



SEGS
Southeastern Geological Society
A member of the AAPG and GCAGS

President John Herbert, P.G.
Vice President, George Edwards, P.G.
Harley Means, P.G., Secretary-Treasurer
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SPRING 2013 Newsletter

SEGS started 2013 on a very good note. First we survived the February 15 near miss by the asteroid 2012 DA 14 that came within 17,200 miles of Earth - closer than many artificial satellites. We then held an immensely successful annual meeting Friday evening and a field trip Saturday to the Ochlocknee and Little River mines in the Palygorskite district of north Florida – south Georgia. The weather was cool and wet but overall it was a good day to be in the field and there were some new faces in the crowd.

We held our Annual meeting in Thomasville, Georgia this year. After some socializing Mr. Alex Grover, who was coincidentally in the area prospecting for Palygorskite on a nearby property, gave a talk entitled “Palywhat??” That presentation oriented us for Saturday’s excursion.



SEGS procession into the Oil-Dry Ochlocknee pit.

Rick Copeland acquainted those in attendance with Aquifer Watch – a volunteer program to educate Floridians about groundwater and wells to obtain groundwater data. The organization is looking for volunteer geologists from across the state to assist in educating the public and to train the public in obtaining groundwater data. See more below.

Harley Means – SEGS Treasurer gave a treasurer’s report. As of January 31 we had \$7828.26 on hand; however, a disappointingly small number of our 184 members have paid dues for 2013. More on that later.

Finally, Marc Hurst received a “virtual” Fulgurite Award for his outstanding leadership as president of SEGS during 2012. Delivery of the actual plaque was delayed so we had to improvise.

Thanks to and Candace Trimble (Oil Dri) and Howard Kirk (BASF) for opening their mines to us, to Guerry McClellan for contributing to the guidebook, to Alex Grover for giving his presentation, and to George Edwards (SEGS V.P.) and Karl Schiller for organizing the annual meeting and the field trip.



Candace Trimble holding a sample of Attapulgitic matrix.

While on outcrop we heard some spirited debate regarding the depositional environment and genesis of the unique clay deposits. It was good to see that airing of different reasoned opinions among SEGS members - and our hosts as well.



This clay displays the property of sectility, meaning that it can be cut with a knife. Palygorskite has particularly high sectility, illustrated by the very fine shavings we could produce. George Edwards demonstrates.



Geologic processes ongoing at the BASF mine. Note the slumping in background.

NOMINATION FOR GCAGS EDUCATOR OF THE YEAR AWARD

Charles Cook completed the paperwork to nominate Natalie Whitcomb for the GCAGS Educator of the Year award. Let's all keep our fingers crossed and hope the evaluation committee recognizes Natalie's hard work and accomplishments as an educator at Polk State College.

CALL FOR GEOLOGISTS TO ASSIST IN EDUCATING FLORIDIANS ABOUT GROUNDWATER: AQUIFERWATCH

The University of Florida operates Florida LAKEWATCH. Its purpose is to educate the citizens of Florida about lakes and to obtain monitoring data by volunteer samplers. In the fall of 2012, LAKEWATCH initiated a new program (AquiferWatch working in cooperation with LAKEWATCH).

AquiferWatch Inc. is a 503(c) non-profit organization. Its purpose is to: (1) educate Floridians about groundwater, (2) facilitate "hands-on" education through groundwater monitoring, and (3) produce long-term groundwater monitoring data. It is dedicated to working with organizations such as LAKEWATCH and the Southeastern Geological Society in an effort to educate the public about groundwater. At the current time the AquiferWatch monitoring effort is limited to groundwater levels, but in the future it is anticipated that groundwater chemistry will be added, including specific conductance.

Florida LAKEWATCH has an extensive background in biology and surface-water chemistry. However, its staff only has limited backgrounds in groundwater. For this reason, LAKEWATCH and AquiferWatch are looking for volunteer geologists from across Florida to assist in educating the public about groundwater issues and to train them to obtain groundwater monitoring data. Limited funds to assist volunteer geologists may become available in July.

If you or someone you know are interested in joining, please let AquiferWatch know. The contact information is below and thank you for your support.

Rick Copeland P.G. Ph.D.

AquiferWatch Inc.

Rick@aquiferwatch.org.

2013 DUES

It is past time for 2013 dues payments. Membership in SEGS is inexpensive - only \$35 per year for professionals, or \$25 per year for students and associate members. The organization depends on member dues to continue operating.

A copy of the 2013 membership renewal application form is attached. Please send your check to the SEGS Tallahassee Post Office Box – address is on the membership form; and be sure to note any changes in your contact information. Our having your preferred email address assures that we can deliver meeting notices and newsletters conveniently.

