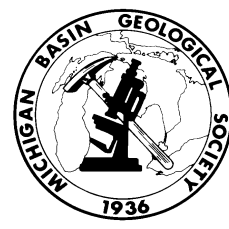




ON THE ROCKS

A Newsletter of the Michigan Basin Geological Society



2016-2017 Edition 1

www.mbgs.org

September 2016

MBGS MEMBERSHIP MEETING

The September meeting will be held on September 14th, 2016 at Western Michigan University in the Michigan Geological Repository for Research and Education Building, Kalamazoo, Michigan. A BBQ style dinner will be available for members. Cost: \$25 members; \$10 students. Dr. Peter Voice (WMU) will show several charts of Michigan Historical production data about mineral and energy commodities. Western Michigan University students will host poster sessions on Michigan geology. Several cores will be on display from Michigan gas storage fields.

WHERE: Western Michigan University, Michigan Geological Repository for Research and Education, 5272 W. Michigan Avenue, Kalamazoo, MI 49006, (269) 387-8633

WHEN: Executive committee meeting at 4:30 pm (members welcome); Beverages available at 5:30 pm. Dinner at 6:00 pm.

RESERVATIONS ARE REQUIRED: Please email Robb Gillespie to confirm attendance at robb.gillespie@wmich.edu

DOUGLASS HOUGHTON STATE MARKER DEDICATION

The dedication of the Douglass Houghton State Historical Marker will be held on Saturday, September 10, 2016, from 10:00 AM to 12:00 PM at the Houghton Township Community Building, 5059 Fourth Street, in Eagle River, Michigan. Speakers will include representatives from Houghton Township, the Keweenaw County Historical Society, Michigan Chapter of the Association of Professional Geologist and the Michigan Basin Geological Society. Mr. Barry James of the Michigan Iron Ore Industry Museum will lead the official dedication representing the State



of Michigan Historical Marker Program. A highlight of the event will be a presentation by re-enactor Kyle Bagnall who portrays Bella Hubbard who accompanied Douglass Houghton on several of his expeditions. The event is open to the public and everyone is welcome to attend.

MICHIGAN FOSSIL DIG OPEN FOR DISCOVERY

In 2016, after three years of research and fundraising, the Michigan Fossil Dig at the Harris Nature Center in Meridian Township, Okemos is complete. The dig includes specimens from Michigan history. Visitors can dig for fossils and use interpretive signs to identify what they found. Discover corals, trilobites, brachiopods, gastropods, crinoids, cephalopods, fish bones, plant impressions and more from the ancient Paleozoic seas! Uncover casts of mammoth, mastodon and giant beaver bones and teeth! Contributors: Michigan American Institute of Professional Geologists, Michigan Basin Geological Society, Red Oak



Foundation, Helen and Howard Tanner, Cyrus Miller, Dr. Danita Brandt, Central Michigan Lapidary and Mineral Society, Lafarge Quarry, Besser Museum, Team Elmer's, Joe Pennoni, Luke Bossenbroek, Brian Van Order, Debbie Hottle, Nick Van Frankenhuyzen. Leslie Groves, Hannah Macdonald, Bob Reszka, Steve Wilson, Ron Elowski, Bone Clones, and Patty Robbins for coordinating the project.

MICHIGAN GEOLOGICAL SURVEY RECEIVES GRANT

John Yellich, Director, Michigan Geological Survey announced that the Michigan Legislature and Governors' office has granted the Michigan Geological Survey a special allocation of \$500,000 to be used to support the mapping and assessment of the natural resources of our State. The budget was passed, June 8, and the Survey will prepare a contract with the Department of Environmental Quality to receive this grant, as soon as practicable. The Survey wishes to thank the principal legislative authors of this grant, Representatives Brandt Iden, Al Pscholka, and Aric Nesbitt for their support of the Survey in seeking this funding. The Survey appreciates all of those who reached out to call, write letters or personally talk to your local government representatives or friends to present your individual concerns for the need for geological science to be available to make those decisions that affect all the citizens and industry in Michigan. The Survey wishes to also thank Western Michigan University for their support and confidence in this effort and express the deepest gratitude to the Western Michigan University Government Affairs Department for their successful marketing and selling of the benefits of the Michigan Geological Survey and to effectively present the need for funding for the Survey. These funds will be used to establish a collaborative program with the Michigan Departments of Quality of Life (DEQ, OGL, DNR, MDARD) and MDOT to assess our natural resources utilizing the Survey to provide unbiased geologic, scientific, environmental and socially responsive documentation to support their respective efforts that will

