Paleo Footnotes

Newsletter of the Paleontological Society of Austin

Austin and Central Texas

Volume 2, Number 1 – January 2007

From the President

I hope everyone had a great holiday time with family and friends, and time to do some reading and collecting. I found myself New Year's Eve collecting on South Padre. I found a huge (mammoth?) bone walking the beach early on a beautiful morning. New Year's Day was a day to explore for new localities. Even though a lot of fine specimens have been found in our lifetime, I believe the best is yet to be found.

You may find an exception to that last statement when you see member Mike Bobbitt's ammonites that he will talk about at this month's meeting. Come learn from a truly great collector!

Many of you have known of George Browne, a long time member of the AGMS and of the SCFMS. George passed away January 2nd. George was an important factor in this society's joining the South Central Federation of Mineral Society. Our society takes advantage of the insurance program through the SCFMS. He also urged us to nominate someone as the SCFMS Honorary Scholarship Recipient, which went to PSA member/ advisor Dr. James Sprinkle and his two UT students. Memorials may be made to the AFMS Scholarship fund or to the AGMS.

The vote at the Xmas party meeting was to have a January field trip to the Jacksboro area, meeting Saturday, the 20th, at 8:29am at the county court house. The other vote taken was to insure life time PSA membership status to those of previous APS and CTPS life time members. (To R. C. Harmon: everyone says "hi!")

See you at the meeting! John

Next Meeting

Mike Bobbitt: A Passion for Ammonites

A little about Mike:

Mike has been interested in fossils since he was a young boy. In 1991 he started collecting and immediately developed a passion for ammonites. Mike grew up in Galveston. Served in the military in Viet Nam and ‘worked all over the world' (let's ask him about the Zulus!). Received a 'science degree' from A.C.C. Married to Mindy Threadgill for 19 years (met while living in Houston working for Shell Oil Co.) Presently they live in Georgetown and mike works for Seton in the Cat Scan Dept.

And most importantly..
He has a widely renowned collection of ammonites.

See you there

Tuesday January 16th, 7:00PM
Austin Gem & Mineral Society Building
6719 Burnet Lane, Austin, TX

Minutes of the November Meeting

There are no official minutes from the December meeting due to it being a Party (and a really nice one at that.) See John's president's notes for the few items of business that were discussed.

January Field Trip to Jacksboro

When:

Saturday and Sunday, January 20th and 21st,
Meet at the courthouse (100 N Main St.) at 8:30AM.

Directions:

Take 281 north to Jacksboro. If you are starting in north Austin, probably Take 183 to Lampasas and catch 281 there. When you get into Jacksboro, the Courthouse will be on your right at Main (which is 281) and Belknap. Total Distance: 234 miles from mid Austin. Google Maps says it should take about 4 hours. That's probably a bit optimistic; I would allow another half hour.

What to expect:

Collecting on Saturday will be at Lake Jacksboro, also known as the Lost Creek Reservoir. This is one of the more interesting places I have collected by virtue of its amazing diversity. Extensively documented in the Dallas Paleo publication "Pennsylvanian Fossils of North Texas" by Mark McKinzie and John McLeod. To paraphrase them:

The Finis Shale is Pennsylvanian, the basal member of the Graham Fm. which is the basal unit of the Cisco Group. The Finis shale at the spillway is dark gray to almost black, carbonaceous, heavily bioturbated mudstone. Highly fossiliferous with a benthic fauna containing conularids, rugose corals, brachiopods, gastropods and pelecypods. The pelagic fauna includes ammonoids, nautiloids and various marine sharks. Plant debris can also be found including fossil seed pods and wood fragments.

I suspect Sunday morning will either be the Mineral Wells dump or Lake Bridgeport.

Ed's cell is 512 657-7581. John is 512 636-4673. Mine is 512 789-4477.

Mike Smith

Window on the Origin of Ichthyosaurs

By George Rothdrake

The ichthyosaurs were among the most distinctive reptiles from the time of the dinosaurs. Totally adapted to life in the sea, they developed a streamlined body with dorsal fin, converted their legs to flippers, and even gave birth to live young instead of laying eggs. In doing so they adopted a shape assumed at other times by dolphins, billfish and certain sharks, but unlike these other groups, the ichthyosaurs have elude efforts to pin down their ancestry.

Some help on this front arrived amidst some new observations of a large ichthyosaur skull collected in Spitzbergen in 1969. From the Lower Triassic nearly 250 million years ago, the fossil belongs to an early member of the group, and is special because the lower back portion of the cheek is well preserved.

