

Great Spotted Woodpecker

Adult male Great Spotted Woodpecker at nest hole in a County Wicklow woodland.
Photograph: Faith Wilson. (All photos in this article were taken under licence from the National Parks and Wildlife Service.)

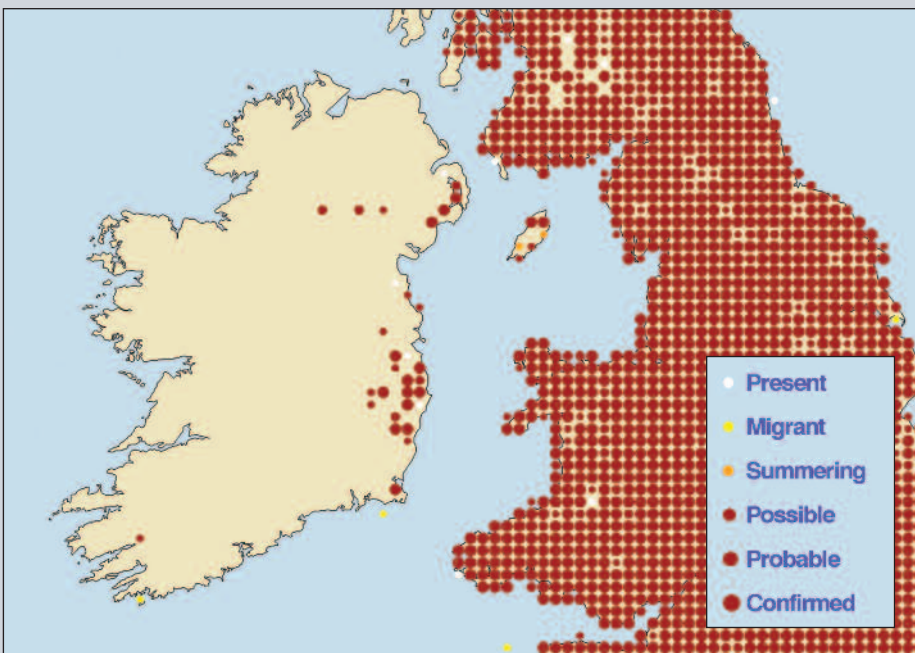
Woodpeckers have settled and are spreading slowly but surely



The Great Spotted Woodpecker, formerly a rare and sporadic winter visitor in Ireland, has now established as a breeding species in the eastern half of the country. **Faith Wilson** and **Dick Coombes** report

Factfile

- **Great Spotted Woodpecker**
- **Irish names:** *Snag Darach*, *Mórchnagaire Breac*
- **Latin name:** *Dendrocopos major*
- **Length:** 23-26cm
- **Weight:** 85g
- **Age of oldest known bird:** 10yrs 9mths



Great Spotted Woodpecker breeding distribution (possible, probable and confirmed) recorded by the Bird Atlas 2007-11 survey, showing provisional data as of September 2011. There were no Irish records in the previous atlas (1988-91) as the woodpecker had yet to colonise Ireland.

IN THE COURSE of just four or five years the Great Spotted Woodpecker population has increased and continued to expand its range. With more and more now turning up at bird tables and nut feeders, the general public has become increasingly aware of them. There may now be as many as fifty pairs breeding on the island of Ireland. How this remarkable change in status came about is a fascinating tale.

The Great Spotted Woodpecker is a medium-sized bird, a little bigger than a Starling, with a striking black-and-white plumage and bright patch of crimson on the under-tail. Males have a small red spot on the back of the head and juveniles (up to around October in the bird's first year) have all-red crowns.

It is supremely adapted to life in the trees, spending most of its life in the upper

branches and only rarely coming to the ground. Its feet have two toes pointing forward and two backward, to help it cling to upright tree trunks. The tail is made up of very tough, stiff feathers which the bird presses against the trunk to further aid stability.