benefit the people of Michigan. In addition, the Survey will continue to work with and continue to provide the factual scientific and technical information to all the supporters of the Survey through our professional staff, laboratories and the MGRRE, core repository, to the members of the Michigan Oil and Gas Association; Michigan Aggregates Association; members of the Michigan Manufacturers Association and their sub committees of Environment and Mining; Michigan Groundwater Association; Michigan Association of Professional Landmen; Southwest Michigan Water Resource Council; plus all the individuals who signed the letter of support for the Survey and to those who signed the letter of support at the AIPG Risk Conference in Roscommon. The Survey will continue to meet with stakeholders to establish priorities and respond to and outline the common goals to provide the unbiased scientific information to the State and the public and work to establish an annual budget for providing this needed science.

For an economic reference, the entire state of Kentucky was mapped. An economic study some years later found a 30:1 Return on Investment (ROI) of \$25 to \$39 for every dollar spent, which amounts to \$2.2 to \$3.5 Billion to the State.

Contact the Michigan Geological Survey at <https://wmich.edu/geologysurvey> for more information or call to 269-387-8649.

GEOLOGICAL SURVEY QUESTIONNAIRE ON NATURAL RESOURCES Michigan's natural resources are the foundation for most of our social, economic and environmental benefits. In particular, many Michigan industries rely on some aspects of our geologic natural resources. This can be challenging when information about these resources is limited or absent. The legislature and our Governor have made it a priority to better understand the magnitude of this challenge in our state and assigned the task of gathering necessary information to the Michigan Geological Survey. The Michigan Geological Survey is taking the preliminary step of surveying stakeholders to learn more about their data or information needs and has developed the survey questionnaire (Survey Monkey) to assist it in developing tools that will more effectively serve resource users, management planners and the general scientists. Many industries and several state agencies and departments are stakeholders who maybe involved with natural resources in their daily operations or involved with overseeing and regulating the use of these resources. Stakeholders in all these and other groups have wide-ranging needs for unbiased and comprehensive scientific information about our natural resources to appropriately manage and sustainably protect and development them.

You have been identified as a stakeholder that may use geological information about the natural resources of Michigan. Please assist us by answering the questions in the survey.

<https://www.surveymonkey.com/r/HYWH3LB>

Summary of the Objectives- 2016 DEQ Special Allocation funding for the Michigan Geological Survey at Western Michigan University

The one-time appropriation (\$500,000) creates the opportunity for the Michigan Geological Survey to develop a coalition of various stakeholders, to solicit and address their expressed needs, and to develop short-term and long-term strategies to address viable solutions and present these favorable results to the Legislature to secure long term base funding for the Survey.

Based on input from the stakeholder coalition, the Michigan Geological Survey will develop short-term and long-term strategic plans to bring together mapping and scientific research to produce comprehensive data that will support identification, assessment and environmental protection of Michigan's natural resources.

Some short-term projects can be completed with this limited funding. However, meeting on-going critical needs as they arise and meeting long-term needs will require stable annual funding which is not now in place.

Carrying out long-term projects will bring together scientific information about geologic processes, resources and risks that can reliably be used to protect the environment while enhancing the potential of protecting and creating new wealth from yet undiscovered or underutilized resources, such as water resources, which has the potential to allow community or local residential development, new wealth to an area.

Results of these projects will be presented to stakeholders and legislators, demonstrating the scientific, environmental and economic value of annually funded MGS' mapping and research program(s).

