

The Eastern Section of the Society for Sedimentary Geology

~ ES-SEPM ~

May 2008 Newsletter

New Logo _____



Our new logo was unveiled by the Section President Ilya Buynevich at the ES-SEPM Reception at the NE GSA Meeting in Buffalo, NY in March 2008. The logo was designed by graphic artist Jen Christiansen and we think it looks great – especially in color! Thanks Jen and thanks Ilya for the new logo initiative! Look for this logo to find ES-SEPM sponsored events and presentations.

Membership Information _____

Keep Active!

Even though our membership base is growing we have a large number of “inactive” members. To determine your current membership status, please check the mailing label of this newsletter. Following your name you will see “Stu” for student members or “Pro” for professional members. These indicators are followed by a year designation: for students it’s the year they joined the section, and for professional members it indicates their membership dues status (for example, “Pro 08” means paid up through 2008). If your paid-up status is for a year earlier than 2008, you owe dues now. If your mailing label has your name and address only, and you are no longer a student, then your dues payment is currently due in the amount of \$8 and will be credited for 2008 (and beyond if additional money is sent). With payment, your dues status will be reflected on your mailing label for the next newsletter. Student members are not required to pay dues.

If your Pro year designation is 06 or earlier, we would like to hear from you by the end of 2008. If we don’t hear from you, you will be removed from the list of active members. In the future, any Pro member with inactive status of two full years will be removed from the member list. We are especially interested in hearing from our student members about your current status. Unless we hear from you otherwise we will be removing student members from our list four years after joining the section.

Please remember that the goal of reinstituting dues payments was to foster an active and healthy ES-SEPM Section, and not to discourage members over past dues. The goal of the current initiative is to update our membership list with current contact information for active members. We would like to avoid too many “Return to Sender” situations. Thanks to all of you who have recently paid your membership dues, and we hope to hear from the rest of you soon.

Membership for Life!

Are you tired of constant reminders about paying your \$8 ES-SEPM dues each year? For a contribution of \$100 or more you can now become a life-long member of ES-SEPM!!! For more information, please see the **Membership Form** included in this Newsletter.

Call for Proposals

2009 Clemson Hydrogeology Symposium

Anyone interested in proposing an Eastern Section SEPM sponsored-Technical Session for the 2009 David S. Snipes/Clemson Hydrogeology Symposium, please submit a title to Jim Castle at jcastle@clemson.edu or (864) 656-5015. A wide range of topics will be considered that incorporate some aspect of sedimentary geology as it relates to environmental or hydrogeology. The 17th Annual Hydrogeology Symposium will be held at Clemson University, South Carolina, on April 2, 2009.

2009 NE and SE GSA Meetings

We need you to propose ES-SEPM-sponsored events (technical sessions, field trips, workshops) for both 2009 NE and SE GSA Meetings. These proposals are due very soon – in June! – but are very simple to do. Please contact conference organizers or any of the ES-SEPM officers (especially our councilors) if you have any questions or need any assistance with proposing an event. Please see the **Announcements** and **ES-SEPM Officer Sections** of this Newsletter for details and contact information.

Announcements

Northeastern Friends of the Pleistocene, 71st Reunion, May 30-31 & June 1, 2008

“Glacial Geology of the Northern Hudson-Southern Champlain Lowlands”

Presented by: Dave DeSimone, John Rayburn, Gary Wall and Andy Kozlowski

www.climatechange.umaine.edu/friends/announcement.html

New York State Geological Association Meeting, 26-28 September 2008, Lake George, New York

Contact: Dr. Bruce Selleck, Department of Geology, Colgate University: Hamilton, NY 13346

bselleck@mail.colgate.edu

www.nysga.net/Annual_Meeting.html

GSA-SSSA-ASA-CSSA-GCAGS-HGS Joint Annual Meeting, 5-9 October 2008, Houston, Texas

“Celebrating the International Year of Planet Earth”

Also featuring a technical session and reception in honor of our past ES-SEPM Officer Al Curran:

“T46. Leaving Traces—Making Marks: In Honor of H. Allen Curran”. Like the way organisms leave lasting traces in the geological record, Al Curran has inspired generations of students and colleagues who will gather to celebrate his accomplishments as a paleontologist, sedimentary geologist, and geoscience educator. Conveners: Neil Tibert (ntibert@umw.edu) and Bosiljka Glumac (bglumac@email.smith.edu). **Abstract deadline: June 3, 2008!**

www.acsm meetings.org/programs/technical/

New England Intercollegiate Geological Conference, 10-12 October 2008

Jointly sponsored by Harvard University and Westfield State College. Field trips will take place in Massachusetts, Connecticut, and New York.

