



**Meeting**  
Second Tuesday of each month  
Van Matre Senior Citizens Center  
1101 Spring Street  
Mountain Home, AR

<http://www.ozarkearthscience.org/news.htm>  
<http://www.ozarkearthscience.org>

May, 2011

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<b>President/Editor</b>	<b>Vice President</b>	<b>Secretary</b>	<b>Treasurer/Proof Reader</b>
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<b>1424 CR 18</b>	<b>821-1 Alexis Circle</b>	<b>467 CR 7320</b>	<b>1177 CR 1084</b>
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A Member of the Midwest Federation of Mineralogy.

Sharon Waddell: Liaisons Officer - 417-256-8948

MWF Assistant Micromounter: Brenda Johnson

**OBJECTS:** To study and promote an interest in the earth sciences; Geology, paleontology, mineralogy, archaeology and the lapidary arts.

**Meeting:** On the second Tuesday of each month at 7:00 p.m. in the Van Matre Senior Citizens Center, 1101 Spring Street (Cooper Park), Mountain Home, Arkansas.

**Dues:** Active adults \$12.00 per year or family membership of \$20.00 per year. Junior membership is \$4.00 per year. Nonresident membership is \$8.00.

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### The President's Message

I hope that all of you came through this past month's storms and heavy rains without any severe consequences. When we see what happened to all our friends south of us, especially in Alabama, we can feel blessed that the Lord spared us with just heavy rains.

In the next few months we need to concentrate real heavily on our club show that is coming in August. We still need some slots filled for helping in areas, so please sign up. This is your club, your show, and it needs your help.

We need to consider as to whether we need a separate insurance plan for our club in case of accidents by a visitor. The Senior Citizens Center will not cover us if someone gets hurt while

**The President's Message continued -**

we are having our show. We need to vote as a club to let someone represent us in finding a policy that will not be a great expense, yet will cover our liabilities. The type of insurance we have through the Federation only covers places we collect at. In other words, if we are in a quarry and someone causes damage to a piece of equipment and it is proven it is our fault, the insurance will cover the fixing of or replacing of that equipment. **IF** you can recommend a company that insures in the manner we need, and you think it will help us to go talk to one of their representatives, please bring it up at the club meeting.

When you are out this summer collecting, please remember the **American Federation Code of Ethics**. I print them from time to time each year, so you should know them fairly well by now. If not, you can always go to the **AFMS** website and read them again ([www.afms.org](http://www.afms.org)). We not only represent this club, but all rockhound clubs throughout North America. We seldom ever see good things someone does printed in newspapers; however, when one person messes up, there seems to be a camera and a microphone handy to transcribe every detail about the mess up. So please don't let our club be the one that ends up in print.

Some of you may not realize that our club donates the *Rock and Mineral* magazine to our county library on a yearly basis. If you do not get this as a subscription, make it a point sometime to go to the library and read the magazine. It is a lovely and very educational work that can help you in your further study of minerals.

Our Federation is made up of clubs from twelve states in the United States. Our State Director for Missouri and Arkansas is **Sharon Waddell**, 6463 Hwy 63, West Plains, MO 65775. She represents us at all the Federation Committee Meetings when she can attend. If you have questions concerning Federation rules and regulations, you should contact her.

Our Federation is busy working for us behind the scenes to help us keep our hobby alive through education, bulletins, directories and calendars of events, endowment fund, environment & legislation problems and much, much more. We have permanent committees in many aspects such as archaeology, lapidary arts, micromounting, and paleontology, along with mineralogy. If anyone has a question they want answered and they can't find someone locally to answer it, I have the new 2011 Official Directory for the **MWF** and will be glad to give you the contact information for someone who might be able to help you.

As hot weather nears, it is never too often that we are cautioned about safety. Always remember your sunscreen, plenty of water, a first aid kit, and the regular safety equipment needed while collecting, and stay safe no matter what.

**Brenda**

**There are no minutes of the last meeting as our secretary did not attend. I will try to relate as well as possible what we discussed:**

President **Brenda Johnson** called the meeting to order at 7:05 P.M. and **Edward Hakesley** introduced our guest speaker, **Erica Doers** who gave a very informative talk and power point on Earthquakes in the state of Arkansas entitled *Earthquake 101*.

Door prizes were given to guests, badge prizes to two of our members and raffle tickets were then sold for the big drawing while we took a break to get refreshments.

