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*Register by **2 March 2009** for reduced rates!*

North-Central

Plan your 2009 GSA Section Meeting attendance!

43rd Annual Meeting, Rockford, Illinois, USA
2–3 April 2009





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Welcome

Welcome to North-Central GSA 2009. It has been 24 years since Northern Illinois University (NIU) hosted a regional GSA meeting, so it's about time! The previous meeting, in 1985, was at the NIU main campus in DeKalb. It's not feasible to hold the 2009 meeting in DeKalb, but we think you will find Rockford a conveniently located, attractive venue with good hotels and restaurants (and an excellent brewpub). Of particular interest to conference participants are the Burpee Museum of Natural History (where the Thursday evening meeting buffet will be held) and the newly opened Center for the Sciences in nearby Beloit College. Also, the NIU faculty will be delighted if some of you take a couple of hours to visit the Dept. of Geology and Environmental Geosciences in DeKalb while you are at the meeting or on Saturday as you leave.

The impact of geologic processes and resources on society has probably never been greater, and those of us who work in the geosciences have never before been asked to undertake such a wide variety of tasks. Yet, as a group, we are getting older. According to the most recent American Geological Institute study, "The number of younger geoscientists in their early 30s is approximately half the number of those nearing retirement age." The need to prepare a new generation of geoscientists is obvious, and regional meetings such as this can help (with a relatively low carbon footprint from transportation). In that spirit, NCGSA'09 offers sessions devoted to education as well as special luncheons for students. At least equally important, the meeting offers students the opportunity to listen to and present professional papers and posters in a supportive environment.

The Keynote Address: "Paleoclimate: Hadean to Holocene" by John Valley, University of Wisconsin–Madison, presents an example of what can be learned by applying a broad array of techniques and disciplinary approaches to the singularly important topic of climate.

I hope to have the privilege of welcoming you to NIU's new, technically advanced Rockford Conference Center on 1 April 2009.

Gene Perry, Meeting Co-Chair

Extended Meeting Schedule

- 1 April:** Workshops and Short Courses
- 2–3 April:** Technical Sessions
- 4 April:** Field Trips

For up-to-the-minute details on this meeting, check www.geosociety.org/meetings/ or www.niu.edu/geology/gsa/index.html. If you have questions or special requirements, please contact the meeting chairs: local committee chairs, Gene Perry, ncgsa@niu.edu, +1-815-753-7935; and Melissa Lenczewski, ncgsa@niu.edu, +1-815-753-7937; or technical program chairs, Jim Walker, jwalker@niu.edu, +1-815-753-7936; and Douglas Walker, ddwalker@uiuc.edu, +1-217-333-1724.

REGISTRATION

Early Registration Deadline: 2 March 2009

Cancellation Deadline: 9 March 2009

Please register at www.geosociety.org. During the meeting, on-site registration will be at the NIU-Rockford Center. *Note: GSA will distribute badges at the meeting;* no badges will be mailed.



Front cover, inset, and above: Rock Cut State Park, near Rockford, Illinois, USA. Courtesy Rockford Area Convention and Visitors Bureau.

REGISTRATION FEES (ALL FEES ARE IN U.S. DOLLARS)

	Early	Standard	One-day
Professional Member	\$160	\$180	\$110
Professional Member 70+	\$100	\$100	\$50
Professional Nonmember	\$185	\$200	\$120
Student Member	\$40	\$50	\$25
Student Nonmember	\$75	\$85	\$60
K-12 Teacher	\$35	\$35	\$20
Guest or Spouse	\$50	\$50	N/A
Field Trip or Workshop only	\$35	\$35	N/A

On-Site Registration and Badge Pick-up Schedule

Rockford Conference Center, Northern Illinois University (NIU), Rockford, Illinois, USA

Wednesday, 1 April 4–8 p.m.

Thursday, 2 April 7 a.m.–5 p.m.

