

Science update

Recent news from the world of science

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Intelligent Design in court

TO BELIEVERS in the Word of God it is fundamental that the God of heaven is the originator of all things and that all of the infinite varieties of life on earth bear the stamp of His wisdom. The 'argument from design', first formally developed by William Paley at the beginning of the nineteenth century, maintains that the amazing complexity of life at every level itself demonstrates that living organisms have been *designed* by a supreme Being. Paley referred to structures such as the eye and the heart to demonstrate that the exquisite details of their design far exceeded those of comparable man-made objects such as the telescope or a pump, and therefore demanded an intelligent designer.

This argument squarely confronts the Theory of Evolution, which in its current form attributes all such complex design features to the operation of natural selection upon purely random variations. Evolution rejects any notion of Divine intelligence or involvement in the development of novel forms of life.

In the United States, which has a considerable fundamentalist Christian lobby, attempts have been made over the years to allow the teaching of 'creationism' as an alternative explanation of life to evolution. However, these have always fallen foul of the American constitution, which separates church and state, and forbids any form of religious education in state schools. In 1987

a Supreme Court ruling banned the teaching of 'creation science' in schools because of its implicit religious basis.

Since that time a fresh attempt has been made, under the banner of the 'Intelligent Design' (ID) movement. This has sought to re-establish and strengthen the case made by Paley in demonstrating that living things, especially at the molecular level, are so unbelievably complex that they could not possibly have arisen by chance. By avoiding any direct reference to God as the designer, the protagonists of ID hoped to circumvent the ban on religious teaching.

In the latest high-profile court case, however, ID has now been on trial as a form of creationism. The case was brought by a group of parents in Pennsylvania, whose school board had proposed making ID literature available in the school library. It has triggered a rash of articles in the media, especially the popular science magazines, warning of the dangers of the 'new' challenge to evolution, and characterising it in near hysterical terms as "dogma versus evidence, religion versus science and ignorance versus enlightenment".¹ The case has also divided along political lines, given the identification of the Republican Bush Administration with right-wing fundamentalist Christian groups. In contrast, Cambridge University Press, in 2004, published a sober and reasoned debate on the subject of ID, with contributors from both sides of the argument.² This was notable for the wide spread of

views on the origins and development of life, even among those scientists and theologians nominally on the same side!

Unsurprisingly, in the event Federal Judge John Jones barred the teaching of ID in biology classes, saying the concept was creationism in disguise and violated the constitutional separation of church and state. The ruling was seen as a major setback for the promoters of ID. In reality it demonstrates the extent to which evolutionists have managed to convince the general public that Darwinism is scientific fact on a par with the other main branches of science. Many of those who brought the action or testified in its support, as well as the judge himself, were members of mainstream Christian churches, believing in an all-powerful God yet happy to accept that the origin and development of life on earth have taken place entirely without His involvement! Significantly, one observer of the trial noted that it was a good move to have Kenneth Miller, a Catholic biologist, as the primary expert witness for evolution, rather than an atheist such as Richard Dawkins, whose idea that Darwinism disproves religion would have been difficult for the judge to swallow.

How fortunate we are to have a clear understanding that God is not only the designer and

1. "Darwin and dogma", editorial in *New Scientist*, 29 Oct. 2005, p. 3.
2. *Debating Design—From Darwin to DNA*, edited by Dembski and Ruse, 2004.

maker of all living things but is also actively involved in the whole of His creation, promoting the development of its ultimate purpose, namely, to be filled with His glory (Hab. 2:14)!

