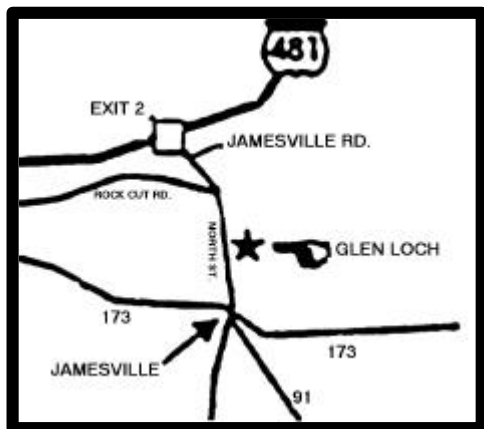


**CENTRAL  
NEW YORK  
ASSOCIATION OF  
PROFESSIONAL  
GEOLOGISTS**

**NOTICE:**

The April CNYAPG Meeting will be **WEDNESDAY, APRIL 12<sup>TH</sup>**, at the **Glen Loch Restaurant, 4626 North Street, Jamesville, NY.**

**Cost: \$18.00 for members, \$20.00 for non-members, and \$12.00 for students with ID. Join us early for social hour. Dinner starts at 6:30 p.m.**



**CNYAPG CONTRIBUTORS**

BUCK GABRIEL  
VITA DEMARCHI  
NANCY GENSKY  
LYNETTE MOKRY  
SARAH MCCULLOUGH

# CNYAPG

## Wetland Geochemistry and Hydrologic Connectivity from an Adirondack Perspective

Dr. Christopher Cirmo  
Assistant Professor of Geology  
SUNY Cortland

It has been known for some time that wetlands function as sources, sinks, or transformers of chemical constituents. In particular, certain nutrient chemicals, such as nitrogen and sulfur, have cycles that are directly affected by fluctuating redox environments found in saturated zones near streams and within peatlands. Although these effects have been documented for isolated wetlands, the role of individual wetlands on stream water quality, within the context of the watershed, is relatively unstudied. The "hydrologic connectivity" of these wetlands to surface and groundwaters may be switched on and off by alternating layers of materials of varying hydraulic conductivity, to this hydrologic connectivity. These ideas are being explored in a set of experiments and a real-time monitoring program within wetlands and saturated zones of Adirondack Valley bottoms within the Upper Hudson-Mohawk drainage basin.

Dr. Cirmo has extensive experience in the areas of biochemistry and hillslope and wetland hydrology, focusing on the Adirondack Region. He obtained his BS from Utica College, MS from Indiana University, and Ph.D. from Syracuse University. He has been a research assistant at Oak Ridge National Laboratories, an environmental scientist with British Petroleum, and taught community college for 5 years before completing his doctorate. Dr. Cirmo did post-doctoral work at SUNY ESF in watershed hydrology with Jeff McDonnell, and was assistant professor of geology and environmental science at Susquehanna University before taking his current position at SUNY Cortland. Recent work has centered upon the role of near-stream riparian and hyporheic zones on the processing and hydrologic transport of nitrogen and in the use of novel stable isotope ratios to determine hydrologic flowpath and sources and sinks of nitrogen.

## OUR PRESIDENT'S SOAP BOX

By  
William J. Gabriel



For additional interesting and  
informative websites, check out:

<http://www.nyscp.org>  
[http://www.dreamscape.com/  
cnyapg](http://www.dreamscape.com/cnyapg)

Greetings,

Hard to believe that this month will wrap up our regular monthly meetings at the Glen Loch. Dr. Chris Cirno will provide some insights into the geochemistry of wetlands and hydrologic connections to surface and groundwater. I'm sure the "Consultants" will find this particularly pertaining and informative.

I trust everyone received the flyer describing the DNAPL Seminar scheduled for May 3, 2000. We are quite excited about this event and the registration forms are coming in. I would encourage everyone to attend, however, be aware that we are somewhat limited (by space) to the number of attendees that can be accepted. It's first come first serve, so get your registration forms in as soon as possible. And, by all means, if you haven't received your copy of the flyer, please contact us! We wouldn't want you to miss this opportunity.