<http://epslab14.harvard.edu/epswiki/Neigc2008>

AAPG-SPE 2008 Eastern Meeting, 11-15 October 2008, Hilton Pittsburgh, Pennsylvania:

“APPALACHIA – Unconventional Since 1859”

www.aapgspe2008.org/index.htm

2009 Northeast Geological Society of America Meeting, Portland, Maine:

Please contact Art Goldstein (agoldstein@une.edu) for more information, and the ES-SEPM councilor for the northeast Cynthia Coron (coroncl@southernct.edu) with ideas for ES-SEPM sponsorship and activities.

2009 Southeast Geological Society of America Meeting, Tampa, Florida:

Please contact Jeff Ryan (ryan@shell.cas.usf.edu) for more information and the ES-SEPM councilor for the southeast Doug Haywick (dhaywick@jaguar1.usouthal.edu) with ideas for ES-SEPM sponsorship and activities.



NEIGC



American Association of Petroleum Geologists

An International Geological Organization



Clemson Hydrogeology Symposium

Department of Environmental Engineering and Earth Sciences



Section Activities

16th Annual David S. Snipes/Clemson Hydrogeology Symposium

ES-SEPM sponsored a theme session for the 16th Annual David S. Snipes/Clemson Hydrogeology Symposium held on April 3, 2008 at Clemson University in South Carolina:

The Role of Sedimentology in Coastal Plain Hydrogeology

Conveners: Mary Harris (Savannah River National Laboratory, Aiken, South Carolina, mary.harris@srnl.doe.gov), and Paul Thayer (Dept. Geography and Geology, University of North Carolina at Wilmington, thayer@uncw.edu)

This ES-SEPM sponsored session highlighted the role sedimentology plays in hydrogeologic characterizations in the coastal plain of the United States. It included nine invited presentations, with six talks focusing on site-specific studies at the Savannah River Site in South Carolina. These diverse talks covered topics ranging from hydrofacies and geophysical characterization frameworks for groundwater modeling, reactive facies and geochemical heterogeneity in aquifers, mineralogy of colloids in the subsurface, vadose zone hydrological models for coastal plain soils, and the role of geology in remedial systems. Three talks addressed regional aspects of aquifer and confining unit characterization. One talk focused on the use of petrology for predicting porosity-permeability characteristics of carbonate aquifers with case studies from the Floridan aquifer in Georgia and Florida. The other talks dealt with classification of aquifers and confining units using petroleum exploration techniques for hydrostratigraphic framework characterization and sequence stratigraphic relations of aquifers and confining units to system tracts in the North Carolina coastal plain. The session was well attended and added a new dimension to the overall symposium.

2008 Northeast GSA Conference

ES-SEPM was very active at the Northeastern Section of the Geological Society of America Conference held in Buffalo, New York on March 27-29, 2008:

ES-SEPM Sponsored Theme Sessions:

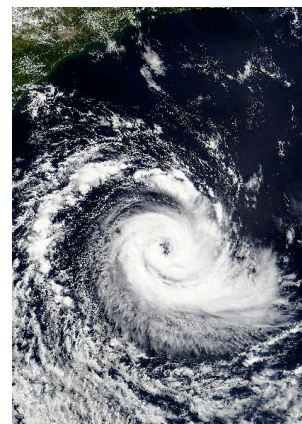
- **New Scoops in Old Dirt: Advances in the Stratigraphy of Eastern North America:**
James R. Ebert and Bosiljka Glumac
- **Influence of Humans on the Geomorphology, Hydrology, and Sediment Transport of Fluvial Systems:** Sara Gran Mitchell and Joshua C. Galster
- **Formation Processes and Characteristics of Subglacial Bedforms beneath the Ice Sheets of Continental North America:** Dale Hess and John Menzies
- **Quaternary Landscape Changes: Sedimentary and Geomorphic Records:**
Ilya V. Buynevich and Noah P. Snyder

