

GCSSEPM NEWS



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The President's Column

I spent Christmas holidays at my in-law's home in Abbotsford, British Columbia, surrounded by snowy mountains, which unfortunately were largely invisible owing to the near constant downfall of snow and rain. The house was filled with a team of professional painters, unsuccessfully attempting to get some house renovations done before the holidays. During breakfast one morning, one of the painters commented on the new Walking With Dinosaurs Show in Vancouver. "You want to hear my theory on the dinosaurs?" she mused? I held my breath. "I think they were killed in the great flood!" she elaborated. I was then confronted with one of those dilemmas. Do I confront her with the reality of modern geological thought, that the dinosaurs actually went extinct 65 million years ago as a consequence of a dreadful extraterrestrial bolide impact near the Yucatan Peninsula, or do I just let the comment slide? I could have pointed out that the "Great Flood" hypothesis never evolved into a theory in any scientific sense, and is easily

refuted by the complexity of earth's actual stratigraphic record?

One of the gifts on Christmas day was the complete Season One of the popular NBC show "Heroes", which I had heard about but not seen. For those of you who haven't seen the show, its premise is that humans are about to take the next step on the evolutionary ladder of progress via the sudden appearance of genetic mutations that give a select group of humans the ability to predict the future, become invisible, read minds, teleport, fly and display a host of other equally improbable talents. The appearance of these humans is predicted by a fictional East Indian geneticist, Chandra Suresh, murdered for his discovery but whose work is carried on by his brilliant son Mohinder. During each episode, Mohinder's voice intones about the choices humans face and about the inevitability of progress in human evolution, in a perfect Hollywood melding of Carl Sagan and Deepak Chopra. Needless to say, several groups emerge who wish to exploit, suppress

or destroy the so-called heroes and an epic "Darwinian" struggle for survival ensues.

Now, we all know that in order to enjoy science fiction one of the requirements is that we must suspend our disbelief of the patently impossible, but the question is, as scientists, what disbeliefs must we suspend? Clearly, the ability to fly without wings and to teleport or personally bend the space-time continuum violates several laws of physics and chemistry, both Newtonian and Einsteinian, but I admit it is entertaining to contemplate what life would be like if I could suspend the laws of physics or, for that matter, if I won the lottery. Neither is likely, especially given that I do not have a lottery ticket!

"Heroes" pseudo-scientific explanation of evolution misses the mark, although the average new-Age American may not appreciate how. Evolution is a chaotic, relatively slow, and complex process. The main driver is not interspecies competition, as many assume. Most major evolutionary spurts follow extreme extinction events, as the late University of Chicago paleontologist Jack Sepkoski clearly illustrated.

For example, we know mammals and dinosaurs simultaneously evolved on our planet about 220 million years ago in the early Triassic, following the great Permian extinction that ended the Paleo-

Highlights

The GCSSEPM News is published three times a year by the Gulf Coast Section Society of Economic Paleontologists and Mineralogists. Your comments and suggestions are welcome. Contact Lana Ann Czerniakowski, GCSSEPM Secretary at (281) 293-1629 or lana.czerniakowski@conocophillips.com, or contact your local business representative.

Visit the GCSSEPM Website at www.gcssepm.org for Section and Foundation News and Information.

- 1
◆ President's Column
- 2
◆ The Director's Chair
◆ 2008 Research Conference
- 3
◆ Grover E. Murray Awards
- 4
◆ 2007 Research Conference Summary
- 5
◆ News from the Business Representatives
- 6
◆ 2007 Earth Science Week
- 8
◆ New Members
- 9
◆ Lost Members
◆ Saying Goodbye
- 10
◆ Membership Application/Renewal Form

zoic Era. Although mammals had 155 million years to assert their dominance they did not. For this enormous span of time, mammals were relegated to life as trophic generalists, eating a modest diet of cockroaches, plants and dinosaurian leftovers in the nooks and crannies of a world dominated by the far more successful "terrible-lizards". Following

Continued on page 3

GCSSEPM Dues Reminder

Members, please remember that **yearly dues are due by April 1st**. The number in the upper right hand corner of your mailing label indicates the year dues have been paid through. Please check your status and use the membership form on the back of the newsletter to renew your membership. Alternatively, you can also renew your membership online at www.gcssepm.org

The Director's Chair

If you look up Harold N. Fisk, you will easily find reference to his epic Mississippi River study of 1944, but you will have a more difficult time finding an earlier publication, which in itself had some revolutionary thought. Part of the problem is that the author of the 1938 publication, "The Geology of Grant & LaSalle Parishes," is listed by the Louisiana Survey on their web site as Harold N. Fish.... What is so revolutionary about this publication? I am glad you asked.

Fisk proposed that there were four terrace deposits in the Louisiana river valleys directly related to the four periods of glaciation during the Pleistocene. He proposed that as sea level fell due to glaciation, river valleys were eroded or entrenched and the material transported offshore; during interglacial times when sea level rose, the gradient was reduced and sediment was deposited in the valley as well as deltaic plains along the

coast. He published a widely copied picture of a V-shaped Mississippi River valley containing four terraces at different levels. Does any of this sound familiar?

