

## GEOSCIENCE NEWSLETTER

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### “YES CREATION!”



Dr JoAnn Davidson speaking at “Yes, Creation!”

A series of lectures on creation and science, entitled “Yes, Creation!” was presented during the General Conference Session of the Seventh-day Adventist Church, held in Atlanta, Georgia, from 24 June through 3 July, 2010. The presentations were organized by Dr. Timothy Standish of the GRI, and featured 33 lectures presented by 24 scientists and theologians. Most lectures were in English, but French, Portuguese and Spanish lectures were also included.



Dr Tim Standish moderates a question-and-answer session for Dr. John Baldwin.

Sample topics included: Evolutionary Thought, Spiritualism and the End of Time” by Dr. Kwabena Donkor of the Biblical Research Institute; “...and it WAS good” by Dr. JoAnn Davidson of the SDA Seminary at Andrews University; “Do Millions of Years Solve the Problem?” by Dr. Jim Gibson of GRI; and “Paleontology and the Bible: Science in Action” by Dr. Lee Spencer of Southern Adventist University. Further information is available online at: <http://fscsda.org/yearly-meetings/yes-creation/>

### OFFICIAL STATEMENTS ON CREATION

An official statement on creation was released by the Seventh-day Adventist Church in June. The statement notes the public interest in the topic, and reaffirms its confidence in the biblical record of a historical, recent creation. Specific points included: the special creation of humans; the literal nature of the seven days of creation, forming a literal week; and the global nature of the Flood. The complete text of this statement on creation is available online at <http://adventist.org/beliefs/statements/bible-worldview.html>.

In addition, the Session delegates voted to endorse a statement voted in 2004 by the GC Executive Committee at the conclusion of a three-year series of conferences on faith and science. The text of that statement is available online at <http://adventist.org/beliefs/statements/main-stat55.html>. Session delegates also voted to initiate the process of re-writing the Church’s statement of fundamental belief #6, which deals with creation (see <http://www.adventist.org/beliefs/fundamental/index.html>).

Two factors seem particularly significant in the attention given to the

creation doctrine at this General Conference Session. First, the Darwin anniversaries of 2009 brought the issue of creation and evolution into prominence in the public arena. Second, there has been some discussion within the Church regarding the clarity of its statement of fundamental belief on creation, and the way in which the statement has been interpreted and applied in the educational system.



A guest at the GRI booth visits with Dr. Jacques Sauvagnat, Branch Office Director for GRI in Europe.

### GRI BOOTH

Several thousand visitors to the General Conference Session stopped by the GRI booth where they could view the exhibits, discuss questions of interest relating to creation and science and receive a fossil shark’s tooth as a souvenir.



The GRI booth. Note on the right the life-sized replica of *Terataspis grandis*, the largest North American trilobite.

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## SCIENCE NEWS



An Ordovician bryozoan, *Prasopora*. Wikimedia Commons. Photo by Mark A Wilson.

### Cambrian Explosion

Landing E, English A, Keppie JD. 2010. Cambrian origin of all skeletalized metazoan phyla – discovery of Earth's oldest bryozoans (Upper Cambrian, southern Mexico). *Geology* 38:547-550.

**Summary.** Fossil bryozoans have been discovered for the first time in Cambrian sediments. All other phyla with mineralized skeletons have been found in Cambrian sediments. The pattern of abrupt Cambrian appearances is known as the “Cambrian Explosion.” The absence of Cambrian bryozoans has been a puzzle that is now resolved.

**Comment.** The first page of the paper shows a diagram of the first appearances of about 30 phyla or classes in Cambrian sediments. Additional discoveries can be expected to increase this number.

### Vital pseudogenes?

Poliseno L, Salmena L, Zhang J, Carver B, Haveman WJ, Pandolfi PP. 2010. A coding-independent function of gene and pseudogene mRNAs regulates tumour biology. *Nature* 465:1033-1038.

**Summary.** Short RNA sequences known as micro RNAs (miRNA) can regulate the activity of messenger RNA (mRNA) by binding to it and reducing its activity. The experiment reported here involved the mRNA for PTEN, a protein that reduces tumour growth in humans. Messenger RNA from a processed pseudogene, PTENP1, competes for the miRNA that binds to the PTEN mRNA. This frees the PTEN gene to produce the protein that acts

against the tumour. Micro-RNA binding sites are conserved between the PTEN and PTENP1 genes, and also in other studied examples of gene-pseudogene pairs. Regulation of mRNA expression is another example of a hitherto unknown function for pseudogenes.

**Comment.** Pseudogenes have been assumed to be defective copies of functional genes. In several instances, pseudogenes have been discovered to add another layer of complexity to the molecular activities of the cell. Thus, many pseudogenes may turn out to be evidence for intelligent design rather than evidence against design.

### Natural Selection in Lizards

Calsbeek R, Cox RM. 2010. Experimentally assessing the relative importance of predation and competition as agents of selection. *Nature* 465:613-616.

**Summary.** The brown anole lizard, *Anolis sagrei*, was introduced to several small islands in the Bahamas that lacked lizards and snakes. Each island received the same number of lizards. Since the islands varied in size, different islands had different population densities. Predatory snakes were introduced on two islands. The effects of bird and snake predation were tested. After four months, the surviving lizards were recaptured and their sizes compared with their respective founding populations. Bird predation had little effect, but snake predation significantly reduced population densities and caused an increase in perching height. Lizards from islands with higher population density were larger than those from islands with low population density. This suggests that intraspecific competition is a stronger



Male *Anolis sagrei*. Wikimedia Commons. Photo by lanare.

selective force than predation in affecting morphology of adult *Anolis* lizards.

**Comment.** As the authors note, more experiments are needed to test other aspects of natural selection in these lizards. The greater role of predation in affecting behavior and of competition in affecting morphology has interesting implications for understanding changes in other species.

### Neandertal genes

Green RE, and 55 co-authors. 2010. A draft sequence of the Neandertal genome. *Science* 328:710-722.

**Summary.** DNA fragments were recovered from bones of three Neandertal individuals from Croatia. Sequencing was done, contaminants identified and discarded, and the remaining Neandertal



Neandertal skull. GRI.

DNA sequences were compared with modern humans from Africa, Asia and Europe. About one-third of the genome was not reliably sequenced, leaving about two-thirds for comparison. Several unique sequences were shared between Neandertals and Eurasians, including Papuans, but not with Africans. About 1-4% of modern Eurasian DNA appears to be derived from Neandertal ancestry, indicating at least some interbreeding between Neandertals and anatomically modern humans in Eurasia but not in Africa.

**Comment.** Extraction and purification of DNA from fossils is technically difficult, and it would be wise to be cautious about this report. Nevertheless, it represents the best methodology currently available, and the results are of considerable interest.