OUR NEXT EXCURSION

Our next field trip is coming up shortly. Marc Hurst will be taking us to sand mines on the Lake Wales Ridge on a fulgurite hunt. An informal dinner meeting Friday evening will include two presentations: "*Florida's Rising? Not So Fast!*" by Dr. Pete Adams, UF, and "*Fulgurites: Florida's Metamorphic Rock*" by Dr. Matt Pasek, USF. Liability waivers for SEGS and the mines will be available at the meeting point Saturday morning. You all should have received the

attached flier via email. There is a 50 person limit on this trip and, as usual, we will give preference to SEGS member over non-members. Let's have a big turnout for this event!

OTHER FIELD TRIPS FOR 2013

October 12th, 2013, Dr. Jon Bryan of Northwest Florida State College (NWFSC) will lead us on a visit to the Intracoastal Waterway section between Choctawhatchee Bay and Panama City, where we will see sediments that have relevance to discussions of changes in sea level. This field trip will coincide with an annual symposium the college conducts on Choctawhatchee Bay, which will be held on Friday, the 11th. SEGS members are invited to attend the symposium. We are very pleased to collaborate with Dr. Bryan and NWFSC.

On November 9, 2013, Roger Portel has arranged a return trip to the SMR Aggregates shell pit, where we collected fossils from the world renowned Pinecrest beds in 2012. SMR Aggregates is the last active mine that produces from these beds; and it is scheduled to close in the near future. Don't miss this field trip! It might be our last chance. We will meet informally for dinner on the 8th. Mark your calendar.

While SEGS normally conducts three to four field trips per year the gap between our April fulgurite trip and the October Choctawhatchee trip is excessive in my opinion. At the risk of setting an unsustainable precedent for future SEGS V.P.s, we are contemplating another field trip for the June/July timeframe. Stay tuned.

OTHER HAPPENINGS:

A [University of Florida](#) researcher has described a new genus and species of extinct saber-toothed cat from Polk County, Fla., based on additional fossil acquisitions of the animal over the last 25 years.

The 5-million-year-old fossils belong to the same lineage as the famous *Smilodon fatalis* from the La Brea Tar Pits in Los Angeles, a large, carnivorous apex predator with elongated upper canine teeth. Previous research suggested the group of saber-toothed cats known as Smilodontini originated in the Old World and then migrated to North America, but the age of the new species indicates the group likely originated in North America.

Compared to what we knew about these earlier saber-toothed cats 20 or 30 years ago, we now have a much better understanding of this group.”

Richard Hulbert helped uncover fossils of the new genus and species, *Rhizosmilodon fiteae*, from a phosphate mine during excavations in 1990. ***The species was named after SEGS member Barbara Fite of Lutz, Fla., who in 2011 donated one of the critical specimens used for the new description and allowed UF scientists to make casts of two other partial jaws in her collection.*** The donation was a major contribution to the research because the remarkably well-preserved lower jaw contains almost pristine examples of all three chewing teeth, Hulbert said. The genus name *Rhizosmilodon*, meaning “root of *Smilodon*,” implies the animal could be a missing link and direct ancestor of *Smilodon*, which became extinct about 11,000 years ago.

“When people think of saber-toothed cats, they think of it as just one thing, as if the famous tar pit saber-toothed cat was the only species, when in fact, it was an almost worldwide radiation of cats that lasted over 10 million years and probably had a total of about 20 valid species,” Hulbert said. “Counting the newly described animal, there are now six different species of saber-toothed cats known just from Florida.”

Saber-toothed cat expert Julie Meachen, an instructor at Marshall University School of Medicine in Huntington, W. Va., said the study helps settle the debate about whether the tribe arose from the Eurasia before coming to North America. ...“I think that this revision was well-needed,” Meachen said. “The fact that it’s one of the oldest lineages is really interesting because that means that this exciting group of saber-toothed cats really is a North American tribe — it evolved and persisted in North America.” The study appeared online in the journal PLOS.

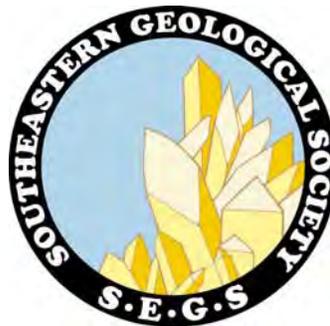


Saber-toothed cat species, holotype specimen (foreground)
and the paratype specimen (background)
Florida Museum photo by Jeff Gage

PLEASE PAY YOUR 2013 DUES PROMPTLY

A final reminder that SEGS is a volunteer, not-for-profit organization. The health of the organization depends upon the efforts of our members. Please pay dues for 2013 and contact anyone on the SEGS Executive Committee (John, George, Harley, or Marc) if you would like to lend a hand in the machinations of the organization. We can always use help organizing our field trips and could use help with membership.

