



# The Trilobite



Volume 71 Number 9

*Wisconsin Geological Society*

Nov. 2015

## **NEXT WGS MEMBERSHIP MEETING & PROGRAM Monday, November 9 2015**

Immaculate Heart of Mary Church Hall  
(Downstairs, Enter at back of building)  
1260 South 117th Street (Just North of Greenfield Ave):  
West Allis, Wisconsin

**6:15: Junior Rockhounds:**

**7:00pm: Business Meeting:**

**7:30 pm: Program:** : The scheduled speaker for our November 9th meeting is Jonah Novek. He received Graduate Student WGS/UWM Foundation Grants in 2014 and 2015. His Master's thesis addresses the early Cambrian Indian Springs Lagerstätte, Poleta Formation, Nevada. A lagerstätte is a fossil site exhibiting extraordinary preservation.

It's official! October 17 from this day forward, as proclaimed by Governor Scott Walker, is and will now be forever more Geology Day in the state of Wisconsin! Thank you to all who had a part in this request, especially to Beth Johnson and Joanne (sorry, do not have last name) from the University of Wisconsin Colleges (UWC)!  
...From Jody Rymaszewski

See official proclamation on page 6



### **WGS Members, Please Note:**

**Your Membership Dues are renewed in November.**

\$15.00 Single Membership, \$20.00 Family Membership

Please remember to send your check to Club Treasurer Kitty Klein  
2477 South 73rd Street, West Allis WI 53219

**WGS Minutes, October 12, 2015**

Immaculate Heart of Mary Church Hall

The business meeting was called to order at 7:08 PM by our President Pierre Couture.

The minutes of the September meeting were printed in *The Trilobite*. Steve Mayer made a motion to accept the minutes as published. Lloyd Brown seconded. The motion was approved.

New Memberships:

Guests: Bruce Schulteis, who found us on the internet, Jody Rymaszewski's husband, Nancy Shervey and her husband Don, and our guest speaker Rob Graziano.

Kitty Klein read the Treasurer's Report. Phil Peychal made a motion to accept the current report for audit. Paul Schmidt seconded. The motion was approved.

Committee Reports:

The Show Committee: Paul Schmidt is looking into our options for the kitchen next year.

Mineral & Fossil Study Groups: Mineral Study group will be meeting on Thursday at Bernice McCloskey's. The Fossil Study group will be starting up again either November or January, meeting at Lloyd Brown's.

Field Trip: Seven people went (five were from our club, two were from another club) on the Kenosha Public Museum Field Trip on October 10. Afterwards we visited the Dinosaur Discovery Museum and the Civil War Museum. There also is another Field Trip to the Silha Quarry (Janesville) on October 24 with the Rock River Valley Club.

Unfinished Business: We had the audit letter to submit into the archives.

New Business: We are interested in getting our name trademarked. The cost of doing this would be fifteen dollars. We should also include a logo. Steve Klein made a motion to trademark our name. The motion was approved.

Announcements: There be a show in Cottage Grove, MN, October 17-18.

October 17 is Geology Day in Wisconsin.

A jewelry store in Burlington is closed,

Harris Ide, the owner was a former member, and the owner's son-in-law donated several boxes of slabs to the club.

Science Bag is starting up at UWM again on Fridays.

Door Prizes: Pierre Couture donated some specular hematite, and Montana donated dolomite. The winners were John Eisert, Steve Klein, Phil Peychal, Steve Mayer, Paul Schmidt, Tom Kullinger.

Adjournment: John Hammeter made a motion to adjourn. Lloyd Brown seconded. The motion was approved. The meeting adjourned at 7:42 PM.

Barbara Brown , WGS Secretary

**CALENDAR OF EVENTS**

**Oct 31-Nov 1: DAVENPORT, IA** Black Hawk Gem & Mineral Club Semi Annual Show.  
Sat 10-6; Sun 10:30-3 Mississippi Valley Fairgrounds, 2815 W. Locust St., Davenport.  
Contact Kellie & Craig Moore, (563) 445-3034; [kalsinean@gmail.com](mailto:kalsinean@gmail.com)