Please direct questions to: John A. Yellich, CPG, Director, Michigan Geological Survey, Department of Geosciences ,1187 Rood Hall, Kalamazoo, MI 49008-5241, 269-387-8649 (O), 303-901-2886 (M), 425-491-1976 (EFax)

INTRODUCING THE 2016-2017 MBGS EXECUTIVE MEMBER COMMITTEE

President – John Shook, Detroit Salt Mine

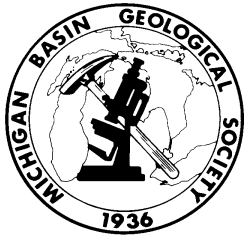
Vice President – Peter Rose, Michigan Department of Natural Resources

Secretary – John Yellich, Michigan Geological Survey

Treasurer – Mike Pozinak, Arcadis

Business Managers – Emanuel "EZ" Manos, Detroit Salt Mine





MBGS Membership Meeting

September 14th, 2016

Western Michigan University, Michigan Geological Repository for Research and Education,
5272 W. Michigan Avenue, Kalamazoo 49006



From the Kalamazoo Airport

Exit the airport and turn right onto Portage Road. Go 0.2 miles to I-94

Take I-94 West toward Chicago—go 3.9 miles

Take Exit #74B/US-131 North to I-94-BUS East toward Grand Rapids—go 2.1 miles

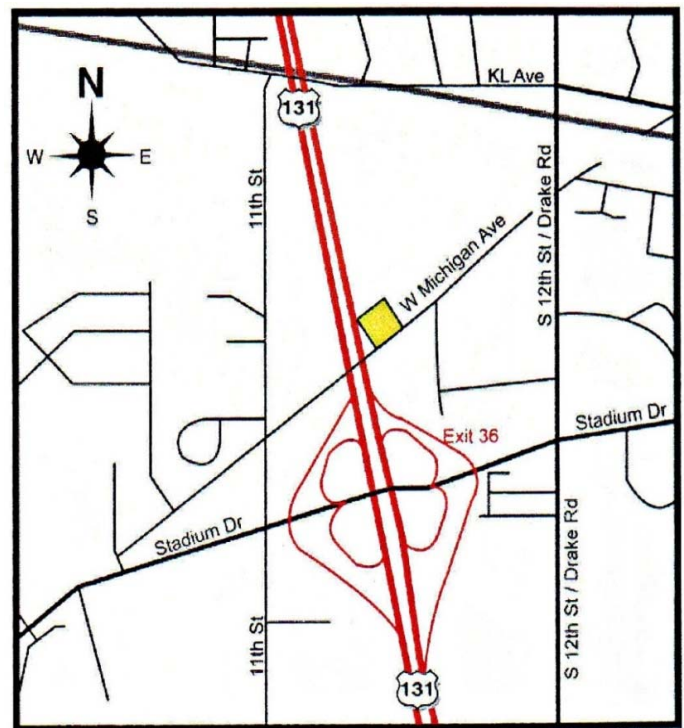
I-94-BUS East becomes US-131 North—go 0.4 miles

Take exit #36B onto Stadium Drive toward Oshtemo—go 0.5 miles

Turn right on S. 11th Street—go 0.1 miles

Turn right on W. Michigan Avenue—go 0.3 miles and arrive at 5272 W. Michigan.

Our driveway is the first one just past the US131 overpass on the left, through the fence gates. Our building is the largest one in this fenced area.



From the South or North

From US 131, take exit #36B/Stadium Drive onto Stadium Drive—go 0.4 miles. Turn right on S. 11th Street—go 0.1 miles. Turn right on W. Michigan Avenue—go 0.3 miles and arrive at 5272 W. Michigan Avenue. Our driveway is the first one just past the US131 overpass on the left, through the fence gates. Our building is the largest one in this fenced area.

From the East or West

From I-94, exit onto US 131 North—go about 2.5 miles and take exit #36B onto Stadium Drive toward Oshtemo—go 0.5 miles

Turn right on S. 11th Street—go 0.1 miles

Turn right on W. Michigan Avenue—go 0.3 miles and arrive at 5272 W. Michigan.

Our driveway is the first one just past the US131 overpass on the left, through the fence gates. Our building is the largest one in this fenced area.



UPCOMING EVENTS

September 10, 2016: Dedication of the Douglass Houghton State Historical Marker in Eagle River, 10AM-12PM, Houghton Township Community Building, 5059 Fourth Street, in Eagle River, Michigan. Open to the public, free.

September 19, 2016: MI SPE Membership Meeting, the speaker is Reidar Bratvold presenting “Creating Value from Uncertainty and Flexibility”.

