

American Institute of Professional Geologists

KENTUCKY SECTION



<http://ky.aipg.org>

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2011 EXECUTIVE COMMITTEE

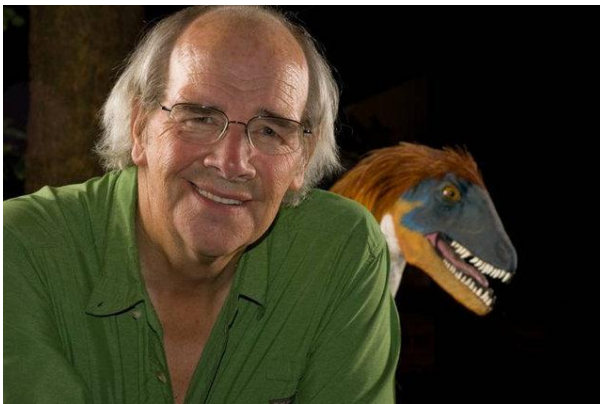
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Newsletter

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DARWIN LECTURE SERIES.....

The third Darwin Lecture Series held at the University of Kentucky Singletary Center for the Arts was host to Dr. John "Jack" Horner on Thursday February 10. Many thanks to Charlie Mason for getting Dr. Horner to accept our invitation.



Charlie Mason and Frank Ettensohn picked Dr. Horner up at the Blue Grass Airport that morning and took him to his hotel to relax before they picked him up again for lunch at the Hilary Boone Faculty Club on the University of Kentucky campus.

From left to right: Dr. Vincent Cassone, Dr. Frank Ettensohn, Charlie Mason, Dr. Jack Horner, Dr. Jim Cobb, Dr. Dhanajay Ravat, and Dr. Colin Reeves.

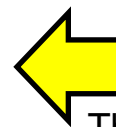
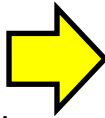


After lunch, Dr. Horner was taken back to his room to relax before being picked for dinner at Malone's.

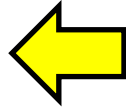


Kentucky Paleontological Society and KY-AIPG members work on the programs to be handed out

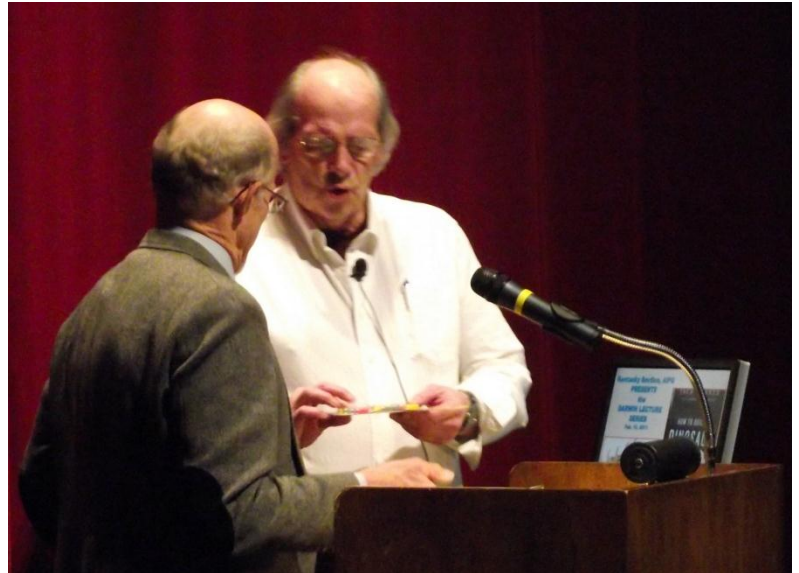
Kentucky Paleontological Society (Rick Schrantz and Judy Lundquist) had set up a table displaying many fossils found around Kentucky. They also had bags containing a brachiopod, the state fossil, for free handouts to the kids.