The remains hint that two "windows" may have perforated the skull, one above and one below a connected pair of bones in the cheek. This contrasts with previous studies that cast doubt on the prior existence of a lower window. Reinterpretation of the related early ichthyosaurs Utatsusaurus and Grippia similarly suggests the presence of a lower window that disappeared in later forms. If this is so, the ichthyosaurs may have descended from the diapsids, a group that includes lizards and snakes, crocodilians, dinosaurs, and indeed the majority of all reptiles, living or extinct.

The fossil record, however, has yet to provide a particular species that would make a convincing forerunner for the whole group, and the authors caution us "The search for ichthyosaur ancestors is therefore far from over." Let the search continue.

References:

Maisch, Michael W. and Andreas T. Matzke. 2002. The skull of a large Lower Triassic ichthyosaur from Spitzbergen and its implications For the origin of the Ichthyosauria.

From The Trilobite Sept 2003, via Stoney Statements, Clear Lake G&MS, Jan 2007

What Are Trilobites?

Reprinted from ASK ANDY

The word trilobite refers to a body with three lobes, or sections. The trilobite who thrived so long ago had head, thorax, and tail section somewhat like a modern insect. His soft body wore a protective shell, rather like that of a shrimp, these resemblances are not surprising, for the trilobite is a remote ancestor of our modern shrimps, insects, and all other members of the vast Phylum Arthropoda. He and his kinfolk were ancient arthropods that lived in the sea when its waters were less salty than they are today.

The Cambrian Period of around 500 million years ago is called the Age of Trilobites because at the time these arthropods were the most advanced creatures on earth. The earliest ones were smallish, perhaps no bigger than beetles. Each had lots of short thin legs, arranged in a row along each side. He scuttled along on the silty seabed, grubbing for food. The shell on his back protected him from the few creatures likely to attach him. But at first it was stiff and unbendable.

Through millions of generations, the descendants of the original trilobites branched out in different forms. Life in the mild seas was easy and, as more worms and lesser creatures developed, there was more food. Many trilobites grew bigger and bigger and some were giants, 27 inches long. And through the ages, many trilobites modified their stiff shells. The grooves became pliable and the crusty creatures were growing larger and hungrier.

Trilobites of one sort or another survived through the entire Paleozoic Era that lasted some 330 million years. Their long and successful dynasty declined and finally became extinct during the Permian Period, about 200 million years ago.

The fossils of some 2000 species have been identified and this is but a small percentage of the total. The original trilobites departed, but some of their species changed so much that they became a different species. They were the remote ancestors of our shrimps and lobsters, our crabs and teeming insects.

The ancient story of the trilobite was traceable because so many of their durable shells became fossilized. As trilobites grew, they shed heir tight shells for bigger ones and countless million of these discarded shells were preserved in limestone and other rocks.

–from Gem City Rock News, 10-00, The Gemrock, 11-00, via Quarry Quips, 4-01.

Places to Be…Things to Do

Jan 22 – 23 Fredericksburg Rockhounds Show, Lady Bird Johnson Park

Jan 27 – 28 East Texas G&MS Show, Tyler

Feb 24 – 27 Fiesta of Gems, Southwest Gem & Mineral Society Show, Freeman Coliseum, San Antonio

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

14 days of free public workshops at Tucson 2007

If you're going to Tucson let me introduce you to the **Electric Park Learning Center**:

www.electricparklearningcenter.com

It's a first for Tucson: a brand new stand-alone show-and-tell tent at the Tucson Electric Park Show, where there will be free, scheduled, demonstrations, lectures, and show-and-tell three times a day every day of the show. If you're into carving, Eddie Davenport is giving a demonstration including use of the air chisel and many of the other tools. If you're into carving in smaller size, in gem materials such as jade, high-energy Mark Zirinsky's presentation will likely be an event to remember. If you're a lapidary, check the "Lapidary Problem Hour." There's a whole day of hand-on faceting. Plus sessions for jewelry-makers too. There's nothing quite like it in Tucson.

There are still gaps in the schedule (if anyone has an interesting demo they'd like to do by all means email me), and the presenters' biographies are not yet all there, but the meat of it is up, online. Do check it out, and if you like the sound of it, tell your friends, relatives, associates and comprehensively everyone! In short, PLEASE! pass it on!
>
Cheers & see you at the Learning Center

Hans Durstling
Moncton, Canada

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)

PSA web page: http://www.texaspaleo.com/psa/index.html Web master: Michael Smith: msmith17@austin.rr.com

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

South Central Federation of Mineral Societies & **American Federation of Mineralogical Societies**

PALEONTOLOGICAL SOCIETY OF AUSTIN
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DATED MATERIAL – MEETING NOTICE

FIRST CLASS MAIL