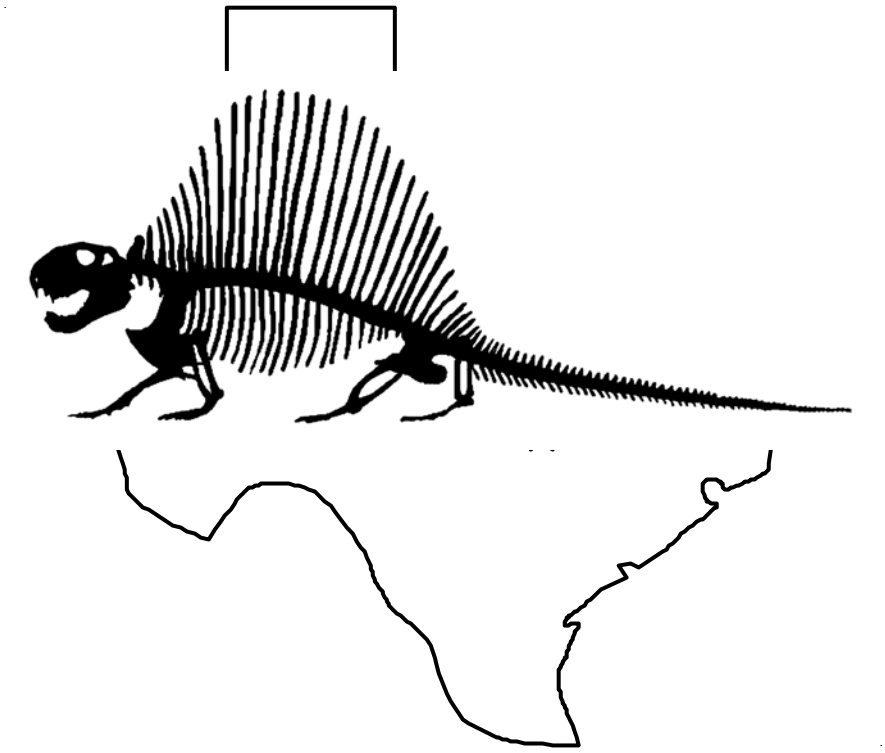
Paleo Footnotes

Newsletter of the Paleontological Society of Austin

Austin and Central Texas



Volume 2, Number 4
April 2007

PRESIDENT'S NOTE

How can this be? Easter weekend, a fine time to go collecting and birding, and it is 37 degrees at noon. The rain is good, but not at this temperature! It is even sleeting right now! This is Central Texas, not North Dakota! I guess it will leave more time to select material for this month's **picnic and auction April 21st.**

In past years, the auction/picnic has been a great gathering. Lots of bar-b-que, lots of wonderful donated fossils, some even rated as "spectacular". This year, Diann Strout has pulled in an added feature, a speaker extraordinaire. Dr. Charles Finsley's book has been most Texas fossil collector's beginning bible.

Bring something to donate to the auction, bring a side dish and a desert, bring a check, and come hear an entertaining speaker.

There will be no regular meeting for the month of April. This is because we will have our speaker presentation at the auction/ picnic.

May 5th, at the AGMS clubhouse, we will have a <u>second auction</u>. This will be material from **Ed Bowden's collection**. Proceeds from this will go to his memorial scholarship fund. There are a lot of nice specimens, both his fossil and coral collections. For example, there is a piece of palm wood, 8-10 inches in diameter, about 12 inches long, and weighs shy of 100 pounds. And he had several very large ammonites. There will be hundreds of items in this first and final auction of his material.

I want to thank Linda McCall, Bruce McCall, and all others that put in time talking to the attendees of U.T.'s *DISCOVER TEXAS* event at the museum last month. The format was new for the museum and I hope it worked out well.

See you at the auction. John

A Note from the Editor

There are two field trip reports in this newsletter. Our terrific field trip leader Ed Elliot hand writes the reports (bless him, he is computer free!) and I have to type them up. John and I were already folding and stamping ‘em when Ed came by with the February Report. But it was a great write up and as you will see I prompted a bit of research on his part and we now have a better take on the geology at the Wilson Pit. And of course the March report is of equally high value. Please enjoy both back-to-back.

I also want to apologize for the late arrival of some of the newsletters. The system now is that John or David receive renewals and new memberships in the mail; then forwarded to Michael Smith who then updates the mailing list and provides that to me. This all lead to a late second mailing. Since most folks have now finished renewing the lists should be more up-to-date each month. A great reason to sign up for the PDF version via e-mail and save us a couple of bucks in copying and stamps. Enjoy. --Erich

Next Meeting
April Picnic and Auction at West Cave Preserve

Saturday, April 21st
1:00 - 4:00 PM

Directions: (allow an hour from downtown Austin)
Travel west on Hwy. 71 to village of Bee Caves. Turn left at Ranch Road 3238, locally known as Hamilton Pool Rd. Travel 14-1/2 miles on Hamilton Pool Rd. to the Pedernales River. Westcave Preserve is the first gate on your right after crossing the river.