Friday, 3 April 7 a.m.–noon

CANCELLATIONS, CHANGES, AND REFUNDS

Requests for additions, changes, and cancellations must be received at GSA Headquarters by **9 March 2009**. No refunds will be made on cancellation notices received after this date. Refunds will be mailed from GSA after the meeting; refunds for fees paid by credit card will be credited to the card identified on the registration form. GSA cannot provide refunds for on-site registration, *Abstracts with Programs*, or event ticket sales.

ACCOMMODATIONS

Hotel Registration Deadline: 2 March 2009

Make your reservations via link on our Web site or use the phone numbers below.

Reference “The Geological Society of America” for event prices (single or double occupancy).

Clock Tower Resort and Conference Center, 7801 East State Street, Rockford, IL 61108, USA; +1-888-873-6581 or +1-815-315-4385. Event price: US\$104+tax per night.

Courtyard Marriott, 7676 East State Street, Rockford, IL 61108, USA; +1-815-397-6222. Reference GSA and code “1-SVMUOT” for the event price of US\$104+tax per night.

Hampton Inn, 615 Clark Drive, Rockford, IL 61107, USA; +1-815-229-0404. Event price: US\$109+tax per night.

Hilton Garden Inn, 7675 Walton Street, Rockford, IL 61108, USA; +1-815-229-3322. Event price: US\$119+tax per night.

TECHNICAL SESSIONS

Symposia

1. **Water Resources in Karst Terranes of the Midwestern United States.** Sam Panno, panno@isgs.uiuc.edu, +1-217-244-2456.
2. **International Development and Geoscience.** Jeff Greenberg, jeffrey.k.greenberg@wheaton.edu.
3. **Application of Modern Techniques to Address Fundamental Problems in Planetary Geology.** Mark Frank, mfrank@niu.edu, +1-815-753-8395.
4. **Central American Volcanism—A Tribute to Bill Rose.** Jim Walker, jwalker@niu.edu, +1-815-753-7936; Rudiger Escobar Wolf, rpscoba@mtu.edu.
5. **Carbon Sequestration—Moving Carbon from the Atmosphere to the Lithosphere.** Ed Mehnert, mehnert@isgs.illinois.edu.
6. **Water Use and Availability in the Great Lakes Basin.** Scott Meyer, smeyer@uiuc.edu.
7. **Cultural Geology: Building Stones, Archaeological Materials, Terrain, Terroir, and More.** Joe Hannibal, jhanniba@cmnh.org; Tammie Gerke, erebus95@fuse.net.



Rockford, Illinois, USA, along the Rock River. Courtesy Rockford Area Convention and Visitors Bureau.



Pierce Lake, Rock Cut State Park, near Rockford, Illinois, USA. Courtesy Rockford Area Convention and Visitors Bureau.

Theme Sessions

1. **Applied Geology: Environmental, Hydrogeological, and Geotechnical.** Terry West, trwest@purdue.edu.
3. **Quaternary Research in Wisconsin.** Kent Syverson, syverskm@uwec.edu, +1-715-836-3732; Randall Schaetzl, soils@msu.edu.
5. **Polar Climate Change.** Reed Scherer, reed@geol.niu.edu, +1-815-753-7951.
6. **Vertebrate Paleontology.** Mike Henderson, michael.henderson@burpee.org; Michael Ryan.
10. **Issues in Geoscience Education.** *Cosponsored by the National Association of Geoscience Teachers.* Kathleen Bower, kmbwer@ciu.edu, +1-217-581-6245.
11. **K-16 Collaboration, Outreach, and Engagement.** *Cosponsored by the National Association of Geoscience Teachers.* Allen Macfarlane, dowser@kgs.ku.edu, +1-785-864-2068; Annabelle Foos, afoos@uakron.edu.
12. **Sedimentary Event Histories and Controls on Timing and Patterns of Deposition in North American Phanerozoic Basins.** *Cosponsored by the Great Lakes Section SEPM.* James Day, jeday@ilstu.edu.
13. **Undergraduate Research (Posters).** *Cosponsored by the Council for Undergraduate Research.* Jeanette Pope, jpope@depauw.edu; Bob Shuster, rshuster@mail.unomaha.edu; Andrew Wulff, andrew.wulff@wku.edu.
14. **Fossils in Time and Space.** *Cosponsored by the Paleontological Society.* Shanan E. Peters, peters@geology.wisc.edu; Dana H. Geary, dana@geology.wisc.edu
16. **Geochemical and Isotopic Studies of Rocks, Minerals, and Fluids.** Neil Sturchio, sturchio@uic.edu; Francesco Belluci.
17. **Paleozoic Fishes: Evolution, Paleoecology, Systematics, and Assemblages.** Chuck Ciampaglio, chuck.ciampaglio@wright.edu.
19. **Sedimentary and Stratigraphy of Glacial Deposits.** Bryce Willems, bwillems@niu.edu; Jason Thomason.