Believe it or not, the discussion of this idea generated a lot of controversy. By the late 1950's, early 1960's, conventional wisdom generally did not support Fisk's concept. First, the Mississippi Valley is not v-shaped but a pie pan shape. This suggests that the valley is formed more by lateral meandering or planation than straight-forward down cutting. Another important reason was: Although sea level was falling, large volumes of water were being locked up in ice, so that water volume and velocity were actually reduced in rivers. And as the flow and velocity of rivers decreased, their sediment load was deposited in the valleys during glacial cycles. As the glaciers retreated, water flow and velocity increased, and therefore, the amount

of sediment transported offshore would be greater, therefore erosion of previously deposited material would occur now. This is the reverse of what Fisk proposed. Although it has been stated that deltas form during high stands, conventional wisdom calls for much sediment being pumped out during falling sea level. This is a non-trivial issue that, truthfully, I have not seen discussed.

But I must digress now and continue this thread in the next issue. Business before pleasure.

This is being written after the December, 2007, conference. I must first thank all our industrial contributors who helped make the conference possible. Then I must thank Lorcan Kennan and James Pindell for serving as technical chairmen, and then their technical committee, the authors, and the attendees. Special thanks go to the trustees who worked hard behind the scenes to make sure that everything ran smoothly.

This year's conference has a flier in this issue, and in addition, we introduce the 2009 conference. At the present time, we are working on 2010. Yes, we really do have to plan these conferences years in advance. This brings me to the next question: Do you have any topics that you would like to see as a conference? We have a comment form on our web site and would like to hear from you on this subject. (Even better if you are willing to serve at least on the technical committee.) By the way, read our fliers carefully: we are changing the poster requirement.

Something else that I must discuss has to do with book sales. Our activities are supported by conference fees, book sales, and donations. In the past year or so, book sales have dropped dramatically. Whether or not it is due to market saturation or wholesale piracy from CD's is not relevant. The fact is the revenue must be made up by conference fees or corporate donations. You can help. We ask that all those who have attended our conference let their companies know that these activities are worthwhile of support.

Dr. Norman C. Rosen
Executive Director
GCSSEPM Foundation

Coming in December...

Answering the Challenges of Production from Deep-water Reservoirs: Analogues and Case Histories to Aid a New Generation

**28th Annual GCSSEPM Foundation
Bob F. Perkins Research Conference**

DECEMBER 7-10, 2008 HOUSTON, TEXAS

The aim of the 28th annual Bob F. Perkins Research Conference is to augment the available stock of deep-water reservoir analogues using a new generation of studies drawn largely from the producing fields and discoveries in those fairways that have been accessed in the last quarter of the 20th century, so as to come to the aid of the producing fields that are coming into their own during the first decade of the 21st century. The final program is still being prepared at this time. Keep visiting our web site at www.gcssepm.org for the latest information. Once again all papers will be on a CD and will include meals, buffets, and poster sessions.

The President's Column

continued from page 1

the K/T meteor impact, that ended the great Mesozoic Era, the otherwise "successful" dinosaurs found that they were too specialized to survive in a world suddenly thrown into a protracted nuclear winter. Following the dinosaurian demise, mammals, and 'roaches, re-emerged into a world devoid of their major competition. Mammals, along with a host of survivors, diversified and evolved to redefine life in the Cenozoic world.

This process has repeated itself numerous times in earth history both regionally and globally and emphasizes that extinction, not interspecies competition, is the major driver of evolution. Over-specialized evolutionary traits, such as great strength, size, agility, and perhaps even our own big brains are no guarantee of species success in the face of changing external selective pressures, and especially catastrophic changes. In fact, we should all remember that the very words Paleozoic, Mesozoic and Cenozoic, which we use to designate the great geological subdivisions of time, are based on the changes in life reflected in the unique fossil record within the rocks.

On the last day of 2007 we took some Canadian visitors to the Houston Museum of Natural History, to see Lucy, the world's most complete early hominid. Lucy is the skeleton, of a 3.18 million year-old, 3.5 foot tall *Australopithecus afarensis* whose fossils for the first time have been allowed out of Ethiopia. Lucy resolved a key question about human evolution, namely that fully upright gait evolved considerably earlier than big brains. We could stand tall before we could order a tall latte. Alongside the actual fossil remains is a life-like model of Lucy, complete with hair and eyes. Despite the fact that her brain was only 30% as big as our own, this artistic interpretation seemed to show her as smiling, with a distinctly anthropogenic glint in her eye. Once again I wondered if I was being asked to suspend my disbelief. With such a small brain, and given the harshness of the environment, I doubt that such a small primate would have had any ability at language, let alone a sense of humor, surrounded as she was by vicious predatory sabre-toothed cats.