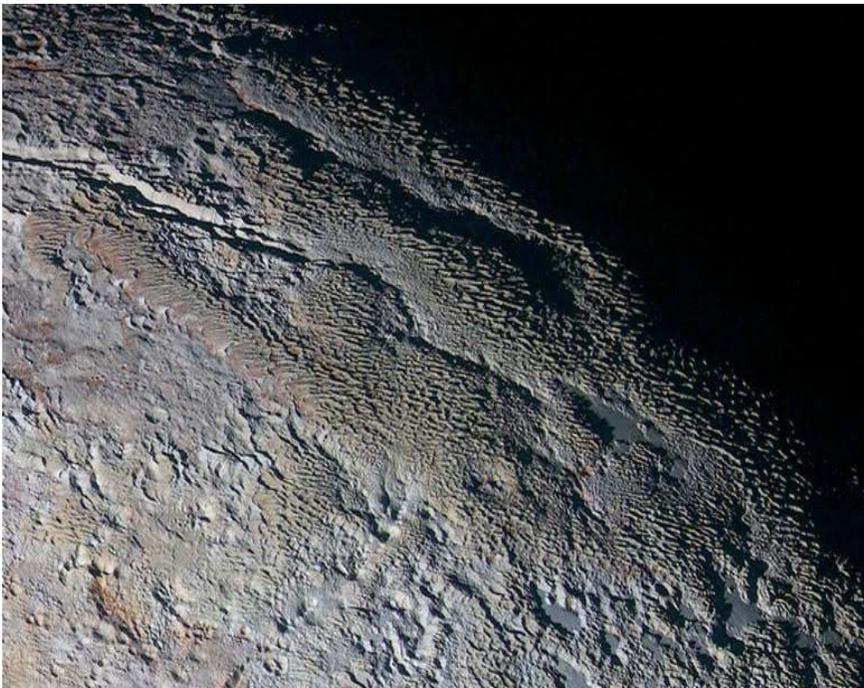
**Oct 31-Nov 1: STURTEVANT, WI** Racine Geological Society Annual Show.  
Sat 10 am - 5 pm; Sun 10 am - 4 pm. Fountain Banquet Hall,  
8505 Durand Ave (Hwy 11). Sturtevant, WI  
Contact: John Lowman, (262) 554-5370; [racinegeological.soc@gmail.com](mailto:racinegeological.soc@gmail.com)

**14-15: WARREN, IL** Northwest Illinois Rock Club Annual Show,  
Sat 9 am - 5 pm; Sun 10 am - 4 pm. Student Conference Center, Highland Community College,  
2999 W. Pearl City Rd., Freeport  
Contact: Brian Green, (815) 745-2228; [bgreen57@gmail.com](mailto:bgreen57@gmail.com); <http://nwirockclubfrpt.blogspot.com>

**21-22 Nov: MADISON, WI** Madison Gem & Mineral Club Annual Show.  
Sat 9:30 am - 5 pm; Sun 10 am - 5 pm  
Exhibition Hall, Alliant Energy Center, 1919 Alliant Energy Center, Madison  
Contact: Nevin Franke, (608) 251-2601; [burniesrockshop@gmail.com](mailto:burniesrockshop@gmail.com); [www.madisonrockclub.org](http://www.madisonrockclub.org)

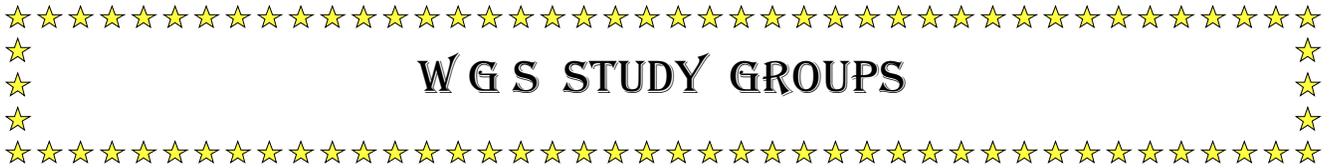
The Midwest Federation website has an extensive calendar of shows and activities throughout the Midwest. <http://www.amfed.org/mwf/Calendar/calendar.html>

An extensive list on mineral shows is also at: <http://www.the-vug.com/vug/vugshows.html>



The newest high-resolution images of Pluto from NASA's New Horizons are both dazzling and mystifying, revealing a multitude of previously unseen topographic and compositional details. This image shows an area near the line that separates day from night -- It captures a vast rippling landscape of strange, aligned linear ridges that has astonished New Horizons team members.

