



Science and the Creator

The woodpecker¹

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MANY SPECIES of animals, birds and insects display specialised, even complex, behaviour patterns, which necessitate several complementary design features to allow them to be performed successfully.² Although this seems to point inescapably to intelligent forethought and design by the Creator, evolutionists usually assert blandly that these features have 'evolved', without explaining how the creature in question managed to feed or reproduce before they were present, nor how natural selection was able to favour each individual feature separately, when they could only provide selective advantage if all were present.

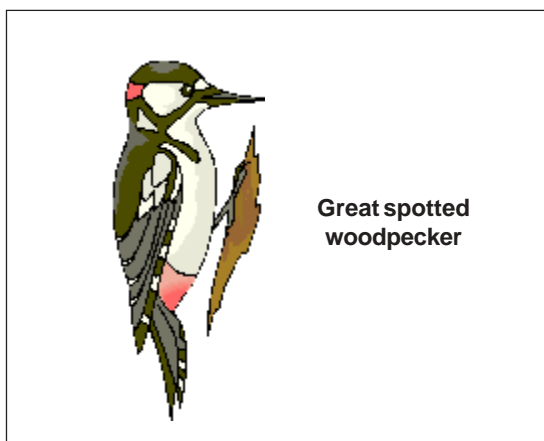
Remarkable adaptations

A beautiful example is that of the woodpecker, of which there are around 198 species distributed throughout the world,³ including around twenty-nine related species of piculets and wrynecks. Woodpeckers, as is well known, are principally birds of the trees, living upon wood-boring insect larvae buried deep in the rotting wood of dead or dying trees.⁴ To catch their food they have a number of remarkable adaptations to allow them to bore into the wood and capture their food.

The first of these is that they are equipped with short legs, and feet with two forward-pointing and two backward-pointing claws, instead of the more normal three-and-one arrangement, allowing them to grip the bark of the tree securely. But, in addition to this, the tail feathers are exceptionally rigid, providing a prop when climbing vertical tree trunks. The twelve tail feathers of the great spotted woodpecker, for instance, are arranged in pairs, the three innermost pairs having very strong shafts and pointed ends. These are held firmly against the trunk, so that the bird is balanced on three points—the two feet and the tail.

In order to hack and hammer the tree bark or wood, the woodpecker has a powerful pointed bill and reinforced skull to protect the brain from damage while doing so. These features are vital, not just for obtaining food but also for signalling their territory, locating and attracting a mate, and for excavating the nesting hole. The rapid bursts of drumming on an old tree or telegraph pole, which form part of the courtship ritual, can be heard up to a kilometre away. The beak moves so rapidly that the head appears as a blur; high-speed photography has revealed that the bill strikes the surface eighteen to twenty times a second, and that the deceleration is equivalent to about 1,000 times the force of gravity.⁵ The reason the woodpecker does not suffer concussion from this extreme stress is that, firstly, the beak is hinged with strong muscles and shock absorbers to take the blows, and secondly, there is a cushion of soft cartilage between the upper part of the bill and the skull, which also acts as a natural shock absorber.

1. My thanks are due to Brother Jay Green for bringing this subject to my attention.
2. A number of examples have previously been highlighted in this section; see, for example, "[The cuckoo](#)", Feb. 2002, p. 61; "[The honeybee—an example of the Creator's genius](#)", May 2001, p. 214.
3. *The Survival Factor: Woodpeckers*, M. & T. Birkhead, 1989, pp. 165-84.
4. The absence of woodpeckers from Australia may be explained by the fact that the ubiquitous eucalyptus trees do not rot in the same manner as other trees to provide sufficient rotting wood for the birds to exploit.
5. This compares with the approximately 4G to which astronauts are exposed and the 10G experienced by the driver of a car hitting a wall at thirty-five miles per hour, considered the maximum that the human body can survive. The construction of the woodpecker's skull has been under investigation by engineers seeking to improve crash helmet design.



With its powerful beak the woodpecker is able to excavate holes in bark or wood to a depth of up to ten centimetres (four inches). But many of the grubs that live in wood dig tunnels or galleries, and in order to reach these the woodpecker has a specially adapted tongue that can extend well beyond the bill. This long, narrow organ has a harpoon-like tip with which it can impale its prey, and also bristles covered with sticky saliva so that insects are instantly trapped. The tongue varies in length between species; for example, the great spotted woodpecker's tongue is four centimetres (one-and-a-half inches) long, while the green woodpecker's extends to ten centimetres (four inches). In some species the tongue is so long that it reaches over the back of the skull and is attached to the upper beak, while in others it is wrapped around the bone that encircles the right eye.

Chance or design?

It is clear that each of these special adaptations of the woodpecker—the feet, the tail, the head and bill, and the tongue—is essential for success, not only in obtaining its food but also for its breeding and nesting rituals. Any one of them would be of little use without the others.

How is the evolutionist to account for the simultaneous appearance of these special features as the result of natural selection acting upon chance genetic mutations? It is notable that no scientific literature on the woodpecker seems to make any claim to have fossil evidence for partially evolved birds, displaying just some of these design features, or any of them partially developed.

But just as challenging to the evolutionist is to query why the woodpecker should have evolved these features in the first place. Although the bird's preference for burrowing in trees for its food supply is clear, it is by no means restricted to this diet. At times when larvae are in short supply, woodpeckers are known to become predators of other birds' eggs and nestlings, particularly those of birds nesting in rotten tree stumps such as willow tits, and they are also partial to pine cones and other seeds. Clearly, then, while woodpeckers can eat a range of foods, they normally concentrate on those for which they are specially adapted; but there seems to be no special reason why they should have *needed* to evolve those special features, and no fossil evidence that they did.

On the contrary, there is every indication that the woodpecker's remarkable anatomy has been designed as a functioning whole, with every aspect of its life catered for by very specific and unique design features. Differences between the various species of woodpecker to enable them to occupy different ecological niches may well be the result of selection among naturally occurring genetic variations, but the special design features discussed above are common to virtually all. And this very eloquently speaks of special creation by God the Great Designer, as described in His Word: "Then God said, ' . . . let birds fly above the earth across the face of the firmament of the heavens.' So God created . . . every winged bird according to its kind. And God saw that it was good" (Gen. 1:20,21, NKJV).

Isaac Newton

After the recent television programme, "Newton the Dark Heretic", in which Brother Stephen Snobelen appeared, readers may be interested to investigate the matter further on Brother Snobelen's website, <http://members.aol.com/stevesnobelen/>. Articles as follows are available:

Isaac Newton, heretic • Isaac Newton on the return of the Jews • Newton on the devil • Newton's science and religion • Newton's General Scholium.

Also available are entries about Newton that have appeared in several works of reference.