Some good news and bad news, first the bad. Unfortunately, due to scheduling problems we are canceling the dinosaur talk at the MOST. The good news is, a private tour of the Paleontological Institute in Ithaca has been arranged for May 13<sup>th</sup>. This tour will be open to all CNYAPG members and their families, FOR FREE, and will offer an overview of the Institutes "Dinosaur Science Program" followed by a private viewing of their collections. This is truly a unique opportunity! "Hats Off" to Sara McCulloch for making this happen! Sara gets my vote for CNYAPG member of the month, not only for arranging this tour but also for spearheading the DNAPL conference! Good form!

In addition, this month we will appoint several new directors to the board and nominating next year's president. This is a time to consider making a commitment to the ongoing growth and education we all receive from our organization and lending your efforts to the continued "business at hand" for the group. If you can give of your time and energy to benefit CNYAPG by serving as a director, please let me know.

As I look over the past few months, I see how we have had informative and entertaining presenters and the attendance at our monthly meetings has been strong, a trend that has been shown over the past couple of years. It is a good time to meet with colleagues, learn, share conversation, trade tales of woe in the field, and generally spend time with other professionals in our field without the pressure of a deliverable deadline, at least for 3 hours. I am sure that the next season will offer the same stimulating and enriching opportunities for us all.

I look forward to seeing you on April 12th (remember, it is Wednesday this month due to a conflict at the Glen Loch) for Dr. Cirno's talk.

Buck Gabriel  
CNYAPG President

**CNYAPG - APRIL 2000**

## Geology News

### *Jobaria Discovery*

Bones of several *Jobaria tiguidensis*, plant-eating dinosaurs, were discovered by the western world in West Africa. The discovery by Dr. Paul Sereno, a University of Chicago paleontologist, included nearly complete skeletons of with *Jobaria* dinosaurs. Although the discover was new to most, local tribesmen knew of the location of the bones for centuries. The tribesmen say the protruding bones and made up stories of a mythical monster, "Jobar," hence the name *Jobaria*. A Tuareg chieftain led Sereno to the Jobar bone yard.

*Jobaria* belongs to the sauropod dinosaur group distinguished by big chests, long necks and tails, and small heads. Fifteen feet tall, 70 feet long, and weighing 40,000 pounds, *Jobaria* were imposing dinosaurs that could rear up on their hind legs to reach a height of more than 30 feet. The *Jobaria* dinosaurs roamed West Africa approximately 135 million years ago for approximately 30 million years. Their longevity surpasses other known sauropods such as the *Brontosaurus* (now known as *Apatosaurus*) and the *Brachiosaurus*. Reasons for their longevity may include more favorable climate and plant foods in West Africa or fewer predators.

Working since 1990, Sereno has mounted two expeditions in 1995 and 1997 to Niger. Since 1997, Sereno and his team have been cleaning and studying the *Jobaria* skeletons, which will be returned to Niger. The study of African dinosaurs is significant, given that more than 90 percent of what is known about dinosaurs comes from North America and the Gobi Desert in the Northern Hemisphere.

In addition to the *Jobaria* skeletons, Sereno also discovered the remains of *Afrovenator*, a 27-foot long meat-eater; *Suchomimus*, a rare fish-eating dinosaur; and *Nigersaurus*, a sauropod with a duck-shaped bill for a mouth, in Niger. Other Sereno discoveries include 12-foot *Herrerasaurus* and the 25-pound *Eoraptor*, which lived approximately 230 million years ago in Argentina; and the 30-foot *Deltadromeus* and the first skull of the *Carcharadontosaurus* in Morocco. (*Chicago Tribune*, *Chicago Sun Times*, 11/99).

### *High Prices at the Pump Lead to Senate Hearing*

With oil prices at record lows last year, Congress focuses attention on legislation to provide tax incentives for the domestic petroleum industry. Now, with oil prices hovering around \$30 a barrel and price spikes for diesel fuel and home heating oil, congressional focus has shifted to tax relief for consumers and calls for increased domestic production in order to decrease reliance on foreign oil. At a February 24<sup>th</sup> hearing of the Senate Energy and Natural Resources Committee, the main witnesses, including former Energy Secretary James Schlesinger, argued that US dependence on foreign petroleum puts the country in a predicament when it comes to economic and national security concerns.

