTO; we seek to help them by supplying accurate information, with the help of the shooting/countryside community.

At last year's CLA and GWCT Scottish Game Fairs, we gathered over 150 woodcock records that we will submit to the BTO, but can we supply more? Could you send me details of your woodcock sightings wherever you are in the UK?

Like it or not, the Atlas will be used to gauge the relative conservation status of woodcock, so the BTO exercise has merit and clout!

So, if you have recently witnessed male woodcock roding over woodland in the spring or are seeing woodcock now, please email woodcock@gwct.org.uk with your details (membership number would be great), whether you have seen woodcock, in which month and where (nearest village or postcode is all we need). We will then pass on this information to the BTO, anonymously if you prefer.

Work planned for 2011/12

Satellite tracking

Satellite tracking is a well-established technique for following larger species, such as swans and geese, but satellite tags are now small enough for following birds like woodcock. A Spanish team from the Club de Cazadores de Becada, and now Roy Dennis on Islay, have demonstrated that, whilst expensive, satellite tags on woodcock can provide fascinating insights into the species' migrations. For instance, one bird, 'Navarre', a juvenile female tagged in March 2007, has twice migrated to Russia and back to Cantabria, completing the 3,800km spring trip in 10 weeks. In winter, she has returned to within 11km of her tagging location. What was interesting about the two birds tagged on Islay was the difference in behaviour of the two birds, with one making a short, quick trip to Norway and the other a two-month journey to the northern limit of the species' breeding range in western Russia. We would like to equip 10 woodcock with satellite tags during winter 2011/12. We also plan to equip a further 25 woodcock with new geolocators in February/March 2011.

Thanks to the generosity of some key players, especially landowners in Cornwall, we are in a position to start purchasing satellite tags. At over £3,000 each to buy the tag and the satellite time, this is not a cheap option but the findings could be very exciting.

Winter site fidelity

We have been working closely with Owen Williams and The Woodcock Network and plan to assist in the setting up of further ringing groups. In particular, we would like to see the establishment of sites where effort is focused on ringing at least 100 birds per winter for about five years, to provide data which could be used to examine winter site fidelity and within-winter turn-over rates. Under Owen's direction, The Woodcock Network have managed to dramatically increase the number of woodcock ringed each year: since 2007 they have ringed over 1,100 woodcock! His website is well worth a visit, www.ringwoodcock.net. For example, there have already been six recoveries of his winter-ringed birds, all shot in April/May in western Russia.

Further copies of this newsletter can be downloaded from our website at www.gwct.org.uk/woodcocknews

Thank you

None of the above happens by chance. This work is generously funded by the *Shooting Times* Woodcock Club, the Countryside Alliance Foundation, two Scottish-based Charitable Trusts and some very generous landowners and sportsmen in Cornwall.



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