
Creation Answers

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Who does this newsletter?

This newsletter is produced by Wayne Spencer on a Quarterly basis. Its purpose is to bring creation research within the reach of Christians and provide up-to-date reliable information on creation issues. Wayne Spencer is a creation author and former teacher who has presented papers at the International Conference on Creationism and has published in various creation publications, such as the Creation Research Society Quarterly, Creation Ex Nihilo, TJ, and Origins (from the Biblical Creation Society, UK).

This newsletter is meant to help people plug into creation resources and get informed about creation and evolution. It is provided free of charge on request. Using the free Adobe Acrobat Reader is necessary for viewing the newsletter. There are no restrictions in copying this newsletter or passing it on to others. To request to be placed on the e-mail list, send a request to wspencer@creationanswers.net.

More information on Wayne Spencer's education and publications can be found on the creationanswers.net web site. You'll also find many other resources. <http://creationanswers.net>

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A Personal Note from Wayne Spencer

Greetings,

This newsletter comes somewhat late but I hope you and your family will benefit from it. I have been delayed in producing this newsletter after having moved and having other pressing tasks. Please also note that my email address has changed. The old email address, wayne@creationanswers.net will be shut down soon. I have had to do this to deal with spam emails. I will be updating email links on my website accordingly.

This issue includes an article about the oldest living thing on the planet, the Bristlecone Pine. These unique trees were used by creationists as a young age argument years ago but for a long time there was a need for updated better research on the subject. I have written this article based on some good recent technical papers from some creationists. The bottom line from this subject is that no living tree has lived longer than the time that has gone by since Noah's Flood. Evolutionists have claimed some of these trees are more than 5,000 years old, which conflicts with a Biblical time scale.

I have become busy with various writing projects. Later this year there will be a short article in Creation magazine, published by Creation Ministries International (CMI), called "Planets and Migrating Theories." The article is already on the CMI website (<http://creationontheweb.org>). I am also working on two solar system papers for the next International Conference on Creationism, in 2008.

Wayne Spencer, M.S., Physics

Bristlecone Pines and the Age of the Earth

Bristlecone pine trees have been a point of contention between creationists and evolutionists for years. What do these pine trees have to do with the age of the Earth? There are three different species of Bristlecone pines (BCPs). These species are found in the Western United States in Utah, Nevada, New Mexico, Arizona, and California. One of the most well-known regions where these trees grow is in the White Mountains of Eastern California. One famous BCP tree there was named Methuselah, after the man mentioned in the Biblical book of Genesis, who is known for having the longest lifespan. That tree was measured to be 4,700 years old from study of its rings. Bristlecone pines are hearty trees that are especially well suited to living in very dry and harsh growth conditions.



*This picture is found on the following website:
<http://www.sonic.net/bristlecone/Images2.html>
(This is not a creationist website.)*

The study of tree rings and the use of tree rings to determine the ages of trees and of wood structures is known as dendrochronology. In dendrochronology, the thicknesses of a series of rings are

measured, usually by taking a core sample of the tree that goes from the center to the outside of the bark. Statistical methods as well as visual examination of the trees are used to correlate changes in the thicknesses of the rings of one tree compared to another. A certain series of rings from one tree may have very similar variations as the variations in the rings on another tree. Thus correlations are made between trees so that a "chronology" can be built up that encompasses the history of multiple generations of such trees. Then these chronologies may be used to correlate with other trees and check other tree ring studies. There are areas where such correlated chronologies have been developed using BCPs that are purported to reach back over 8,000 or 10,000 years. This would seem to conflict with the Bible's date for Noah's Flood. In a Biblical view of Earth history, it would be impossible for any living trees to exist from prior to the end of the world-wide Flood of Noah.

Another way that dendrochronology has been applied is as a means of calibrating radioactive Carbon-14 dates. A chronology from the tree rings can be obtained, then samples from the same tree dated by radioactive C-14 dating and this has been used as an alleged check on C-14 dates. Because BCP trees are some of the oldest living things, these trees are considered good choices for use in comparing to Carbon-14 dates.

To understand the BCP trees and their age we must consider how they grow and live so long in harsh conditions. As a tree grows, it continues to add growth rings on the outside, just under the bark. This layer under the bark is called the cambium. As the tree grows in diameter, it will require more water and nutrients to keep the entire outer ring alive. The tree may reach a point where it cannot supply enough water and

nutrients for all the outer rings or for the whole tree. Thus parts of the tree may die while other parts of it lives.

One way that a tree can continue to live when it has limited water and nutrients is by what is called strip growth. In strip growth, only a portion of the tree lives, often one relatively narrow strip. The living strip may be along one side of the tree, or it may spiral up the tree. The other wood outside the strip dies. But the dead wood can still protect the live wood. The dead parts of such a tree may decay and erode away over time. Then the tree may grow in such a way that it is no longer round in shape. Many of the oldest bristlecone pine trees do strip growth and much of the tree is actually dead. But the part of the tree that lives on may live for hundreds to thousands of years. Some scientists would believe that pieces of wood found near BCP trees can sometimes be thousands of years old. But how can the pieces of wood found around the tree be much much older than the decaying dead wood on the tree? The dead wood on the tree does not last thousands of years (more like a few hundred), why would the loose wood on the ground? One creationist (John Woodmorappe) studying BCP trees observed that when you look at other characteristics besides the number of rings, the trees with thousands of rings do not exhibit more decay or indications of age than the trees with fewer rings.