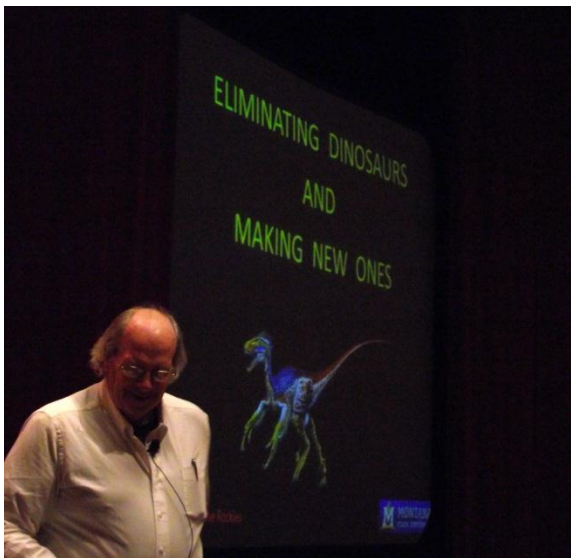
The Concert Hall auditorium was filling up and close to 1,000 folks from big to small showed up.



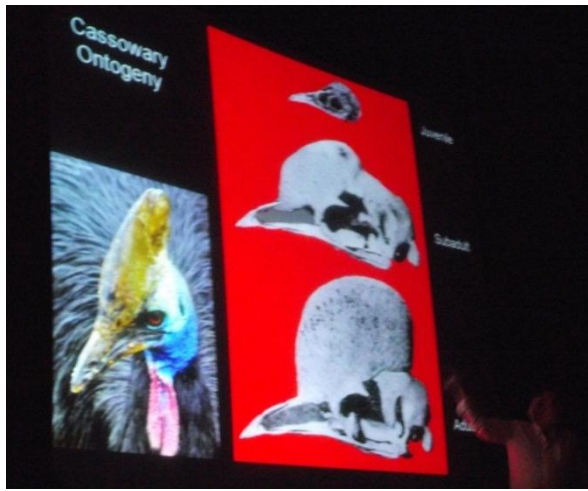
Dr. Horner mingled with the crowd before the lecture.



Dr. Frank Ettensohn did a great job on the introduction. He tied in KY-AIPG and geology and how it all works to benefit everyone. Frank then proceeded to show off his eclectic dinosaur collection, at which point Dr. Horner wandered out and began examining Frank's collection. Dr. Horner took over from there without being introduced, but everyone knew who he was. This informal start loosened up the audience.



Dr. Horner's title slide was not what the lecture was advertised to be. He went into discussing his working premise that if birds are the living relatives of dinosaurs, would they not exhibit similar growth patterns — ontogeny recapitulates phylogeny?

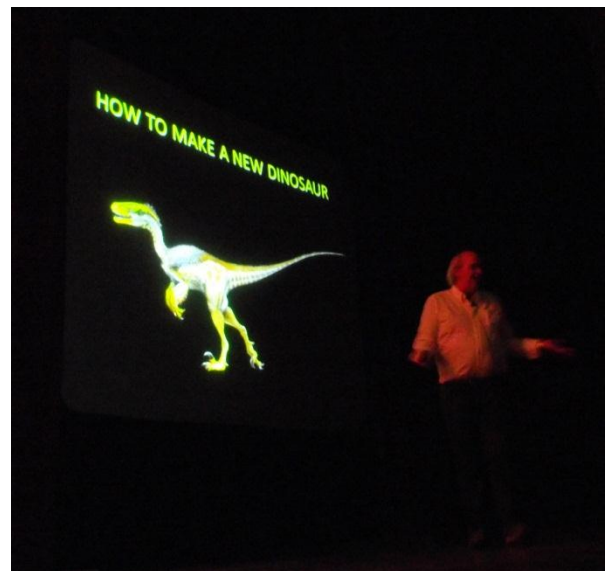


He used the modern day cassowary as an example. He showed what the difference is in the skull structure and bone structure in cross section of a juvenile, sub-adult, and an adult. Even though it was the same species, it had drastic differences in its growth stages, and is true for as all birds, their growth stages are rapid. Now that he set the premise, he put out the theory: what if dinosaur growth is also rapid, would they also exhibit these ontological features?