Although the witnesses mainly discussed the commodities market, they also noted that the fluctuation in the cost of oil could be dampened by the production of more domestic petroleum. In heated opening statements critical of the Clinton Administration's attitude towards petroleum development, many senators called for new federal policy regarding the production of domestic petroleum. Committee Chairman Frank Murkowski (R-AK) was especially vocal, blaming overly strict environmental policy that has closed many areas of the country to exploration and development as one of the causes of the decrease in national oil productivity. More info can be found at: [http://www.agiweb.org/gap/legis106/oil\\_price\\_hearing.html](http://www.agiweb.org/gap/legis106/oil_price_hearing.html)

### *Graduate Assistantships in Areas of National Need (G.A.A.N.N.) Fellowships for Computational Earth Sciences Available for Fall 2000:*

The Department of Geological Sciences at Binghamton University is pleased to announce immediate availability of 5 graduate student fellowships funded by the U.S. Department of Education. These multiyear fellowships (approximately \$15K per year) are intended for U.S. citizens pursuing a Ph.D. in any area of computational Earth Sciences. Women and under-represented minorities are particularly encouraged to apply. For the fellowships recipients, the field of concentration could include: hydrogeologic modeling, contaminant transport modeling, tectonic modeling, sedimentary basin modeling, seismology, application of "intelligent" computing techniques, to geoscience modeling, and applied geophysics for field geologic problems. In addition, general tools of research, such as GIS, Matlab, etc., are to be incorporated as a part of their training. Interested students should visit <http://www.geolo.binghamton.edu> Or contact Dr. Francis Wu: [wu@sunquakes.geol.binghamton.edu](mailto:wu@sunquakes.geol.binghamton.edu).

## ***More Drought Looming If Rains Do Not Return, USGS Warns***

Last summer's drought may move westward this summer as streamflows in many parts of the United States continue below normal. At a press conference, USGS Director Charles G. Groat warned that continued below-normal streamflow and low groundwater levels might signal a return of last summer's drought.

Based on data from the USGS network of more than 7,000 streamgages nationwide, there are some areas of the country, particularly east of the Mississippi River, where streamflows are at record-low flows for this time of year.

"This is the time of year where streamflow conditions should be about normal, but in the eastern half of the country, we're anywhere but that," Groat said. "We should be seeing groundwater recharge taking place now and we're not seeing that either."

There is a slightly different phenomenon occurring from last year's drought. Now, the drought is moving west, clearly into the Appalachians and the southeast, he said. These are the areas that did not receive recharge from last year's busy hurricane season like the eastern seaboard did. USGS scientists are also seeing near record-low streamflows in the Ohio Valley, the center of the Midwest, the Lower Mississippi River Basin, and into the southeast.

Real-time streamflow data is available from the USGS at <http://water.usgs.gov>.



## **SUPPORT YOUR COUNCIL OF PROFESSIONAL GEOLOGISTS WILLIAM KELLY, PRESIDENT, NYSAPG**

Now is the *time* to show your support for the licensure of geologists in New York and the *place* to do it is where the hammer meets the outcrop. The outcrop, in this case, is the legislature and the figurative hammer is your membership in and financial contributions to NYSAPG. Enclosed in this newsletter is your membership form for the Council of Professional Geologists. I urge you to use it. One of the strongest arguments we can make to the legislature is that a large number of geologists support the bill. We prove this with a robust individual membership list. A factor that carries at least equal, if not greater, weight is the number of corporations that show their support by becoming corporate members. If your company has geologists on staff, or uses the services of geologists in your business, consider the corporate membership. Associated with the membership lists, of course, is the money we accrue from recruiting activities. In the legislative arena, lobbyists and lawyers are our advocates and defenders. They do demand to be fed, however. Your financial support is the lifeblood of the licensure movement.

Now, while you have the membership application in your hand, notice the section about "additional donations." Why not add an extra \$5 or \$10 to aid the cause? By the time you read this, the NYSCPG and the NYSSPE will have reached formal agreement on the language of the licensure bill. With this formidable hurdle surmounted, the NYSCPG will be moving rapidly forward towards passage of the bill. We need your support now. If you believe that professional licensure is in the best interest of geologists in New York, please demonstrate that with your membership and financial support.