Consider the old age understanding of the oldest BCP trees. Assume these trees grow one annual growth ring per year. Some BCP trees are found with thousands of rings, indicating they are thousands of years old. By this thinking, would you expect the oldest BCP trees to be in areas where there is more water or areas where there is less water? It is not the areas with more water where the oldest BCP trees are found, but areas with the least water! In the White Mountains one researcher (not a creationist) found that when you look at the entire BCP forested

area, the trees near the border of the forest (a dryer area) had many more rings than those in lower lying valleys where there was more moisture and better soil. The trees located in areas with better soil and more moisture do not have more than several hundred rings. This makes sense if all the trees in the area are actually about the same age but those in dryer locations grow multiple rings per year.

Growing multiple rings per year is very likely something a tree does to conserve water. A single tree ring will consist of a lighter colored part and a darker colored part. These two types of wood are often called the "early-wood," which is lighter in appearance, and the "late-wood" which is darker in appearance. The darker wood looks dark because the cells are smaller, there is more resin in them, and thus the darker wood is more dense. There are also smaller pits in the darker wood, which means water cannot conduct through it as easily. The darker wood is always the outer part of a growth ring. Trees lose some water by evaporation from the bark.

If a BCP tree grows multiple rings per year, there would be multiple of the darker wood bands in a section representing one years growth. This means the darker wood would serve as a barrier that slows the conduction of water so that less water will be lost through the bark. When a tree is growing in a multiple rings per year manner, each ring is thinner, which requires less resources to sustain. Mark Matthews, a creationist, has written a recent technical paper showing evidence that BCP trees can change from one ring per year growth to multiple rings per year, depending on the conditions.

Sometimes evolutionists will say that there can be multiple rings per year but this is rare and easy to see in the rings. This is making an assumption about the dark wood that is often incorrect. It is assumed that if there is an "extra" or "false" ring that it can be distinguished by a fuzzy or indistinct outer boundary of the darker wood. But Matthews

indicates multiple researchers have shown this to be incorrect. The rings that are sometimes considered to be “false” rings by evolutionists are often clear and indistinguishable from the case where the tree grows only one ring per year.

Another issue sometimes raised by evolutionists is what is called missing rings. When a series of rings from one tree is compared to a ring series from another tree (or a tree chronology), some questionable assumptions may be made in matching the two series. Creationist John Woodmorappe did some checking of the statistics used by evolutionists in matching tree ring series. He found that often where one series showed some very thin rings, researchers had added “inferred” rings of zero width in the other series to make the series match up better. The use of these inferred “zero rings” sometimes seemed inappropriate. Woodmorappe makes the point that what evolutionists have often interpreted as evidence of inferred missing rings (in one tree) could also be interpreted as evidence of multiple annual rings (in another tree). The statistical correlations of ring thicknesses from one tree to another do not necessarily mean that the rings always came one per year.

Woodmorappe documents known cases where up to 5 or 6 rings have been known to have grown in one year in various trees, including other types of pine trees. This is enough to explain the ages of the Bristlecone Pine trees in terms of them growing up since Noah’s Flood. The ability to grow in multiple rings per year mode seems to be a designed-in feature that allows these trees to conserve resources and thus survive for many years. The Methuselah tree in California may actually be younger than 4,700 years in age. But there is no conflict with a Biblical view of history from the age of Bristlecone Pines.

Answers in Genesis Creation Museum Opening

Soon in the Cincinnati area the Answers In Genesis ministry will open their creation museum. AIG, as the organization is often referred to, has been advertising May 28, 2007 as the goal date for opening their museum. Their website is now saying June 2007. Millions of dollars have been raised for this 60,000 square foot facility. The AIG website says that their museum will “counter evolutionary natural history museums that turn countless minds against Christ and Scripture.”

The museum is an unprecedented project to make available a Christian museum that is family friendly and which is an answer to evolutionary Earth history museums. Even just the building of the museum has made Answers in Genesis in Cincinnati the brunt of many insults and critical comments from nonchristian organizations and many media personalities. There has never been a high quality museum like this emphasizing Biblical creation and Christianity. Christians should pray all will go well for the opening of the museum and that it would present the truth in a very effective manner. To find out more about the museum go to this website:

<http://www.answersingenesis.org/museum>

Darwin vs. Design Conference, 4/13/07

There will be a significant conference on Intelligent Design on the campus of Southern Methodist University in Dallas, Texas on April 13, 2007. This will include a Friday evening lecture from Lee Strobel, who wrote the book, The Case for the Creator. There will also be Saturday lectures by Michael Behe (Author of Darwin’s Black Box), Stephen Meyer, and Jay Richards. Meyer and Richards are both from The Discovery Institute Cost is \$55 for individuals. See <http://www.darwinvsdesign.com>