



Fossil Footnotes

Central Texas Paleontological Society
September 2006

President's Message

Both clubs approved the merger of APS and CTPS overwhelmingly. Now the hard work of organizing the new club begins. The boards of directors of the two clubs will meet to begin this process. One of the first orders of business will be to nominate a slate of officers for the new club. Please let us know if you would be willing to serve as an officer for the new club.

CTPS and APS will meet at their regular places and times in September (2nd and 3rd Tuesdays). The October meeting will be our first joint meeting. Time and place will be announced.

I hope you are looking forward the cooler upcoming months as much as I am. The prime collecting weather is just around the corner! It has been an interesting year for me medically, but I am feeling great now and ready for some fall collecting. Hopefully we will have some late summer rains to uncover some new finds.

Happy collecting,
Ron Root

Sept 12th Meeting Tuesday night

The September meeting will be at the LCRA Building on Tuesday night September 12th starting at 7:00 PM.

Meeting Calendar

September 12
October 10
November 3-5

December

CTPS Meeting
Joint Meeting
Fossil Fest, CTPS Fossil
Show at Old Settlers
Heritage Association,
Round Rock, Texas
Christmas Party (no
meeting)



See you at the meetin' partner !!

2006 Field Trips

September 16

Brazos River for Eocene
fossils

October 14-15 Lake Texoma
November 18th Waco Pit
December Christmas Party

September Speaker

Christian, Rebecca, and Liz will be sharing their summer project with us. Confused, come to the meeting and see just what they have been up to over their summer. A demo of the camera and tablet as would any photo's charts, etc. A CT scan of the rudist!

Hope to see you there!!

South Central Federation of Mineral Societies Annual Meeting August 19, 2006

By Mike Smith

I attended as our representative. Highlights listed below.

Strawns has the best hamburgers in Bossier City, as well as the best pie (peach and strawberry highly recommended), according to Edna House, the Ark-La-Tex Club President.

Most of you know Chuck Schuler from Fossil Fest. This year he has been Executive VP of the SCFMS and is the new President for 2007. Congratulations, Chuck!

This year we need to pay our insurance before the end of September. And we need to send in our list of officers after the next election, so they just get a single list. If a particular facility needs written evidence of our insurance, it can be

obtained through the contact in the information packet I received.

We had a review of their endowment fund status. This is something we might consider donating to. It seems to be well handled.

There was a surprisingly interesting report from the representative who has been participating in the Uniform Rules Committee of the American Federation. It gets kind of tricky specifying exactly what counts when it comes to judging. They were recently struggling with what constituted 'beading' and how you judge it.

Keeping in Touch!

... With R. C. Harmon

It's easy to lose contact with those who have been members and then have moved away from Austin. Thanks to John Hinte for furnishing articles from the Sherman *Herald Democrat* newspaper. Here is an update.

According to a May 12, 2006 article, R. C. and Bea Harmon, who work with the Texas Archaeological Stewardship Network, gave a presentation to the Tom Bean Lions Club about the "Shipwreck on the Red" – a ship that went down on the Red River in the early 1800's. Since 1999 Texas A&M University's Institute of Nautical Archaeology, Nautical Archaeology Program and Conservation and Research Laboratory, have conducted research and recovery of the wreckage.

R. C., a volunteer archaeology steward for the Texas Historical Commission, was the speaker for the June Lunch Lecture Series at the Red River Historical Museum in Sherman. His topic: "A Glance at Texas Archaeology." R. C. has been involved in projects such as the Matagorda Bay dig for "La Belle, the La Salle ship and the Red River steamship find.

Although archaeology was his main interest and expertise, the importance of fossils found in digs to dating led to his interest, membership and support of our paleo society.

~~ Condensed from *Herald Democrat*, 5-17-06 and 6-22-06, J. Wallace.

2006 SCFMS Bulletin Editors Awards

I attended the South Central Federation of Mineral Society's Editors breakfast at the Ark-La-Tex Gem & Mineral Society show in Bossier City, LA. My five seconds of fame consisted of third place for the CTPS website. I'll bring the plaque to the next meeting. First place went to the Ark-La-Tex site and second went to the Houston Gem and Mineral site, both of which are great sites. And APS received 7th place.

The websites were treated differently than the other categories. Normally you submit a sample. The judges decided that since the web sites are out there on the net, they would judge them all. So there were 14 awarded certificates, 10 places and 4 honorable mentions.

There were other awards of interest. Jean Wallace received third place in the Small Bulletins category for the Williamson County Gem & Mineral Society "Pickin's and Diggin's". Rich Giest got third place for his article "Petrified Wood End Table Project", no surprise to anyone who knows Rich. The AGMS received numerous awards (especially for articles).

Mike Smith



"Killer" Fossil Find May Rewrite Story of Whale Evolution

James Owen

for [National Geographic News](#)

August 16, 2006

The discovery of a bizarre species of fossil whale from Australia with huge eyes and flesh-ripping jaws provides valuable new insights into the evolution of whales, researchers say.

The previously unknown species lived about 25 million years ago and was an early ancestor of modern baleen whales, which feed by filtering plankton from seawater. This group includes the blue whale, the largest animal ever to inhabit the planet.