Admittedly, there is much uncertainty in science. Although we know that evolution has occurred, there is still science to be done in determining at what level evolution operates, individual versus population versus species. Despite these uncertainties we do not suspend our theories as we work them out nor do we replace them with fictional pseudo-science. Rather we need to do a better job of explaining to the rest of our countrymen what science is and is not and how we actually do it and make decisions based on that science.

On January 3rd we learned that Mike Huckabee, an avowed creationist, won the first round as Republican nominee in the Iowa primary. I wondered what assumptions and decisions I might make about the future of our planet if I truly believed that all of earth history and all of its oil and gas could originate within just 6000 years? Next time you fill up remember that gasoline literally is the highly transformed organic remains of long dead and largely extinct organisms. The unifying concept of petroleum system requires an extremely long-lived earth. Micro-organisms trap the energy of the sun via metabolic processes building their own tiny bodies but only through millions of years of burial are conditions met, sufficient to convert these bodies to kerogen. How can we

even conceive of managing global resources, let alone global climate policy, if we do not understand the length and scale of the processes involved?

This promises to be a very high profile year for GCSSEPM. One of our society activities is to promote Earth Science Week, which will be held October 12-18, immediately following the annual GCAGS/GCSSEPM Meeting, which will be held jointly with GSA this year in Houston. GSA typically attracts over 6000 attendees, so this will be a very high profile event for GCSSEPM. I look forward to working with you this year in helping GSA have a successful meeting that puts geosciences at the forefront of attention in this election year. I believe that we all have a duty to reduce the reliance of our society in establishing policy and decision-making based on fiction and increase the reliance on good science. As a scientific society we can all be heroes in increasing science literacy, whether it is by taking a friend to see Lucy, or explaining what beliefs must be suspended to enjoy the otherwise highly entertaining "Heroes".

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Announcing...



2007 GCAGS/GCSSEPM Grover E. Murray Best Published Paper Awards



2007 GCAGS/GCSSEPM Transactions - Volume 57 Corpus Christi, Texas

FIRST PLACE - Lowell E. Waite, Robert W. Scott and Charles Kerans - Middle Albian Age of the "Regional Dense" Marker Bed of the Edwards Group, Pawnee Field, South-Central Texas

SECOND PLACE - Brian E. Lock, Fleur S. Bases and Robert A. Glaser - The Cenomanian Sequence Stratigraphy of Central to West Texas

THIRD PLACE - Frank G. Cornish and Robert W. Parker - Southwest Speaks Lower Wilcox Structural Complex, Lavaca County, Texas

NOTE: The above awards were chosen from all full technical papers in the 2007 GCAGS / GCSSEPM Transactions.

Report on the 27th Annual Bob F. Perkins GCSSEPM Research Conference:

“The Paleogene of the Gulf of Mexico and Caribbean Basins: Processes, Events, and Hydrocarbon Systems

Jim Pindell

Program Chairman

“Such a timely conference!”... “I’m amazed at the quality and quantity of information the companies are sharing, and are willing to discuss.”... “This couldn’t have been better timed”... “Great turn out!”... “The right issues have been put on the table, and now we can more openly discuss them.”... “If you think about it, sharing information and data is a way of communally mitigating risk, as no one wants to throw 60 million bucks at a well if they don’t know what other people are thinking”...

Such was the flavor of the comments floating around the grapevine at the 2007 Bob F. Perkins Research Conference, which addressed the theme: “The Paleogene of the Gulf of Mexico and Caribbean Basins: Processes, Events, and Hydrocarbon Systems.”

Some 350 attendees, the largest Perkins assembly since 2001, gathered December 2-5, 2007 at the Marriott Westchase Hotel in Houston to hear, and openly debate, several of the larger issues facing ongoing exploration efforts

in the Gulf and northern South America.

Dr. Norman Rosen, Executive Director of the Gulf Coast Section of the SEPM, reflected: “This is a great step forward for us, because as the energy companies continue to merge, the number of annual attendees drops as a result. It used to be that 25 companies would each send five to ten people; now, maybe only 12 companies send five to ten people, so the basic core of attendees that you could count on is now greatly reduced. But this year’s attendance has been heavily augmented by an extraordinary number of attendees from a variety of disciplines and smaller companies who do not normally make such a good turn out. I am very happy.”

Three years ago, in the conceptual and preliminary planning stages for the Paleogene theme, our biggest concern was whether companies would be willing to share data and ideas on such a hot topic and active trend in the Gulf. Indeed, for the last two years, it was well known that the meeting, including the preparation of papers and posters for it, would coincide with bidding on hundreds of blocks in the deep water Gulf. However, such fears turned out to be sufficiently unfounded, so that we had plenty of submitted papers of excellent content and exposition on the key issues of the day. The result was that the meeting provided a timely snapshot of the essence of the region’s Paleogene geology and exploration potential.