To try and test his theory he needed specimens of dinosaurs of the same species or so called similar species so he could cut up the bones. He said he didn't have much luck in asking museums to give him skeletons for him to cut up. That left only the option of going out and finding his own collections to cut up. He noted that since museums only like to display the biggest skeleton of a species, that left many that were still in the ground. So in 1999, he and his students (who worked cheap—sandwiches), dug up and collected everything.

In the Hell Creek Formation of Montana, there are 17 known dinosaur species. To Dr. Horner, some looked pretty similar to others, with only minor skull differences, so he began to group them together. Then he began looking at the bone structure in cross section from the smallest to the largest. He began noticing that the structure exhibited in cross section of these dinosaur bones were looking similar to the cassowary in its different growth stages. He kept doing this till he came to the conclusion that a lot of the new sub-species were actually of the same species, just at a different developmental stage of life. With this, he removed five of the 17 species in the Hell Creek Formation.

This left open, as he put its "room for my dinosaur" and an introduction to his original talk, "How to Build a Dinosaur: Extinction Doesn't Have to Be Forever." His method would not be using dinosaur DNA, which so far has not been found, and concluded that it might not be preserved in fossilization.



Dr. Horner would seek help from molecular biologists who could manipulate some of the genes of a chicken embryo. He noted that molecular biologists have already found the gene in the chicken that controls teeth growth and managed to “turn it on.” So he figures that if molecular biologists can find the gene or genes that turn off the tail re-absorption and the fusing of the end limbs in the wing, that it would be possible to hatch a different looking chicken—the *Chickenosaurus*.



After the talk he fielded many questions from enthusiastic kids of all ages. After the question sessions, Dr. Horner signed autographs and spoke at length to all who were interested.



UPCOMING EVENTS.....

2011 KY-AIPG CONFERENCE “Overview of Contaminated Site Investigation and Remediation”

Tuesday, April 19, 2011, at the Kentucky Geological Survey Well Sample and Core Library, beginning at 7:30 a.m. For more information on cost, registration, and directions please visit our website at <http://ky.aipg.org/Announcements.htm> and select Professional Development Conference.

2011 KY-AIPG SPRING FIELD TRIP AND AWARDS BANQUET

The spring field trip and awards banquet will to be around the Carter Caves area on Saturday, April 30. We will gather at the Carter Caves State Resort Park Lewis Caveland Lodge at 7:30 a.m. The field trip will incorporate:

The geology and karst features in the park and vicinity.

- Valley Stone Company Quarry (to view the lower Slade Formation)
- Outcrop to view the Warix Run Member–Borden Formation contact
- Laurel Cave
- Hike the Natural Bridge Loop
- Lunch near the pool parking lot
- Hike to Smoky Bridge
- Hike to Box Canyon
- Hike in Cascade Cave
- **Please bring a hard hat and an extra if you have one to lend out.**

The evening buffet dinner and awards ceremony will be at the Carter Caves State Resort Park Lewis Caveland Lodge. We will be in a meeting room, where a mixer will begin at 6 p.m. and the buffet will begin at 7 p.m., followed by the awards ceremony and a guest speaker.

FLYER, ITINERARY, REGISTRATION FORM, COST, AND HOTEL AND FIELD TRIP RESERVATIONS AND INFORMATION CAN BE FOUND AT
<http://ky.aipg.org/Announcements.htm>

END THOUGHTS.....

On the KY-AIPG website we have posted articles of geologic interest under Articles and Presentations by members and nonmembers. If you would like to write an article of geological interest to be posted on the KY-AIPG website, please observe the following:

1. These articles do not necessarily reflect the views of the members and this must be stated at the beginning of the article.
2. We encourage articles to be edited, but they do not have to be.
3. Any photographs or diagrams must be the personal property of the author or must have approval from the contributor.
4. If other people are identifiable in the photograph, you should have their permission for their image to be posted on the website.
5. Images or photographs used from another website must have the permission or approval from the owner before we can post the article.
6. Always properly cite the image or photograph.

You can submit your article, in Word, PDF, or PowerPoint format, to Richard Smath (rsmath@uky.edu). Any questions, please feel free to contact me.

Any errors found in this newsletter shud come as no surprise.