

Minutes of the UFOP SW Chapter Meeting September 20, 2017

Bill welcomed the attendees and especially some new members, who were introduced to everyone. It came to our attention that one new member, Terry Linley, was already involved with the museum lab and learning to prepare fossils under Andrew's direction. She and her partner, Michael Well, had even donated a microscope with a camera attached bringing it to the lab to the delight of everyone. Jaleesa Spor, the newest intern at the museum also became a member, helping out at the lab as well.

Bill mentioned that there was over \$2,000 in our bank account, and asked for any ideas what to do with this money. Outside of donating part of the money to the museum lab or the Foundation, no ideas came forth. He requested the members to think about it. He also reminded us that next month nominations for officers would be accepted and to consider volunteering. He ended by requesting suggestions on how we could recruit new members.

Elisabeth then read the Minutes of our May 26th meeting, which were then voted on, approved, seconded and as such entered into the record, to be posted on our website.

Bill introduced Dr. Paul Olsen, our Speaker of the evening. His presentation was titled "The Ecological Rise of Dinosaurs is Linked to Ice."

Dr. Paul Olsen, a paleontologist and stratigrapher, received a BA in Geology in 1978 and an M. Phil. and Ph.D. in Biology in 1984 at Yale University, and is currently a professor at Columbia University at Lamont Doherty Earth Observatory. Amid many projects he studied in depth over the years is the analysis he made of the mass extinction 201 million years ago that set up dinosaurian dominance, which was the topic of this presentation.

Dr. Olsen started out sharing a lovely poem written by Robert Frost in 1920 named

Fire and Ice

Some say the world will end in fire,
Some say in ice.
From what I've tasted of desire
I hold with those who favor fire.
But if it had to perish twice,
I think I know enough of hate
To say that for destruction ice
Is also great
And would suffice.

Here follows a short summary and conclusion of his talk:

Dinosaurs and pterosaurs in high latitudes survived massive volcanic eruptions (i.e. the Central Atlantic Magmatic Province (CAMP)) during the end-Triassic extinction (ETE) which occurred approximately 202 million years ago. The reason for their survival through long-lasting volcanic winters could have been preadaptations such as insulation (feather bodies) and smaller body sizes, while many crocodylians and their close relatives were not feathered and had larger body sizes, resulting in the extinction of many Late Triassic forms. Only smaller crocodylians like protosuchids and sphenosuchians could have survived, as they burrowed themselves from the cold.

As there were hundreds of volcanic eruptions over a period of some hundred thousand years, and these eruptions were always followed by 4-10 years of cold averaging 40 degrees Fahrenheit temperatures (i.e. "tropical freeze"), many crocodylians and other Late Triassic relatives went extinct at the ETE.

The talk was of course accompanied by many detailed and interesting illustrations.

Meeting was adjourned at 8:30 p.m.

Submitted by Elisabeth Nipperus, Secr. UFOP SW Chapter
October 18, 2017