WORKSHOPS & SHORT COURSES

All short courses and workshops will be held at NIU-Rockford.

1. **Introduction to Basis Map Making Using ArcGIS and Spatial Analyst.** 1 Apr., 8 a.m.–noon. Fee: US\$50. Max.: 15; min.: 7. Kingsley Allan, kingsley@illinois.edu, +1-217-333-0545.
2. **Approaches to Bridge the Gap between Geology and Engineering: Training to Maximize Engineering Soil Descriptions and Field Analysis.** 1 Apr., 1–5 p.m. Fee: US\$99. Max.: 40; min.: 5. Tim Kemmis, Midwest Geosciences, dan@midwestgeo.com, +1-763-607-0092; Dan Kelleher, Midwest Geosciences.
3. **Geology and Human Health.** 1 Apr., 1–5 p.m. Fee: US\$30. Max.: 40; min.: 10. Syed Hasan, University of Missouri–Kansas City, chair of the International Medical Geology Association Education Committee, and second vice-chair of GSA's Geology and Health Division, hasans@umkc.edu, +1-816-235-2976.
4. **Climate Change: Causes, Consequences, and Adaptations.** *Cosponsored by the National Association of Geoscience Teachers.* 1 Apr., 4–6 p.m. Fee: US\$15. Max.: 40; min.: 10. Allen Macfarlane, dowser@kgs.ku.edu; Sallie Greenberg, greenberg@isgs.illinois.edu.
5. **Backyard Field Trips: Inquiry-Based Activities within 100 meters of Your Building.** *Cosponsored by the National Association of Geoscience Teachers.* 3 Apr., 1–5 p.m. Fee: US\$10. Max.: 20; min.: 10. Mark Francek, mark.francek@cmich.edu.

SPECIAL SESSION

Protecting Public Health through Geological Understanding Panel Discussion.

Thurs., 2 April, 8–11 a.m. Dick Berg, berg@isgs.illinois.edu, Mike Bacon, Winnebago County Health Dept. This panel discussion brings together county health departments that use or need geological information for their planning endeavors.



Back cover and above: Juvenile Tyrannosaurus rex, Jane. Photo courtesy Rockford Area Convention and Visitors Bureau.

SPECIAL EVENTS

Welcoming Reception: Wed., 1 April, 6–8 p.m. at NIU-Rockford Conference Center

Keynote Lecture: Thurs., 2 April, 5–6 p.m. “Paleoclimate: Hadean to Holocene,” by John Valley, University of Wisconsin–Madison. NIU-Rockford Conference Center, main auditorium.

Evening at the Burpee: Thurs., 2 April, 6:30–9 p.m. International food buffet, beer, and cash bar provided.

Closing Reception: Fri., 3 April, 1–4 p.m. Refreshments and beer will be served.

BUSINESS MEETINGS

All business meetings will be held at NIU-Rockford. If you are interested in scheduling a business meeting or luncheon for your group, contact Melissa Lenczewski, +1-815-753-7937, ncgsa@niu.edu.

North-Central Section GSA Management Board Meeting: 2 April, 7–8 a.m.

