



# ON THE ROCKS



A Newsletter of the Michigan Basin Geological Society  
2009-2010 Number 5 [www.mbgs.org](http://www.mbgs.org) January 2010

## EVENTS

**Wednesday, January 13th, 2010:** MBGS's January meeting will be held at Michigan State University, Natural Science building at 7:00 pm, room 204. The speaker is Ralph Taggart, Ph.D. from Michigan State University, presenting "Chasing the Great North Woods Through Time." Location information is included in the newsletter.

### Notes from the editor

- MBGS and the Michigan Geological Repository for Research and Education (MGRRE) are co-sponsoring the 2010 AAPG Eastern Section Meeting in Kalamazoo, Michigan, September 26 – 28, 2010. Mark your calendars and plan on joining us in showing the Eastern Section AAPG what a great host Michigan can be!!!
- MBGS has a **core display** available for use that visually demonstrates permeability/porosity. There are posters available for use with the core display. Contact Mark Wollensak at [wollensak@voyager.net](mailto:wollensak@voyager.net) to reserve this great educational tool. The core display is provided by the Core Kids K-12 Outreach Program at MGRRE. For additional information or supplemental material (slides on porosity and permeability, photos, etc.), please contact Susan Grammer, [susan.grammer@wmich.edu](mailto:susan.grammer@wmich.edu).





## MEMBER CORNER

This section will be used to share information submitted by members. Attend an interesting conference? Hear an exciting lecture? Please feel free to submit any information you would like to share to the membership to: Arlene at [aanderson-vincent@golder.com](mailto:aanderson-vincent@golder.com)

### **MSU geology program 'cautiously optimistic'**

College's dean says cuts present chance to renew vision, save department

*Matthew Miller, Lansing State Journal, December 6, 2008*

<http://www.lansingstatejournal.com/article/20091206/NEWS06/912060528>

The 1855 legislation that created Michigan Agricultural College, the school that became Michigan State University, mandated the inclusion of geology in the curriculum. The geology department trained students to work in the Upper Peninsula mining industry in the early 20th century, in the petrochemical industry in the century's latter half. It's a discipline that would seem an essential part of the university's history, an essential part of a major research university. But at MSU, in the current budget climate, the definition of "essential" is changing.

On Oct. 30, MSU Provost Kim Wilcox announced that the Department of Geological Sciences, along with the Department of Communicative Sciences and Disorders and more than two dozen degree programs had been placed on the chopping block. The university's leaders expect state financial support to dwindle in the coming years. They've asked every unit on campus to take a 4 percent cut to their operating budgets this year. Next year will bring cuts of at least 6 percent and likely more the year after. They're convinced that MSU won't be able to do everything it once did. And so they're moving forward with what could be the most significant cuts to the university's academic offerings since the early 1980s.

The Geology Department may yet get a reprieve. James Kirkpatrick, dean of the university's College of Natural Science, called it "an opportunity to develop a new intellectual vision." He might equally well have said an opportunity to save itself. 'Low hanging fruit' The future of the department lies in the study of the environment, of global climate change and its consequences, "the overarching concept of sustainability," said chair Ralph Taggart. "As a natural evolutionary phenomenon, we've been moving closer to that new vision," he said, "we just haven't articulated it particularly effectively. We've got people who are doing the right kind of work. We've got other people on board who can, to some extent, retask and refocus their efforts in other areas that are more closely aligned with the university's mission." He is "cautiously optimistic" that the department will survive. Tom Vogel, a retired geology professor who is still active in the department, is less so. He takes the very possibility that MSU could become the only Big Ten university without a geology department as an insult. "It's hard to imagine," he said. "Geology is so fundamental to the mission of a land grant university, especially one that considers itself an environmental university." The department has gotten little support from the university in recent years, in any case, he said. And the only logic he can see to eliminating it now has less to do with its performance than with the fact it is the smallest department in the College of Natural Science, with an annual budget of \$1.31 million and 93 undergraduate majors last year. "We're low hanging fruit."

Kirkpatrick, himself a geologist by training, said the reasoning was different. In making cuts, "we need to be making sure that we protect our strongest programs," he said, "the programs that have highest student demand." "We need to take reductions someplace, and this is one place we thought we could do it."

## Various concerns

Geology students go on field trips with their professors. They participate in weeks-long summer field camps. It makes for close relationship to the department, and many alumni have taken the possibility of its elimination personally. "Every single alumnus I have talked to has said they will cease donations to the university, period (if the department is cut)" said Rachel Paez, a geologist for Exxon Mobil Corp. who earned her bachelor's and master's degrees from MSU. As it happens, she is also the granddaughter of John Hannah, president of MSU from 1941 to 1969. Cutting geology, she said, would be "an egregious deviation" from her grandfather's vision of the university. For current students, the concerns are different. Senior Chelsea Mack said she was shocked by the proposal to close the department "when it's such an applicable, relevant field." Now, she's "afraid that my degree won't mean as much" if the department disappears.

