



Paleo Footnotes

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November 2017

President's Note

Erich Rose
PSoA President

I certainly hope everyone had fun at Fossil Fest. I know I did. Attendance was up and the dealers seemed happy. This was Emelia's first year running the show on her own and it all went fairly smoothly. We will have a treasurer's report at the next meeting and learn more about how the show did dollar-wise. Thanks to everyone who volunteered their time and knowledge to make the show a success. It was great seeing new faces, too!

The next item on the Club's agenda is election of new officers. All positions are open if you are interested. Many of the current officers and chairs are only still in place because no one else has stepped up. Please consider taking a bigger role in the Club. It would be greatly appreciated. If you have questions about the various positions or needs of the club feel free to e-mail or even call me (512-626-9930).

So take care and see you at the next meeting.

Next Meeting

Tuesday, November 21 – 7 p.m.
Austin Gem and Mineral Society Building
6719 Burnet Lane
Austin, Texas

Fossil Fest Recap

Emelia Rose
PSoA Vice President & Show Chair

This year's Fossil Fest saw 1,356 people with 250 students under age 6. Saturday was very busy with 767 people and Sunday slowed down to 589.

Financially, we made \$1,484.57 that will go towards the support of our Club's outreach activities, meeting programming, and donations.

Karen from Georgetown is the happy winner of the grand door prize! Her interest in fossils brought her to Fossil Fest! Here's Karen and her husband with their new ammonite:



Gem Capers Recap

Gem Capers went very well. We ran out of giveaway bags within minutes on Sunday and a lot of people showed interest in the Club and Fossil Fest.

Thank you to everyone who volunteered, especially Paul Hammerschmidt and Rose Farmer for setting up on Thursday! Volunteers include: Mark Clark, Ed Elliot, Melinda & Fredrick Falk, Rose Farmer, Dax & Cruz Gonzalez, Paul Hammerschmidt, Danny Harlow, Jimmy Hendricks, John Hinte, Nordric Hofpauer, Melvin Noble, Erich Rose, Gary & Cathy Rylander, Mike Smith and Joe Watkins.

Upcoming Meeting Presentation

Paul Hammerschmidt
PSoA Programs Chair

Grace Musser will join the Club at our regular meeting to discuss her research on extinct birds as a critical key to resolving the evolutionary relationships of modern birds. She notes that one of the most controversial extinct birds is the adzebill (*Aptornis*), a flightless bird endemic to New Zealand that lived at least as far back as the early Miocene around 23 million years ago. Musser writes:

Evolutionary studies based on skeletal size and shape have placed adzebills as either most closely related to the flightless kagu bird of New Caledonia (*Rhynochetos jubatus*) or to land- and waterfowl (Gallanseres); however, more recent studies based on genetic data reveal kagu and sunbittern (*Eurypyga helias*) to be most closely related and suggest that the adzebill is a rail (within Rallidae) or most closely related to finfoots and rails (Ralloidea). To better resolve the position of the adzebill we constructed a new, more comprehensive dataset based on the skeletal size and shape of modern birds. We identified 370 characters describing skeletal size and shape for 37 living and 2 extinct taxa, the latter comprising the South Island adzebill (*Aptornis defossor*) and the giant Chatham Island rail (*Diaphorapteryx hawkinsi*). We then combined this dataset with genetic data from modern birds. Our data provided a novel result, placing the adzebill as most closely related to South American trumpeters (*Psophia*). Our study also showed that the kagu is most closely related to the sunbittern. Both results received high support overall.

Our data thus suggests that the adzebill is more closely related to cranes, trumpeters and allies (Gruoidea) than to the kagu, finfoots and rails, or land- and waterfowl. Better evolutionary placement of extinct birds such as the adzebill is important as it will aid in understanding evolutionary relationships, the evolution of size and shape, and the global dispersal of ancestors of modern birds.

Grace is a first year Ph.D. student in Geology at The University of Texas at Austin where she primarily works with Dr. Julia Clarke. Grace received her Master of Arts in Ecology, Evolution and Environmental Biology from Columbia University in May of this year. She has won several awards for her academic endeavors, the most notable being the National Science Foundation Graduate Research Fellowship in 2015. Grace is also a visual artist and is a recipient of many art-related grants, most notably the Elizabeth Greenshields Foundation for the Arts Grant in 2012.

October Meeting Minutes

Gary Vliet
PSoA Secretary

October 17, 2017 – Austin Gem and Mineral Society Building

The October meeting was opened by President Erich Rose at 7:05 p.m.

David Lindberg: David reported on his trip to University of Florida in August to attend a workshop sponsored by 'myfossil.org' and organized by Bruce McFadden of University of Florida. Also involved were teachers associated with Next Generation Science Students (NGSS).

Mike Smith: Mike summarized PSA's finances, indicating their stability.

Gem Capers: It was noted that Gem Capers opens next weekend and volunteers are needed.

Emelia Rose on Fossil Fest: Emelia, who is this year's Fossil Fest Coordinator, reminded members that the Club's Fossil

Fest occurs the weekend of Nov. 4 & 5, with setup on Friday the 3rd. Members were encouraged to sign up for the various FF duties.

Southwestern Paleo Meeting: We were reminded of this meeting, which will be held in Humble on Nov. 12 & 13.

Visitors: There was one visitor in attendance.

Field Trip: Ed Elliot discussed the upcoming field trip to a road-cut near Brady on Oct. 28 (Adams Branch limestone). If time permits the group may scout up near Santa Ana.

Adjournment: The meeting was adjourned at 8:20 p.m.

The purpose of the **Paleontological Society of Austin**, a 501(c)(3) non-profit organization, is the scientific education of the public, the study and preservation of fossils and the fossil record, and assistance to individual, groups and institutions interested in various aspects of paleontology. Meetings of the **Paleontological Society of Austin** are held on the third Tuesday of each month at 7:00 p.m. in the Austin Gem and Mineral Society building located at 6719 Burnet Ln. in Austin, Texas. The public is welcome to attend. Visit austinpaleo.org for more information.

Annual Dues: \$18/individual, \$24/family and \$12/associate (non-voting, receiving newsletter) Send to: Treasurer, Paleontological Society of Austin, P.O. Box 90791, Austin, TX 78749-0791.

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