John Herbert, 2013 President



The Southeastern Geological Society (SEGS) is a non-profit group of avocational and professional geologists dedicated to advancement of the geological sciences



SEGS 2013 Membership Application/Renewal

Please complete this form to join or renew your membership and mail it with your annual dues payment (check or money order payable to "SEGS") to Post Office Box 1636, Tallahassee, FL 32302.

Membership type _____ Active member (dues are \$35.00)
_____ Associate member (dues are \$25.00)
_____ Student member (dues are \$25.00)

Last name _____ First name _____

Preferred Email _____ (kept confidential)

Mailing address _____

City _____ State/Province _____ Postal code (ZIP) _____

Phone number (cell preferred for trips) _____

Your field of work and title _____

Company or Agency name _____

Thank you for your interest in SEGS. We hope you enjoyed our 2012 program, including field trips to:

*Florida Caverns and Florida Hi-Cal Pit;
SMR Aggregates Shell Pit;
Central Florida Phosphate District; and
Graves Mountain.*

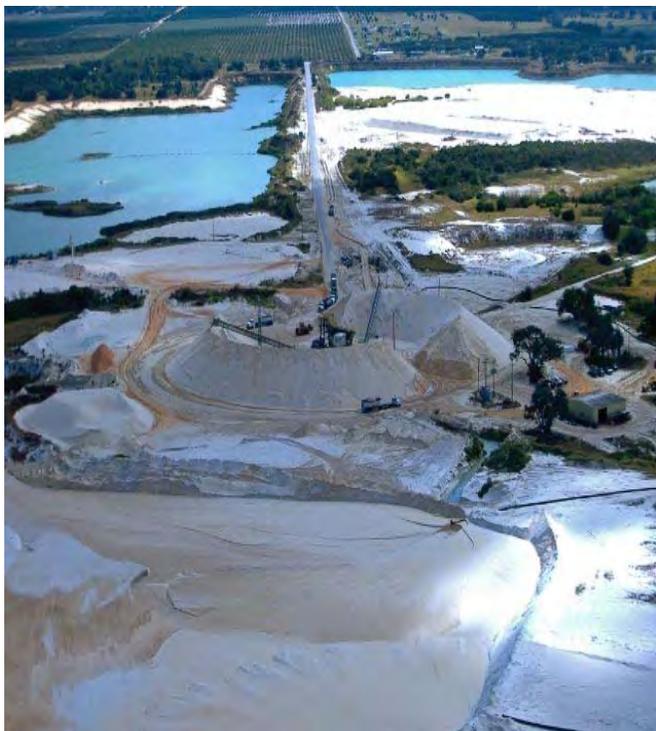
We've already scheduled three field trips for 2013; and additional trips are planned. Please visit our website at www.segs.org for the most current information.

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Southeastern Geological Society and FAPG—A Section of AIPG
Present a Meeting and Field Trip to:

CENTRAL FLORIDA SAND DISTRICT

April 19-20, 2013



The meeting will be based in Davenport, FL, at the intersection of I-4 and US-27.

Accommodations are available at several motels.
(Google "Davenport FL motels".)

Friday Evening, April 19th, Dinner Meeting

Where: Holiday Inn Express (Bella Rose Room)
4050 Hotel Drive
Davenport, FL 33897
Telephone: 863-420-6611

When: 6:00 pm – Social Hour (BYOB)
7:00 pm – Dinner Meeting and Program

Presentations: "Florida's Rising? Not So Fast!"
by *Dr. Pete Adams, UF*
"Fulgurites: Florida's Metamorphic Rock"
by *Dr. Matt Pasek, USF*

Food: **Pebbles BBQ** (Late SEGS President and
BBQ Aficionado Tom Jackson's local favorite!)

Saturday, April 20th, Field Trip

Departure: 8:00 am – Caravan departs from Holiday Inn Express
First Stop: CEMEX Davenport Mine – Tour mine and modern sand plant
Second Stop: C.C. Calhoun Pit No. 7 – Examine outcrops, collect fulgurites
Lunch: Eagle Ridge Mall, Food Court – Purchase lunch of your choice
Third Stop: C.C. Calhoun Pit No. 1 – Examine outcrops, collect fulgurites

Registration Fee:

Students	\$10
SEGS and/or FAPG Members	\$25
Non-Members	\$35

Equipment: Hardhat, safety glasses, boots (closed-toe shoes) are required.
Sun glasses, sunscreen, and sample bags are recommended.
Water and sports drinks will be provided.
You will be required to execute liability release waivers.

Additional Information: Marc Hurst, 863-670-6476
marc.hurst@independentgeo.com

NOTE: Attendance is limited to 50. Preference will be given to members.

Registration Form:

Name _____
Email _____
Cell Phone _____

(We must be able to contact you in the field.)

Return with check to: SEGS, P.O. Box 1636, Tallahassee, FL 32302