Like other woodpecker species, the Great Spotted nests in holes in trees, which the bird excavates itself using its powerful chisel-like bill. The bill, of course, is the bird's tool for digging into dead wood to extract insect larvae and to prise pine seeds from cones. Aside from the occasional high-pitched 'pic' note, Great Spotted Woodpeckers are relatively silent. However, to defend territory, adults produce a loud, far-carrying sound known as drumming, made by striking the bill on a dead branch in rapid bursts of 16 beats per second.

History

Great Spotted Woodpeckers are recognised as one of "Ireland's lost birds," and femur leg bones of two individuals of the species were recorded during cave excavations carried out in 1903-1905 in the Edenvale Cave complex, 3km south of Ennis, Co Clare, along with the bones of other woodland birds such as Jay and Hawfinch. These samples, along with many other archaeo-zoological collections, are held in the care of the Natural History Museum in Dublin. The bird remains were initially identified as Great Spotted Woodpecker by ET Newton in 1906, and in advance of radiocarbon-dating both specimens were certified as *Dendrocopos major* by Dr J Cooper of the Natural History Museum London. One of these bones was radiocarbon-dated to 3,750 ± 35 years before present, placing the species in the Bronze Age.

It is thought that the species became extinct in Ireland following the widespread woodland clearances of the 17th and 18th centuries.

Range

The world distribution of this woodpecker stretches in a massive swathe from the Canary Islands in the west, right across to Japan in the east, taking in all of Europe and much of North Africa, Russia and Asia. Prior to the recent colonization in this country, breeding did not occur in Ireland, and the species was also absent from the Isle of Man and Iceland. The species' north/south distribution extends from arctic taiga forest, through to temperate, alpine forest and Mediterranean regions.



Faith Wilson

Some Great Spotted Woodpeckers were caught and ringed to help in tracking their movements.

There are about 25 races of Great Spotted Woodpecker across the species' range. The nominate race, *major*, is found in northern Europe, Siberia and European Russia. The British race, *anglicus*, occurs throughout Britain, and *pinetorum* is the race found in central Europe.

Great Spotted Woodpeckers will use a wide variety of habitats where trees exist, including coniferous plantations, parks, gardens and orchards, but their preferred choice of habitat is mature broadleaved woodland, especially oak.

Origins of the Irish population

Great Spotted Woodpeckers recolonised naturally in what appears to have been two waves, arriving first in Northern Ireland, with breeding confirmed there in 2006, followed by subsequent confirmation of breeding in the Republic of Ireland, in Co Wicklow in 2009. The Wicklow population has been the subject of a detailed study ongoing since 2008 and the population has increased there from seven nests confirmed in 2009 to 17 nests in 2011, with a further nest in Co Dublin.

The likely origin of these birds was investigated by the Wicklow researchers with assistance from geneticists based in University College Dublin and woodpecker researchers and ringers across Europe, with funding from The Heritage Council. This was done principally using shed feathers

collected from nest sites once breeding was complete, or from birds caught for ringing as well as blood samples from some continental populations. This involved establishing a network of collaborators across the UK and continental Europe (Norway, Belgium, Germany, Switzerland and Poland) with 43 samples collected, including museum specimens from Dublin and Scotland.

The results point strongly to a British origin for the re-established Co Wicklow population rather than a continental one, and it appears as though the separate breeding groups in the Republic of Ireland and Northern Ireland were founded from different areas, although genetic material from only a single individual from Northern Ireland was used in this study. This bird showed signs of a continental influence, but given the genetic diversity of the population within Britain it may also have originated from there.

The key to why the normally sedentary British birds have dispersed to Ireland may lie in the fact that the British population has increased dramatically in recent decades (by some 400% in the last 40 years), so despite their reluctance to venture great distances, the sheer pressure of numbers may have triggered a range expansion of British birds across the relatively narrow Irish Sea. This has been demonstrated most startlingly in the preliminary results of the Bird Atlas 2007-2011, which indicate that the Isle of Man has also been colonised.