Concerning the Gulf of Mexico, papers covered a broad spectrum of topics that amounted to a wonderful regional summary of Paleogene geology, processes, and evolution. One such topic was the sedimentology, structure, stratigraphy, and appraisal history of the deep-water Wilcox and other Tertiary clastic formations in the Gulf, both on- and offshore. Never before has this regional clastic system and its structural setting

Rashel Rosen completes 20 years of Service to GCSSEPM

For over 20 years, I have had an active role in the Section and Foundation. In the early 1980’s, I was asked to serve as the Houston business representative. This was followed by my first time as treasurer and then as President; this is actually a three year job because first you have to serve a year as president elect, then as president, then as past-president. When Norm was treasurer and asked to become Executive Director, I finished off his term as treasurer. Finally I have served eight years as trustee. So my time has ended as an active officer of some sort, although I will still be helping out with the conferences.

My serving time has been in part aggravating, in part hard work, often enjoyable, and always very enlightening. I became involved with the Section because of Bob Perkins, Doris Curtis, and Gene Martin, each of whom in their own way served as a mentor to me and they regarded the Section as something important. If I had to do it over again, I certainly would. The Section and the Foundation goals and objectives have been stated many times and I am not going to repeat them. The Section is over 50 years old. Although we are Gulf Coast oriented, our membership extends from New Zealand to Brunei, to California, New York, and Europe. The organization has been fortunate to have had so many devoted volunteers through the years who were dedicated to our profession.

At this time I would like to thank all those who helped me in my Section duties and the trustees who have always been there to assist. I certainly hope that the work will continue and that other volunteers will join in serving the Section and the Foundation so that the annual Research Conferences can continue to be an important source of information and education for the geological community. I assure you, the future volunteers, that you will be rewarded in return with experiences worth many times your hard work.

I do not wish to write this note as a goodbye note, but as an announcement of finishing one line of service to a society and its founders who have always had my deepest respect.

— **Rashel Rosen**

Continued on page 7

News from the Business Representatives

Editor's Note: As a continuing feature we will include news highlights from the various areas. The business representatives from each district have provided these items.

ALABAMA AREA NEWS

Geological Survey of Alabama – The Survey is conducting a broad range of research programs on the carbon storage potential of coal-bed methane reservoirs in the Black Warrior Basin, sponsored by the U.S. Department of Energy through the Southeastern Regional Carbon Sequestration Partnership (SECARB). These programs range from capacity assessment to computer modeling and pilot well testing. An Alabama Geological Society workshop covering this research is being planned tentatively for February or March 2008. Topics to be addressed during this workshop include geology of the Pottsville Formation (numerous cores will be available), coal-bed methane reservoir properties, computer simulations, and the SECARB Black Warrior field test. The 2008 International Coal-bed & Shale Gas Symposium is scheduled for May 19-23, 2008. The conference will be held at the Bryant Conference Center on the University of Alabama campus and will feature papers on topics from around the globe, including geology, reservoir engineering, reservoir simulation, and carbon storage. This conference continues the tradition of the highly successful Coal-bed Methane Symposium series, which has been active since 1987. The addition of shale reservoirs to the agenda will highlight the increased shale-gas activity in the southeastern United States.

University of Alabama – **Dr. Amy Weislogel** joined the department in January 2007. She brings expertise in the areas of sedimentology and tectonics. **Mr. Joshua Schwartz** joined the department in August 2007. He brings us expertise in volcanology, petrology, and plate tectonic processes. Last academic year, the Department of Geological Sciences awarded five Bachelors, eight Masters, and two Doctoral degrees. As of spring 2007, there were 61 undergraduate and 38 graduate students majoring in Geological Sciences. The department sponsored a recent field excursion to the La Popa Basin, Mexico, which was attended by many students and faculty. The Geo-

logical Sciences Advisory Board held its first Houston meeting on February 23 and 24 2007. Over 50 UA alumni were able to attend the opening reception at the Petroleum Club. The meeting was a great success and included a tour of the ExxonMobil Research Lab and the Houston Museum of Natural History.

Auburn University – The Department of Geology and Geography continues to expand with the addition soon of a Masters degree in geography and a doctoral program in environmental geology. We have seen an increase in the number of undergraduate and graduate students in the last two years. For the first time in a long time, we are seeing new students who want to have careers in the petroleum sector. We have an active student chapter of the AAPG with about 25 student members.

AUSTIN AREA NEWS

Deep Shelf Gas Study by **Angela McDonnell** – Analysis of 3,300 mi² (8,500 km²) of 3D seismic on the inner Texas shelf by researchers at the Bureau of Economic Geology is contributing important insights into the region's early Tertiary structural and stratigraphic architecture. Paleogene depocenters and depositional trends are identified, as well as new insights into the important role of salt tectonics on Paleogene depocenter development in the State Waters area. There is seismic evidence of allochthonous salt in Texas State Waters, which has important implications for conventional models and play concepts for the Texas shelf that are based on shale detachment.

In the Gulf of Mexico an extensive deepwater fan system of the lower Tertiary Wilcox Group forms a significant exploration target known to contain several billion barrels of oil, yet connections to equivalent-aged onshore fluvial, deltaic, and shallow-marine reservoirs are poorly documented. In this study, Wilcox depositional fairways, mapped using seismic facies analysis, provide firm evidence of a northwesterly early Tertiary provenance to the deep Gulf Basin. This

has importance for frontier Wilcox Group exploration beneath the Texas coastal plain and continental shelf and slope.