## Geology as a core

If the department survives, it won't be the same program, Taggart said. "We will need a different name. Maybe it will have something about earth science in it," he said, "maybe something about the environment. That's the least of my worries." But others are concerned about just how much the department might be asked to change. "We can't abandon who we are," said geology professor Danita Brandt. "There is a geology core that needs to remain. We can have our interdisciplinary programs, but we can't lose what makes us geologists."

For information on the status of this proposal, please refer to <http://shapingthefuture.msu.edu/>



## UPCOMING EVENTS

- **January 15<sup>th</sup>, 2010 - Ohio Geological Society, 12<sup>th</sup> Annual Winter Gala**, Ramada Plaza Hotel & Conference Center, Columbus Ohio, for more info contact Amy Lang, [Amy.Lang@formanenergy.com](mailto:Amy.Lang@formanenergy.com) or 614-717-9262, <http://www.ohgeosoc.org/>
- **March 17-19, 2010 - OOGA Annual Meeting**, Hilton Easton, Columbus Ohio, [www.ooga.org](http://www.ooga.org)
- **September 26-28, 2010: AAPG Eastern Section Meeting**, sponsored by the Michigan Basin Geological Society and the Michigan Geological Repository for Research and Education. Contact Robb Gillespie for information via email at [robb.gillespie@wmich.edu](mailto:robb.gillespie@wmich.edu)

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### **Historical CD #1: Nine out-of-print publications from 1949 through 1965 and 1998, 2000, \$15**

- The Stratigraphy of Manitoulin Island, Ontario, Canada, June 19-20, 1954
- The Devonian and Silurian Rocks of Parts of Ontario, Canada and Western New York, June 22-23, 1951
- The Traverse Group of the Northern Part of the Southern Peninsula of Michigan, June 16-17, 1949
- Geology of Central Ontario, Canada, 1965
- The Devonian Strata of the London-Sarnia Area, Southwestern Ontario, Compiled by Erwin C. Stumm, Lewis B. Kellum and Jean Davies Wright, June 9-10, 1956
- The Ordovician Rocks of the Escanaba-Stonington Area, Led by R. C. Hussey , June 2-3, 1950
- The Niagara Escarpment of Peninsular Ontario, Canada, June 18-19, 1955
- Lower Paleozoic and Pleistocene Stratigraphy Across Central Wisconsin, Compiled by C. E. Prouty, Led by L. M. Cline, J. L. Hough and R. F. Black, 1960
- Classic Silurian Reefs of the Chicago Area, by Donald G. Mikulic and Joanne Kluessendorf , June 27, 1998

### **Historical CD #2: Four out-of-print publications from 1947, 1959, 1983 and 1991, 2001, \$15**

- Copper Country Field Trip, Michigan, June 20-22, 1947
- Geology of Mackinac Island and Lower and Middle Devonian, South of the Straits of Mackinac, June 12-14, 1959
- Tectonics, Structure and Karst in Northern Lower Michigan, August 1983
- Geology of the Pictured Rocks, Upper Peninsula, Michigan, July 11-13, 1991

### **Historical CD #3: Six out-of-print publications from 1948, 1952, 1990 - 1995, 2001, \$15**

- Pleistocene and Early Paleozoic of the Eastern Part of the Northern Peninsula of Michigan, June 18-21, 1948
- Stratigraphy and Structure of the Devonian Rocks in Southeastern MI and Northwestern OH, June 20-21, 1952
- Lower Ordovician and Upper Cambrian of Wisconsin , May 10-12, 1990
- Guidebook to the Precambrian Geology and Metallogeny of the Central Upper Peninsula of Michigan September 12-13, 1991

### **Historical CD #4: Six out-of-print publications from 1957, 1958, 1961, 1967, 1968 and 1970, 2004, \$15**

- Silurian Rocks of the Northern Peninsula of Michigan , 1957
- Cambrian Geology of Parts of Dickinson and Iron Counties, Michigan, June 1958
- Geologic Features of Parts of Houghton, Keweenaw, Baraga and Ontonagon Counties, Michigan, May 19-21, 1961
- Correlation Problems of the Cambrian and Ordovician Outcrops Areas, Northern Peninsula of Michigan 1967

- The Geology of Manitoulin Island, June 1968
- Devonian Strata of Alpena and Presque Isle Counties, Michigan, 1970

**Historical CD #5: Five out-of-print publications from 1971, 1989, 2001, and Oil & Gas Fields Vol. 1 & 2, 1969 & 1992, 2006, \$50**

