

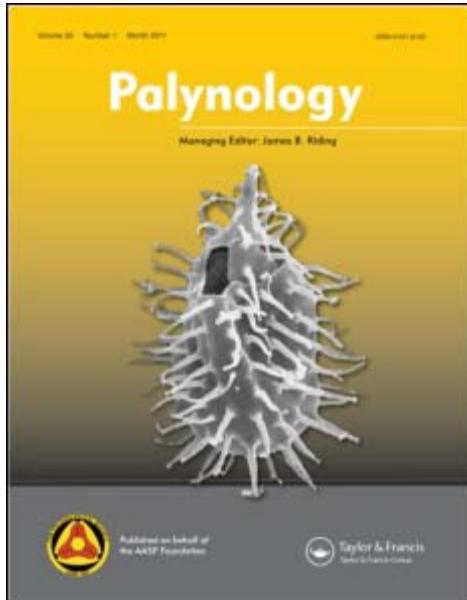


*Everglades Geological Society*

# BULLETIN

Volume 17, Number 5

May 2011



**Meeting This Month: May 17, 2011**

**Speaker:** Curtis Klug, Ph.D., P.G.

**Topic:**

*Geology and Palynology  
of the Oldest  
Land Plant Flora in Florida*

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**Everglades Geological Society**  
P.O. Box 61684  
Fort Myers, FL 33906

The Everglades Geological Society is an organization which seeks to promote interest in and understanding of Geology and the related Earth Sciences, and to provide a common organization for those individuals interested in geology and the related earth sciences. The Bulletin is a publication of the Everglades Geological Society, Inc.

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**Meeting This Month:**  
**TUESDAY May 17, 2011**  
**6 pm (Social hour starts at 5 pm)**

**The Edison**  
3583 McGregor Boulevard  
Fort Myers, Florida

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*Last meeting of the year, get your fix!*

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*Members and prospective members, come listen to some of the neatest and coolest geology and palynology of Florida!*

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*Thank you to our Sponsors! Please check them out in this newsletter.*

[www.evergladesgeologicalsociety.com](http://www.evergladesgeologicalsociety.com)



**President's Address**  
**Ed Rectenwald**

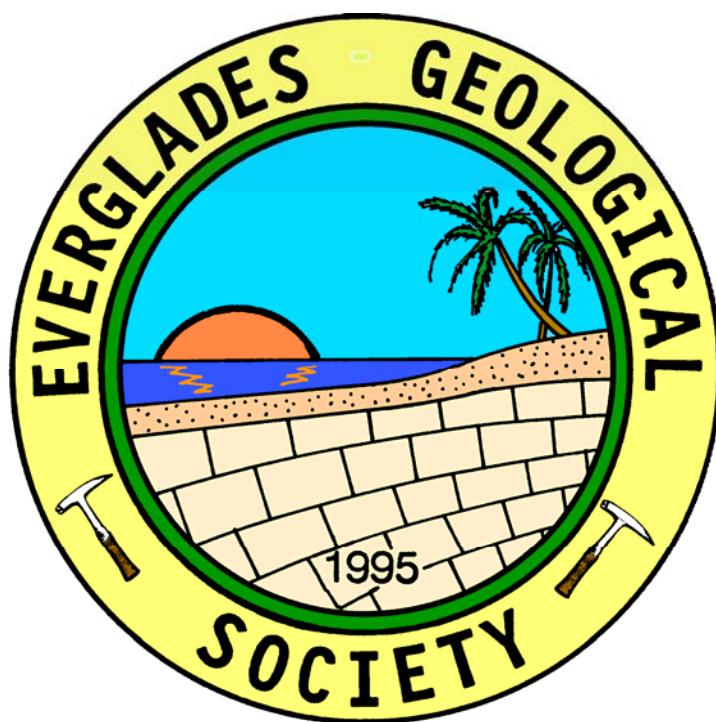


We are not usually well known for the positive outcomes within the drilling industry. However, I was given an opportunity to meet Jeff Hart, Operations Manager for Layne Christensen Drilling Company. Mr. Hart headed up the rescue efforts in Chili that saved the lives of 33 Chilean miners. Here is a picture of Jeff

Hart and I during his site tour of a project I am overseeing in Polk County, Florida. Where we are drilling the deepest injection well in the state to a depth of 8,000 feet.

I would like to take a minute to thank all EGS members for another successful year with great attendance and attention-grabbing speakers. It was an honor to be your president this past year. I would also like to specially thank all of the EGS Officers, Kim Arnold, Kelly Probst, Jody Abbott, and James Harcourt, whom are the ones actually doing all of the leg work and making our organization a success. Hope to see all of you back next year.