The interpretation of extensive 2D and 3D seismic data is integrated with detailed diagenesis and reservoir-quality analysis to better quantify sandstone reservoirs below 15,000 ft. The reservoir-quality study focuses on deep samples not just from Texas State Waters, but also from onshore counties and from the OCS. In the northern part of the Texas Gulf Coast, rock samples are available from depths as great as 23,522 ft (7.2 km) and 438°F (225°C). From the southern part of the coast, samples are from depths as great as 23,180 ft (7.1 km) and 424°F (218°C). The reservoir-quality study focuses on differences in mineralogy, texture, and diagenesis among the Tertiary sandstones. The goal is to determine the influence of detrital composition, texture (grain size and sorting), compaction, dissolution, and cementation on porosity and permeability.

These results derive from the Deep Shelf Gas Study, which is an ongoing industry-sponsored consortium at the Bureau of Economic Geology, The University of Texas at Austin. The project provides concepts and data that can be used to forecast reservoir quality, and associated risk factors, when drilling deep to ultradeep (15,000–35,000 ft/4,500–10,600 m) targets along the Texas Gulf coast.

Austin Area GCSSEPM Member Awards - GCSSEPM member **Angela McDonnell** was selected to receive AAPG's A. I. Levorsen Memorial Award for Best Oral Presentation at the 2007 Gulf Coast Association of Geological Societies Meeting, which was held in Corpus Christi in October. The paper (co-authored by **Mike Hudec** and **Martin Jackson**) is titled "Importance of Allochthonous Salt in Texas State Waters: Paleo-Canopy Presence and New Exploration Paradigms." The A. I. Levorsen Memorial Award is presented in recognition of an outstanding paper, with

Continued on page 6

Continued from page 5

particular emphasis on creative thinking toward new ideas in exploration.

GCSSEPM member **Ursula (Uschi) Hammes** was selected as second-place recipient of the 2007 Thomas A. Philpott Excellence of Presentation Award for her paper "All Fill—No Spill: Slope-Fan Sand Bodies in Growth-Faulted Sub-basins: Oligocene Frio Formation, South Texas Gulf Coast," which was presented at the 2007 GCAGS/GCSSEPM convention in Corpus Christi in October. Her paper was co-authored by **Hongliu Zeng**, as well as GCSSEPM members **Bob Loucks** and **Frank Brown**. Congratulations, Uschi!

GCSSEPM member **L. Frank Brown Jr.**, a research professor in the Bureau of Economic Geology and emeritus professor in the Department of Geological Sciences at The University of Texas at Austin, has been named recipient of the 2008 Pioneer Award given to long-standing members who have made significant contributions to AAPG but have been unrecognized. Brown has been instrumental in expanding understanding of the geology and coastal dynamics of the Gulf Coast.

GCSSEPM member **Doug Ratcliff**, currently director of international programs and outreach at The Jackson School of Geosciences at The University of Texas at Austin, has been named recipient of the AAPG Public Service Award recognizing his contributions to public affairs, in particular his work as the leader and driving force behind GeoFORCE Texas, the Jackson School's highly successful outreach program gearing up for expansion to Houston in 2008.

SAN ANTONIO AREA NEWS

Dr. Walter Coppinger, Professor of Geology and former Chair of the Department of Geology at Trinity University in San Antonio, retired from teaching in December 2007. Dr. Coppinger looks forward to consulting activities in mining exploration in Montana and possibly other areas. For the immediate future, he plans to split residence time between San Antonio and Montana.

At The University of Texas at San Antonio, the Department of Geological Sci-

GCSSEPM at the Houston Museum of Natural Science 2007 Earth Science Week

Once again, GCSSEPM and the North American Micropaleontology Section of SEPM (NAMS) co-sponsored a Micropaleontology Passport Station at the annual Earth Science Week (ESW) kick off hosted by the Houston Geological Society during the Family Energy Festival at the Houston Museum of Natural Science on Saturday, October 13, 2007.



The theme "The Pulse of Earth Science" promoted public and professional awareness of the status of Earth science in education and society. It marked the tenth annual ESW and sections seventh year of participation. This year's volunteers included Janok Bhattacharya (GCSSEPM President-Elect) and Ron Waszczak (NAMS President) as acting representatives of their sections. Ron is also a past President of GCSSEPM.

Other volunteers, who included past officers, were Mike and Suchit Styzen, Tony and Janie D'Agostino, and Bob Moore and Nancy Engelhardt-Moore, and Martha McRae. The event officially lasted four hours and volunteers worked the passport stations. During that time, child participants were required to visit eight passport stations to learn about a variety of earth science topics. As they went from station to station, they had to answer questions to earn a stamp for their passport. Once the passport was completed, the participants received a prize for completing the task. It was a fun way to learn and receive an award.

