

GEOSCIENCE NEWSLETTER

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LECTURE SERIES AT GC SESSION IN ATLANTA

“Yes, Creation!”, a series of lectures exploring reasons Seventh-day Adventists believe in a recent 6-day creation, will be presented as part of the General Conference Session at Atlanta. From Sunday 27 June through Friday 2 July, twenty-six scholars will explore biblical and scientific reasons for faith in the Creation. Lectures in English, Spanish, French and Portuguese will be included in the series. For more details, see <http://fscsda.org>.



Earthrise from the moon. Photo courtesy of NASA.

CREATION SABBATH 2010

A special “Creation Sabbath” celebration has been designated for Sabbath, 23 October 2010. All churches are invited to arrange for a special program emphasizing the biblical teaching on creation and in praising the Creator. Andrews University will host the flagship celebration with numerous invited guests and TV coverage by the Hope Channel.

More information and suggestions are at <http://creationsabbath.net>.

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GRI STATEMENT ON CREATION

In the light of current discussion (click [here](#) and [here](#)) on teaching origins, we reprint the following statement. The entire statement is posted online at: <http://www.gridsa.org/2009/12/affirmation-of-creation/>.

Study of the creation has revealed much evidence for the idea that a Divine Creator stands behind the scene. Scientists have wonderful opportunities to see the evidence of God’s creativity and to ponder His greatness. However, the creation does not speak clearly to our minds. The evidence of design is mixed with evidence of evil and violence. Organisms may appear to have imperfections that would not be expected from an all-wise Creator God. The ultimate resolution of this problem is not found in study of the creation, but is available to those who accept the Biblical revelation of God and His relationship to us and our world.

The Bible reveals the story of creation, and teaches us about the Creator God who effortlessly designed the world for His own purposes. In the space of six historical days, He prepared an environment suitable for living creatures and then filled that world with a diversity of organisms. He created humans in His own image and gave them responsibility for His creation. He gave them the gifts of cognition, language, relationships, responsibility, freedom and purpose. Here we find the explanation for the design seen in the creation – it reflects the character and purpose of the God of creation.

But what about the evil we see in the creation, which turns so many away from faith in Biblical creation? The Bible also reveals the story of evil, and how violence and death entered the perfection of creation. This story tells us something important about the character of the Creator God. It seems that God places a very high value on the kind of relationships that are possible only with beings that possess freedom of choice. The high value God places on human freedom is best understood in the light of the cross of Calvary. There we see the affirmation of the Biblical message of the special creation of humans, their rebellion and its evil results, and the depth of God’s self-sacrificing love. The cross reveals the significance of the creation story, with its elements of a six-day creative period, seventh-day Sabbath, original diversity of living organisms, and special creation of humans in a perfectly designed paradise. We would do well to contemplate daily the meaning of the cross and how it illuminates our understanding of the Creator God and His works.

POSADAS CONFERENCE

“Conferencias de Creación, Evolución y Educación”, a meeting with SDA college students and teachers, was held in the town of Posadas, Argentina, from 19-21 March. Speakers included Dr. Raúl Esperante (GRI-Loma Linda), Dr. Roberto Biaggi (UAP, GRI-

Argentina) and paleontology student Emilia Belia (Universidad de Corrientes, Argentina). Approximately some 60 students and teachers attended the three-day long meeting. Topics included the fossil record, the geological column, design in nature, the relation of faith and science and archaeology and the Bible.

SCIENCE NEWS

ANGIOSPERM-LIKE AMBER IN CARBONIFEROUS DEPOSITS

Bray PS, Anderson KB. 2009. Identification of Carboniferous (320 million years old) Class 1c amber. *Science* 326:132-134.



An example of amber, fossilized tree resin. Photo by Raul Esperante.

Summary. Amber is fossilized plant resin, commonly produced by certain trees such as pines. Ambers are classified by their chemical composition. Amber from coniferous trees can readily be distinguished from amber produced by angiosperms (flowering plants), and sometimes even the family can be identified. Analysis of five amber specimens from Carboniferous coal deposits in Illinois detected chemicals characteristic of angiosperm resin. Angiosperm fossils have not been found in layers below the Cretaceous, and no other examples are known of angiosperm-like amber in layers below the Cretaceous. The favored interpretation is that the chemical pathways now found in angiosperms were already present in non-angiospermous plants long before any angiosperms existed.

Comment. The fossil record of flowering plants poses an enigma both to creationists and to evolutionists. Creationists find it difficult to understand why, if angiosperms were present from the creation week, they are not found as fossils until rather high up in the stratigraphic column. Evolutionists find it difficult to understand why, if angiosperms evolved, they appear abruptly and without identifiable ancestors. This example illustrates the fact

that the fossil column is difficult to explain by any known theory of origins. Any theory of origins must include information beyond that available in the fossil record.

LITTLE GENES — BIG RESULTS

Chan YF, et al. 2010. Adaptive evolution of pelvic reduction in sticklebacks by recurrent deletion of a *Pitx1* enhancer. *Science* 327:302-305.

Summary. The threespine stickleback fish, *Gasterosteus aculeatus*, is found in coastal and fresh waters of the Northern Hemisphere. Most populations have three dorsal spines that articulate with the underlying pelvic girdle. Several, widely separated fresh-water populations lack the spines and most or all of the pelvic girdle. Loss of the pelvic girdle is due to deletion of a regulatory sequence about 30 kb upstream from the pituitary homeobox gene (*Pitx1*). When DNA containing the regulatory sequence was injected into fertilized eggs of fish from population deficient in pelvic girdles, offspring showed increased development of the pelvic girdle, confirming that loss of the regulatory sequence was the cause of loss of the pelvic girdle.

Comment. This example shows that a significant morphological change may come about by a rather simple change in the DNA. As the links between genes and morphology continue to be identified, we may discover other examples of large-scale morphological change linked to relatively small genetic losses.



Three-spined stickleback. Photo from the *Aquarium of the Pacific.org*.

A CLUE TO SEPARATE ANCESTRY?

Khalturin K., et al. 2009. More than just orphans: are taxonomically-restricted genes important in evolution? *Trends in Genetics* 25:404-413.

Summary. Sequencing of entire genomes has brought some interesting surprises to light. Every taxonomic group studied so far has about 10-20% of its genes that cannot be identified in other taxonomic groups. These unique genes are known as “orphan” genes, or “taxonomically-restricted” genes. As additional species’ genomes are sequenced, new sets of orphan genes are discovered, refuting the common wisdom that all species have a limited sample of a common pool of gene families. These genes largely function in three areas: in immunological defense, in morphological novelties, and in morphological diversity. Orphan genes provide a field of study with the potential to reveal some of the most important secrets of evolution.



Sea anemones have unique genes to regulate development of their stinging cells, or nematocysts. Photo by Tim Standish.

Comment. The existence of unique families of genes in each taxonomic group is unsurprising for creation theory. We would expect sets of genes unique to each created lineage. One point that is surprising is the number of orphan genes that cannot be matched even in other species within the same genus. The explanation could be that a large number of lineages were independently created and given the genetic tools needed to adapt to varying environmental circumstances, thereby producing morphological diversity and filling new habitats as they develop.