North-Central GSA Campus Representatives and Technical Program Advisory Board Meeting: 3 April, 7–8 a.m.

Great Lakes SEPM and the Paleontological Society Luncheon and Business Meeting: 2 April, noon–1 p.m.

North-Central GSA Business Meeting: 2 April, 4:45–5 p.m., main auditorium.

Central Section National Association of Geosciences Teachers, Luncheon Business Meeting: 3 April, noon–1 p.m.

GSA Local Committees (2010–2012) Meeting: 3 April, 5 p.m.

FIELD TRIPS

All trips run on Sat., 4 April. Fees are US\$60 per person per trip and include transportation, box lunch, and a guidebook of all the meeting field trips. Max.: 50; min.: 20 per trip.

1. **Chicago’s Landscape—A Product of Glacial and Coastal Processes.** 4 Apr., 7:30 a.m.–4:30 p.m. Michael J. Chrzastowski, Illinois State Geological Survey, chrzasto@isgs.illinois.edu.

Despite the urbanization of Chicago’s landscape, notable preservation of prominent geomorphic features records the glacial and coastal processes that shaped this setting and formed the physical reason behind this city. This field trip will examine the paleogeographic changes in Chicago over the past 14,000 years—as glacial ice receded from the area, as wide fluctuations in lake level created a series of ancient shorelines, and the how and why of the Chicago River’s configuration. This field trip will also examine how the landscape provided both opportunities and challenges for the geo-engineering involved in building Chicago. Stops will include the outlet of Glacial Lake Chicago, the Chicago Portage National Historic Site, the historical and present-day mouth of the Chicago River, sites over buried paleochannels, and sites along relict shorelines of ancestral Lake Michigan.

2. **The Upper Mississippi Valley Pb-Zn District Revisited: Geology, Mining, and Cultural History, and a Look at Reclamation and Environmental Issues 30 Years after the Last Mine Closed.** 4 Apr., 7 a.m.–5:30 p.m. Bruce A. Brown, Wisconsin Geological and Natural History Survey, babrown1@wisc.edu; Thomas C. Hunt, University of Wisconsin–Platteville; Dave M. Johnson, Wisconsin Department of Natural Resources; Daniel D. Reid, Wisconsin Department of Transportation.

This trip will travel through the unglaciated landscape of southwest Wisconsin to Shullsburg, site of the last major mine, which closed in 1978. We will look at successful reclamation of the site and discuss groundwater issues related to mine closing. In Shullsburg, we will take an underground tour of a mid-nineteenth century crevice lead mine. We will then travel west to Hazel Green and through the heart of the historic mining district, with stops at several sites to discuss environmental and reclamation issues. At Platteville, we will visit the Mining Museum, which includes underground displays of lead and zinc mining. Returning east, we will head to the historic mining town of Mineral Point, stopping on the way to observe examples of the impact of mineralization on highway construction. In Mineral Point, we will have the opportunity to see many historic buildings that are good examples of the architecture used by mid-nineteenth century Cornish settlers. Our final stop will be at the reclaimed site of a former zinc roasting plant.

Register by 2 March 2009 for reduced rates!



Canoeing along the Rock River. Courtesy Rockford Area Convention and Visitors Bureau.



Anderson Gardens in Rockford. Courtesy Rockford Area Convention and Visitors Bureau.

4. **The Possible Impact of Oceanic and Climatic Events on the Depositional Patterns of Silurian Rocks in Northeastern Illinois.** 4 Apr., 7 a.m.–6 p.m. Don Mikulic, Illinois State Geological Survey, mikulic@isgs.illinois.edu; Joanne Kluessendorf, Weis Earth Science Museum.

This trip will examine possible relationships between the depositional history of Silurian rocks in northeastern Illinois and climatic/oceanic events along with associated biotic changes. We will visit Silurian and Late Ordovician exposures in several quarries of the region, including the famous Thornton Quarry, which contains one of the best-exposed Silurian reefs in the world. Participants should bring hardhats and safety glasses.