[www.nasa.gov](http://www.nasa.gov)



**WGS LAPIDARY STUDY GROUP**

The new semester of lapidary and silversmithing started on Tuesday, September 15th in the craft room at McGovern Park Community Center, 4500 West Custer Ave, Milwaukee.

Classes are held from 9:00 am to 11:30 am for the morning sessions and 12:00 noon to 2:30 pm for the afternoon sessions.

**Registration is filled for the Fall semester for all sessions.**

There is a fee for attending the sessions to replace various needed items used. Also there is an additional fee paid to Interfaith to help defray the cost of utilities.

The lapidary study group has a scheduled meeting on Tuesday, November 10th at 11:30 am in the craft room at the McGovern Park Community Center, 4500 West Custer Avenue, Milwaukee.

Contact Ed Fyrnys for more information. Phone 414-453-3456

**WGS MINERAL STUDY GROUP  
AND  
FOSSIL STUDY GROUP**

The Mineral Study Group usually meets on the third Thursday of the month.

The Fossil Study Group usually meets on the fourth Thursday of the month.

Please phone Lloyd Brown at 414-943-5556 To confirm the time and location of the meetings and obtain directions.

2016 WGS Rock, Gem and Mineral Show  
Hart Park, Wauwatosa

The 2016 show will be held on Saturday May 14th and Sunday May 15th.

The Junior Rockhounds will be discussing birthstones and the substances associated with them. Many are minerals that have single crystals. Others are crystalline such as jadeite and nephrite. A few are amorphous such as opal and pearls. We will also get into working on rockhound badges.

Paul Schroeder donated chunks, slabs, finished cabochons and books from the estate of Mr. Harris Ide of Burlington. Mr. Ide was father-in-law of Paul Schroeder. He was a member of the Wisconsin Geological Society before the 1970's. B & I Manufacturing Company of Burlington was started and operated by Mr. Ide. He became interested in making cabochons and then into faceting and jewelry. He started a jewelry business that continues in operation in Burlington.

### ICE AGE GHOSTS AND THEIR GROCERIES

Herbivores and plants have a tentative *quid pro quo*. Herbivores get food. Ideally, plants get seed dispersal. However, many herbivores - like rodents - eat seeds rather than disperse them! No seeds, no future. That's why some plants adapt defenses like toxic seeds. What we consider "spices" (e.g., black pepper) are really just seeds defending themselves. Therefore, *symbiotic* plant-animal relationships are very specific.

Years ago, in Costa Rica, ecologist Dan Janzen noticed that many of the larger tropical fruits were going uneaten, just rotting away. Together Janzen and Paul S. Martin wrote a paper entitled "Neotropical Anachronisms" where they hypothesized that many fruit trees might still be making food for Ice Age megafauna (giant sloths, mastodons, mammoths, glyptodonts, etc.). These great beasts were symbiotes. Now they're extinct. But the trees still remember and make Ice Age groceries to this day.

Connie Barlow's book *The Ghosts of Evolution* explores this idea in depth. Her anachronistic examples include honey locusts, Osage orange, calabash, paw paws, persimmon trees and others. All of these plants produce large fruit harvests that go largely nowhere. They've had to develop alternate means to survive without Ice Age megafauna, and their numbers were dwindling as a result.

For example, the Osage orange produces a softball-sized fruit that looks like a green brain. It's made of a latex-like material, and it tastes worse than it looks. No animal is known to eat this fruit. By the time Columbus arrived the population was restricted to a small tri-state range around Arkansas, Oklahoma and Texas.

Humans now propagate some of these "anachronisms". Osage orange trees make excellent natural fences for farms. Honey locust trees thrive in cities and arid climates to provide shade.

Noted ecologist Henry Howe critiqued the idea of anachronisms in his 1988 book *Ecological Relationships of Plants and Animals*. Though Howe thought the idea intriguing, he criticized the hypothesis on two points. First, if the megafauna were the seed dispersers, then how could the plants survive "for 500 years, much less ten millennia" after the Ice Age megafaunal extinction? Second, how could one even begin to prove this hypothesis?

But it should be remembered that even if megafauna were the *primary* dispersers, it doesn't mean they were the *only* dispersers. For example, without the honeybee, flowering plants wouldn't go extinct, but many flowering plants certainly would dwindle. Besides, some plants find alternate means to survive. As elaborated in *Ghosts of Evolution*, some plants will send out root suckers to form nearby clone trees. Some of the oldest plants in the world have survived this way.

