



We had a great teaching camp at the beautiful Fitzroy Falls in Australia where Creation Research's Dr Eager explained finds on sharp toothed fruit eating 'sauruses and exposed Attenborough's claim that Aussie Plants are so unique they must have evolved here. All of which marvellously shows it's opinions that contradict the Bible, and facts never do. John Mackay dealt with the Bible Teaching on Christ in us the Hope of Glory, Christ the power of God and Christ's mind in you as Creator and Lord of all, as well as sharing some of the latest research we uncovered on our latest trips to Germany, UK and India.

DEFEAT EVOLUTIONISTS BETTER! USE OUR GREAT ARCHIVES where individual items from all Evidence News since 1999 are placed in a searchable Fact File, on our Creation Research website. The search page is [here](#). Insert keyword(s) for your topic in the search box. New items are added one day after any Evidence News is sent out. Find our Fact File on the Creation Research Home Page top bar, click on Archives and choose Fact File from dropdown menu.

DON'T MISS NEW QUESTIONS

1. "THE BIG BANG? What is it and could God have used it to create?" [Answer](#) by Philip Mott.
2. "Is the Jewish God of the Old Testament the same as the Jesus God of the New Testament as there seem to be so many differences?" Harsh Judge vs Love etc - [Answer](#) by Simon Turpin.

© Creation Research 2013

- <http://www.creationresearch.net>
- <http://www.askjohnmackay.com>
- <http://www.youtube.com/user/askjohnmackay#p/u>
- <http://evidencweb.net>

ENews is available in 2 FORMATS – for EMAIL scroll down – for PDF see below index.

INDEX

1. CANADIAN NEWS AVAILABLE
2. "NEW LOTUS EFFECT"
3. UNDERSEA SEED DISPERSAL
4. MUSHROOMS "CHANGE THE WEATHER"
5. HOW PLANTS BEND TO THE LIGHT
6. TALLGRASS NEEDS MICROBES
7. ARCHIVES
8. FROM THE ARCHIVES
9. HOW YOU CAN HELP US WITH YOUR DONATIONS

1. **CANADIAN NEWS AVAILABLE** from our Canadian colleague Vance Nelson [CLICK](#).

2. **"NEW LOTUS EFFECT"** found, according to Annals of Botany blog 28 November and *Plant, Cell & Environment* doi:10.1111/pce.12163. Lotus plants are well known for their water-repellent self-cleaning leaves, a property that has been copied by chemical engineers and called the "lotus effect". Scientists

studying the internal workings of lotus plants have now found they have another clever function – active ventilation.

Plants that grow in water have their roots and rhizomes embedded in anoxic waterlogged soil, but these structures need oxygen, just like any other living tissue. Scientists have found lotus plants have “a complex system of gas canals that channel pressurized air from its leaves, down through its petioles and rhizomes, before venting this air back to the atmosphere through large stomata found in the centre of every lotus leaf”. These large stomata are named central plate stomata and sit over a gas canal junction that connects with two-thirds of the gas canals within the leaf blade and a large gas canal within the leaf base that also connects with gas canals in the rhizome. Philip Matthews and Roger Seymour of University of Adelaide studied the activity of the central plate stomata and found they are open in the morning, closed in the middle of the day and reopen in the afternoon. This system of active stomata and gas canals enables the plant to send oxygenated air down to the rhizome and reverse the flow to bring carbon dioxide from the rhizome up to the leaves, where it can be used for photosynthesis. The researchers concluded: “These results demonstrate a novel function for stomata: the active regulation of convective airflow”.

Link: [AoB blog](#)

ED. COM. This new research reminds us there is more to being a water plant than just being in water. The standard evolutionary story about water-dwelling flowering plants, like lotuses, is they once were algae, such as pond scum and seaweed, which then moved onto land and evolved into mosses and liverworts, which eventually became flowering plants, via ferns and cone plants. Then some flowering plants then ‘re-evolved’ back into the water and became lotuses, water lilies, etc. Plants that are growing on land, where air permeates the soil, do not possess any type of ‘active ventilation’, but if the evolving lotus plants did not already have such an active ventilation, they could not even begin to grow in anoxic waterlogged soil. The perennial evolutionist Catch 22 again. But this is no problem if you believe what Genesis tells us, i.e. plants were intelligently made as separate kinds, with all the created features needed to live in the environment they were placed in. (Ref. botany, gas exchange, aeration)

3. UNDERSEA SEED DISPERSAL reported in ScienceDaily 19 December 2012. Seagrasses live in the water and are flowering plants that reproduce by seeds, and like all seeds, these need to be dispersed away from the parent plants. It has been assumed that seagrass seeds were simply dispersed by currents and winds. Land plant seeds are often distributed by animals and birds that eat fruit containing the seeds, and some of the seeds are passed through the animal’s digestive system and are deposited in the animal’s droppings. By the time the seeds have completed their passage the animal has moved on, so the seeds are spread out away from the parent plants.

