



ON THE ROCKS

A Newsletter of the Michigan Basin Geological Society

2017-2018 Edition 6

www.mbgs.org

February 2018



MBGS ANNOUNCEMENTS

MONTHLY MEETING

February 7th, 2018: The February meeting will be held at Michigan State University, Natural Science Building at 7:00 pm in Room 351. Shawn Carlson, independent mining consultant, will be presenting "A History of Diamond Exploration in Michigan and Wisconsin". Additional information is included in the newsletter.

MBGS FIELD EXCURSIONS

April 13-15th, 2018 – GEOLOGIST RETREAT – YANKEE SPRINGS

The MBGS is hosting a "retreat" for our membership at Yankee Springs Recreation Area on April 13th through April 15th (Friday – Sunday). Rustic cabins/bunkhouses are reserved and we have room for 15 members to attend. This social event will include a geological presentation on the glacial landforms at Yankee Springs by Dr. Robb Gillespie, Assistant Professor of Geosciences, Western Michigan University. Friday evening and Saturday evening will be available as social time for the geologists to mingle and relax. Details of the event will be provided in a near future emailing. Keep the weekend open and plan to join us!

SPRING 2020 - GEOLOGICAL EXCURSION BY RAFT ON THE COLORADO RIVER THROUGH THE *GRAND CANYON*

LEE'S FERRY TO WHITMORE WASH (PAGE, ARIZONA)

A 7-day Grand Canyon rafting trip through Hatch includes: 188 miles of rafting from Lee's Ferry to Whitmore Wash, pre-trip stay at Cliff Dwellers Lodge, helicopter ride & return flight to Las Vegas or Marble Canyon, and meals, beverages, camping gear and dry bags provided by Hatch while on the river. Contact Mark Wollensak at wollensak@voyager.net to get more information or reserve your spot on this trip.

TRIP BACKGROUND: The Michigan Basin Geological Society (MBGS) is returning to raft the Colorado River through the Grand Canyon in May of 2020. This is a repeat of the 2005 trip taken except this trip will be led by highly experienced geologist, Dr. Kata McCarville, Upper Iowa University. Many repeat stops are anticipated to be visited such as Lava Canyon, Redwall Cavern, Nankoweap Grainery and Havasu Canyon. New stops are also anticipated. The Grand Canyon is the first on the list of the Seven Natural Wonders of the World.

MBGS ONLINE STORE

The Michigan Basin Geological Society now has an on-line store. Shop for shirts, hats, bags and other items at <http://www.cafepress.com/mbgs>. We appreciate any feedback on items you have purchased.

CORE DISPLAY EDUCATIONAL TOOL AVAILABLE TO MBGS MEMBERS

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 to reserve this great educational tool.