Bring a covered dish and healthy appetite.

The speaker will be Mr. Charles (Chuck) Finsley, author of "A Field Guild to Fossils of Texas" and past curator of the Dallas Museum of Natural History.

A little bit about our speaker:
Charles Finsley worked in the Dallas Museum of Natural History in several capacities between 1961-95, eventually becoming Curator of Earth Sciences. As curator, he supervised excavations of several large fossils displayed in the museum (including a 14' mammoth, a 30' mososaur, a sea turtle the size of an automobile, and an 8-10' fish). He oversaw the donation of Frank Crane's (of Dallas) invertebrate fossil collection worth $500,000, including huge *Stereocidaris* (sea urchins).

He has written several books, including "A Field Guild to Fossils of Texas"

If you desire more detailed information on his educational and professional background or any of his books, please refer to the Google internet site under Charles Finsley. He agreed to bring a few of his books to the meeting in case anyone would like to purchase one.

February Field Trip Report – Brownwood Area

It was a brisk, beautiful morning when I stopped ay Goldthwaite. That was at 7:15. By 7:30 there were about 10 people on the hill at the “T” with me. *Phymosomas, Salenias* and other nice Walnut Formation fossils were found. Adding an extra outcrop to the trip is always a nice way to start out the day.

Twenty-three members and guests met at the mall in Early. Mike Smith, Jeff & Jonathan Doerzbacher, David Lindberg, Mike Bobbitt, Peter Cornell, Eric Runfeldt, Jeri Powers & and three kids (sorry I didn’t get their names), Karen Elms, Suzanne & Ryan Galligher, Gary & Cathy Rylander, Eric Seaberg, Linda & Bruce McCall, Erich & Emelia Rose,

Melvin Noble and myself. We waited a suitable period for stragglers and headed for Wilson Quarry.

When I joined the club in the late 90's, I was told that Wilson Clay Pit was Moran Formation. After a recent discussion with Erich Rose, I started digging through all of my books dealing with Pennsylvanian stratigraphy. I had earlier surmised that our Santa Anna site was in the Santa Anna Shale member, Moran Formation, Cisco Group. After research I believe that Wilson contains elements of the Pueblo Formation (lower) and the Harpersville Formation (upper) of the Cisco Group. Several of the descriptions mentioned calcareous olive mudstones and red and maroon mudstones. The fauna of the Harpersville match what we find at Wilson. All of my information is rather old, so a trip to the geology library is in order. When classes resume I'll schedule a trip. This is something we should know.

Wilson is very large and everyone always scatters. Add to that the fact that quite a few people left before the appointed time, and others went home when we left for Santa Anna – it was not possible to see what all of us found. Crinoid material, brachiopods, corals, and bivalves I'm sure were found by all. I do remember Emelia finding a crinoid cup soon after we got there. My find of the day was two *Petalodus* sp. teeth. I'd like to say that years of experience and my skill…OK, they were just laying out in the open. Skill is good, but dumb luck is alright as well. 250 million year old shark teeth are always a possibility at Wilson. One of the reasons we always go back.

The Doerzbachers, the McCalls, Eric Runfeldt, Melvin and I were all that made it to Santa Anna. The large number of brachiopods found there is always amazing to me. Linda spent her time picking up trilobites. And, with a lot of work, Melvin found his first trilobite. They can be so very small there. Dodging ATVs made the site a little more exciting than usual. There seemed to be an ATV club present.

A few of us used the last bit of daylight to check out a couple of small roadside cuts near the park with some measure of success.

Great weather, good friends, wonderful fossil sites – what more could one want in a weekend get-away? I really hope everyone had a good time and I hope to see you all in Moody on the 25th for a Cretaceous Good Time! --Ed

Highway 107 – Stillhouse Hollow Lake, March 2007

There was a nice turnout at the small town of Moody. Melvin Noble, Eric Rundfelt, Linda and Bruce McCall, Paul Hammerschmidt, Jeff and Jonathan Doerzbacher, Ron and Janet Root and Rochelle Margolis. After a short and pleasant drive we arrived at our first site, over looking a broad valley. A very pretty sight as the sun goes down.