At the Micropaleo Passport Station, our volunteers showed microfossils to children of all ages. As a new addition this year, once an hour Tony and Janok along with audience participants gave a short presentation on the geologic timeline to complement the fossil viewing. This involved using a string as a time line to show events in time from the formation of Earth to the launching of Sputnik into space. Student volunteers stood by small red flags attached to the string that represented a key event and held up a photo of that event. It was a great visual way to show how recently man appeared in geologic history compared to the entire existence of the planet since its birth. This demonstration was well received and a big hit.

As usual, the event was a huge success with hundreds of enthusiastic participants including children, students, scouts, parents and visitors.

Nancy Engelhardt-Moore

ences (<http://www.utsa.edu/geosci/>) was established in September 2007. **Dr. Alan Dutton** was appointed as Interim Chair. The new department represents part of the previous Department of Earth and Environmental Sciences and has a faculty of 10 professors. Degrees and certificates being offered by the department include the B.S. and M.S. degrees in

Geology, an undergraduate Minor in Geology, a B.S. degree of Multidisciplinary Science, and a post-graduate Professional Certificate in Geographic Information Science. In addition, Geological Sciences faculty supervise Ph.D. students enrolled in the Environmental Science and Engineering Program at UTSA.

been exposed and defined so thoroughly. Another key topic was state of the art efforts at refining the chronostratigraphy of the Paleogene depo-systems. Still another was the provision and likely entry points of clastics to the deep Gulf from Laramide events, uplift of Laramide foreland basins, and the Chicxulub impact ejecta, while still another topic was the formal USGS estimate of total reserve potential for the various Paleogene formations. In addition, two controversial subjects were presented and debated by speakers and the audience at length.

The first controversial subject was the paleo-bathymetry and morphology of the offshore US Gulf Basin in Cretaceous-Paleogene time.

Arguments for an outer neritic/upper bathyal "marginal salt-cored wedge" for hundreds of kilometers beyond the Lower Cretaceous carbonate shelf edge included isostatic calculations and subsidence analysis of the central deep Gulf oceanic crust that indicate there never was a subaerial outer basement high limiting a "northern" salt basin, faunal depth zonation data of Mesozoic and Paleogene section from offshore wells, and the sedimentology of the deep Wilcox sands, which requires delivery to their present position by a continuous slope, however gradual.

Countering arguments for the existence of such a marginal wedge called upon the hypothetical weakness of salt as measured on samples in the laboratory, and the resulting prediction that salt cannot support a slope gradient over the time frame of the Cretaceous. Faunal evidence for Cretaceous outer neritic-upper bathyal paleo-environments was discounted as being due to contamination from onshore shelf areas, although the apparent lack of deep-water fauna in these sections was not addressed.

It was left for the audience to consider whether "mother salt" was universally weak and unable to support a slope since the time of deposition, or whether mother salt may have been stronger than halite as sampled in elevated diapirs, and thus able to support a Cretaceous-Paleogene slope, due to (1) intrusion by basalt in the offshore region; (2) interbedding with sand, limes, or other salts stronger than

halite; and/or (3) a bias to view the evaporite section as unrealistically weak due to strain softening in the halite that rises during diapirism, and from which lab samples derive.

The second controversial subject of debate was the hypothesis of severe Paleogene water-level drawdown in the Gulf as a result of isolation from the world's oceans as the Cuban arc collided with and closed the straits between northeast Yucatan and the Bahamas. A broad array of observations dating to the late Paleocene-early Eocene were presented, which were nearly unique within the Gulf's overall history, and a brief period of intermittent drawdown of perhaps 2000 m was championed once again as a unifying solution for the collective observations.

Favoring observations included, among other things, the incision of the deep paleo-canyons, the existence of the deep Wilcox sands, karstification of circum-Gulf carbonates to extremely deep levels relative to sea level, an extensive erosional unconformity in the deepwater eastern Gulf, including a deeply incised thalweg in the Yucatan Strait, and a local basal Eocene red-bed and salt occurrence in the Veracruz Basin of Mexico, which today occurs within deep water clastics at some 2000 m depth subsea.

Observations against included mainly sedimentological arguments that: (1) the paleo-canyons were not subaerial but submarine incisions and that Chicon-tepec, at least, was a pre-existing submarine feature like the Bahamian Tongue of the Ocean within the Mexican carbonate shelf margin; (2) a drawdown would have led to a more argillaceous infill in the deep Gulf rather than to the high sand/shale ratios of the Wilcox sands, given that the "country rock" of the Gulf margins was quite shaley or calcareous at that time; (3) the deep Wilcox sands were deep-water base of slope and/or basin plain sands.

Judging from the comments of the plenary discussion, it appeared that most in the audience had trouble accepting a drawdown as large as 2000 m, but a good portion of the crowd remained open to the idea of a less drastic drawdown

that was still larger than eustasy can explain. The end result, as might be expected, is that more specific work is called for, but at least now the cards have been put on the table so that those interested can pursue this important hypothesis further with a more enlightened background.