Ed Rectenwald



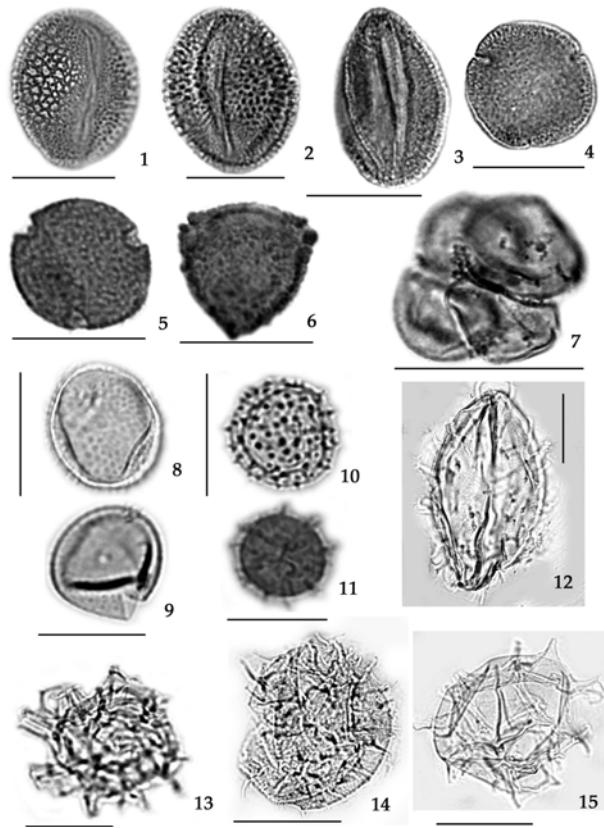
## This Month's Topic

# *Geology and Palynology of the Oldest Land Plant Flora in Florida*

By  
*Curtis Klug Ph.D., P.G.*

### *Abstract*

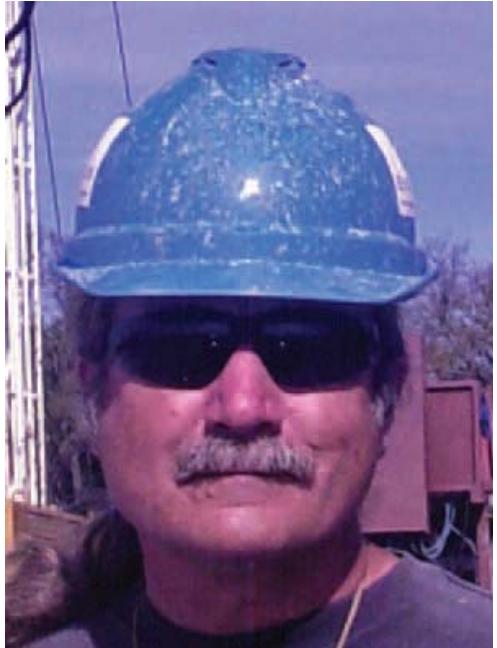
A small but diverse assemblage of pollen, spores and marine phytoplankton recovered from a single, lignitic clay sample of the lower to middle Eocene strata from a deep injection well on Pine Island, Florida represents the oldest land flora described from the state. The assemblage contains 17 terrestrial forms and four to five brackish to marine forms of dinoflagellate cysts or algal taxa. Angiosperm pollen forms are comparable to extant taxa including the palms, Bombacacidites (Bombacaceae), Corsinipollenites (Onagraceae), Milfordia (Restioniaceae), Tiliaepollenites (Tiliaceae), and Retitricolporites sp. (Lisanthius Gentianaceae). These suggested affinities point to a mild, warm temperate to subtropical, probably lowland, environment. No new pollen taxa are described. This is the earliest report of terrestrial vegetation and near marine vegetation of Florida and documents the presence of a Florida landmass during the early Eocene.



### *Biography*

CURTIS R. KLUG is a Hydrogeologist in Fort Myers, Florida. He received his Ph.D. degree in geology at the University of Iowa in 1990 under the joint supervision of Dr Gilbert Klapper and Dr Richard Baker. His dissertation involved a combined study of the conodonts and miospores of the Devonian Cedar Valley Group of Iowa. After completion of the

