



"The best geologist is the one who has seen the most rocks."
H.H Read, FRS, 1940

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2013 Summer Newsletter

WE HAVE A MOTTO

All our professional lives we have heard the saying "The best geologist is the one who has seen the most rocks", which I always assumed was just a clever saying. But, the other day I ran across the actual origin of the quotation. It was written in 1940 by H.H. Read, FRS, Professor of Geology at Imperial College, London. Read was also a Fellow of the Geological Society, winner of the Royal Medal, the Bigsby Medal, the Wollaston Medal, and the Penrose Medal--a much-decorated geologist. He specialized in metamorphism and the origin of granite, for which we can forgive him.

George Edwards

RECAP OF CENTRAL FLORIDA SAND FIELD TRIP

On Friday evening, April 19th, 2013, SEGS and FAPG hosted a joint meeting in Davenport, FL. After dinner and a couple of short business meetings, presentations were given by Dr. Pete Adams of the University of Florida ("Florida's Rising? Not So Fast!"), and Dr. Matt Pasek of the University of South Florida ("Fulgurites: Florida's Metamorphic Rock"). They were well received by about 50 members and a number of student guests from the USF Geology Club.



CEMEX Davenport Mine's Fractionating Sand Plant

On Saturday, SEGS hosted a sand mine field trip and fulgurite hunt. The first stop was CEMEX's Davenport Mine, located along a Pliocene-Pleistocene beach line, where sand is mined with a dredge and processed by washing and sizing to produce sand aggregates for a variety of uses. After appropriate safety training and orientation, Matt Lewis, Don Whitley, and Glen Jordan led tours of CEMEX's ultra-modern fractionating sand plant, lab, and mine.



The dredge at the Davenport Mine

The second stop was C.C. Calhoun's Pit-4, a borrow pit operation, where aeolian sands are mined along the eastern margin of the Lake Wales Ridge. Pit-4 is a relatively deep, dry, open-pit excavation where large exposures are accessible to curious geologists. Numerous fulgurites were found.



Our caravan traversing the paleo-dunes at Pit-4



Paul Roth proudly displays fulgurites found at Pit-1.



The group at Pit-1

After a brief lunch at the Eagle Ridge Mall Food Court, the caravan departed for the last stop, another borrow pit, C.C. Calhoun's Pit-1, where aeolian sands are mined near the crest of the Lake Wales Ridge. I am not aware of any dry, open-pit excavations in Central Florida that are deeper. Absolutely breath-taking exposures of the aeolian sands that support the Lake Wales Ridge are available at Pit-1; and it proved again to be a great place to find fulgurites.

Marc Hurst

COMING IN OCTOBER: QUATERNARY STRATIGRAPHY FIELD TRIP

Dr. Jon Bryan of Northwest Florida State College will host a field trip entitled "Quaternary Stratigraphy along the Gulf Intracoastal Waterway, Walton and Bay Counties, Florida," on October 12th, 2013. Many of you may recall that Dr. Bryan and a van full of Northwest Florida State College students joined us at Graves Mountain last year.

Boats from the Florida Geological Survey and the Choctawhatchee Basin Alliance (<http://www.basinalliance.org/>) will depart from Point Washington Boat Ramp, south Walton County for a tour of the Intracoastal Waterway extending about 15 nautical miles from the mouth of the Choctawhatchee River in eastern Choctawhatchee Bay to West Bay in Panama City, Florida.



An outcrop of Quaternary material along the Intracoastal Waterway

Along this dredged waterway (opened in 1938) is more than 50 feet of exceptionally well-exposed and laterally continuous Quaternary strata consisting of basal peat, humatic sandstone, *Ophiomorpha* sands, and cross-stratified dune sands with buried logs. One carbon-14 date of 40,000 years B.P. has been documented for the humate. The lower strata represent nearshore and beach facies deposition during the Sangamonian Interglacial, when sea level was up to ± 20 feet above the present. Overlying this unit is a dune/sand sheet of Wisconsin Glacial to early Holocene age, reflecting cooler, dryer conditions. The section resembles similar-age facies along the northeastern Florida coast. The brown-black, powdery humate is derived from fresh, tannic "blackwater" (surface or groundwater), which precipitates humate when making contact with brackish or marine water. Humate was harvested in the past for the manufacture of dyes, stains, and inks. The GIW section remains largely undocumented but it has enormous implications for Late Pleistocene and Holocene environmental and sea level change in the northern Gulf of Mexico.