OPPORTUNITIES FOR STUDENTS

Mentor Programs

Cosponsored by the GSA Foundation. Questions? Contact Anny Jones at ajones@geosociety.org.

John Mann Mentors in Applied Hydrogeology Program

Thurs., 2 April, 11:30 a.m.–1 p.m. This event gives students and recent graduates with an interest in applied hydrogeology or hydrology as a career an opportunity to interact and network with professionals practicing in these fields of interest. All students will receive a ticket in their registration packets to attend this relaxed but focused small-scale event featuring a FREE lunch; however, space is limited. Learn more at www.geosociety.org/mentors/mann.htm.

Roy J. Shlemon Mentor Program in Applied Geoscience

Fri., 3 April, 11:30 a.m.–12:30 p.m. and 12:30–1:30 p.m. This is a chance for students to discuss career opportunities and challenges with professional geoscientists from multiple disciplines. All students will find tickets in their registration packets to attend the Shlemon Program and receive a FREE lunch; however, space is limited. Learn more at www.geosociety.org/mentors/shlemon.htm.

Travel Grants

Deadline to apply: 2 March 2009

Find information and applications at www.geosociety.org/sectdiv/. You must be registered for the meeting before you can apply online.

Volunteering

The local committee and officers of GSA's North-Central Section are offering free registration to a limited number of students in return for ~6 hours of work. Contact student volunteer coordinator Mark Frank, mfrank@niu.edu, for more information.

EXHIBITS

Deadline to reserve space: 9 March 2009

The meeting venue provides space throughout the building for interested vendors, exhibitors, organizations, universities, or other groups. Anyone interested in reserving booth space should contact the exhibits chair, Phil Carpenter, +1-815-753-1523, pjcarpenter@niu.edu, for further information. Exhibit booth space will be available on a first-come, first-served basis. The exhibit space will include one table with cloth and skirting, two chairs, wireless Internet access, and electrical access. Profit and non-profit exhibitors include one full meeting registration and two exhibit hall-only badges. University and VIP exhibitors include two exhibit hall-only badges.

Materials that are clearly marked for the NCGSA meeting may be shipped for arrival up to three days early. Preprinted return mailing labels can be brought to the meeting, and UPS pick up after the meeting. Ship to Janice Eisele, Conference Services Manager/Site Coordinator, Northern Illinois University–Rockford, 8500 E. State Street, Rockford, IL 61108, USA, +1-815-753-8763. Setup is 7 a.m.–6 p.m., 1 April; takedown will be from 4–6 p.m. on Friday, 3 April.

Booth Fees	One Booth	Additional Booths
For Profit Exhibitor	US\$125	US\$125
Non-Profit Exhibitor	US\$75	US\$75
VIP Exhibitor	US\$0	US\$25
University/College	US\$25	US\$25

Additional Costs:	
Local phone line	US\$25
Extra table with skirting	US\$25
Extra table without skirting	US\$25
Additional full meeting registration	US\$110
Additional exhibit hall-only badges	US\$30

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From Volcanoes to Vineyards:
2009 PORTLAND, OREGON
 Living with Dynamic Landscapes

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An Invitation to GSA's 2009 Annual Meeting & Exposition

18-21 October * Portland, Oregon, USA
www.geosociety.org/meetings

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Wonderglobe: Background Earth image produced by Reto Stöckli; used with permission of NASA. Inside globe images: Mount Hood, Portland, Oregon; image courtesy Travel Portland. Erupting volcano photo by Ulrich. Photos of Delicate Arch, Arches National Park, Utah; Echinus Geyser, Yellowstone National Park; flash flood, Death Valley; and Great Sand Dunes, Colorado, by John Karachewski. Photo of USGS scientist conducting electronic distance measurement, South Sister Volcano, Oregon, by Lyn Topinka; used with permission of USGS. Oregon Convention Center rain garden; photo used with permission from the Oregon Convention Center.

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