Sept 25 – 27, 2015: 45th Annual Eastern Section American Association of Petroleum Geologists annual meeting, Lexington Kentucky, <http://www.esaapg.org/>

September 25-28, 2016: Geological Society of America National Conference, Denver, Colorado, <http://community.geosociety.org/gsa2016/home>

September 29, 2016: Joint Michigan Section AIPG and MAEP meeting. Speakers include Rosanne Ellison (US EPA) and Michelle Bakun (MDEQ). They will be speaking on Brownfield Redevelopment along the Detroit River waterfront. RSVP by September 26, 2016: RSVP for the meeting on the Eventbrite website at:

<https://www.eventbrite.com/e/aipgmaepjoint-section-meeting-tickets-25478236090>

Location: Atwater in the Park Brewery, 1175 Lakepointe Street, Grosse Pointe Park. Dinner: Strolling Dinner (various buffet stations). Schedule: Cash Bar 5:30-6:30 PM, Dinner 6:30 PM, and Speaker 7:30-9:00 PM.

Cost: Students free, Members \$50.00, Nonmembers \$75.00.

October 21-23, 2015: Central Michigan’s 51st Annual Gem, Mineral, Fossil, Lapidary and Jewelry Show, Ingham County Fairgrounds, Mason, Michigan, <http://www.michrocks.org/annual-show/show-info.html>

December 1, 2016: Michigan Section AIPG Annual Meeting to be held at Weber’s Inn, Ann Arbor. Speaker and topic to be determined.

December 14, 2016: MBGS Membership Meeting, speaker John Yellich, Michigan Geological Survey director, presenting “Natural Resources of Michigan, How do you see their function and role in the 21st Century?”.

March 23, 2017: MI SPE Membership Meeting, the speaker is Michael Gillen presenting “Applications and Advantages of Logging-While-Drilling in High Angle and Horizontal Wells”.

May 15, 2017: MI SPE Membership Meeting, the speaker is Frank Blaskovich presenting “Energy Policy: Is it Effective? Is it Fair?”.

**MICHIGAN BASIN GEOLOGICAL SOCIETY OFFICERS
2016-2017**



PRESIDENT: JOHN SHOOK, PE, VP Operations
Detroit Salt, Mine
12841 Sanders St., Detroit, MI 48217
W (313) 841-5144 x 121 (C) 707-293-7306

VICE PRESIDENT: PETER ROSE, Geologist
Office of Minerals Management, Michigan Department of Natural Resources
W (517) 284-5901 , RoseP1@michigan.gov

SECRETARY: JOHN YELlich, Director
Michigan Geological Survey, Western Michigan University
1903 West Michigan Ave, Kalamazoo, MI 49008-5241
(W) 269-387-8649 (C) 303-901-2886; john.a.yellich@wmich.edu

TREASURER: MIKE POZNIAK
Arcadis
101 S. Washington Square, Ste 400, Lansing, MI 48933
(W) 517-324-5054 (C) 517-898-3839 mike.pozniak@arcadis-us.com

BUSINESS MANAGER: EMANUAL "EZ" MANOS, President,
Detroit Salt Company LLC
12841 Sanders St., Detroit, MI 48217 ezmanos@detroitsalt.com

PAST – PRESIDENT : DAVE BARNES
GEOS, Western Michigan University,
1903 West Michigan Ave, Kalamazoo, MI 49008-5241
(W) 269-387-8617 (C) 269-365-4561; barnes@wmich.edu

FIELDTRIP DIRECTOR: MARK WOLLENSAK, CPG
Hamp, Mathews & Assoc, Inc,
15266 Ann Drive, Bath, MI 48808
(W) 517-641-7333 (C) 517-719-8321, wollensak@voyager.net

FIELDTRIP DIRECTOR: MARK NIDA
Retired, (C) 517-582-0542, nidam56@hotmail.com

NEWSLETTER EDITOR: ARLENE ANDERSON-VINCENT
Nestle Waters North America
19275 Eight Mile Road, Stanwood MI 49346
(W) 231-823-8451 arlene.anderson-vincent@waters.nestle.com

ELECTRONIC PUBLICATIONS: MARK WOLLENSAK, (see above)

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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
- 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

(NEW) Historical CD #7: Six out-of-print

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.