The Quaternary Stratigraphy field trip will be held in conjunction with the 6th Annual Mattie Kelly Environmental Symposium on Choctawhatchee Bay. See the Mattie M. Kelly Environmental Institute website at <http://www.nwfsc.edu/MattieKellyInstitute/env-index.cfm> with information specific to this conference at <http://www.nwfsc.edu/MattieKellyInstitute/env-symposium.cfm>. The scientific symposium will be held on Friday, 11 October, in the Science Department of Northwest Florida State College in Niceville, Florida. SEGS Field members are cordially invited to attend the symposium and to submit oral or poster presentations. Geology has not been a prominent subject in past MKE symposia, and general or specific topics on Florida geology are welcome (e.g., coastal geology, general overview of karst geology, etc.), especially if they are relevant to coastal

or estuarine environments. Talks will cover topics like the coastal dune lakes of the Florida Panhandle (Coastal dune lakes only exist in a few places in the world - New Zealand's Northland, Australia's Queensland, Madagascar, and Florida's Northwest Gulf Coast).

Reserve the dates and plan to attend the SEGS Field trip and the 6th Annual Mattie Kelly Environmental Symposium on Choctawhatchee Bay! What can be better than a geology field trip combined with a day on the water? And give some thought to possible talks/poster sessions that SEGS members might contribute.

COMING IN NOVEMBER: FIELD TRIP TO SMR AGGREGATES, SARASOTA, FL

Our final field trip for 2013 will be a return to the SMR Aggregates, Inc., sand and shell mine located near Sarasota. This trip was a sell-out last year and we expect the same this year.

Roger Portel will guide us on this excursion to observe and collect fossils from the incredibly diverse and exceptionally well-preserved upper Pliocene-lower Pleistocene Tamiami Formation; including the famous Pinecrest Shell Beds that are known to contain over 1,000 species of marine mollusks. These shell beds have been of interest to stratigraphers and paleontologists world-wide for half a century. We plan to explore the SMR Aggregates mine to collect snails, clams, corals, shark teeth, and more after touring SMR's physical plant where mined materials (shells, rock, and sand) are separated mechanically and sold for landscaping, construction of roads and building foundations, and concrete aggregate.

NOTE: The mine will not admit children younger than age 16. The fossils can be very sharp therefore you must wear boots (no sandals, no street shoes), long pants, hard hats, and brightly colored safety vests. Any scientifically unique fossil finds **MUST BE DONATED** to the Florida Museum of Natural History, care of our field trip leader, Roger Portel.

This is the last facility mining the Pinecrest Shell Beds and it is due to close within the next few years. We look forward to a great turnout for this unique opportunity to view and collect from the Pinecrest Shell Beds and to tour SMR's physical plant.



Fossil-rich Pecrest Beds at SMR Aggregates

We expect the SMR Aggregates field trip to sell-out. Sign-up early, and make sure your membership is up to date; preference will be given to active members.

NATALIE WHITCOMB RECEIVES GCAGS 2013 OUTSTANDING EDUCATOR AWARD

Our very own Natalie Whitcomb has been selected as the 2013 Gulf Coast Association of Geological Societies' **Outstanding Educator Award**. The citation states in part, "*She is recognized by her college, students, community and geological society as an exceptional classroom teacher, as well as an enthusiastic and innovative educator whose work and encouragement has brought together schools and community leaders to promote the knowledge and application of geosciences among citizens, resource managers and other educators. In addition to teaching a heavy load of geoscience courses at her college, Natalie has developed highly successful extracurricular programs with an emphasis on field-based experience, that ignite interest in the geosciences in her students, many of whom would otherwise have little aspiration toward STEM subjects. ...*"



Natalie Whitcomb, 2013 Recipient of the GCAGS Outstanding Educator Award

The Outstanding Educator Award will be presented at the [GCAGS 2013 Annual Convention](#) in New Orleans on Sunday afternoon, October 6th. The venue for the awards ceremony and convention is the [Marriott Hotel](#) on Canal Street.