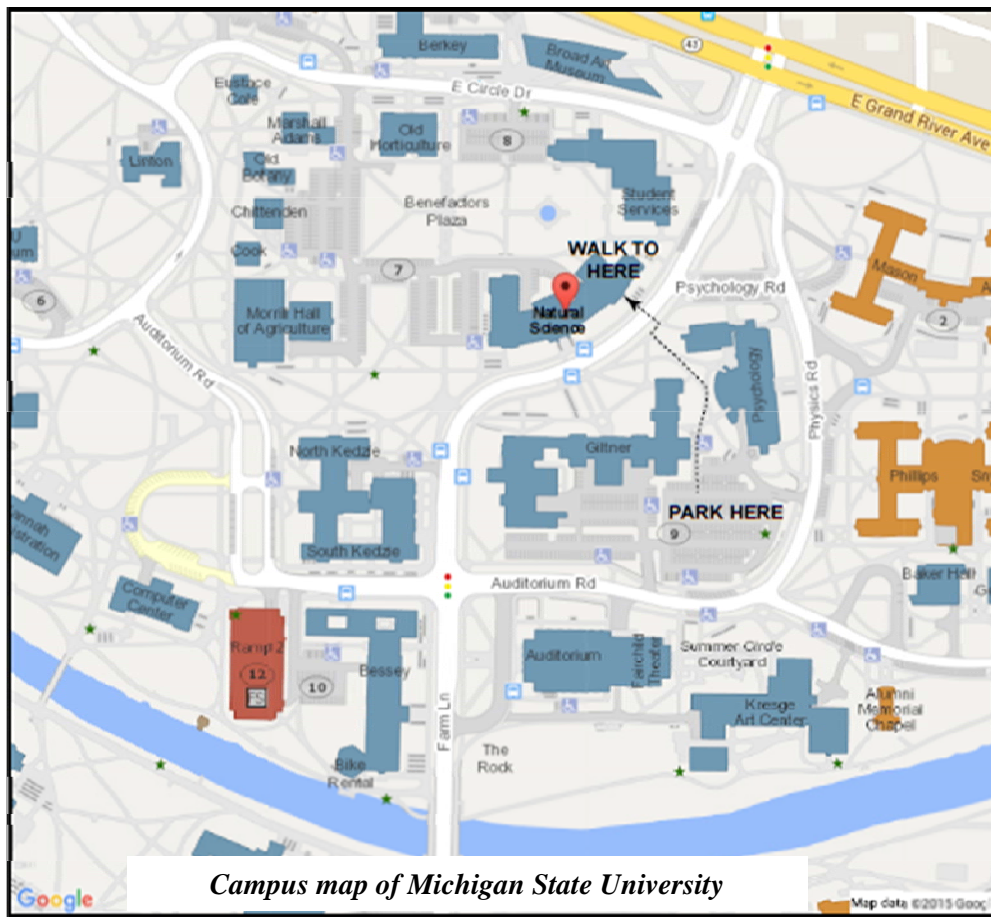


Michigan Basin Geological Society February 2018 Membership Meeting

Wednesday, February 7th
Michigan State University, Natural Science Building
7:00 PM in Room 351

“A History of Diamond Exploration in Michigan and Wisconsin” Shawn Carlson

Bio: Shawn Carlson began working for a Michigan diamond exploration company in 1986 while still a student in high school. He continued to work in Michigan diamond exploration while pursuing his B.S. degree in geology at Michigan Technological University. Following his graduation from Michigan Tech in 1991, Mr. Carlson entered the emerging “Canadian Diamond Rush” and began exploring for diamonds in Canada’s Arctic. In 1994, Mr. Carlson re-joined Michigan diamond exploration efforts as Ashton Mining’s seconded project geologist and joint venture representation to the “Ashton/Crystal Great Lakes JV” located in Crystal Falls, Michigan. Shawn has published in some of the top natural science journals in the world, including the *American Mineralogist*, and is responsible for writing the kimberlite and diamond mineralogy segments of the 2004 edition of the *Mineralogy of Michigan*, by E. William Heinrich and George Robinson. With respect to Michigan’s general and geographic mineralogy, Shawn is responsible for the discovery and first recognition of 11% of all mineral species known to occur within our state.



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.

UPCOMING EVENTS



February 5th, 2018: Western Michigan University, Seminar Series, Dr. Brian Shaw, Oettinger School of Science and Technology Intelligence presents “Strategic Minerals”.

https://wmich.edu/sites/default/files/attachments/u937/2018/Flyer_Brian_Shaw.pdf

February 13, 2018: Governor’s Summit on Extractive Industries, to be held at the Kellogg Center in East Lansing, MI. Additional information is attached to this newsletter.

