



Science update

Recent news from the world of science

David Burges

Evolution observed?

A RECENT BBC News headline claimed that scientists may be observing an actual example of the evolution of a new species taking place.¹ The new data concerns the song of a small bird, the Greenish warbler, that inhabits the foothills of the Himalayas. The warbler, *Phylloscopus trochiloides*, is known as a 'ring species' because its range forms a complete ring around the mountain range. Researchers have noticed that the bird's song changes gradually throughout its territory, from simple, short, repetitive notes to longer, more complex patterns. The ring is broken only in central Siberia, where warblers with the two extremes of the song are found.

As in most songbirds, the males sing to attract mates and defend territory. When biologists played recordings of songs to warblers that sang differently, they did not recognise them. From this it was concluded that the two forms will not mate, and it is conjectured that eventually they will form two separate species. The report claims: "Scientists may be witnessing one of the fundamental forces of evolution: the divergence of one species into two. It is the evidence that the originator of the theory of evolution, Charles Darwin, wanted to see but was never able to find".

One of the researchers, Darren Irwin of the University of California, San Diego, USA, comments: "One of the largest mysteries remaining in evolutionary biology is exactly how one species can gradually diverge into two . . . These results demonstrate how small evolutionary changes can lead to differences that cause reproductive isolation between species, just as Darwin envisioned".

These statements are certainly revealing, in their clear admissions that Darwin apparently

lacked any evidence for the way new species might be formed, and that the actual mechanism of evolution still remains a large mystery! Furthermore, this 'evidence' amounts to no more than just another example of microevolution, that is, of minor variations within species, of which there are many examples in nature.

It is easy to point to parallel examples from artificial selection where animals of the same species have developed characteristics which prevent successful reproduction; for instance, it is clearly impossible that, unaided, a Chihuahua could mate with a Great Dane, yet both remain indisputably members of the species *Canis familiaris*.

In truth, scientists remain as far as ever from substantiating their theories of the origin of new species with incontrovertible observational evidence. Evolution remains just as much a position of faith as our belief that "God said, Let the earth bring forth the living creature after his kind . . . and it was so" (Gen. 1:24).

Intelligent slime

DARWINISTS suppose that evolution began from 'primitive' single-celled creatures such as the amoeba, and progressed through ever more complex organisms to reach the pinnacle of man as a rational conscious being. However, advances in molecular biology in the last fifty years have revealed that even single-celled animals are far from simple, and that all living cells function by means of amazingly complex biochemical processes.

-
1. "Songbird shows how evolution works", BBC On-Line Network, Sci/Tech. section, 18 Jan. 2001, reporting work published in *Nature*.

Now Japanese researchers working in the field of biomimetics² have discovered that one of the lowliest creatures, a slime mould, appears to possess a form of intelligence.³ Pieces of the slime mould *Physarum polycephalum* were placed on an agar gel, in the form of a maze with four possible routes. Normally the slime spreads out a network of tubelike 'legs', called pseudopodia, to fill all of the available space. But when two pieces of food, in the form of ground oat flakes, were placed at separate exit points in the maze, the organism moved to the two nutrients by the shortest route and squeezed its entire body between them.

The slime moulds are traditionally classified as fungi, but have characteristics of both animals and plants. They reproduce by spores, but their cells move like the amoeba and they feed by taking in particles of food. The researchers, surprised that the slime mould had been able to 'solve' the maze puzzle, concluded that, "This remarkable process of cellular computation implies that cellular materials can show a primitive intelligence". Once again, organisms that have been classified by scientists as 'primitive' have been found to display unexpected degrees of complexity and design, revealing to us the genius of their Creator.

Where is the way to the dwelling of light?

LIGHT was the first creation of God and conveys the energy which enables the world to function. All the energy for life on earth comes directly or indirectly from the light of the sun. Modern physics has revealed that light behaves both as waves, creating interference patterns, for instance, and as streams of particles, as demonstrated by the photoelectric effect.

Einstein's Theory of Relativity predicted that nothing could travel faster than light, which moves at the amazing speed of 297,000 kilometres a second (186,000 miles a second) in a vacuum. However, light is slowed slightly when it travels through a transparent medium such as glass or water, which is why a beam of light is 'bent' or refracted when passing from air through glass, and this is the basis of the operation of lenses and prisms.

Now Dr Lene Hau, a physicist working at Harvard University, has slowed a beam of light and actually brought it to a halt.⁴ Dr Hau and her team cooled a gas of magnetically trapped

sodium atoms to within a few millionths of a degree of absolute zero (-273°C). The gas can be made transparent by first illuminating it with a pulse from a so-called coupling laser, thereby allowing a probe pulse from a second laser to pass through it. Astonishingly, if the coupling laser is switched off while the probe pulse is inside the gas cloud, the probe pulse of light stops dead. If the coupling beam is then switched back on, the probe pulse emerges intact, as though it had simply been waiting to resume its course.