This large outcrop is all Fredericksburg Group, with Walnut at the bottom, Comanche Peak in the middle and Edwards Formation at the top. I can't tell exactly where one stops

and the other begins. All the loose rock helps to obscure things as well. I'm proud to say that I didn't fall all that often. This talus slope has a very large faunal list. Larger things, such as ammonites, tend to be broken up as nature uncovers them. Paul and Eric did pick up some small *Oxytropidoceras* sp. And someone (can't remember who) picked up a small *Engonoceras*. There are a good variety of oysters and other bivalves, lots of gastropods and, though somewhat rare, I've picked up four kinds of corals there over the years. There are also rudists in the Edwards. I have to say that the biggest draw to me is the echinopids. *Salenia mexicana* and *S. leanderense*, *Heteraster texanus*, *Hemiaster whitei*, *Tetragramma taffi* and *Goniopygus zitteli* have all been found at this outcrop. This trip there were at least 10 *Salenias* found, many heart urchins and both Linda and I walked out with partial *Goniopygus*.

Around two we started the caravan to the site near Stillhouse Hollow spillway. A Walnut Formation site that always turns up something new. With cliffs on the sides and a running creek and small waterfalls, it's a nice place to be in the morning or evening. The grey clays here are certainly fossiliferous. Oysters and other small bivalves along with gastropods are everywhere. Again there was an abundance of urchins. *Heteraster texanus* is abundant throughout. There were at least a dozen *Salenias* and one *Phymosoma texanum*. Many of the fossils found here have small cubes of pyrite on their surface. I usually find a crab claw per trip. Linda on the other hand picked up a hand full and topped off with a beautiful *Leptostyrax* shark tooth. Melvin finished the day off with a nice claw with both pincers. At this park the gates close at sundown.

I hope everyone had as good a time as I did. And I also hope to see everyone at the pick-nic and auction in April. -- Ed

GULLY WASHER REVEALS JURASSIC PRINTS

Hoosier geologist discovers evidence of 165-million-year-old therapods with attitude.

By Jayne Spencer

Some of the largest footprints found so far were probably made by a 6-foot-tall therapod, a meat-eating dinosaur that walked on two legs.

Hoosier geologist Erik Kvale (pronounced Kwah-lee) was on an outing with friends and family near Shell, Wyo., when the group stopped for a closer look at some intriguing limestones in a gully recently washed out by a rainstorm. When one of his relatives asked if dinosaur tracks might be found in the limestone, Kvale replied, "Probably not, but... here is one right in front of me."

The new find extends across two square miles and contains perhaps as many as a million dinosaur tracks. Announcement of the discovery by the U.S. Bureau of Land Management was delayed until last week because the federal government was evaluating how best to preserve the site, which is on public land and easily accessible from a major highway. The site is crossed by the Red Gulch/Alkali National Back Country Byway.

Some of the largest footprints found so far were probably made by a 6 foot-tall therapod, a meat-eating dinosaur that walked on two legs, Kvale said. Previously, this area -- called the Sundance Formation -- was thought to have been entirely underwater during the Middle Jurassic.

Instead of dinosaur tracks, one commonly finds fossil shells left from an ancient sea.

But these dinosaur tracks were clearly made at a shoreline, not in deep ocean water, Kvale said.

The discovery has the potential to reveal much about the behavior, diversity and ecological environments of dinosaurs from a period of time for which very little is known about North American dinosaurs.

Kvale, a research geologist at the Indiana Geological Survey in Bloomington and an adjunct professor at Indiana University, knew that dinosaur remains in the Sundance Formation were a rarity. He grew up in the area and has studied the geologic wonders of Wyoming's Bighorn Basin since childhood. He had driven through the area many times, and for decades others have walked through the area, including the gulch.

The purpose of the trip was to prepare material for a new one-week summer field class that Kvale is offering through IUB's Department of Geological Sciences on dinosaur-bearing rocks (see related story below). Geologist James Farlow of IPFW, who co-edited the IU Press' The Complete Dinosaur, will participate in the study of the tracks. Kvale and Farlow will be joined by investigators from the Smithsonian Institution, Dartmouth College, the University of Wyoming and Kansas State University.

~~ Stoney Statements 4/07

EDITOR’s NOTE: Really interested in Dino Track? Go to _http://drscavanaugh.org/dino/_ (http://drscavanaugh.org/dino/) and take the course on dino

Places to Be, Things to Do

April 28 – 29, Waco Gem & Mineral Society Show, Heart of Texas Fair Complex, 4601 Bosque Blvd., Waco

May 26-27, Ft Worth G&MC Show, Will Rogers Memorial Center, 3401 W Lancaster

June 5 – 10, AFMS/RMFMS Convention & Show, hosted by Chaparral Rockhounds, Roswell Civic Center, Roswell, NM