February 15th, 2018: MI-AIPG membership meeting, Peter Voice, PhD, WMU will present “Geologic Resource of Michigan: A Summary of Historic Production Data <https://www.eventbrite.com/e/webinar-technology-options-for-groundwater-monitoring-programs-tickets-40038969636>

February 27-March 1, 2018: 19th Triennial AWWA Groundwater/Source Water Conference, Lansing Michigan <http://www.mi-water.org/events/EventDetails.aspx?id=1039708&group=>

March 16-18, 2018: 56th Annual Michigan Gem and Mineral Society’s, Jackson County Fairgrounds American One Event Center, <http://www.mgmsrockclub.com/annual-show.html>

April 11, 2018: Michigan Section AIPG Meeting, University Center of Central Michigan University, Mt. Pleasant. Speaker and topic TBA.

May 15, 2018: Michigan Section AIPG Golf Outing, Moose Ridge Golf Course, South Lyon. Details in the attached flyer and on the Section website.

May 10 & 11th, 2017: Institute on Lake Superior Geology 2017 Annual Meeting, Wawa Ontario <https://lakesuperiorgeology.org/Wawa2017/index.html>

June 12-13, 2018: Michigan Environmental Compliance Conference, http://www.michigan.gov/deq/0,4561,7-135-3308_3333-451152--,00.html

June 12-13, 2018: Annual Michigan Section AIPG Technical Workshop to be held in Roscommon

September 8-11, 2018: 55th Annual AIPG Meeting to be held in Colorado Springs, CO

MDEQ Calendar of Training and Workshops

http://www.michigan.gov/deq/0,4561,7-135-3308_3333---,00.html



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2017-2018

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MBGS PUBLICATIONS

<http://www.mbgs.org/publications.html>



Prices include postage, handling and any applicable sales tax.
Orders for publications should be prepaid in U.S. Funds and addressed to:

MBGS — Publications
P.O. Box 14044
Lansing, MI 48901-4044

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
- 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
- Geology of Central Ontario, Canada, 1965

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 Ordovician Stratigraphy of the Cincinnati, Ohio and Richmond, Indiana Areas, June 12, 13, 1953 by W. H. Shideler and B. T. Sandefur
- Guidebook for Ontario Geological Excursion to Kettle Point – Owen Sound- Waubesa, June 21, 22, 23 1946 by W. A. Roliff, C.S. Evans and J.F. Caley
- 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

Historical CD #7: Field Guidebooks from 1962, 1969, 1977, 1980, 1985 & 1988, \$15

- Silurian Rocks of the Southern Lake Michigan Area, 1962, James H. Fisher, Chairman, MBGS Annual Field Conference
- Studies of the Precambrian of the Michigan Basin, by Harold B. Stonehouse, 1969
- The Geology of the Marquette District: a Field Guide By F. W. Cambray, 1977
- Ordovician and Silurian Geology of the N. Peninsula of Michigan, 1980, R.B. Votaw, 40 pp., illus., maps
- Special Paper #4: Ordovician and Silurian Rocks of the Michigan Basin and its Margins, 1985 K.R. Cercone and J.M. Budai (eds.), 96 pp., illus.
- Upper Keweenaw Rift-Fill Sequence, Mid-Continent Rift System, Michigan, 1988, P.A. Daniels and R.D. Elmore, M.S. Wollensak, ed., 150 pp., illus., maps

OTHER SPECIAL OFFERS

- **Historical CD Set - # 1 – 7 (detailed above) for a special purchase price of \$95**
- **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**
- **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.

Webinar: Technology Options for Groundwater Monitoring Programs

Friday, February 23, 2018

1 to 4 pm CDT

Locations:

The Pyle Center, 702 Langdon St, Madison, WI

or on-line viewing provided by ICS

Register & Receive a link to watch or show anytime!



A half-day webinar specifically designed for directors, managers, supervisors, hydro geologists, engineers, equipment manufacturers, college professors and students involved in groundwater quality monitoring.

