



ON THE ROCKS

A Newsletter of the Michigan Basin Geological Society

2020-2021 Edition 1

www.mbgs.org

September 2020



ANNOUNCEMENTS

No September Meeting: For September MBGS will not be holding our annual fall BBQ, but will hold a virtual membership meeting on October 7th, 2020. Please bear with us as we transition to an electronic platform that will serve our membership needs during these times. In October, Chris Christensen an Environmental Hydrogeologist with the Michigan Department of Environment, Great Lakes and Energy (EGLE), Remediation and Redevelopment Division (RRD) will present “A case for evaluating lead exposure risk using Incremental Sampling.” Details on October’s meeting will be sent out soon.

Opportunity for Presenters: MBGS is seeking presenters for Michigan Basin geologically-related topics for our 2020-2021 virtual membership meetings. Our intent is to host monthly one-hour meetings October 2020 through May 2021. Meetings will be recorded and available after the initial live presentation. If interested please contact Jennifer Trout at jennifer.l.trout@wmich.edu or at (269) 290-4048.

New MBGS President: Please join us in congratulating Chris Christensen, EGLE in his role as President of MBGS for the 2020-2021 year. Chris served as MBGS’s Vice President last year. We look forward to Chris’s leadership in the coming year.

Volunteer Opportunity: MBGS is in search of a Vice President, Secretary and Treasurer for the 2020-2021 year. If interested, please contact any one of our executive members.

OTHER NEWS

MBGS E.Z. MANOS MEMORIAL SCHOLARSHIP AVAILABLE

The entire US has been impacted this year and we regret any inconvenience, but scholarship funding for students is important to MBGS. We will award two scholarships of up to \$500 to students conducting graduate or undergraduate research in geology related to Michigan. The scholarships will be awarded at an upcoming MBGS meeting and winner(s) will be notified in December 2020. Candidates should complete and submit the scholarship application form by October 16, 2020 to John Yellich (john.a.yellich@wmich.edu). Title the email to Mr. Yellich: RE: MBGS Scholarship Application. Applications and more information can be found on MBGS’s website: www.mbgs.org

MBGS MEMBERSHIP DUES

MBGS continues to strive to provide a platform for geologist and environmental professionals to connect and offer learning and field trip opportunities. For the 2020-2021 our annual due will increase to \$35 for members. Student dues will remain at \$10. Renewal notices will be sent out in the next newsletter.



October 2020 MBGS Virtual Membership Meeting

When: October 7th, 7:00 PM, 2020

Where: This will be a virtual meeting. Details on how to access the meeting will be sent out at a later time.

Presentation: A case for evaluating lead exposure risk using Incremental Sampling

Biography:

Chris Christensen is an Environmental Hydrogeologist with the Michigan Department of Environment, Great Lakes and Energy (EGLE), Remediation and Redevelopment Division, in Grand Rapids since 1992. Chris works on both Leaking Underground Storage Tank sites as well as chlorinated solvent and surficial soil contamination sites. He is on RRD Technical Teams related to Incremental Sampling, Non Aqueous Phase Liquids, Risk-based Corrective Action and Groundwater Modeling. Chris has a BS in Geology from Michigan State University and a MS in Hydrogeology from Western Michigan University.



Abstract:

Case Study: Shallow soil sampling as a result of aerial lead deposition.

Sixty (60) years of lead aerial deposition from a historical brass foundry onto fifty –nine (59) downwind residential lots created a tricky evaluation for the liable party, consultant and EGLE. Initial screening of the soil with over 375 X-ray Fluorescence (XRF) samples indicated high degree of lead heterogeneity at the sub 1-foot level. The EGLE teamed with the liable party and consultant to use the Data Quality Objective protocol along with Incremental Sampling methodology to provide a reliable, representative and reproducible evaluation of the residential direct contact risk that resulted in a residential No Further Action for all the properties.

EVENTS

Many organizations have switched to virtual platforms or have cancelled events. We are providing links for your reference. Please visit these sites to learn more about specific events and happenings. If you have an event to share, let us know!



American Institute of Professional Geologist – Michigan Section – <http://mi.aipg.org/newsletters.htm>

Central Michigan Lapidary and Mineral Society - <http://www.michrocks.org/>

Eastern Section AAPG - <https://www.esaapg.org/>

EGLE Calendar of Events - https://www.michigan.gov/egle/0,9429,7-135-3308_3333---,00.html

Flint Rock and Gem - <https://flintrockandgem.org/events>

Michigan Association of Environmental Professionals - <https://www.maep.org/>

Michigan Basin Geological Society – www.mbgs.org

Michigan Clean Water Corps - <https://micorps.net/about/>

Michigan Mineralogical Society - <https://www.michmin.org/>

Mid-Michigan Rock Club - <http://www.midmichrockclub.com/?Page=1>

Midwest Mineralogical and Lapidary Society - <http://www.mmls.us/>

Society of Petroleum Engineers - <https://www.spe.org/events/calendar/>

Currently Schedule Events

September 15, 2020: TC Rockhounds members meeting, to be held outside Traverse City, Michigan,

<http://www.tcrockhounds.com/>

September 21 - 25, 2020: Michigan Environmental Compliance Week. The week will include a number of online events and activities. There is no cost for this event https://www.michigan.gov/egle/0,9429,7-135-3308_3333-514064--,00.html

October 3, 2020: Livingston Gem and Mineral Society, Howell, Michigan, <https://livingstongems.com/>

October 7, 2020: MBGS Membership Meeting (virtual), Chris Christensen (EGLE) will present “A case for evaluating lead exposure risk using Incremental Sampling”

