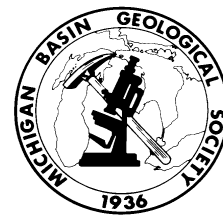




ON THE ROCKS

A Newsletter of the Michigan Basin Geological Society



2018-2019 Edition 9

www.mbgs.org

May 2019

ANNOUNCEMENTS

There is no MBGS Membership May meeting. The next MBGS membership meeting will be in September 2019. Please consider sharing information and pictures from your geologic travels over the summer. Also, if you are interested in getting more involved in MBGS, contact any of the Society Officers to find out how.

OTHER MBGS NEWS

MBGS MEMBERS HELP TO CELEBRATE EARTH DAY

On April 24th, MBGS continued its tradition of participating in the State of Michigan's Earth Day celebration, which took place at Constitution Hall in Lansing. This year, MBGS shared a booth with the Michigan Geological Survey, the Department of Natural Resources, and the Department of Environment, Great Lakes, & Energy (EGLE, formerly DEQ). MBGS et al. were stationed outside in the tent again, but we had nice weather this year. The Michigan Geological Repository for Research and Education (MGRRE) were inside with their Core Kids booth. Outside volunteers included Adam Wygant (MBGS/EGLE), Peter Rose (MBGS/DNR), Bob Reszka (MBGS), George Davis (MBGS/Detroit Salt), Jennifer Trout (MBGS/MGRRE), and Kevin Nguyen (MBGS/WMU). Peter Voice of Western Michigan University and MGRRE manned the Core Kids booth.

The event was a great success again. The teams demonstrated porosity and permeability as well as handed out samples of rocks and minerals including halite (generously donated by Detroit Salt), feldspar, coal, specular hematite, taconite pellets, native copper flakes, pieces of agate, and Petoskey stones. We were scraping the bottom of the barrel and, in fact, ran out of most of our samples by 2:00 pm, except for halite, thanks to George! Bob Reszka was working hard throughout the day breaking up larger rock and mineral samples into smaller pieces to last us until the crowds dwindled. We tried our best to spark a greater interest in Earth science among the children and hope that some took away a greater appreciation of the natural world around them.



*A special thanks goes to **John Esch** for supplying donuts to keep the volunteers sustained for the long day on our feet.*

MBGS ANNOUNCES 2019 SCHOLARSHIP RECIPIENT

Michigan Basin Geological Society wants to thank all those students who submitted applications for our 2019 scholarship. MBGS is pleased to announce, Ayu Nurhidayati was selected as the 2019 recipient of a \$500 scholarship. Ayu Nurhidayati is a graduate student at Western Michigan University, Department of Geological and Environmental Sciences. She is conducting her research under the direction of Dr. Peter Voice, detailed hand and thin section assessment to establish a depositional model for the Amhurstberg and Richfield Members of the Lucas formation in Southeast Michigan. Ayu will be completing her MS in 2019 and plans to return to the Indonesian Institute of Sciences where she works as a Geological Researcher. Ayu attended WMU as a graduate researcher in an exchange program to further her training in geology. MBGS appreciates all who applied and wish Ayu continued success when she returns to Indonesia.



UPCOMING EVENTS

May 19-20, 2019: AAPG Annual Conference and Exhibition, San Antonio, Texas

<https://www.aapg.org/events/conferences/ace>

June 3-5, 2019: NGWA Field Methods: Groundwater Sampling and Analysis (Short Course #226), Westerville, Ohio,

<https://www.ngwa.org/detail/event/2019/06/03/default-calendar/226jun19>

June 10-11, 2019: AIPG Michigan Section's Environmental Risk Management Workshop at the Ralph A. MacMullen Conference Center in Roscommon, Michigan.

June 19-20, 2019: NGWA The PFAS Management, Mitigation and Remediation Conference (#5010), Westerville, Ohio,

<https://www.ngwa.org/detail/event/2019/06/03/default-calendar/226jun19>

October 11-13, 2019: Michigan Mineralogical Society, "The Show" Greater Detroit Gem, Mineral, and Fossil Show.

Information is available at: www.michmin.org.

MDEQ Calendar of Training and Workshops

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

Michigan State University, College of Natural Science, Department of Earth and Environmental Science,

Events <https://ees.natsci.msu.edu/events/>

Michigan Tech – Geoseminars - <http://pages.mtu.edu/~raman/SilverI/Geoseminar/Welcome.html>

University of Michigan Earth and Environmental Science

Events <https://lsa.umich.edu/earth>

Western Michigan University, Geological and Environmental Sciences

Events <https://wmich.edu/geology/events>

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MICHIGAN BASIN GEOLOGICAL SOCIETY PUBLICATIONS 2018

The following list details the contents of each available CD-ROM.

This list is also available on-line at <http://www.mbgs.org/publications.html>

Prices include postage, handling and any applicable sales tax.