Close-up on insect behaviour

A RECENT BBC TV documentary series, "Life in the undergrowth", used advanced camera and sound technology to obtain spectacular new insights into insect behaviour. Among the many insects featured was the large blue butterfly.³ This has long been known to have an intimate relationship with certain species of ants. The life cycle of the butterflies is as follows:

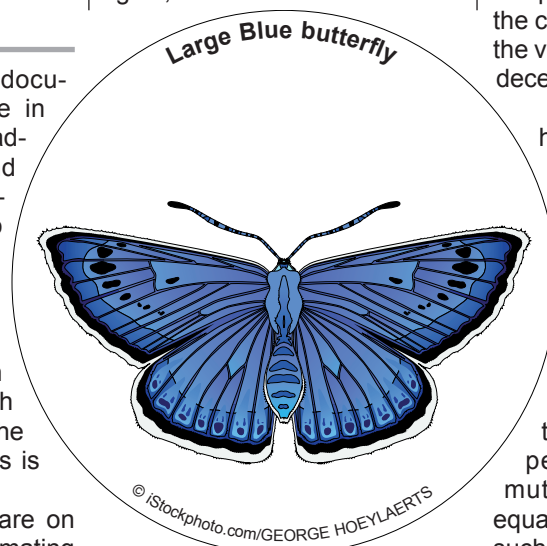
- 1 The adult butterflies are on the wing in July, when mating occurs.
- 2 The females lay their eggs in the flowers of the marsh gentian. The caterpillar hatches through the base of the egg into the flower, where it spends two to three weeks feeding.
- 3 It then chews a hole in the flower, lets itself down to the ground on a silken thread and waits.
- 4 When a red ant finds the caterpillar, it will pick it up and take it back to its nest.
- 5 Once inside the ants' nest, the caterpillar will be fed by worker ants and will stay through the winter and spring. During this time it grows to about twelve millimetres in length.
- 6 In early summer the caterpillar turns into a pupa or chrysalis, still inside the ants' nest. The adult butterfly emerges about a month later

and leaves the nest quickly to avoid being killed by the ants.

The use of highly sensitive electronic cameras allowed this to be filmed for the first time without the need for strong lights, which would have inhibited

the confusion the wasp lays its egg in the body of the caterpillar before escaping. Subsequently the wasp grub eats the caterpillar from the inside and emerges from the chrysalis in its place. Scientists now suspect that the wasp detects the presence of the caterpillar in an ants' nest by the very sounds which it emits to deceive the ants.

One is forced to speculate how many millions of years of experimentation in the production of complex chemicals and sound systems by these insects would be necessary for them to evolve these amazing systems essential to their reproduction, and how they managed to survive until they were perfected! Surely random mutations are wholly inadequate to explain the origin of such extraordinary behaviours. Rather, the hand of the Creator Who made "every thing that creepeth upon the earth after his kind" (Gen. 1:25) can clearly be discerned.



ated the insects' behaviour. But even more remarkable is that ultra-sensitive microphones have made it possible to *hear* the insects as well. It was known that the caterpillars emit chemical signals called pheromones to imitate those of the ants, but now it has been possible to detect the clicking noises made by the caterpillar, which also imitate the ants' own communications and fool them into caring for the interloper. Playing back a recording of these noises to the ants caused them to react by tapping the microphones with their antennae.

However, the large blue butterfly also has an enemy, a rare parasitic ichneumon wasp. Unlike the ants, it seems to know that an impostor is present and enters the nest to find the caterpillar. It also emits a pheromone, which repels the ants and causes them to attack one another. In

Dating the past

EVOLUTIONISTS frequently and confidently attribute ages of thousands or millions of years to fossil finds, based, it is claimed, upon a variety of scientific dating techniques, mostly involving the decay of radioactive isotopes. In fact these techniques all involve assumptions and extreme technical difficulties, which are rarely publicised.⁴ In reality, the

3. "BBC listens in to insect chatter", BBC On-line News, Science section, 23 Nov. 2005.
4. For a penetrating review of the defects, see Richard Milton, *Shattering the Myths of Darwinism* (originally published as *The Facts of Life*), ch. 5, 1997.