Sept .1 & 2, SCFMS Annual Meeting & Show, Arlington

MAPS Report

Joan & I once again made our annual trip to Macomb, Illinois to attend the MAPS EXPO, which is held every year between March and April. Since PSA is a member of the MAPS (Mid-America Paleontology Society) organization, I felt it only appropriate to report on the latest show highlights. It is a 1 and half day trip to reach Macomb, and we left on Tuesday this year as I wanted to stop by to see my son and family in Ardmore on the way. We arrived on Thursday after noon and got into the hotel and started to set up, so that we would be ready for the Friday opening. (As you may know the show runs from Friday through Sunday, although most dealers are packing up on Saturday night or Sunday by 12 noon for the respective trips back to their various states so that they could be ready for work on Monday morning. As usual, the place was packed with people, many from Morocco, Italy, Germany and others throughout the world. The majority were from some parts of the United States. If I counted correctly, there were over 230 tables filled with fossils from the various countries and all willing to sell, trade or just pass the time with old friends As always, prices run from $1 to over $20,000

I believe we were the only dealers who were from Texas this year, but normally there are at least 2 or 3 others from some parts of Texas attending. I personally felt that the quality of material this year was somewhat less than in prior year, but the volume was higher than ever. For those who have never been to a MAPS EXPO Show, you will find all the fossils that you ever wanted to see, except for possibly Tucson, Arizona. The tables are actually very cheap, ($15 for up to the fist 2 tables and $30 if more than 2 tables are required.) The show does not charge for entry, but to rent tables you must be a MAPS member, which is $25 per year

-- Frank Crane

Learn more about MAPS at their web site: http://www.midamericapaleo.org/index.php

New Primate Species Found In 42 Million-year-old Texas Fossils

Lamar University, April 9, 2007

Science Daily Something old is now something new, thanks to Lamar University researcher Jim Westgate and colleagues. The scientists' research has led to the discovery of a new genus and species of primate, one long vanished from the earth but preserved in the fossil record.

Westgate is a professor of earth and space sciences at Lamar and a research associate in the Vertebrate Paleontology Laboratory, Texas Natural Science Center, University of Texas-Austin. He and his research colleagues, Dana Cope, professor of anthropology, College of Charleston, and Chris Beard, curator, Vertebrate Paleontology Section, Carnegie Museum of Natural History, announced their discovery at the annual meeting of

the American Association of Physical Anthropologists in Philadelphia, Pa., Thursday, March 29.

Molar, pre-molar and incisor teeth from the new primate genus and three other new primate species were recovered from 42 million-year-old tropical, mangrove palm swamp deposits of the Eocene age Laredo Formation exposed in Lake Casa Blanca International State Park in Laredo.

The association of primate fossils with the skeletal remains of oysters, sharks, rays, giant aquatic snakes and crocodiles, along with mangrove palm fruits and pollen, indicates that the middle Eocene shoreline of the Gulf of Mexico lay 150 miles inland of its present position, Westgate said.

The team is preparing detailed manuscripts describing the new Omomyid primates. One of the spoils of discovering a new species is the opportunity to give it a name. The formal name of the new genus, which means "primate of the coastal lagoons", will be released at publication time, Westgate said.

Omomyids (members of the extinct taxon Omomyidae) lived 34 to 50 million years ago during the Eocene Epoch and were one of two groups of known Eocene primates. The other, adapids, were more lemur-like. Fossils of these Eocene primates have been found in North America, Europe, Asia, and Africa. The Eocene primates are the earliest known primates.

Omomyids had large eye orbits, long grasping fingers and short snouts. They weighed around one kilogram, or close to two pounds and were likely nocturnal, with large eyes for seeing better at night. Like most modern-day primates, the omomyids used their long fingers for climbing. They had small mouths, and it is likely that insects were a part of their regular diet.

The presence of a diverse primate community with four species living on the Texas coast during late middle Eocene time is significant because at that time primate diversity in the northern interior of North America had diminished greatly because of global climatic cooling and uplifting of the Rocky Mountains, Westgate said. The tropical environment on the Texas coast appears to have allowed primates to thrive locally while their relatives in the continental interior faced near extinction.

Lamar University, the University of Texas Geology Foundation, the National Geographic Society and the Geological Society of America provided funds for field excavations in Laredo.

Note: This story has been adapted from a news release issued by Lamar University.

Thanks to Greg Thompson, Thin Section Lab, Department of Geological Sciences, Jackson School of Geosciences, The University of Texas at Austin

The purpose of the **Paleontological Society of Austin** is the scientific education of the public, the study and preservation of fossils and the fossils record and assistance to individual, groups and institutions interested in various aspects of paleontology.

Meetings of the **Paleontological Society of Austin** are held the third Tuesday of each month, 7:00 p.m. at the Austin Gem and Mineral Society building, 6719 Burnet lane, Austin, TX. The public is cordially invited to attend.

Annual Dues: $15/individual, $20/family and $10/associate (non-voting, receiving newsletter)

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The Paleontological Society of Austin is a member of and affiliated with:

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DATED MATERIAL – MEETING NOTICE

FIRST CLASS MAIL