Orders for publications should be prepaid in U.S. dollars and addressed to:

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

HISTORICAL PUBLICATIONS DISK 1

Nine out-of-print publications – Cost - \$15

- The Stratigraphy of Manitoulin Island, Ontario, Canada, June 1954
- The Devonian and Silurian Rocks of Parts of Ontario, Canada and Western New York, June 1951
- The Traverse Group of the Northern Part of the Southern Peninsula of Michigan, June 1949
- The Devonian Strata of the London-Sarnia Area, Southwestern Ontario, June 1956
- The Ordovician Rocks of the Escanaba-Stonington Area, June 1950
- The Niagara Escarpment of Peninsular Ontario, Canada, June 1955
- Lower Paleozoic and Pleistocene Stratigraphy Across Central Wisconsin, May 1960
- Geology of Central Ontario, Canada, May 1965
- Classic Silurian Reefs of the Chicago Area, June 1998

HISTORICAL PUBLICATIONS DISK 2

Four out-of-print publications – Cost - \$15

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

HISTORICAL PUBLICATIONS DISK 3

Six out-of-print publications – Cost - \$15

- Pleistocene and Early Paleozoic of the Eastern Part of the Northern Peninsula of Michigan, June 1948
- Stratigraphy and Structure of the Devonian Rocks in Southeastern MI and Northwestern OH, June 1952
- Lower Ordovician and Upper Cambrian of Wisconsin, May 1990
- Guidebook to the Precambrian Geology and Metallogeny of the Central Upper Peninsula of Michigan, September 1991
- Diamond Bearing Kimberlite and Related Geology in the Upper Peninsula of Michigan, April - May 1993
- Karst Geology of Northeast Lower Peninsula, Michigan, April 1995

HISTORICAL PUBLICATIONS DISK 4

Six out-of-print publications – Cost - \$15

- Silurian Rocks of the Northern Peninsula of Michigan, June 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 1961
- Correlation Problems of the Cambrian and Ordovician Outcrops Areas, Northern Peninsula of Michigan, June 1967
- The Geology of Manitoulin Island, June 1968
- 1970 Field Excursions - Pleistocene, Devonian, Precambrian, May 1970

HISTORICAL PUBLICATIONS DISK 5

Five out-of-print publications – Cost - \$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, September 1989
- Geology of the Lake Erie Islands and Adjacent Shores, 1971
- Glacial Geology of Southwestern Michigan, Landforms of the Lake Michigan Lobe, Southwestern Michigan, September 2001

HISTORICAL PUBLICATIONS DISK 6

Eight out-of-print publications – Cost - \$15

- Guidebook for Ordovician Stratigraphy of the Cincinnati, Ohio and Richmond, Indiana Areas, June 1953
- Guidebook for Ontario Geological Excursion to Kettle Point –Owen Sound- Waubesa, June 1946
- Guidebook for the Stratigraphy of the Silurian Rocks in Western Ohio, May - June 1963
- Guidebook for Cambrian Stratigraphy in Western Wisconsin, May 1966
- Geology of the Manitoulin Area, Special Papers #3, September - October 1978
- Middle Devonian Cratonic Carbonates and Shales in Southwestern Ontario, November 1987
- The Richfield Challenge, A Review of the Richfield Developments in Michigan, 1952
- A Theory of Rogers City and Dundee Relationships in Central Michigan, Tom Knapp Master's Thesis, 1947

HISTORICAL PUBLICATIONS DISK 7

Six out-of-print publications – Cost - \$15

- Silurian Rocks of the Southern Lake Michigan Area, 1962
- Studies of the Precambrian of the Michigan Basin, 1969
- The Geology of the Marquette District: a Field Guide, May 1977
- Ordovician and Silurian Geology of the N. Peninsula of Michigan, 1980
- Special Paper #4: Ordovician and Silurian Rocks of the Michigan Basin and its Margins, 1985
- Upper Keweenaw Rift-Fill Sequence, Mid-Continent Rift System, Michigan, September 1988

HISTORICAL PUBLICATIONS DISK 8

Four out-of-print publications – Cost - \$15

- Niagaran Stratigraphy: Hamilton, Ontario, 1972
- Silurian Reef-Evaporite Relationships, 1974
- Special Papers #1: Middle Devonian Stratigraphy and Depositional Environments in the Michigan Basin, 1974
- Sedimentology and Paleogeography of the Pennsylvania Strata of Grand Ledge, Michigan, May 1989
- Paleozoic Geology of the Central Upper Peninsula of Michigan, August 2014