The minutes of the March meeting were accepted as published.

**Dorothy Hess**, Treasurer, reported a balance of \$1,436.88 as of April 11, 2011.

**Sharon Waddell** gave a short report on the progress of our upcoming show with the amount of dealers she has listed, and then invited everyone on a fieldtrip for drusy quartz on April 16<sup>th</sup> near Park Hills, Missouri.

**Edward Hakesley** told what our program for May would be, Rockhounding in New Mexico, and asked that all bring in minerals from New Mexico they have in their collections.

There were two names drawn for the raffle.

**Sidney Johnson** then conducted the show and tell table which was full of specimens of lapidary arts.

All were invited to have refreshments that were prepared by **Bonnie Bobango**, who was ill and could not attend the meeting.

The meeting was adjourned at 8:40 P.M.

**Get Well wishes to Bonnie Bobango. We hope you are back with us at our next meeting.**

**Happy Birthday to Sharon Waddell on May 2<sup>nd</sup>.**

**Happy 47<sup>th</sup> Anniversary to Harvey and Brenda Johnson on May 2<sup>nd</sup>.**



## Safety via Aradasa Johnson, Safety Chair

### Safety with Common Hand Tools in the Field

#### SAFETY FIRST

By **Bill Klose** *EFMLS Safety Chairman*

*April 2000 EFMLS News*

[http://www.amfed.org/a\\_safetyEFMLS.htm#hand](http://www.amfed.org/a_safetyEFMLS.htm#hand)

Last month we covered hammers. Now let's look at other hand tools commonly encountered in the field.

Chisels and drills are used with hammers. Flat cold chisels are used to form and cut cold metal, so we should use brick chisels (double beveled point with an included angle of 80 degrees) and brick sets (single beveled point with an included angle of 45 degrees) to split rocks. Star drills have all cutting edges to an included angle of 70 degrees. Hold chisels or drills with a loose fist, keeping the fingers relaxed in order to minimize the chance of being hit by a glancing blow. A sponge rubber pad forced over the chisel or drill above the hand may also protect the hand from a glancing blow. If some one else is holding the chisel or drill, it is best to use a set of tongs or a chisel holder to guide the chisel. Gloves are always recommended for both individuals to protect from glancing blows and flying chips. The following safe practices apply:

1. Protect cutting edges by installing protective covers.
2. Store in racks where they may not be chipped or broken.
3. Regrind broken or chipped chisel edges before using. Remember to cool in water often to protect the temper of the metal. Drill cutting edges should be hand filed. Replace chisels and drills with mushroomed heads to prevent shards of metal from breaking off and causing injury.
4. Lubricate with light oil before storing.

Crowbars, pinch bars, and wrecking bars are favorite tools of the rock hound. Be sure to use the proper size for the job, with a point or toe that will grip the object to be moved and a heel that will act as a pivot or fulcrum. Use of a block of wood under the heel may also keep the bar from slipping and causing hand injuries. Store bars secured upright so they won't fall or cause tripping hazards. Never hit a bar with another tool and do not try to pry an item that will cause the bar to bend.

Knives are responsible for more disabling injuries than any other hand tool according to the National Safety Council. Use knives only for the purpose intended, not splitting rocks with a hammer. Keep the knives blade sharp and cut away from the body, avoiding jerky motions. Use knives with retractable blades whenever possible. If the item to be cut is held in the other hand, wear cut resistant gloves. Always wear a sheathed knife at the hip towards the back, never on the front part of belt. This prevents severing an artery or vein in a leg in case of a fall. Wipe knives with a separate cloth with the sharp part of the blade turned away, not on clothes or with fingers