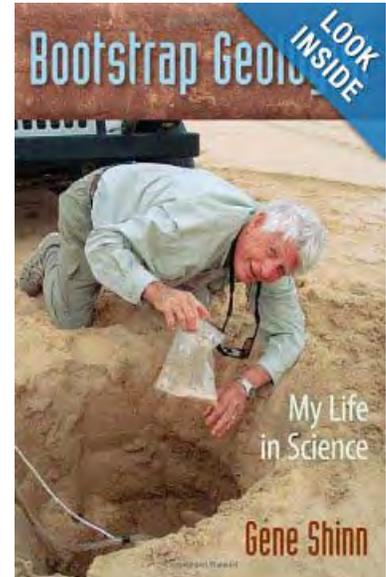
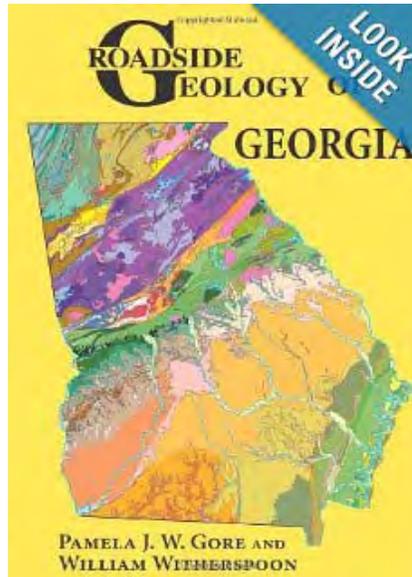
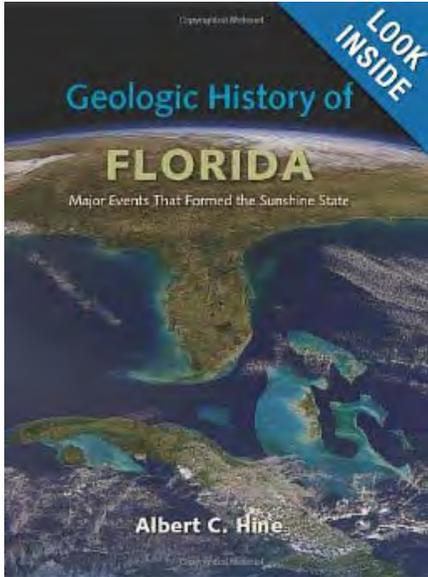
Congratulations Natalie on a job well done! As stated in our constitution, the mission of the SEGS is "*To advance the science of geology for the membership and the communities of the membership...*" The future of our organization and our world depends on our young citizens and we appreciate Natalie's efforts in introducing them to the earth sciences.

MEMBERSHIP

I want to take this opportunity to encourage those of you who have not renewed your membership in SEGS to do so. We are half way through the year and many of our 2012 dues paying members have not renewed for 2013. SEGS conducted two field trips the first half of the year, one to the Georgia-Florida clay district and second to the Davenport sand mines. We have two more field trips scheduled for October and November. In addition, we may arrange a fifth field trip to a phosphate mine in North Florida. Please visit the SEGS website, download the registration form and renew. We want to keep the SEGS a vibrant organization.

NEW BOOKS

Three recent publications that may be of interest to SEGS members include *Geologic History of Florida: Major Events That Formed the Sunshine State* by SEGS member Dr. Albert C. Hine (professor in the College of Marine Science at the University of South Florida), *Roadside Geology of Georgia* by Pamela Gore and William Witherspoon, and *Bootstrap Geologist: My Life in Science* by renowned marine geologist Gene Shinn. Many of us had the privilege of accompanying Gene to the Dry Tortugas on an SEGS field trip in 2011. Here is some information on those books.



PARTING COMMENTS

The Executive Committee is revisiting the idea of committees. We believe it would help the organization work more smoothly if we establish/renew several committees. Initially we would like to establish Membership, Field Trip, and Newsletter committees.

Membership Committee duties include encouraging membership, making personal contact with new members, and assisting the Treasurer and Newsletter Editor. The Committee Chair will ideally be the President.

Field Trip Committee duties include assisting the Vice President to identify, schedule, plan, and conduct field trips. Chair will be the Vice President.

The Newsletter Committee will produce newsletters. Ideally the Newsletter Editor will be a Past President.

If you would like to participate in SEGS, committee membership is a great way to get your feet wet without actually running for office. SEGS is a volunteer, not-for-profit organization. Our existence depends upon the efforts of our members. Please consider getting more involved.

John Herbert, 2012 President



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