Sarah E. Sumoski and Robert J. Orth of Virginia Institute of Marine Science have carried out a study of eelgrass (a species of seagrass) seed dispersal to see if animals could disperse ingested seeds. They noted that fish, terrapins and birds have been observed to feed in eelgrass beds, so they fed seeds to three species of fish, diamondback terrapins, a seabird, and the lesser scaup, and collected the seeds that passed out in their droppings. They cultivated the seeds to see how viable they were, and found that a significant proportion of them were able to germinate and grow. They then calculated how far the creatures could distribute seeds using their records of how long it took the seeds to pass through their digestive system combined with data about how far they move. They calculated “the fishes could disperse eelgrass seeds 10s to 100s of meters, while the maximum dispersal distance for terrapins is around 1,500 meters, or about a mile. The scaup was the champ, with a maximum dispersal distance of more than 10 miles. Seeds could be carried similar distances by flowing water but, as Sarah Sumoski explained, “the animals are likely to be more effective dispersal agents, as they prefer to live under the conditions that favour seagrass growth and thus will tend to carry seeds to areas where they’ll germinate. Wind and currents can easily disperse seeds into areas unsuitable for seagrass growth”.

Link: [ScienceDaily](#)

ED. COM. Here is another reminder that the living world really works by co-operation, not by competition, struggle and chance random processes. Sarah Sumoski’s comments remind us that chance random processes are inefficient. Seed dispersal by animals and birds that live in conditions favourable to

seagrasses and therefore will dump seeds in new areas also suitable for the seagrass to grow, is good evidence of plan and purpose, and good provision for both the grasses and for the animals and birds. God is so clever don't you think, and blind evolution so stupid and inefficient. (Ref. marine biology, ecology, reproduction, botany)

4. MUSHROOMS “CHANGE THE WEATHER”, according to reports in the Telegraph (UK) and ScienceDaily 25 November 2013. Mushrooms, are not plants in the normal sense since they are labelled fungi, and reproduce by spores, rather than seeds. It has always been assumed that they passively release spores, which are very small and lightweight, into the air, and rely on the wind to disperse them. However, a group of scientists led by Emilie Dressaire, of Trinity College, Hartford, has now found that mushroom spores can be dispersed quite long distances even when there is no wind.

Dressaire and colleagues used high speed photography and computer modelling to show that oyster and Shitake mushrooms release water vapour into the air, which cools the air around them, creating convection currents. These “miniature winds” are strong enough to blow the spores upwards, clear of the mushroom. Marcus Roper of the University of California, Los Angeles, who was involved in the study, commented: “Most people, even scientists, think of mushrooms simply as machines for producing spores. The more spores each machine produces, the more likely it to successfully colonize new habitats”. Emilie Dressaire added: “Our research shows that these ‘machines’ are much more complex than that: they control their local environments, and create winds where there were none in nature. That’s pretty amazing, but fungi are ingenious engineers.”.

Link: [Telegraph](#), [ScienceDaily](#)

ED. COM. Claiming that mushrooms are “ingenious engineers” because they create air currents is about as smart as saying electric fans are ingenious engineers because they produce air currents. Here is a classic case of those who choose to give honour to the creation, rather than the Creator, and as a result have been turned over to foolishness. No-one believes fans made themselves to blow air, so why should they believe the mushrooms made themselves to create air currents. It is much more logical to believe the Creator, who made mushrooms to produce spores, also built in a method for dispersing them. It is not the illogical construction of plants and animals that causes people to doubt the existence of God as Creator at all, but rather a willing choice by the observing human to ignore the design that is clearly obvious. (Ref. fungi, design, reproduction)

5. HOW PLANTS BEND TO THE LIGHT reported in ScienceDaily 7 & 14 November 2013. Anyone who has grown seedlings indoors near a window has observed that plants bend their stems so that their leaves are orientated to the light, a phenomenon known as phototropism. If you turn the plants around the stems will bend back towards the light. The bending is caused by changes in the growth of cells in the stems, so that the cells on the dark side grow longer. Scientists studying the internal structure of plant cells have discovered how the change occurs. Plants cells have an internal scaffolding made up of structures called microtubules. The orientation of the microtubules affects many cell functions, including the formation of the cell wall and the overall shape of the cell.