The incentive for such research is the quest for ever-faster types of computing systems, so-called quantum computers. It is remarkable, however, in these last days how many of the secrets of God's creation have been made accessible to mankind, in fulfilment of Daniel's prophecy that "knowledge shall be increased" (Dan. 12:4). In a limited sense, God's question to Job, "Where is the way to the dwelling of light?" (Job 38:19, NKJV), has been answered. Yet sadly, for the most part, these advances are seen as glorifying, not God the Creator, but man the creature.

Decoding the plant

HISTORY was recently made when the decoding of the first complete genome of a plant was announced.⁵ The plant in question is a humble weed, the Thale cress, *Arabidopsis thaliana*, often found growing on waste ground. It was chosen because its short life cycle of around six weeks, and prolific seed production, make it ideal for laboratory experiments. In addition its genetic code is relatively simple, being only 1/20th the size of maize and 1/25th of the human genome.

However, once again 'simple' hardly seems an appropriate term to use. The Thale cress genome has been found to have 115 million chemical units along each DNA strand within its cells,

-
2. See "Imitating nature's designs", *The Testimony*, Sept. 1998, p. 346.
 3. "When slime is not so thick", BBC On-Line Network, Sci/Tech. section, 27 Sept. 2000, reporting work published in *Nature*.
 4. "Light stopped in its tracks", BBC On-Line Network, Sci/Tech. section, 18 Jan. 2001, reporting work to be published in *Nature* and *Physical Review Letters*.
 5. "Little weed in science landmark" and "A blossoming lesson in life", BBC On-Line Network, Sci/Tech. section, 13 Dec. 2000, reporting work published in *Nature*.

wound onto five separate chromosome structures. It is believed that the code comprises more than 25,000 genes, the templates which the cells use to make proteins. It has taken more than four years of intensive study, costing nearly \$70 million, by laboratories around the world to complete the work. Already it has been noticed that many of its genes are dedicated to maintaining the stability of the genome so that it remains unaffected by widely varying climatic conditions. This is further evidence that plants are in fact programmed to resist evolution.⁶ That such a humble plant should possess such intricate patterns within its cells emphasises again the amazing complexity of all living things and the "finger of God" in their design (Ex. 8:19; Lk. 11:20).

The research will now move into the area of seeking to understand the functions of these

genes, with the object of improving the yields and disease resistance of food crops like soya bean and maize. In fact some scientists have suggested that understanding the plant genome is more important than understanding the human genome, which was also recently decoded, since far more people die from malnutrition than from genetic diseases. Unfortunately much of this work is likely to be performed by multinational corporations seeking more to maximise their profits than to benefit mankind. We look to the time when, through the righteous rule of the Son of God, "There shall be an handful of corn in the earth upon the top of the mountains; the fruit thereof shall shake like Lebanon" (Ps. 72:16).

6. *Creation and Evolution*, Alan Hayward, third edition, 1994, pp. 29,30.



Prophecy, History and Archaeology

EDITOR: Tony Benson, 26 Tiercel Avenue, Norwich, NR7 8JN. Tel./Fax 01603 412978; e-mail: rabenson@globalnet.co.uk

The scrolls and the Book

4. Aspects of the Dead Sea finds

John Carder

THE SERIES of publications entitled *Discoveries in the Judean Desert* (abbreviated to DJD) was made up of the more 'official' releases from the original Catholic-led team of scholars studying the Dead Sea Scrolls (see [previous article](#)). There were also individual reports published in specialist journals. John Allegro, the atheist Englishman, published early and is still the only member of the official team to have published all the material entrusted to him, including the unique 'Copper Scroll'. He soon ran foul of the Catholic members, being publicly criticised, and in turn was the first to accuse the team of deliberately delaying the release of the finds and perhaps suppressing scrolls.

The Copper Scroll

The Copper Scroll was a list of treasures hidden in various places around Jerusalem. The list is scratched, as its name suggests, on a sheet of copper. One of the monks in the team of schol-

ars, Josef Milik, was put on to supervise Allegro, and by trickery put his own report out first, saying that the listed treasures were purely imaginary. The scroll was found in Cave 3 in 1952, and Milik's report was in DJD 3, published in 1962.

Allegro's view, which is now more widely accepted, is that the list is indeed of the temple treasures hidden shortly before A.D. 70. Recent commentators point out that the Romans had teams searching for public and private treasures in other conquered lands (as did the Nazis in World War 2). They suspect that the searchers were largely successful in Israel also. In any case, the Copper Scroll described the hiding places so discreetly that, though they may have been more obvious at the time of listing, they are not known now.

Later, Allegro wrote a book claiming that Christianity and other religions were based on hallucinations derived from use of 'magic' mush-