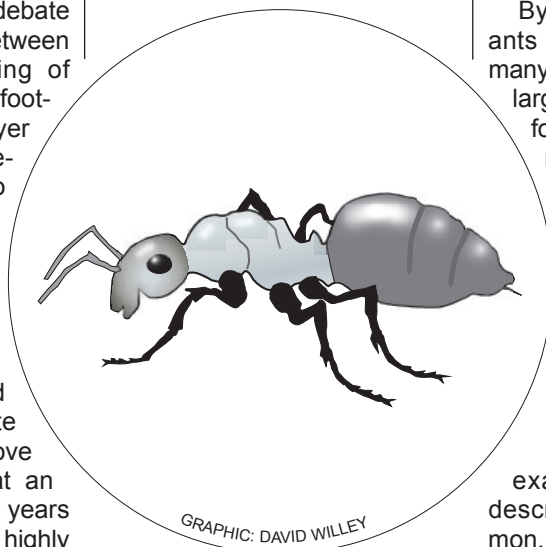
attributed dates have to fit in with the supposed evolutionary 'tree of life', and dates that do not fit are rejected as not reliable!

Interestingly, a heated debate has recently emerged between scientists over the dating of some apparently human footprints discovered in a layer of volcanic ash at Valsequillo Lake, near Pueblo in southern Mexico.⁵ A British-Mexican team first announced in early 2005 that they provided the oldest evidence of human occupation in the Americas. The researchers used several methods⁶ to date the ash and the layers above and below it to arrive at an estimated age of 40,000 years for the footprints. This was highly controversial, since the accepted theory is that the first humans migrated into America via Alaska from Siberia only at the end of the last Ice Age, around 10,000 years ago.

The same deposits were then analysed by an American group using different dating methods.⁷ They arrived at a date of 1.3 million years, far too old for human footprints, and so concluded that the marks were not footprints at all but the results of quarrying of the rock by local inhabitants and subsequent weathering! Significantly, both teams claim that the dating methods used by their opponents are unsuitable for use in the type of deposits involved. The debate contains comments such as, "Radiocarbon dating of freshwater shells is notorious for producing erroneous ages"; and, "We applied the argon-argon method and concluded that it was not reliable".

It is quite obvious that the 'scientific' analytical results are in fact selected or rejected in order to fit in with the particular

view that the researchers wish to support, and this is certainly the case with the whole scheme of evolutionary time scales.



The gardening ants

ANOTHER extraordinary example of the complex behaviour of insects comes from the Amazon Jungle in Peru.⁸ Local Indians have given the name 'devil's gardens' to certain areas of the forest where only a single species of tree grows. They attribute the gardens to an evil spirit known as 'Chuyathaqi'.

A scientific study of the gardens focused on two possible explanations: either that the tree, *Duroia hirsuta*, itself inhibits the growth of other species, or that the gardens are the work of the species of ant, *Myrmelachista schumanni*, that lives on their trunks. To investigate, the researchers planted cedar saplings in and around the gardens. They found that they were rapidly attacked by the ants, which injected the leaves with formic acid, so that they began to die within twenty-four hours. Formic acid is produced by many ant species (its name coming from the Latin word for ant, *formica*) but

is normally used as a chemical defence mechanism. This is the first example of its use on behalf of a host plant species.

By killing other plants, the ants provide themselves with many long-lasting nest sites. The largest garden the scientists found was over 1,300 square metres, containing 328 trees, and was thought to be around 800 years old. We are forced to marvel at the collective wisdom displayed by these tiny creatures in cultivating their own species of tree by destroying any competing species.

Here is a truly amazing example of the behaviour described long ago by Solomon, himself an accomplished naturalist (1 Kgs. 4:33): "Go to the ant, thou sluggard; consider her ways and be wise: which having no guide, overseer, or ruler, provideth her meat in the summer, and gathereth her food in the harvest" (Prov. 6:6-8).

Wherever we look in the natural world we find such things to astonish and delight us, so that with the psalmist we can once again exclaim, "O LORD, how manifold are Thy works! in wisdom hast Thou made them all: the earth is full of Thy riches" (104:24).

5. "Study treads on footprint claim", BBC On-line News, Science section, 1 Dec. 2005.
6. These included radiocarbon dating of bone and shell fragments, electron spin resonance dating of mammoth teeth, and optically stimulated luminescence of lake sediments.
7. They used the radioactive argon-argon method and paleomagnetic analysis.
8. "Devilish ants control the garden", BBC On-line News, Science section, 21 Sept. 2005.