The research team found when blue light was shone on cells, the microtubule scaffold was re-oriented by microtubules being broken and then re-growing at right angles to their previous direction. The blue light is detected by a receptor protein named phototropin, which sends a signal into the cell, which activates a protein named katanin. Katanin breaks the microtubules where they intersect with one another. The microtubule scaffolding is then re-formed, but at right angles to the original direction, resulting in trees of microtubules perpendicular to the original direction. As well as working out how cell shape is changed the scientists also commented: “Our findings also have broader implications for the construction of cytoskeletons in other types of cells, including human cells, because katanin is conserved between animals and plants”.

Link: [ScienceDaily](#)

ED. COM. This research will certainly help understand how cells maintain and modify their structure, but it does not explain where these cell components came from, nor how they were built into a functioning system that makes plants orientate themselves towards a source of light. Beware when an evolutionist uses the

word “conserved”. The use of this word is a belief held by faith that animals and plants evolved from the same original cells that had microtubules and katanin. The reality is that animals and plants both have microtubules and katanin, which is only to be expected since all cells need such structural components to maintain and modify their structure. Such proteins are just like individual components in a complex machine, and like any machine parts, they can be built into different machines by an outside Creator to achieve a purpose. Man does this all the time ... deliberately, but notice a major difference ... plants bend when blue light is shone on them from one side, but you don't, even though your cells have identical microtubules and katanin. Again it's a reminder that all organisms are unique and unrelated combinations of non unique features. (Ref. biochemistry, design, botany)

6. TALLGRASS NEEDS MICROBES, according to an article in Nature News 31 October 2013 and *Science* 1 November 2013 vol. 342 621-624 DOI: 10.1126/science.1243768. The USA Midwest was once dominated by tallgrass prairies, but these have largely been replaced by cultivated farms as settlers moved across North America. Whilst agriculture has produced abundant crops, bad farming practices have contributed to degradation of the land, as happened in the Dust Bowl disasters of the 1930s. There are now numerous attempts at restoring tallgrass ecosystems, so a group of scientists in the USA have studied soil from relics of the prairie grasslands in cemeteries and reserves that have never been cultivated. They used gene sequencing technology to identify which bacteria were dominant in the soil and found a group of bacteria named Verrucomicrobia was abundant in prairie soil. These bacteria are poorly understood as they are slow-growing and difficult to cultivate in the laboratory. However, it seems they thrive in soil with poor nutrients, but are less common on land that has been farmed and artificially fertilised. The scientists also collected data on climate variations across the Midwest, and combined this with their soil microbe analyses to predict the historical composition of the soil microbes across the entire region once covered by tallgrass prairie. The research team suggest: “Maps of the soil microbial communities that once existed in this ecosystem may provide targets to help improve the long-term success of prairie restoration efforts, as restoration efforts are often more successful when they also try to restore below-ground communities”.

Link: [Nature News](#)

ED. COM. The importance of soil microbes has been experienced by those trying to re-plant forests in Australia, where they have had the same problem – the trees would not thrive unless tree seedlings were planted along with soil taken from existing forests. We now know that trees need to establish a relationship with soil fungi and microbes in order to grow well. This study of the relationship between plants and microbes is a reminder that nothing in the living world functions alone, and that is exactly what you would expect if God created complete functioning ecosystems in a few days, rather than individual organisms struggling to survive over millions of years. (Ref. ecology, angiosperms, microbiology)

7. ARCHIVES: After each Evidence News is sent out the individual news items are placed in a searchable archive, named the Fact File, on the Creation Research website. The search page is [here](#). Insert the keyword(s) for your topic of interest in the search box. New items are added the day after Evidence News is sent out. To find the Fact File on the Creation Research website front page, click on Archives and choose Fact File from the dropdown menu.

8. FROM THE ARCHIVES: [Mushrooms](#), [Undersea Symbiosis](#), [Grasses & Microbes](#), [Trees & Microbes](#), [Plant Movement](#).

9. HOW YOU CAN HELP US WITH YOUR DONATIONS: Get involved in sharing the cost and the blessings of the research and teaching by becoming part of the worldwide support team today via our secure [Web Site](#), or send gifts to the following addresses:

Donations in USA/UK are tax deductible.

AUSTRALIA: P.O. Box 260 Capalaba Qld 4157

CANADA: C/- Martin Legemaate 12919 Warden Ave Stouffville ON L4A 7X5

NEW ZEALAND: P.O. Box 40480 Glenfield 0747, Auckland

UK: P.O. Box 1 Ashton under Lyne Lancs. OL6 9WW (Donations in UK payable to Creation Research Trust are tax deductible - a Gift Aid Declaration is required - available from [here](#).)

Evidence News 24/13 – 4th December 2013

USA: P.O. Box 281 Hartsville TN 37074 (Donations in USA are tax deductible. Make checks to Creation Education Society)

IF YOU no longer wish to receive our updates please reply with REMOVE EN in the subject. To assist us please include your name as well as e-mail address (and organisation name, if any).