October 9-11, 2020: Detroit Gem, Mineral & Fossil Show, Macomb Community College Expo Center

October 16, 2020: MBGS Scholarship Applications Due. Mail applications to John Yellich (john.a.yellich@wmich.edu) and title email “RE: MBGS Scholarship Application. Applications are available on the website at www.mbgs.org

October 11-17, 2020: Earth Science Week

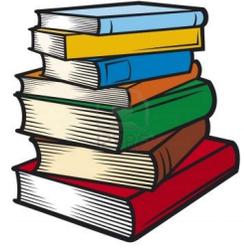
October 14, 2020: AIPG & MAEP Joint Meeting, virtual <https://www.maep.org/event-3975384>

October 27-28, 2020: Great Lakes PFAS Summit, Lansing, Michigan, virtual https://www.michigan.gov/egle/0,9429,7-135-3308_3333---,00.html

December 1-3, 2020: Great Lakes Water Infrastructure Conference, Novi. https://www.michigan.gov/egle/0,9429,7-135-3308_3333-500683--,00.html

December 3, 2020: AIPG Michigan Section Annual Meeting, Weber’s Inn, Ann Arbor, <http://mi.aipg.org/default.htm>

June 14-16, 2021: Annual Environmental Risk Management Workshop: “The Data Tell the Story” at the Ralph A. MacMullan Conference Center, Roscommon, Michigan.



ONLINE RESOURCES

- Michigan Geology Maps Available: <https://www.michigan.gov/deq/0,4561,7-135-3304-1166/U--00.html>
- Digital Geology Library Overview: https://www.michigan.gov/documents/deq/GIMDL-Catalog-2010-01-20_307979_7.pdf
- GeoWebFace: https://www.michigan.gov/deq/0,4561,7-135-3311_60700---00.html
- Digital Geology Library Mining Overview: https://www.michigan.gov/documents/deq/GIMDL-Catalog-2013_06_22_mining_425595_7.pdf
- Michigan Geological Survey: <https://wmich.edu/geologysurvey>
- USGS Michigan Geological Map Data: <https://mrdata.usgs.gov/geology/state/state.php?state=MI>
- CMU, Clarke Historical Library, Michigan Geology: https://www.cmich.edu/library/clarke/ResearchResources/Michigan_Material_Statewide/Michigan_Oil_and_Gas_Industry/History_of_Michigan_Oil_and_Gas/Pages/Michigan-Geology.aspx



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2020-2021

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MBGS PUBLICATIONS

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

Historical publications now available on USB Flash Drives". Each USB Flash Drive is 8GB

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- Waubauskene, 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

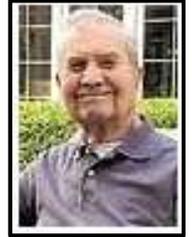
OTHER SPECIAL OFFERS

- **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.

IN OTHER NEWS

PASSING OF DR. PAUL A. CATACOSINOS

Dr. Paul A. Catacosinos passed away on April 10 of this year at age 86. Paul was a significant contributor to our understanding of Michigan geology through his work during the 1970's through 1990's. Paul was a dynamic educator and researcher that impacted a generation of students and many of us who are interested in Michigan Geology.



Paul did his Ph.D work under Dr. James H. Fisher at Michigan State and completed the dissertation in 1972 on the Cambrian Stratigraphy of the Lower Peninsula of Michigan. Paul taught at Delta College for 26 years, inspiring students about geology. He also contributed his energy and enthusiasm to help the Michigan Basin Geological Society, serving as Newsletter Editor (1972-74), Vice President (1977-78) and President (1978-79). Paul was honored by the Eastern Section of AAPG with the Distinguished Service Award (1989) and Honorary Membership (1991). He also served the Eastern Section of AAPG as an officer, Treasurer (1985), Secretary (1986) and President (1987).

His professional/technical contributions which we often still use today include:

- “Cambrian Lithostratigraphy of the Michigan Basin”, 1973, AAPG Bulletin
- “Origin and Stratigraphic Assessment of Pre-Mt. Simon Clastics (PreCambrian) of Michigan Basin”, 1981, AAPG Bulletin
- Co-editor (with Paul Daniels) of the book “Early Sedimentary Evolution of the Michigan Basin”, 1991, GSA Special Paper 256 containing 11 peer reviewed papers on Michigan basin geology
- “Stratigraphy of Middle Proterozoic to Middle Ordovician Formations of the Michigan Basin”, 1991 a paper in GSA Special Paper 256
- Co-editor (with Ben van der Pluijm) of the book “Basement and Basins of Eastern North America”, 1996, GSA Special Paper 308 containing 14 peer reviewed papers
- Lead author with 4 co-authors of “Stratigraphic Lexicon for Michigan” and Stratigraphic Nomenclature Chart for Michigan”, 2001, published by the Michigan Geological Survey and the Michigan Basin Geological Society.

There is a brief obituary on the legacy. com site at

<https://www.legacy.com/obituaries/abqjournal/obituary.aspx?pid=195950313>

Paul's lasting contributions to the understanding of Geology in the Michigan Basin are notable.

JOB ANNOUNCEMENT

DIVISION OF UTAH GEOLOGICAL SURVEY PETROLEUM GEOLOGIST (SENIOR GEOLOGIST) - SALT LAKE CITY, UTAH (MAY UNDERFILL AT PROJECT GEOLOGIST)

Click [HERE](#) to view the job details and/or apply.

This is a full-time, schedule B position.

Benefits: Yes

Location: Salt Lake City, Utah

Requisition #24477

Closes: Sunday, September 27, 2020 at 11:59 p.m.