This hypothesis is by no means perfect, but it seems better than any other alternative explanation for all the "nonsensical fruit." Kind of a lonely story, really. Smacks of unrequited love. But my advice for these trees, or any lonely heart, is this: They're plenty of other symbiotes in this big crazy world! Good luck!

#### References:

Barlow, Connie. *The Ghosts of Evolution: Nonsensical Fruit, Missing Partners, and Other Ecological Anachronisms*. New York: Basic Books, 2000.

Howe, Henry F., and Lynn C. Westley, 1988, *Ecological Relationships of Plants and Animals* (New York: Oxford University Press)

Janzen, Daniel H., and Paul S. Martin, 1982, "Neotropical Anachronisms:

Contributed by Heath Shive, Three Rivers Gem & Mineral Society, Fort Wayne, IN

STATE of WISCONSIN



OFFICE of the GOVERNOR

Proclamation

WHEREAS: geology helped to shape the natural beauty of Wisconsin, with its renowned glacial landscapes, its ancient rock features, and its abundant lakes and rivers that are important to recreation and tourism; and

WHEREAS: geological resources, including rocks, minerals, water power, and groundwater, were critical to Wisconsin's settlement and industrial development, and those resources continue to benefit the state's economy; and

WHEREAS: its rich mining tradition, specifically lead mining, gave Wisconsin its official nickname – "The Badger State;" and

WHEREAS: the Weis Earth Science Museum in Menasha – the Official Mineralogical Museum of Wisconsin – preserves and promotes the geology of Wisconsin, the state's mining history, and mineral heritage to educate our citizens about earth science; and

WHEREAS: the geology program of the University of Wisconsin – Fox Valley works in partnership with the Weis Earth Science Museum to educate the community about how geology and all earth sciences are fundamental to the health, safety, and welfare of Wisconsin residents;

NOW, THEREFORE, I, Scott Walker, Governor of the state of Wisconsin, do hereby proclaim Saturday, October 17, 2015, as

GEOLOGY DAY

throughout the state of Wisconsin, and I commend this observance to all of our citizens.



IN TESTIMONY WHEREOF, I have hereunto set my hand and caused the Great Seal of the state of Wisconsin to be affixed. Done at the Capital in the City of Madison this 7<sup>th</sup> day of October 2015.

Signature of Scott Walker
SCOTT WALKER
GOVERNOR

By the Governor:

Signature of Douglas La Follette
DOUGLAS LA FOLLETTE
Secretary of State

NASA scientists say rising sea levels – a natural consequence of the warming of our planet – are unavoidable and more dangerous than thought.

Sea levels around the world have already risen three inches and will rise at least three more feet in the next 100 to 200 years, say scientists.

Since satellites began measuring ocean levels in 1992, global sea levels have risen by an average of three inches as a result of warming waters and melting ice, with some areas rising more than 9 inches due to natural variation, said NASA scientists at a news conference Wednesday Aug 26.

As sea levels continue to rise, low-lying states such as Florida are at risk of disappearing, as are major world cities such as Tokyo and Singapore, new data suggests.

“Given what we know now about how the ocean expands as it warms and how ice sheets and glaciers are adding water to the seas, it’s pretty certain we are locked into at least 3 feet of sea level rise, and probably more,” said Steve Nerem of the University of Colorado, Boulder, and head of the Sea Level Change Team. “But we don’t know whether it will happen within a century or somewhat longer.”

The rise is due to two factors, say scientists. For one, when water heats up, it expands. So when the ocean warms, sea level rises. Secondly, ice melts when exposed to heat, and when ice on land melts and runs into the ocean, sea level rises.

About one-third of sea level rise is caused by warming ocean water, one-third is due to ice loss from the Greenland and Antarctic ice sheets, and the remaining third comes from melting mountain glaciers, say scientists. They warn that the uncertain fate of the polar ice sheets could change that ratio and produce more rapid sea level jumps in the coming decades. NASA is now deploying tools to better understand and model all three.

According to NASA’s satellite measurements, the Greenland ice sheet, covering 660,000 square miles – nearly the area of Alaska – has shed an average of 303 billion tons of ice per year over the past decade. Over the same period, the Antarctic ice sheet, covering 5.4 million square miles – larger than the United States and India combined – has lost an average of 118 billion tons a year.