Registration Fee:

\$5 students / \$20 professionals

Participants will receive CEUs/PDHs



Wisconsin Society of Professional Engineers

A state society of the National Society of Professional Engineers

Speakers Include:

1. Carl Keller (FLUTE)

Innovative FLUTE Mapping for NAPL & Dissolved Contaminants

2. Randy St. Germain (Dakota Technologies)

Characterizing LNAPLs and DNAPLs with Laser-Induced Fluorescence

3. Seth Pitkin – National Director (Cascade)

Value of High Resolution Site Characterization



Thanks to our Webinar Sponsors!

Contact Jayne Englebert P.G., CPG

(jenglebert@msa-ps.com)

for registration questions and sponsorship opportunities!

Online registration available at: <https://www.eventbrite.com/e/webinar-technology-options-for-groundwater-monitoring-programs-tickets-40038969636>



2018 Application for the Michigan Section of AIPG

Andrew Mozola Memorial Scholarship

Purpose

The Michigan Section of the American Institute of Professional Geologists (AIPG) is committed to supporting undergraduate scholarships to students majoring in geology and encourages student participation in AIPG.

Scholarship Award - \$4,000.00

The scholarship will be paid to an eligible student attending an accredited college or university in the State of Michigan.

Eligibility Requirements

The following requirements apply to students applying for the scholarship:

- Must be an undergraduate student enrolled in a geological science program at an accredited college or university in the State of Michigan
- Must be at least a sophomore
- Must be a student member of AIPG at the time of application for the scholarship
- Must have an overall GPA of 3.0 (on a 4.0 scale) and a GPA of at least 3.5 in geology at the time of application

Students can apply for AIPG membership online at <http://aipg.org/becomestudentmember>.

Each student who is awarded a scholarship agrees, by accepting the scholarship, to prepare a 400+ word article for publication in the *Michigan Section's Newsletter*. The subject of the article must be related to a timely professional issue.

**SAVE THE DATE:
02.13.2018**



**SUMMIT ON
EXTRACTIVE
INDUSTRIES**

Michigan's mineral, stone, sand, gravel, crude oil and natural gas industries are a vibrant and little-known part of Michigan, providing essential building blocks for our lives. Please join us for a policy discussion as we work to:

- **INCREASE AWARENESS OF THE STATE'S EXTRACTIVE INDUSTRIES AS A VALUABLE BUILDING BLOCK TO MICHIGAN'S FUTURE.**
- **ENCOURAGE INVESTMENT AND GROWTH OF MICHIGAN'S EXTRACTIVE INDUSTRIES THROUGH SOUND, FACTUAL, SCIENCE-BASED POLICY DEVELOPMENT.**
- **BUILD COLLABORATIVE PARTNERSHIPS BETWEEN INDUSTRIES, COMMUNITIES AND GOVERNMENT.**



**KEYNOTE SPEAKER:
Michigan Governor
RICK SNYDER**

**KEYNOTE SPEAKER:
Author, "This Brave New World"
ANJA MANUEL**



Donate Specimens to the Michigan Earth Science Teacher Associations (MESTA) Rock Raffle
by Jay Sinclair & Kirk Hansen

MESTA needs your donation of Raffle specimens. Please contact Jay Sinclair at: sinclair.jay@sbcglobal.net or Kirk Hansen at: kirkhansen23@yahoo.com if you have any special Rocks, Minerals, or Fossils to donate for the MESTA Raffle. The next Raffle will be at MSTA, March 2-3.

Please give us any helpful information about your specimen such as:

- Specimen Name
- Geologic Age
- Location it was found
- Collected by
- Donated by
- Any geological history of the item -- Or any other information of interest

Site Name	Lost at Sea: The Search for Longitude
Site URL	https://www.youtube.com/watch?v=BTwyFJxkER8
Site Author	Hanson Yu
Suggested By	Thomas Vaughn
Description	“Documentary about the search for longitude by John Harrison, an 18th century English clock maker, who toiled for decades before inventing the chronometer, which remains the basis for most modern forms of navigation. Features footage of an expedition on a period sailing vessel as it journeys to the open ocean, demonstrating the life and death importance of finding longitude at sea.”