Pair of woodpeckers at nest site.

Ecology & behaviour

Great Spotted Woodpeckers have the typical profile, upright posture and bounding undulating flight of most woodpeckers. When seen climbing up trunks and along branches they move with jerky, hopping movements, giving a cocky, confident attitude. As they approach trees they often fly at speed, not slowing down and swooping in, but slapping suddenly onto the trunk. Their bounding, undulating flight with distinctive wing-beats, followed by glides and swoops on closed wings, is unmistakable.

Birds often forage on a solitary basis but courtship displays can involve many postures and calls followed by high chases

through the canopy.

A monogamous species, breeding begins in April with between 4-8 white eggs laid in a deep cavity in the trunk of a tree (mostly oak, to date) which are incubated by both adults. The chicks hatch after approximately 16 days and are fed a variety of insects, coming up to the hole to be fed as they get older.

The chicks normally fledge after 18-21 days and can be quite noisy at the nest hole. As a generalist forager, the species feeds on both insect and plant matter, depending on local conditions, and in some parts of Europe they drill trees for sap. They are also quick to note and exploit new opportunities, be it young nestlings or peanut feeders in gardens.

Movements

All the global populations of Great Spotted Woodpecker are essentially resident and sedentary, especially the southern ones. The northern population (*major*), while normally resident, is prone to irruptions in certain years when a poor crop of pine seeds (the main food source for northern birds in winter) forces a mass movement of birds south and westwards in search of food.

It is presumed that most of the Irish records (before breeding was established here) were of this northern race. Typically in irruption years, when perhaps six or so birds would have been recorded in the country, the earliest report would be in November and the latest in March, fitting in with the expected pattern of birds not lingering into spring but returning to breed in Scandinavia.

Studies in Britain have shown that the *anglicus* race is highly sedentary and individuals hardly move more than a few kilometres from their natal sites in their whole lifetime.

So far, evidence suggests that the Irish population, small though it is, is also quite sedentary. Site fidelity has been noted for two and even three years in succession at the majority of breeding locations. Reports of birds further afield, especially juveniles in late summer, indicate some post-breeding dispersal is taking place, which should help the further expansion and establishment of the Irish population.

The future

The diverse nature of the haplotypes found within the genetic study suggests that the Irish population has been founded from multiple localities within Britain, rather than a single source. This bodes well for the future prospects for the species. It is hard to estimate the number of pairs of Great Spotted Woodpeckers on the island of Ireland as a whole, but given the apparent breeding success of the species, a conservative estimate of the Irish population could be at least 50 pairs by now.

Further information

Ireland's Lost Birds. Gordon D'Arcy (1999). Four Courts Press, Fumbally Lane, Dublin 8.

Woodpeckers: A Guide to the Woodpeckers, Piculets and Wrynecks of the World. Hans Winkler, David A Christie and David Nurney (1995). Pica Press, East Sussex.

Woodpeckers of Europe: A Study of the European Picidae. Gerard Gorman (2004). Bruce Coleman, East Sussex.

The origins of Great Spotted Woodpeckers (Dendrocopos major) colonizing Ireland, revealed by mitochondrial DNA. McDevitt, AD, Kajtoch, L, Mazgajski, TD, Carden, RF, Coscia, I, Osthoff, C, Coombes, RH and Wilson, F (2011). *Bird Study* 58 361-364.

Where and when to see

It is now possible to see Great Spotted Woodpeckers in Ireland at any time of the year. In winter, birds readily come to nut feeders and fat balls, but the best time to look for them in the woods is in spring when the sound of drumming can be heard at considerable distances. Drumming is at its peak in March and April and is mainly an early morning activity.

So far, the biggest concentration of birds seems to be in County Wicklow, where the wooded valleys provide ideal habitat. Oak woods are best. Increasingly, birds are turning up at new sites in other eastern counties, particularly Wexford, Meath, Kildare and Louth, almost always in areas of mature broadleaved woodland.