At the NE GSA conference, ES-SEPM also hosted a reception and held its Annual Business Meeting attended by about 25 people. ES-SEPM President Ilya Buynevich (WHOI – Geology & Geophysics Dept.) made introductory remarks, and the Section's Secretary/Treasurer Bosiljka Glumac (Smith College) gave a short report. Ilya Buynevich also delivered the keynote address:

TEMPEST IN A SANDBOX: OVERCOMING CHALLENGES IN COASTAL EVENT SEDIMENTOLOGY

by Ilya Buynevich

Coastal and aeolian sequences have the potential of preserving long-term records of regional-scale erosional and depositional events. However, identifying and dating event horizons in sand is often a challenging task. Among the most diagnostic features of erosion are steep berm and dune scarps, regional unconformities (discontinuities), layers of coarse sediment or shell hash, as well as extensive accumulations of heavy minerals (magnetite, ilmenite, garnet, zircon, hornblende, etc.). These heavy mineral concentrations (HMCs; >10% mineral fraction with density >2.9) are found in many parts of the world and occur in thin layers or thick placer deposits. Their formation is due primarily to selective density sorting during the waning stages of storms.



The HMCs can therefore be used as proxies for high-energy events along sandy coastal regions, and have been attributed to storm or tsunami-induced erosion in a number of studies. Substantial contrast in electromagnetic properties between sands enriched in heavy minerals and quartz-rich background sediments is responsible for the sharp nature of subsurface reflections making HMCs some of the most prominent horizons in ground-penetrating radar (GPR) profiles. By combining high-resolution geophysical mapping subsurface erosional indicators with optical dating of individual event horizons, it is often possible to reconstruct the long-term history of coastal hazards in various parts of the world. In addition to reconstructing the geometry of erosional paleo-shorelines, the textural properties of the HMCs and similar lag deposits can be used for quantitative analysis of threshold conditions responsible for sediment removal, selective transport, and deposition. Textural characteristics of specific minerals allow quantitative assessment of threshold entrainment stresses responsible for selective sorting of sand during specific events.



In aeolian systems, HMCs occur as continuous layers on primary lateral accretion surfaces or as isolated lenses related to small-scale bedform migration. They range from a few millimeters to >5 cm in thickness and likely reflect greater near-surface flow stresses during periods of increased wind action. Where HMCs are enriched in magnetite, magnetic susceptibility may be used to assess its enrichment relative to enclosing quartz-rich sands. For example, depending on magnetite content, in-situ bulk susceptibility values ($\times 10^{-5}$ SI units) range from 50 to >300 in enriched horizons, in contrast to <5 for background dune sands. Quantitative analysis of aeolian HMC texture and

composition can be used to constrain sediment transport conditions and may serve as a potential proxy for wind intensity on decadal-to-millennial scales, which is an important component of paleoclimate research.

2008 Southeast GSA Conference

As in previous years, ES-SEPM was also active at the Southeastern Section of the Geological Society of America Conference in Charlotte, North Carolina on April 10-11, 2008. In Charlotte, ES-SEPM also hosted a reception and held its second Business Meeting led by the Section's Secretary/Treasurer Bosiljka Glumac (Smith College). The keynote address was given by the ES-SEPM Vice-President Stan P. Dunagan (Assistant Professor of Geology, Department of Geology, Geography, & Physics, The University of Tennessee at Martin): "The Palustrine Quagmire: Miscommunication and Other Problems Associated with Continental Carbonates". An audience of about 20 people truly enjoyed Stan's excellent lecture!

President's Column

Dear Colleagues –

It has been another exciting year for our section, and the officers would like to express our gratitude to many of our members for taking an active part in section activities. We are happy to welcome a number of new professional and student members and report an increase in active membership since last year. With professional members traditionally comprising the core of our Section, student members play a key role in ensuring the long-term success of ES-SEPM. We are actively pursuing potential sponsors for the Best Student Presentation awards that we would like to re-institute in our future Sectional GSA conferences. Please let us know if you would like to serve as a judge of student competitions in ES-SEPM-sponsored sessions. In the past, this has been a great way to recognize outstanding student research in a variety of sedimentological sub-disciplines and we would like to recognize these young scientists with a special award from our Section. Now that we have a new logo, please feel free to place it in your ES-SEPM sponsored presentation or poster. This will make it easier for judges to identify sponsored student presentations and will advertise our Section to all interested scientists from the eastern region and beyond.