Concerning northern South America, deciphering Paleogene tectonic history through the veil of Neogene events and plate boundary reorganisations provided a central theme. The regional arguments for the Pacific origin of the Caribbean Plate were reviewed in two papers, and within that kinematic framework we were shown by several others how the local and detailed geology of Colombia, Venezuela, and Trinidad not only fits within that general model, but also demands it. Tectonically driven Cenozoic clastic dispersal systems, in particular, were rigorously tied to Caribbean-South America relative migration history. The regional evolutionary models that were presented will help to steer future exploration for years to come.

All the issues and debates noted above are nicely summarized in the 2007 Perkins Conference Transactions, which collectively form a concise statement on how the Gulf of Mexico and northern South America are presently viewed by the exploration and research communities, particularly for Paleogene times.

Onward now to the acknowledgements that are so readily due to a number of people who made this Perkins meeting possible. I personally am hugely grateful to Josh Rosenfeld (Yax Balam), Jon Blickwede (Statoil), Dick Fillon (Earth Studies Group), and Larry Zarra (Chevron) for helping to determine the viability of the meeting's theme in the early stages.

Thanks are also due to these same people and the rest of the technical advisory committee including Stuart Lake (Apache) and Tomas Villamil (CCG) for helping to identify, review, and organize the papers that were presented at the meeting.

In addition, the top notch editorial efforts of Lorcan Kennan and Norman Rosen and CD compilation work by Gail