NASA’s data reveals that, although the picture is complex, sea levels overall are rising faster than they were 50 years ago, more quickly than expected.

“People need to understand that the planet is not only changing, it’s changed,” said Tom Wagner, the cryosphere program scientist at NASA Headquarters.

Continued next page.....

“If you’re going to put in major infrastructure like a water treatment plant or a power plant in a coastal zone,” said Dr. Wagner, “we have data you can now use to estimate what the impacts are going to be in the next 100 years.”

A new NASA model is showing just how fast sea levels are rising around the world as a result of climate change.

At the news conference (Aug. 26), NASA officials described a new computer visualization of sea level change incorporating data collected by satellites since 1992 — it reveals that sea levels are rising quickly but unevenly across the globe. The space agency will continue to investigate the global phenomenon, and new satellite missions in the coming years will increase researchers' knowledge of the topic, officials said.

"Sea level rise is one of the most visible signatures of our changing climate, and rising seas have profound impacts on our nation, our economy and all of humanity," Michael Freilich, director of NASA's Earth Science Division at the agency's headquarters in Washington, D.C., said at the news conference.

"By combining space-borne direct measurements of sea level with a host of other measurements from satellites and sensors in the oceans themselves, NASA scientists are not only tracking changes in ocean heights but are also determining the reasons for those changes," Freilich added.

NASA's data reveals that, although the picture is complex, sea levels overall are rising faster than they were 50 years ago — more quickly than expected — and that the speed will likely increase in the future, primarily because of melting ice sheets

To study sea levels, NASA has used satellite altimetry, which measures the time a radar burst takes to hit Earth's surface and return to orbiting spacecraft such as TOPEX/Poseidon, Jason 1 and then Jason 2. The measurement is extremely precise: Freilich mentioned that such a tool mounted on a jetliner flying at 40,000 feet (12,200 meters) would be able to detect the bump caused by a dime lying flat on the ground. NASA's ICESat satellite also keeps tabs on ice-sheet height with pulses of laser light.

The model also incorporates data from GRACE, twin satellites that are very sensitive to changes in Earth's mass distribution. The distance between the two spacecraft varies as ice and water move around on the planet, Steve Nerem, who leads NASA's Sea Level Change Team at the University of Colorado, Boulder, said at the news conference — and the GRACE duo can measure those changes to within the diameter of a red blood cell.

Information from an article by Beatrice Gitau, Christian Science Monitor, Aug 27, 2015 and NBC News reporting on a NASA News Conference.

<http://www.csmonitor.com>

<http://www.nbcnews.com>

Information extracted from an article by Alex MacPherson, The StarPhoenix August 26, 2015  
<http://www.thestarphoenix.com/>

Photograph by: Peter Wilson  
The StarPhoenix



Mike Botha of Embee Diamonds will cut the Esperanza.

A Saskatchewan craftsman is preparing to cut one of the finest diamonds ever unearthed in Arkansas. The diamond, dubbed the Esperanza, was found on June 26 at Crater of Diamonds State Park near Murfreesboro. Mike Botha of Prince Albert-based Embee Diamonds will cut it into a 147-facet gem of his own design.

Diamonds are "grown" in the earth's mantle over hundreds of millions of years, and conditions are not always ideal, said University of Saskatchewan geology professor Kevin Ansdell. "There are flaws or inclusions in many diamonds," he said. "So having a flawless one is actually quite rare."

On Sept. 8, Botha will begin transforming the Esperanza, which he describes as "spectacular," from a carbon icicle into a dazzling gemstone. Nearly all of the work will be conducted at Stanley Jewelers in Little Rock, Ark. - and be open to the public.

"Even people in the industry hardly ever get to see that," said Laura Stanley, vice-president of Stanley Jewelers and a certified gemologist appraiser. "It's really fascinating for us." Stanley said Embee Diamonds and Stanley Jewelers were recommended to the finder to help with cutting and selling the stone.

Botha plans to apply that esthetic to the Esperanza diamond. The finished stone will look like an emerald cut and a trapezoid put together, he said. "It's going to have a lot of brilliance."

After Botha is finished cutting the diamond, it will be mounted in a custom setting and auctioned off. Stanley said it could attract bids in excess of \$200,000.