# Calendar

April 5, 2000 - Wednesday

The NFS AWMA Annual Spring Seminar, "Environmental Compliance Strategies for 2000 and Beyond," will once again be held at the Grand Island Holiday Inn, 100 Whitehaven Road, Grand Island, NY. For more information, contact Patrick Martin at Benchmark Environmental Engineering and Science, LLC, at 716.856.0599.

April 12, 2000 - Wednesday

CNYAPG Meeting with Dr. Christopher P. Cirimo, Asst. Professor of Geology, SUNY Cortland, speaking about Wetland Geochemistry and Hydrologic Connectivity from an Adirondack Perspective.

April 19, 2000 - Wednesday

BAPG Monthly meeting, Little White House Restaurant, 5877 Main Street, Williamsville, NY. Mr. Brad Gill (a petroleum geological consultant) will speak on "New York State in Cross Section" or "A look at the Oil and Gas Activity and Multiple Drilling Targets across the State from East to West, Top to Bottom, and Past to Present."

April 19, 2000 - Wednesday

HMPGA Technical Symposium 2000 at 1:00 p.m. in the Earth Tech parking lot, 12 Metro Park Road. Contact Mike Palleschi at 518.783.1805 for information.

April 27, 2000 - Thursday

The Business Council of New York State, Inc. (and local Chamber of Commerce) presents "Environmental Management Systems: A Practical Guide to Getting It Done.: This one-day program is designed to walk you through the basic concepts of an EMS, as well as the basic steps of developing and implementing an EMS for your business. This seminar will also briefly discuss the international standard for EMS, the ISO 14000 standard, as well as the potential benefits and costs of registering your EMS to ISO 14001. Holiday Inn Syracuse/Liverpool, 441 Electronics Parkway, 315.457.1122

May 3, 2000 - Wednesday

CNYAPG and NYSCPG present one-day workshop on "Practical Site Characterization & Remediation Techniques for DNAPLs and Their Associated Dissolved Phase Plumes" by Dr. Jack Guswa, HSI GeoTrans, Harvard, MA, and Dr. Bernie Kueper, Queen's University, Kingston, Canada; with a special presentation on "Enhanced TCE Bioremediation Using Injectible HRC" by Paul Tornatore, Haley & Aldrich of New York, Rochester, New York. Sheraton University Inn, Syracuse, NY. Workshop participants can expect to gain knowledge on the state-of-the-art techniques for investigating and remediating DNAPL sites. Attention will be given to a variety of DNAPL types, and a variety of geological settings, including both unconsolidated deposits such as sands and gravels, clay, and fractured rock. For more information, contact Sarah E. McCulloch at 607.836.4400 ([sarah@geologic.net](mailto:sarah@geologic.net)) or Vita DeMarchi at 315.475.9204 ([vdemarchi@secor.com](mailto:vdemarchi@secor.com)) or visit our web site: [www.dreamscape.com/cnyapg](http://www.dreamscape.com/cnyapg).

May 3, 2000 - Wednesday

BAPG Seminar, "Enhanced Biodegradation of Organic and Inorganic Contaminants in Groundwater," presented by Don Ochs and colleagues from Regenesys at the Four Seasons Hotel on Walden Avenue, Buffalo. For registration forms, see the BAPG website or contact Carol Yamarino at Ecology and Environment: 716.684.8060.

May 13, 2000 - Saturday

CNYAPG Season Finale for the family at the Paleontological Research Institution, 1259 Trumansburg Road, Ithaca, NY, 607.273.6623. Bring the family for the Dinosaur Science Program, 10:00 - 11:00 a.m., followed by a CNYAPG-only private tour of their collections.

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## CNYAPG MISSION STATEMENT

The CNYAPG was founded in 1993 to strengthen and advance the geologic sciences as a profession and to provide an open forum for the exchange of ideas; to promote the protection of public welfare through the professional practice of geologic sciences; to inspire and maintain the highest standards of professional conduct, business ethics, and personal honor of the membership; to foster the spirit of scientific research throughout the membership; to publish and otherwise disseminate information related to the geologic sciences and associated technologies; to maintain and encourage intra- and inter-association activities, to enhance the association's programs, and to encourage the affiliation of individual members with other scientific and technical organizations.

Visit the CNYAPG Web Site for Updates

<http://www.dreamscape.com/cnyapg>