HISTORICAL PUBLICATIONS DISK 9

Five out-of-print publications – Cost - \$15

- Geology and the Environment: Man, Earth and Nature in Northwestern Lower Michigan, 1973
- Special Papers #2: The Belle River Mills Gas Field: Productive Niagaran Reefs Encased by Sabkha Deposits, Michigan Basin, 1977
- Geohydrology of Carboniferous Aquifers of the Michigan Basin, September 1994
- Sedimentology, Paleogeography and Geochemical Weathering of the Pennsylvania Strata of Grand Ledge, Michigan, September 1994
- Geological and Historical Field Trip to the Keweenaw Peninsula: A Tribute to Douglass Houghton: "Michigan's Pioneer Geologist," Field Guidebook, September 2016

A DIGITAL PUBLICATION

Northeast Lower Peninsula Geological Field Conference, 2004, T.J. Black and M.S. Wollensak, 133 pp, illus., maps, digital presentations and posters (available on CD-ROM only). Cost - \$10

- Road Log and Stop Descriptions by T.J. Black, D. Baxter and M.S. Wollensak
- Methane Gas Venting at Hemlock Lake, by T.J. Black
- The Glaciated Landscape in the Grand Traverse Bay Region of Michigan and the Nature of the Greatlakean Advance of the Laurentide Ice Sheet in Michigan, USA, poster by S.C. Lindstrom
- Thunder Bay Marine Sanctuary Sink Hole Investigations, poster by T.J. Black
- Evaluation of Relationships Between Hydrogeologic Environment and Petroleum Hydrocarbon Remediation in Quaternary Glacial Sediments, presentation by Lisa M. Botcher and Arden D. Davis
- Log Curve Amplitude Slicing of the Traverse Group in the Pentwater Field, Oceana County, Michigan, by Albert S. Wylie, Jr.
- Traverse Group Stratigraphy in the Michigan Basin - A Detailed Review, by Albert S. Wylie, Jr.

SPECIAL OFFERS

- Stratigraphic Lexicon for Michigan, 2001, prepared by MBGS and published by DEQ, **Cost - \$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 **Cost - \$35.**
- Historical CD Set - #1– #9 and 2004 NE LP Geological Field Conference (detailed above) for a special purchase price of **\$125 (best price for all).**

INTERESTING NEWS

New Survey Publication – An Updated Bibliography of Michigan Geology

Dr. Peter Voice, Western Michigan University Department of Geological Sciences and John Yellich, reviewer, Michigan Geological Survey



The Michigan Geological Survey is proud to announce a new publication: Michigan Geology: A Bibliography, the second volume in the Michigan Geological Survey Data Compilation Series. This updated compilation lists over 7,700 references from all known Michigan sources, including industry, professional associations and universities and includes publications from 1818 to present. This report documents 200 years of Geological Research in Michigan. The Bibliography is sorted into four general categories – Precambrian, Basin, Quaternary, and Other. The report is free to download at the Michigan Geological Survey's webpage: <https://wmich.edu/geologysurvey/research/publications>. This updated version of the bibliography also includes a short section on Michigan Stratigraphic Nomenclature, as well as brief discussion of historical trends in publication frequency in Michigan.

Interesting Links

Name	Interactive GIS Map of Coal Resources in the United States
Site URL	https://www.americangeosciences.org/critical-issues/maps/interactive-map-coal-resources-united-states
Site Author	American Geosciences Institute
Description	"The U.S. Geological Survey's National Coal Resources Data System comes with an interactive map that provides a huge amount of information on the distribution, thickness, and classification of coal in the United States."

Name	Video Lecture on the Deformation of Cascade Range Volcanoes
Site URL	Nick Zentner Introduces Michael Poland @ 3:30 https://youtu.be/tuww9GOEO4 Michael Poland, Deformation Cascade Volcanoes https://youtu.be/F5LRmwVR_Ps Michael Poland Fields Audience Questions https://youtu.be/xUoWyMh7-so
Site Author	Nancy videotaped these "Unlisted" YouTubes 4-7-19 at an Ice Age Floods Institute Meeting. Permission to publish here by Mike Poland.
Description	Michael Poland, Cascades Volcano Observatory, a geophysicist with the U.S. Geological Survey also wears another hat as the scientist-in-charge of the Yellowstone Volcano Observatory. He gave a lecture in Ellensburg, WA on "A Tour of the Cascade Range: Which Volcanoes are Deforming, and Why?"

Name	ISS Real-Time Tracker
Site URL	https://itunes.apple.com/us/app/iss-real-time-tracker/id1079990061?mt=8
Description	"Track the International Space Station in real-time on an animated interactive map of Earth. Learn about the current crew data. View spectacular HD video of Earth streamed live from the Space Station with soundtrack. Additionally, download and save images from NASA's Landsat 8 database corresponding to the exact area below the ISS."

Name	Geology Labs On-Line
Site URL	http://onlinelabs.in/geology
Site Author	Science Courseware
Description	"Geology Labs On-Line was initiated in 1999 to develop Web-based activities which enhance the learning and teaching of earth science from middle school through college classrooms. With these activities, students complete a sequence of tasks that require observation, measurement, and data analysis. Upon successful completion, they receive a personalized certificate."