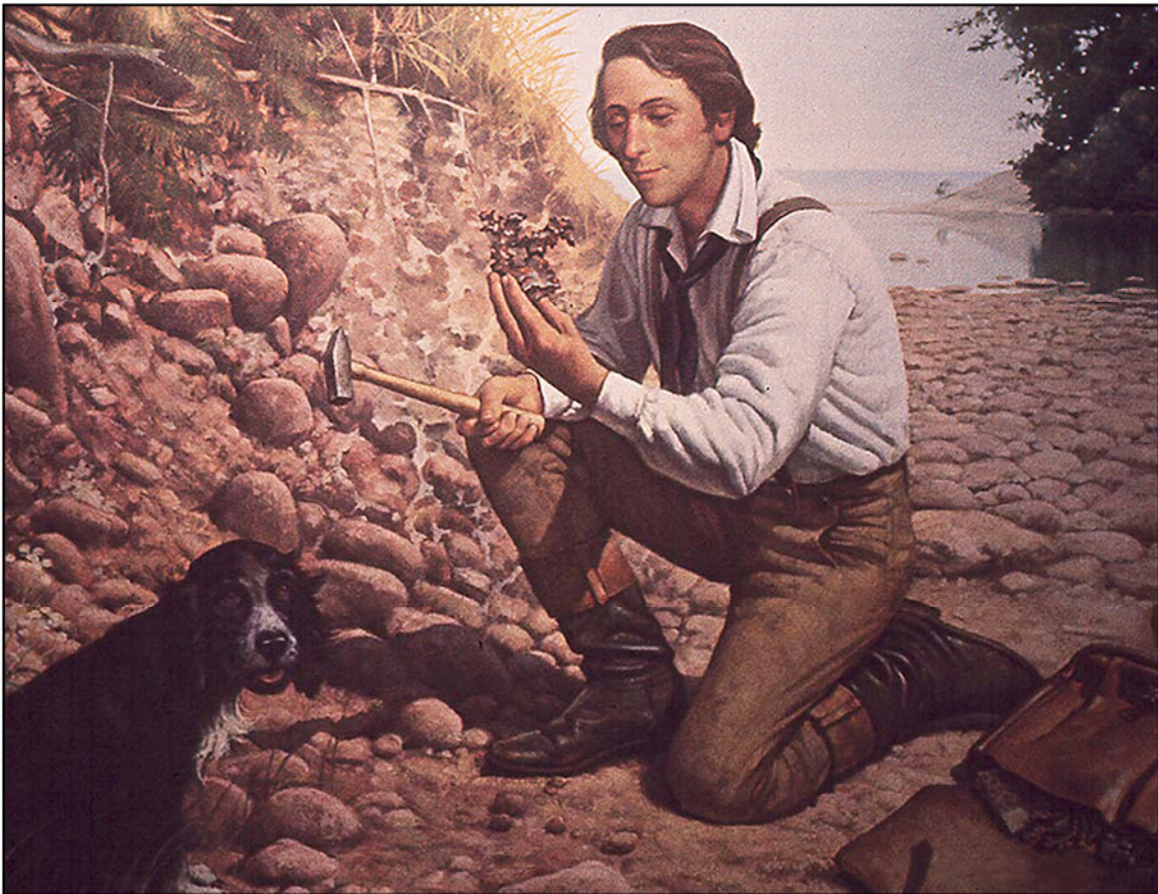
MBGS ONLINE STORE

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>.

JOIN US FOR THE DEDICATION OF THE
STATE OF MICHIGAN HISTORICAL MARKER HONORING
DOUGLASS HOUGHTON

Douglass Houghton was Michigan's first state geologist. His report of 1841 describing the copper country sparked America's first mineral rush and brought hundreds of people to the Keweenaw to seek their fortune in copper. Unfortunately on October 13, 1845 Houghton drowned when a sudden squall capsized his small boat near Eagle River.

Join us for the dedication ceremony for this State of Michigan Historical Marker honoring Douglass Houghton. It is dedicated to Houghton's memory and his impact on Michigan and the nation. The ceremony will take place not far from where Robert Thom pictured Houghton working at Eagle River in 1840 in the painting below.



SATURDAY SEPTEMBER 10, 2016
HOUGHTON TOWNSHIP COMMUNITY BUILDING
EAGLE RIVER, MICHIGAN
10:00 AM – 12:00 PM