



GEOSCIENCE NEWSLETTER

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TEACHERS' 2014 FIELD SCHOOL IN DENVER

Plans are proceeding for the Teachers' Field School in Denver, Colorado, July 13-24, 2014. Teachers are encouraged to submit their reservations as soon as possible, using the form at <http://www.grisda.org/2014-field-school-for-teachers/>. This will be the first GRI Field School designed for grade 1-8 teachers and will concentrate on preparation to use the new *By Design: A Journey to Excellence through Science* textbooks.



A mountaintop experience awaits teachers on Trail Ridge, Rocky Mountain National Park. Photo by Tim Standish.

CREATION SEMINARS

Walla Walla University

Several hundred students, faculty and community members assembled in the Walla Walla University Church on November 8 and 9 for a Celebration of Creation weekend. Eleven speakers presented lectures on topics ranging from the nature of science to the origin of life and issues in interpreting Scripture. Celebrations of Creation, sponsored by the Faith and Science Council, are held annually at selected university campuses.

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Teachers at the seminar on faith and science. Standing in the foreground is METAS president Dr. M.S. Jeremiah.

METAS, Surat, India

A creation seminar for secondary school teachers was held from November 14-15, 2013, in Surat, India, on the campus of METAS. The campus combines a college, hospital, and a K-12 school with 8,000 students. About one hundred science and religion teachers attended the meetings, which featured a series of lectures on current issues in faith and science.

Caribbean Seminars

Drs Ben Clausen and Ronny Nalin of GRI, along with Dr. David Nelsen of Southern Adventist University, presented seminars on faith and science in mid-November, 2013, on the campuses of Northern Caribbean University in Jamaica and the University of the Southern Caribbean on the island of Trinidad.



The speakers on a campus tour of Northern Caribbean University.

NEW MATERIALS

Flight Video

Flight: The Genius of Birds, is the latest video from *Illustra Media*. This 62-minute film features spectacular footage of chick embryonic development and bird flight. See Newsletter 35 for more details about this DVD.



Portuguese Resource

Dr. Wellington Silva, manager of the GRI Resource Center at Northeast Brazil College has recently edited a book in the Portuguese language (*Criacionismo no Século 21*) on issues in faith and science. Sixteen authors contributed a total of fourteen chapters in a wide range of topics relating to origins, including theology, philosophy and science.

Creation Video

Creation: Earth Is a Witness is a new video of creation shows spectacular footage illustrating the creation story, from light to humans. An artistic rendition of the aspects of each creation day is set in the context of Moses telling the story to his son. The 26:35-length video is at <http://vimeo.com/78072521> and at <http://www.youtube.com/watch?v=MVNBQUCaOSg>.



SCIENCE NEWS

Two Languages At Once?

Redundancy in the genetic code appears to have a functional basis.

Stergachis AB, et al. 2013. Exonic transcription factor binding directs codon choice and affects protein evolution. Science 342:1367-1372. DOI: 10.1126/science.1243490.

Summary. Some amino acids are coded for by more than one codon (base triplet). Frequencies of such synonymous codons vary in different genomes in a way that appears non-random (codon bias). This paper reports a probable functional basis for differences in the frequencies of synonymous codons.

Codons that are present at higher levels are usually those involved in interaction with regulatory proteins known as transcription factors. Such



Portion of a model of a DNA molecule.

codons (duons) have a dual function. They code for a specific amino acid and also simultaneously code for a recognition sequence for transcription factors. A mutation in a duon codon may result in a disease due to changes in regulation, even though it does not change the amino acid sequence of the protein.

Comment. A system in which information is coded in two different systems (“languages”) is indicative of intelligent design at a level of sophistication greater than ordinary human achievement. Potential for genetic disruption in such a system adds to our increasing suspicion that the standard evolutionary conjecture that random mutation and natural selection combine to drive increases in complexity is not plausible.



Pollen grains. Photo by Carsten Pietzsch, courtesy of Wikimedia Commons.

Adding to the Mystery

A new fossil gap is discovered in Darwin’s “abominable mystery.”

Hochuli PA, Feist-Burkhardt S. 2013. Angiosperm-like pollen and Afropollis from the Middle Triassic (Anisian) of the Germanic Basin (Northern Switzerland). Frontiers of Plant Science 1 October 2013. DOI: 10.3389/fpls.2013.00344.

Summary. Pollen with features of angiosperms has been found in Triassic sediments in northern Switzerland. Six types of angiosperm-like pollen were recovered, along with pollen from *Afropollis*, of unknown source, previously known only from Cretaceous sediments. These discoveries indicate a gap in the known fossil record in which these pollen types are missing from Jurassic sediments. The angiosperm-like pollen represents diverse ecological assemblages, which suggests an earlier origin for the group, here interpreted as an angiosperm stem group.

Comment. The fossil record of angiosperms has long been an enigma to evolutionists, as well as to creationists. Angiosperms appear abruptly in the fossil record in Cretaceous sediments, without identifiable evolutionary ancestors. Creationists wonder why angiosperm pollen does not appear throughout the fossil record. The gap in the record of both angiosperm-like pollen and *Afropollis* is interpreted as over 100 million years, an implausible amount of time for a diverse group of plants to remain unrecorded in the fossil record. Insect-pollinated plants produce much less pollen than wind-pollinated plants. If flowering plants were originally pollinated by insects and

other animals, angiosperm pollen might be less abundant in the pre-Flood fossil record than in the modern environment.

CAMERAS IMITATE EYES

New technology enables hemispheric cameras.

Song YM, Xie Y, Malyarchuk V, et al. 2013. Digital cameras with designs inspired by the arthropod eye. Nature 497:95-99. DOI: 10.1038/nature12083.

Summary. Camera design is largely restricted to the use of flat surfaces, other geometries being awkward to produce and use. Arthropod eyes are semi-spherical and have advantages of wide fields of view, infinite depth of field, and high sensitivity to motion. This paper reports development of materials that can be used to produce hemispherical cameras that mimic the abilities of the arthropod eye. Further, the designs can be scaled larger or smaller for different applications, such as surveillance or endoscopy. As in many arthropod eyes, the cameras consist of multiple tiny lenses, about 180, that feed digital information to a device where it is collated into a single image.



Close-up of the eye of the horsefly, *Hybomitra* sp. Photo by Lukas Jonaitis; courtesy of Wikimedia Commons.

Comment. Many aspects of living creatures exhibit technical design in advance of what humans have devised, pointing to intelligent design in the creation. For more about how designs in living organisms serve as models for human technologies, see our blog on biomimetics for February, 2014 (<http://grisdawordpress.com/>).