Continued on page 9

The GCSSEPM Welcomes New Members

Roberto Aguilera
RA Geologia E.U;
Bogota, Colombia

Randall W. Altobelli
DO; Metairie, LA

Lynn Anderson
Genesis Petroleum;
Conroe, TX

William Ballard
MMS; Destrehan, LA

Kathleen Bennett
Rocksource Energy;
Houston, TX

Arthur Berman
Labyrinth Consulting
Services, Inc.;
Sugar Land, TX

David Bowling
Chevron; Houston, TX

Brian Brennan
Plains Exploration &
Production; Lafayette, LA

Adam Carey
MMS; New Orleans, LA

James Casey
BP; Houston, TX

Dominique Chenot
Total; Paris, France

Hiroshi Chiba
MOEX Oil & Gas Texas
LLC; Houston, TX

Catherine Donohue
BHP Billiton; Houston, TX

Dana Kent Clark
Gardenville, NV

Paul Cullen
Devon Energy;
Houston, TX

Carlos Diaz
Repsol; Sugar Land, TX

Menno Dinkleman
ION – GXT; Houston, TX

John Dribus
Schlumberger;
New Orleans, LA

Ling Duan
Schlumberger; Katy, TX

James Ferry
Anadarko;
The Woodlands, TX

Glen M. Gatenby
Maersk Oil; Houston, TX

Stuart Goldstein
EMGS Americas;
Houston, TX

Wayne Harris
StatoilHydro; Houston, TX

Leipin He
MMS; Kenner, LA

Jeff Heppermann
Plains Exploration &
Production; Houston, TX

Dawn Herrington
Woodside Energy (USA),
Inc; Houston, TX

Marcus Hollanders
Shell; Houston, TX

Bob Hutton
Samson; Houston, TX

Karen Jacobson
Opal Energy, Inc.;
Houston, TX

Eric Jameson
Marathon Oil Company;
Houston, TX

Charlotte Jolley
Shell International E&P;
Houston, TX

Julitta T. Kirkova-Pourciau
BP; Houston, TX

Anthony Kratochvil
BHP Billiton; Houston, TX

Paul Lake
Maersk Oil America;
Houston, TX

Olivier Lerat
IFP; Ruril-MalMaison,
France

Louis Liro
Chevron; Houston, TX

Eddy Luhurbudi
Murphy Exploration;
Houston, TX

McDonald Mantez
Shell; Houston, TX

Jeff Martin
Fugro Airborne Surveys;
Houston, TX

Erik Mason
Shell; Katy, TX

Alison McCutcheon
Woodside Energy (USA),
Inc; Houston, TX

Adrian McGrail
GX Technology;
Houston, TX

Chantale McIntosh
StatoilHydro;
Trondheim, Norway

Samuel Mentemeier
Anadarko;
The Woodlands, TX

Michael Moore
BHP Billiton; Houston, TX

Richard L. Nagy
Devon Energy; Spring, TX

Ian Norton
University of Texas;
Burnet, TX

Olav Nykjaer
Maersk Oil America Inc.;
Houston, TX

Anne Marit Oestvedt Ghazi
EMGS Americas;
Houston, TX

Arpad Ozsdolay
Shell E&P; Katy, TX

Fred Pepper
ExxonMobil;
The Woodlands, TX

Daniel A. Pratt
Murphy Exploration;
Houston, TX

Andrew Pulham
ESACT Inc.; Boulder, CO

Michael Quinn
Hess Corporation;
Houston, TX

Robert M. Rice
Royal Exploration;
Corpus Christi, TX

Valente Ricoy Paramo
Statoil; Trondheim, Norway

Joshua Rosenfeld
Yaxbalam, Inc.;
Granbury, TX

Elizabeth Rowan
USGS; Reston, VA

Gilberto Royo
BP America, Inc.;
Houston, TX

Martha Sadlick
Shell; Sugar Land, TX

Brandi Sellepack
ConocoPhillips;
Houston, TX

Michelle Shearer
MMS; New Orleans, LA

Nancy Shepard
MMS; New Orleans, LA

Gregg Smith
Chevron; Houston, TX

John Stanford
Plains Exploration &
Production; Houston, TX

Carl Steffensen
BP America, Inc.;
Houston, TX

Sharon Swanson
USGS; Reston, VA

Kimberly Thomas
Woodside Energy (USA),
Inc.; Houston, TX

Chris Traeger
Plains Exploration &
Production; Houston, TX

David Valasek
StatoilHydro; Houston, TX

Bridget Wade
Texas A&M University;
College Station, TX

Jack Lin Wang
Devon Energy;
Cypress, TX

Ramazan Yilmaz
BHP Billiton;
Houston, TX

Freddy Yip
Plains Exploration &
Production; Houston, TX

Susan Young
ConocoPhillips;
Houston, TX

Mark Zastrow
Chevron; Jackson, LA

Lost Members

We no longer have contact information for the following individuals. If you can provide information please contact Ramon Trevino at (512) 471-3362 or ramon.trevino@beg.utexas.edu

*Didier Arboulie
Marian Hanna
Duncan W. McMaster
Paul Owens
Heather M. Rosenstein
Garth E. Syhlonyk*

Bob F. Perkins Report *continued from page 7*

Bergan will make the meeting's transactions a volume to be remembered and referenced as we continue to pursue the hydrocarbon potential of the Gulf and northern South America. And let us all be grateful to the various peer reviewers of the papers, without whom the credibility of the Transactions and indeed the Conference itself would be greatly reduced.

And then there are the continuous efforts behind the scenes of Norman and Rashel Rosen, Mike Nault, and the rest of the GCSSEPM trustees and officers who keep this meeting going from year to year. I personally believe this meeting to be one of the best on the annual circuit, and we must ensure that the tradition set by Bob Perkins so many years ago continues to fill its important niche well into the future.

And finally, it is with the deepest appreciation that the GCSSEPM officers and trustees thank the corporate, sole proprietorships, and personal financial sponsors of this year's meeting. Grants from Shell Exploration and Production Company, Devon Energy, Statoil, BHPBilliton, ConocoPhillips, EOG Resources, Chevron, Tectonic Analysis, Ed Picou, Michael J. Nault, and Nancy Engelhardt-Moore provided the confidence to see this meeting to fruition long before the actual level of attendance was known.

Without this type of continuing support from year to year, the future of the Bob F. Perkins Research conferences would be at far greater risk than it otherwise is. So let's keep the ball rolling so that we can all look forward to another solid meeting next year!!

Saying Goodbye

Dr. Edward Carl Roy, Jr., 71, passed away on Friday, November 9, 2007, in San Antonio. He was born on October 17, 1936, in Cleveland, OH, to Dr. Edward Carl and Mary Roy. He received his B.S. and Ph.D. degrees in paleontology and sedimentary geology from Ohio State University in 1961 and 1964 respectively.

Upon graduation, he worked for Shell Oil Company until 1966, when he became an Assistant Professor of Geology at Trinity University. During his first year he was honored as Outstanding Professor. Dr. Roy achieved the rank of Professor in 1977. He served as the Dean of the Division of Sciences, Mathematics, and Engineering, from 1986 to 1987, and as the Vice President for Academic Affairs, from 1987 to 1999. From 1999 to 2005 he was the Gertrude and Walter Pyron Distinguished Professor of Geology. He was currently Professor of Geology Emeritus working part time in the Department of Education.

Dr. Roy was a member of the American Association of Petroleum Geologists, American Association for the Advancement of Science, Geological Society of America, SEPM, GCSSEPM, South Texas Geological Society, and the Gulf Coast Association of Geological Societies. He served as the president of the American Geological Institute, the Gulf Coast Association of Geological Societies, and the South Texas Geological Society. He served on numerous committees of the above cited societies and associations. Dr. Roy was a member of the Board of Earth Sciences and Resources of the National Research Council from 1993 to 1999.

He was currently a member of the Citizens Advisory Panel of SAWS, a Trustee of the American Geological Institute Foundation, and a Trustee of the Baumberger Endowment. In 2002 he was appointed by the Commissioner of the Texas Education Agency to chair the Texas Earth Science Task Force. He was the recipient of numerous professional awards. Dr. Roy was known as a wonderful professor who was loved by many students. He was a true gentleman and a great teacher, promoting science and education in the schools and young minds.

He was also undeniably devoted to his wife, his children, grandchildren, friends, students, and colleagues.

Gulf Coast Section – Society of Economic Paleontologists and Mineralogists
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