- Oil & Gas Fields Symposium, Volume 1, April 1969, 200 pp., maps, illus., second printing with updates
- Oil & Gas Fields Manual of the Michigan Basin, Volume 2, 1992, 520 pp., maps, illus.
- Glacial Geology of Southwestern Michigan, 1989, 53 pp. by A. Kehew, L. J. Schmaltz, and W. T. Straw
- Geology of the Lake Erie Islands and Adjacent Shores, 1971, 65pp., maps, illus. by Jane L. Forsyth
- Glacial Geology of Southwestern Michigan, Landforms of the Lake Michigan Lobe, Southwestern Michigan, 2001
- AAPG Eastern Section Meeting Field Trip, 32 pp., maps, illus. by A. Kehew and A. Kozlowski

**Historical CD #6: Six out-of-print publications from 1946, 1953, 1963, 1966, 1978 & 1987 plus the Richfield Challenge, 1952 & Tom Knapp's MS Thesis, 2007 \$15.**

- Guidebook for Ontario Geological Excursion to Kettle Point –Owen Sound – Waubaushene, June 21, 22, 23, 1946 by W. A. Roliff, C. S. Evans and J. F. Caley
- Guidebook for Ordovician Stratigraphy of the Cincinnati, Ohio and Richmond, Indiana Areas, June 12, 13, 1953 by W. H. Shideler and B. T. Sandefur
- Guidebook for the Stratigraphy of the Silurian Rocks in Western Ohio, May 31-June 2, 1963 by C. H. Summerson, Jane L. Forsyth, Karl V. Hoover and J. R. Ulteig
- Guidebook for Cambrian Stratigraphy in Western Wisconsin, May 21, 22, 1966 by Merideth E. Ostrom
- Geology of the Manitoulin Area, Special Papers #3, September 29, 30 and October 1, 1978 by J. T. Sanford and R. E. Mosher
- Middle Devonian Cratonic Carbonates and Shales in Southwestern Ontario, November 14, 1987 by Bruce Wilkinson
- The Richfield Challenge, A Review of the Richfield Developments in Michigan, 1952 by Gordon H. Hautan
- A Theory of Rogers City and Dundee Relationships in Central Michigan, Masters Thesis, 1947 by Tom Knapp

### OTHER SPECIAL OFFERS

- **Historical CD Set - # 1 – 6 (detailed above) for a special purchase price of \$85**
- **NE Lower Peninsula Geological Field Conf., 2004, T. Black, M. Wollensak, On CD \$10**
- **Stratigraphic Lexicon for Michigan, 2001, prepared by MBGS and published by DEQ, \$4**
- **(NEW) Robert E. Mosher Geological Studies** A lifetime of geological research on Silurian Rocks with John T. Sanford. The disks are organized chronologically and include field work in North America and Europe. 2007, 2 CDs \$35.

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# MBGS Meeting

## Wednesday, January 13, 2010

**“Chasing the Great North Woods Through Time”**  
Presented by: Ralph Taggart, Ph.D., Michigan State University

**Location:** MSU, Natural Science Building  
The talk will begin at 7:00 PM in room 204

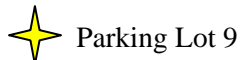
Refreshments will be provided after the talk in the Natural Science Building room 207

No charge for this meeting  
Executive committee meeting will be held at 4:30 PM at  
Claddaugh’s Irish Pub in Lansing (members welcome)

**Please RSVP for this meeting to:**

Thomas Godbold  
Bus Ph: 517-241-1545, Fax 517-241-1595  
E-mail: godboldt@michigan.gov

Between 5pm & 6pm you can park in Lot 9 behind Giltner Hall and the Psychology Building (former Physics and Astronomy building) for free. Otherwise you can try your luck with the metered slots clustered around the Natural Science Building and the adjacent Student Services Bldg, no charge after 6:00pm.



## **Biographical Sketch**

Dr. Ralph Taggart, was born in Charlottesville, Virginia and spent his childhood years in Philadelphia suburbs, New York City, and rural northern New Jersey. In 1963, he earned his Bachelor's degree (B.A.) from Rutgers University (New Brunswick, NJ). After graduation, he worked for Boyce Thompson Institute prior to attending Ohio University (Athens, OH) for a Masters degree (M.Sc.). After completion of his master program in 1967, Dr. Taggart accepted a NASA fellowship to attend to Michigan State University (MSU), where he obtained his Ph.D. He joined MSU as faculty (starting in Botany and Plant Pathology – currently in Plant Biology – with an additional joint appointment in Geological Sciences in 1986). Since 2005, Dr. Taggart served as Chair of Geological Sciences. His research specialty is the reconstruction of ancient environments based on palynology, paleobotany, and any clues furnished by basic Geology.

## **Abstract**

### **Chasing the Great North Woods Through Time**

Our very own Great North Woods is the southernmost edge of a huge circumpolar forest Biome known as the Boreal Forest or Taiga. It is the only significant biome still dominated by conifers, almost all of which are evergreen. Given that the conifers are a very ancient group of plants, one might expect the Boreal Forest to be quite old, but its origin and history have presented some real puzzles. As it turns out, the Boreal Forest may be the youngest of Earth's forested biomes and some of the peculiarities of its origin may severely limit its future in a world impacted by global warming.

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