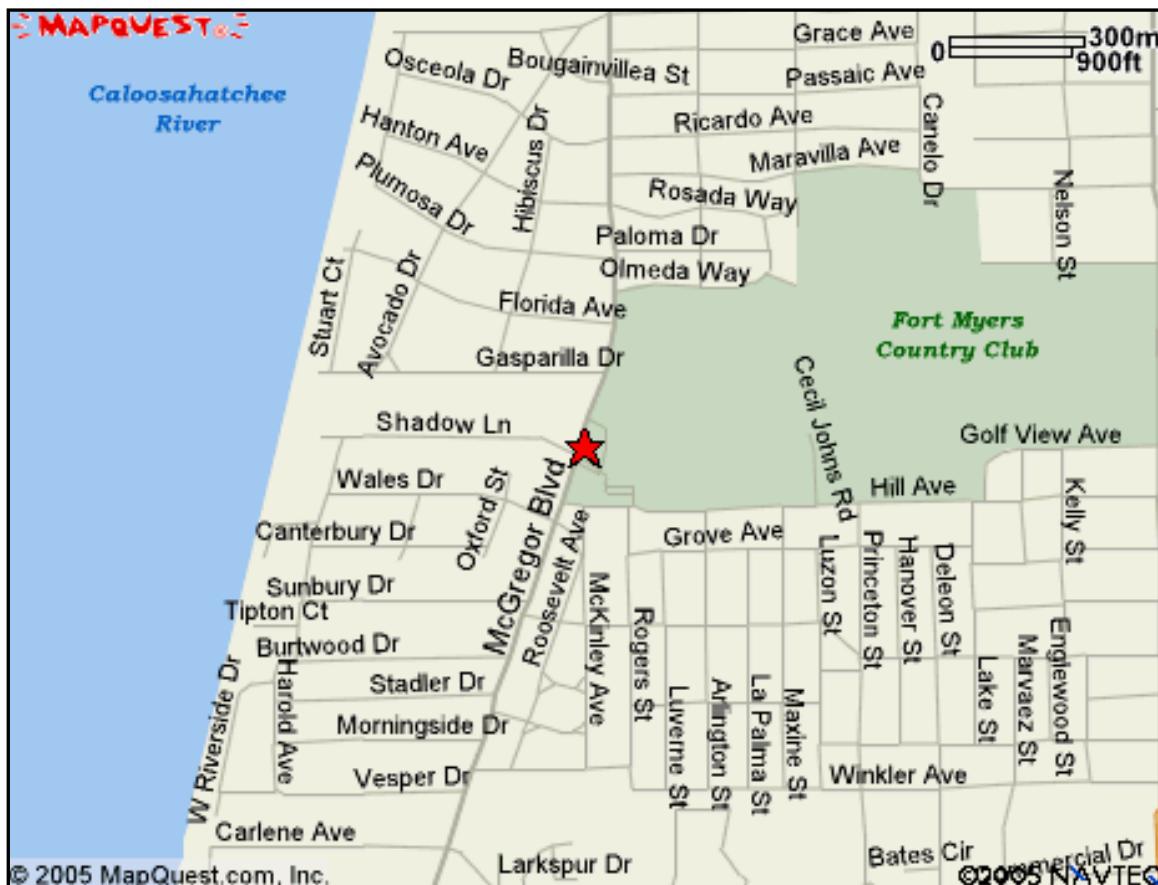
dissertation, he extended his study of Devonian conodonts and miospores into Wisconsin and Illinois. After moving to Florida in 1998, he redirected his interests to the paleontology and palynology of the Cenozoic of Florida. Serving as an on-site geologist during the construction of numerous water wells throughout Florida has provided a rare opportunity to observe the paleontology and palynology throughout the Cenozoic of Florida



Dr. Klug has over 30 years of professional experience in the combined geologic fields of hydrogeology, biostratigraphy, paleontology, palynology, and mined-land reclamation. He has served as on-site geologist and supervisor during the construction of three deep injection wells, two aquifer storage and recovery wells, over 20 public water supply wells, and numerous irrigation production wells. He has also served as project manager for the compilation and submission of applications for water use permits for dewatering and irrigation projects as well as applications for water use permit renewals. Dr. Klug has also served as geologic researcher for projects involving carbon sequestration in Alabama and Florida for the U.S. Department of Energy, hydrologic resources to support a proposed biofuel production plant in Florida, injection wells for the Florida Keys Aqueduct Authorities, and litigation support between a large petroleum company and a major metropolitan area in the northeast U.S. He also is experienced with water quality analyses, site assessment, and reclamation evaluation of abandoned coal strip mines. He has taught college-level courses (introductory to upper level) at five institutions and has served as Curatorial Assistant at two geological museums. He has also held positions at two state geological surveys as laboratory manager and research geologist and has carried out and published on research interests in micropaleontology, palynology and paleobotany.

## Everglades Geological Society

Meets on the Third Tuesday every other month at The Edison on McGregor Blvd at the Fort Myers Country Club in Fort Myers, Florida. Social hour starts at 5:00 PM. The meeting begins at 6:00 PM. No meetings are held in July or August.



### Join Everglades Geological Society

Application forms are available:  
at meetings, by mail and on our web site.  
[www.evergladesgeologicalsociety.com](http://www.evergladesgeologicalsociety.com)