But the newfound predatory whale likely hunted sharks and other fish despite its relatively small size and suggests that baleen whales weren't always the toothless gentle giants we see in our oceans today.

The new species, *Janjucetus hunderi*, had a maximum body length of about 11.5 feet (3.5 meters) and sharp, serrated teeth measuring up to 1.4 inches (3.5 centimeters) long.

Discovered in cliffs on a surfing beach near Torquay in southeast Australia, the prehistoric whale is described in the latest issue of the journal *Proceedings of the Royal Society B*.

Scientists identified the new species as a baleen whale from distinctive skull features.

No Gentle Giant

The author of the study—paleontologist Erich Fitzgerald from Monash University in Clayton, Australia—says the weird sea mammal shows that the earliest baleen whales were surprisingly unlike their living relatives in appearance and lifestyle.

He says the fossil also forces a major rethinking of how modern baleen whales evolved their unique feeding system.

These whales use long, hair-fringed, flexible plates called baleen to filter huge quantities of

seawater, capturing thousands of planktonic animals such as krill in a single mouthful.

["Rare Whales Can Live to Nearly 200, Eye Tissue Reveals"](#) [July 13, 2006].)

"It is most likely that *Janjucetus* preyed upon large fish, and maybe even some of the smaller sharks that cruised the seas off southern Australia 25 million years ago," Fitzgerald said.

The whale captured meals one at a time, Fitzgerald adds, using its powerful jaws to "rip off and swallow larger chunks of flesh from its fishy prey."

The animal's "truly enormous eyes for its size" represent an adaptation for heightened underwater vision, he says, which also suggests it was an active marine predator.

But the whale's skull indicates it couldn't produce ultrasonic signals—meaning it didn't use sonar or echolocation, like some dolphins and certain whales do today.

Instead, Fitzgerald says, *Janjucetus* probably had to rely on its big eyes to sense potential prey in the dim light under the surface of the sea.

Its other unusual features include a broad, short snout.

"There is no other known whale or dolphin, whether fossil or living, with such a remarkable combination of attributes," Fitzgerald said.

He says the sea creature challenges the current notion that large body size and adaptations for filter feeding and swallowing small prey in bulk was the key to the evolution of modern baleen whales.

Scientists have found fossils of other ancient baleen whales with teeth. But those species all used their teeth for an early form of filter feeding, unlike the new find.

Freak of Nature?

The new fossil is "important and provocative," agreed Ewan Fordyce, a geology professor and whale evolution expert at the University of Otago in Dunedin, New Zealand.

"Until now, our model of baleen whale history saw filter-feeding as a key adaptive feature in that lineage, arising at the beginning," he said. "We have long thought of all the whales in that lineage as 'bulk' filter-feeders."

But *Janjucetus* could have been something of a freak among early baleen whales, he says, possibly having evolved in isolation and with little connection to today's species.

"Perhaps *Janjucetus* isn't so much typical of the start of baleen whales but represents a later side branch that acquired its strange features through evolutionary 'reversion,'" Fordyce said.

Such processes—where a species reverts back to a more primitive form—have been seen in other animal groups.

Fordyce says there is little evidence of other whales living in Australian waters 20 to 30 million years ago apart from the "equally strange and probably related Mammalodon," another early, toothed baleen whale.

He adds that rocks in New Zealand dating from the same period contain plenty of fossil whales and dolphins "but no hint of *Janjucetus*."

"Perhaps that tiny whale lived isolated in a restricted seaway that had little contact with other waters," he said.

The new fossil find fits in with the theory that modern whale lineages originated 34 to 35 million years ago in response to changing ocean conditions, Fordyce adds.

"Rapid climate change at that time led to a modernization of ocean circulation and probably to major changes in food resources," he said, triggering the evolution of new dolphins and whales such as *Janjucetus*.

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Club Information

The Central Texas Paleontological Society is a scientific, non-profit, community-based organization devoted to the study of fossils, advancing the state of the science, educating the public, and collecting fossil specimens. Most of us are amateurs, fascinated by fossils, who love to collect.

Meetings are held on the second Tuesday of each month at the LCRA building, 3700 Lake Austin Blvd. (between Redbud Trail and Enfield Ave.) at 7:00 PM in the LCRA Offices Board Room of the Hancock Bldg. **The public is cordially invited** to attend these meetings as well as our field trips held throughout the year.

Annual dues are: \$15 per person or \$18 per family, which includes a subscription to this newsletter, membership in the South Central Federation of Mineral Societies, and liability insurance coverage for club activities. Associate membership is \$10 per year and includes a subscription to this newsletter.

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About the Newsletter

Fossil Footnotes is distributed once a month prior to each meeting. Contact the Membership Chair to subscribe or obtain a sample-issue. If your mailing-label has a date marked with a colored pen, it means your membership has or is about to expire. Please send your check to the club Membership officer or bring it to a meeting.

We accept material from club members (and non-members at our discretion) including, but not limited to, information relevant to club activities, fossil collecting, paleontology & geology, and science education. Feel free to reproduce original material contained in this newsletter for educational purposes (including other club newsletters), so long as you credit the newsletter issue and author, if applicable. Send submissions by e-mail or hardcopies to the Editor (see above) at least two weeks before the meeting. Expect some publication delays for exotic formats.

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