Bench Tips: by Brad Smith

Any time you make your own earwires, the hardest part for me is to sand and polish the end that's inserted into the ear. Any sharp edge there is no fun. I've tried using sanding sticks, cup burs, and silicone polishing wheels. I've tried buffing on a Zam wheel, and I've tried spinning the wire in the Foredom to polish the tip. While all of these techniques do the job, none are very easy, and none are as fast as I'd like.

Then it occurred to me - I could melt the wire smooth. One quick touch in the flame of the propane/oxygen Little Torch does the trick - not enough to form a bead on the wire but just enough to round off the tip.

I find it's worth practicing the maneuver a couple times on some scrap wire before trying it on completed earrings.

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## BALL BURS

I use ball burs quite a bit for carving and for cleaning up bits of solder that need to be removed. The ball shape seems to be more controllable than other cutting burs. They're less apt to grab and walk over your piece.

As to sizes I've found that 8 mm is a very useful size for carving while a half mm or smaller at high speed works great for signing your name on the back of your work.



Get all 101 of Brad's bench tips in  
"Bench Tips for Jewelry Making" on Amazon

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Publisher:  
Lloyd Brown  
2446 North 69th Street  
Milwaukee, WI 53213

**Wisconsin Geological Society, Inc  
Committee Chairpersons:**

- All-American Club Entry....Barbara Brown;:414-258-5761
- UW-Milw Liaison: ..... Jody Rymaszewski: 414-771-4780
- Custodian-Librarian:..... To be announced
- Education:..... To be announced
- Field Trips:..... Mike Macali: 414-321-9217  
Jody Rymaszewski: 414-771-4780
- Historian: ..... Jody Rymaszewski : 414-771-4780
- Junior Rockhounds:.....Ed Fyrnys
- MWF Liaison.....Jody Rymaszewski: 414-771-4780
- Nominations: ..... To be announced  
..... Bear Devitt (2011)
- Parliamentarian:..... Bear Devitt: 414-278-0323
- Study Groups:..... Fossil: Lloyd Brown: 414-258-5761  
Lapidary: Ed Fyrnys: 414-453-3456  
Mineral: Lloyd Brown: 414-258-5761
- Show Chairman: ..... Paul Schmidt: 414-771-8668
- WebMaster: ..... Pierre Couture: 414-475-0186
- Sunshine Person:..... Margaret Pearson: 414-464-0781

The Purpose of the Wisconsin Geological Society, Inc is to:

- Create an interest in the study of Geology
- Provide a means for personal development in Geology.
- Disseminate knowledge concerning all phases of Geology.

President:  
Pierre Couture  
1001 S. 97<sup>th</sup> St  
West Allis, WI 53214  
414-475-0186

Vice President:  
Jody Rymaszewski  
901 South 75th St  
West Allis, WI 53214  
414-771-4780

Secretary:  
Barbara Brown  
2446 North 69th Street  
Wauwatosa, WI 53213  
414-258-5761

Treasurer Kathleen Klein  
2477 South 73rd Street  
West Allis WI 53219  
414-321-5298

Director (2015)  
Steven Mayer  
1556 Blackfoot Drive  
Grafton, WI 53024

Director (2016)  
Ed Fyrnys  
PO Box 13931  
Wauwatosa, WI 53213

Director (2017)  
John Hammeter  
2507 N. 61st St.  
Milwaukee, WI 53213

Editor: Trilobite  
Paul Schmidt  
8213 Red Arrow Ct.  
Wauwatosa WI 53213  
Ph: 414-771-8668  
pvs@wi.rr.com



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# FIRST CLASS

To:

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**The Trilobite**



Nov. 2015

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General Membership meetings are held each month (except July and August) on the second Monday of the month at 7:00p.m. in the Parish Hall (lower level) of the Immaculate Heart of Mary Catholic Church, 1260 South 117th Street; West Allis, Wisconsin.

All news, articles, and pictures to be included in the Trilobite should be forwarded to the editor by the 15th of the month. They can be mailed or e-mailed to:  
Paul and Verna Schmidt  
8213 Red Arrow Ct.  
Wauwatosa WI 53213  
pvs@wi.rr.com

**WGS Members, Please Note:**

**Your Membership Dues are renewed  
in November.**

\$15.00 Single Membership  
\$20.00 Family Membership

*Please remember to send your check to  
Club Treasurer Kitty Klein  
(See page 11)*

***The check should be made out to WGS***

**The Wisconsin Geological Society, Inc  
is now in it's 78th year**