A new election of officers is coming up shortly and we look forward to your support and nominations. We are currently looking for a Newsletter Editor and hope you can volunteer some of your time to disseminating information to our members several times per year. Please contact us if you wish to join us as an ES-SEPM officer in this capacity. As always, we encourage your participation in section activities and your initiative in proposing and chairing sessions that deal with new and exciting aspects of sedimentology at the upcoming professional meetings. Please do not hesitate to contact us with any questions or comments.

We wish you a productive 2008 summer season and look forward to working with you on making our section a vital part of SEPM.

Sincerely,



Ilya Buynevich

Geology & Geophysics Department, Woods Hole Oceanographic Institution, Woods Hole, MA 02543
ibuynevich@whoi.edu; 508-289-2841

2009 Sectional GSA Meetings



Secretary/Treasurer's Report

ES-SEPM currently has 225 members (162 professional and 63 student members). Even though the overall number of members substantially increased recently (compared to 172 in 2007), we have many inactive members. At our Business Meeting in Buffalo, NY in March of this year, the ES-SEPM members supported my initiative to update the membership list by removing the inactive members from it. More about this initiative and about establishing life-long memberships is included in the **Membership Information** section on the front page of the Newsletter.

Our Section's account presently has a balance of \$3,995. Membership fees are currently our only source of funds. Our main expenses are the receptions with keynote speakers we host at both NE and SE GSA conferences each year, and the production and mailing of the paper version of our Newsletters. Because our membership fees are low (\$8 per year for professionals; free for students) and only 32 of our professional members (or 20%) are current on their dues (paid through 2008 or beyond), our expenses exceed our income. Despite this, we have enough funds to support a variety of carefully chosen activities for many years to come and we will continue to do so. To accomplish this goal we will need your ongoing support and your input with ideas and planning for future ES-SEPM activities. I look forward to hearing from you.

Sincerely,

Bosiljka Glumac

Geology Department, Smith College, Northampton, Massachusetts 01063

bglumac@email.smith.edu; 413-585-3680

ES-SEPM Officers

President: Ilya Buynevich

Assistant Scientist with the Coastal Systems Group at the Woods Hole Oceanographic Institution
ibuynevich@whoi.edu

Vice-President: Stan Dunagan

Assistant Professor of Geology at the University of Tennessee at Martin
sdunagan@utm.edu

Secretary/Treasurer: Bosiljka Glumac

Associate Professor of Geology at Smith College in Northampton, Massachusetts
bglumac@email.smith.edu

Councilor for the Northeast: Cynthia Coron

Professor of Geology at Southern Connecticut State University
coroncl@southernct.edu

Councilor for the Southeast: Doug Haywick

Associate Professor of Geology at the University of South Alabama in Mobile
dhaywick@jaguar1.usouthal.edu

Newsletter Editor: vacant

Eastern Section-SEPM
Bosiljka Glumac, Secretary/Treasurer
Department of Geology
Smith College
Northampton, MA 01063
Address Correction Requested



Attention!!! Membership information ↓

MEMBERSHIP FORM

NOTE: This form is for New Members or for Current Members to update membership information. If the information on your mailing label is correct and we have your e-mail address, there is no need to return this form with your dues payment. Current members – *please pass this form on to prospective new members, both professionals and students as appropriate.*

Membership type:

Please check one: Professional (\$8/year*) ____ Student (free) ____

* make checks payable to: Eastern Section SEPM

**for a contribution of \$100 or more become a life-long member!!!

Name: _____

Title/Occupation: _____

e-mail: _____

Would you like to have your e-mail included on our online list of members? _____

Address: _____

Professional interests: _____

Web page (if you wish to have a link from the ES SEPM page):

Return completed forms with dues payment as applicable to:

Bosiljka Glumac
Eastern Section SEPM Secretary/Treasurer
Department of Geology, Smith College
Northampton, Massachusetts 01063

e-mail: bglumac@email.smith.edu

You can find a copy of this form and other pertinent information at:

www.science.smith.edu/departments/Geology/ESSEPM/

(can also be accessed from: www.sepm.org/sections/sectionshome.htm)

