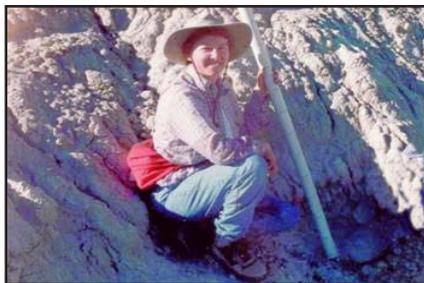


GEOSCIENCE NEWSLETTER

Number Two July, 2005

GRI TRANSITIONS



Dr. Elaine Kennedy

After 14 years of service, Dr. Elaine Kennedy has announced her retirement from GRI. We will miss her enthusiasm and expertise.

During her years with the Institute, Dr Kennedy led numerous Field Conferences, served as editor for *Geoscience Reports*, wrote many articles on science and faith in church papers, and lectured to thousands at various campmeetings and workshops.

In addition Dr. Kennedy conducted significant research on the Tapeats Sandstone in the Grand Canyon, and on sediments containing dinosaur eggshells in Patagonia and Montana.

Dr. Kennedy plans to continue her creation ministry, and can be contacted by e-mail at Dkennedy49@aol.com.

The GRI welcomes Dr. Roberto Biaggi as Director of the Branch Office in Argentina, located at Universidad Adventista del Plata (River Plate University). He replaces Dr. Antonio Cremades, who has accepted a teaching appointment at Montemorelos University.



Dr. Roberto Biaggi

Dr. Biaggi is a graduate of the Department of Natural Sciences at Loma Linda University, with a major in paleobiology. His research interests include the study of fossil pollen and paleoenvironmental interpretation of Cenozoic lake sediments in Wyoming.

We are pleased that Dr Biaggi has accepted this position with the Institute.

GC BOOTH

The GRI will sponsor a booth at the General Conference Session in St. Louis, 30 June - 9 July, 2005. The booth will be staffed by scientists who can discuss creation/science issues, and recommend materials for your use. Specimens on display will include a replica skull of *Archaeopteryx*, shark teeth, a pyritized ammonite, and a trilobite. Those who make a donation to GRI can receive a fossil as a memento.



The ammonite, Dactylioceras.

SPOTLIGHT ON OUR WEBSITE

Teachers dealing with origins issues will find several useful features on our website (www.grisda.org/teachers).

The collection of frequently asked questions and responses is one of the more frequently used areas of the website.

Another popular section is a collection of PowerPoint presentations, mostly relating to molecular genetics, but including other topics relating to creation.

Teachers who are considering showing a creationist video may find a compilation of reviews of videos on creation.

Other material includes field conference information, biology lab exercises, a glossary of geological terms, and links to additional websites. Teachers are invited to submit additional material.



Dr. Kennedy explains features of the Grand Canyon at the 2004 Field School. This and other photos are available on the GRI website. Photo by Tim Standish.

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SCIENCE NEWS

Human Skin Color and Geography: Correlation?



Collage from images courtesy of Cosmi Software and the National Geographic Photo Gallery.

Chaplin G. 2004. Geographic distribution of environmental factors influencing human skin coloration. *American Journal of Physical Anthropology* 125:292-302.

Summary. Human skin color varies with latitude, with dark skin more common in tropical areas and pale skin more common near the poles. Skin color also seems related to variation in temperature, humidity and altitude.

The present study collected quantitative data on human skin reflectance and analyzed the results statistically. The conclusion is that skin color is almost perfectly correlated with the amount of autumnal ultraviolet radiation (UVR), with a minor influence of maximum summer radiation, and summer and winter precipitation. Selection against skin cancer is probably not an important factor in determining skin color, but nutritional considerations appear to be significant. Excess long wave-length ultraviolet radiation (UVA) destroys folate (Vitamin B) and Vitamin D. Moderate amounts of short wave-length radiation (UVB) stimulates production of Vitamin D. Dark skin absorbs more of the UVR, reducing folate photolysis in tropical populations, but reducing production of

Vitamin D in high latitudes. Thus dark skin is thus metabolically advantageous where UVR is excessive, such as in the tropics and at high altitudes, while light skin is metabolically advantageous at higher latitudes.

Comment. Although human skin color is often a sensitive topic, it is one of the more common topics on which we receive questions. Somehow, creation theory has become associated with the idea that some skin colors are the result of a curse, and people with those skin colors have lower standing with God. This idea has no Biblical support, and it is interesting to see that science has concluded that skin color has a useful function and has nothing to do with human status.

The Mediterranean never was a desert?

Hardie LA, Lowenstein TK. 2004. Did the Mediterranean Sea dry out during the Miocene? A reassessment of the evaporite evidence from DSDP Legs 14 and 42 A cores. *Journal of Sedimentary Research* 74:453-461.



View of the Mediterranean Sea. Photo from <http://visibleearth.nasa.gov>.

Summary. The hypothesis that the Mediterranean Sea dried up around the Miocene/Pliocene boundary has been widely accepted. An re-analysis of the evidence raises questions about the interpretation of the evidence used to support the dessication hypothesis, and concludes that the features were probably produced in deep water. For further comment see: <http://www.grisda.org/origins/57030.pdf>.

ORIGINS 57 ON LINE

<http://www.grisda.org/origins/ndx-yr.htm#57>

Permian bacteria resurrected?

Satterfield CL et al. 2005. New evidence for 250 Ma age of halotolerant bacterium from a Permian salt crystal. *Geology* 33:265-268.

Summary. Several years ago, viable bacteria were reportedly recovered from a halite crystal taken at a depth of 564 m in a mine shaft near Carlsbad, New Mexico. The geological age of the sample is reckoned as 250 million years, and the idea that bacteria could remain viable for 250 million years seemed difficult to believe. Now the original authors claim to provide additional evidence that the bacteria truly were trapped in the salt when it was deposited, and are not a later contamination. For comments on the original report, see: <http://www.grisda.org/origins/53031.pdf>.

Archaeopteryx: a Bird-Brain?



Replica of Archaeopteryx skull.

Dominguez Alonso PA, Milner C, Katcham RA, Cookson MJ, Rowe TB. 2004. The avian nature of the brain and inner ear of Archaeopteryx. *Nature* 430:666-669.

Summary. The London specimen of *Archaeopteryx* was subjected to a computed tomography scan (CT-scan). Reconstruction of the braincase indicates that *Archaeopteryx* had enlarged regions for seeing, hearing, and spatial perception. These features indicate that *Archaeopteryx* had a brain much more like modern birds than like reptiles. For further comment see: <http://www.grisda.org/origins/57030.pdf>.

Geoscience Newsletter, Number 1, is now available on our website at <http://www.grisda.org/newsletter/01.pdf>