**Safety Continued --**

to prevent cuts. Wash knives separate from other utensils. When not in use keep knives in sheaths or racks and guard their edges to protect people as well as the knives edge. For long term storage apply a rust preventative compound on all metal parts and place in a dry spot. Avoid horseplay such as "fencing" when using knives and have plenty of room so you won't bump into anything. The 18" machete is used to cut tall grass, vines, and small brush and is heaviest and widest near the pointed end and has a handle shaped to fit the hand. When using a machete, always make sure no one is close enough to be injured before swinging the tool, and always clear the swing path so as not to deflect the blade. Do not use a dull or defective tool and store properly in its sheath when not in use. For prolonged storage coat metal parts with light oil. Axes are designed for cutting, felling, trimming, notching, and splitting wood and soft material. A narrow blade is for hard wood and a wide blade is for soft wood. A single bit axe may also be used for driving wooden stakes, not chisels and drill bits. Never strike an axe against metal, stone, or concrete. Never strike with the side of an axe. Never use an axe with a worn or damaged handle. Use steel wedges for splitting wood and use a sledge hammer or maul for driving a steel wedge, not a single bit axe. Keep axe blades sharp - a dull blade may glance back and cut the user. Always wear safety shoes, safety glasses, and durable pants. Before swinging an axe, ensure you have a path clear of vines, brush, etc., with no one standing close. During swing, let hand slide down the handle towards the other hand near the end. Have your weight evenly distributed with knees set but not tense. The body should be relaxed and free to swing and bend at the waist. For a right handed person, the left foot should be closer to the work. Protect axe blades with a sheath or metal guard. Carry axes at side-single blades pointed down. Axes, like knives, should be kept sharp by honing.

Double bevel mattock and pick mattocks are designed for digging and cutting. Their use and safe practices are similar to that for axes.

Long handled shovels are used for digging in open areas and D handled shovels are for light digging in confined areas. The spade is for heavy digging in confined areas. The posthole digger is used to bore holes for posts, explosive charges, etc. Shovel blades should be kept well trimmed and the handles in good shape and free of splinters. Wear heavy safety boots with sturdy soles and use the ball of the foot, not the arch, to press the shovel into the ground. If the instep is used and the foot slips off the shovel, the sharp corner of the shovel may cut the shoe and the foot. Keep legs well separated with spring in the knees - the leg muscles should take much of the load while shoveling. Dip the blade in water often or coat the blade with wax or grease to keep the shovel free of sticky material and caking. Treat the wooden handles with linseed oil occasionally to avoid cracking and splinters. Store shovels against, or hang, on the wall in a rack or shovel box.

Our May program will be Rockhounding in New Mexico, a power point presentation by Edward Hakesley on his trips and minerals collected. Please bring New Mexico minerals or lapidary articles for the Show-and-Tell table.

The April, 2011 Financial Report  
Dorothy Hess, Treasurer

Last report Balance: March 7, 2011

Transactions for the reporting period of march 7, 2011 – April, 2011 are:

Income:

Raffle sales	\$ 11.00
Table fees for the August show	<u>237.00</u>
Total	\$ 248.00

Expenses:

Publishing the April Club Newsletter	\$ 5.90
March club website fee	<u>29.95</u>
Total	\$ 35.85

The check book balance as of April 11, 2011 **\$1,436.88**

DENTAL FLOSS

When testing the fit of stone in a bezel, it's all too easy to get it stuck. Often the only way to free it is to drill a hole in the bottom and push it out with a needle. To avoid this, lay a piece of dental floss over the top before you press the stone in. Then just pull on the string to remove the stone.

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Acknowledgement to be included with each publication:

More BenchTips by **Brad Smith** are at  
[groups.yahoo.com/group/BenchTips/](http://groups.yahoo.com/group/BenchTips/)  
or  
[facebook.com/BenchTips](http://facebook.com/BenchTips)

Used with permission of Brad Smith

Refreshments are by Gretchen Neal this month.

**KDVR**

**Colorado woman finds giant diamond in Arkansas state park**

10:06 AM MDT, April 28, 2011

Murfreesboro, Ark. -- A woman from Colorado found an 8.66-carat diamond, and she gets to keep it.

Beth Gilbertson of Salida, Colo., said Wednesday she discovered the diamond while washing what she had collected in her buckets at the Crater of Diamonds State Park in Arkansas on Tuesday.

"Large diamonds continue to be found here at the Crater of Diamonds State Park," says park superintendent Justin Dorsey. "This absolutely beautiful white diamond is the third largest diamond of the 27,000 diamonds found by park visitors since the Crater of Diamonds became an Arkansas state park in 1972."

A man from Amarillo, Texas found a 16.37-carat diamond in the park in 1975, and a woman from Shreveport, Louisiana found one weighing 8.82 carats in 1981.

"It has been almost 30 years since we've seen a diamond of this size found at the park. And, we are all so happy for Ms. Gilbertson," Dorsey says.

Visitors are allowed to keep whatever they find.

Gilbertson said she certified the diamond at the park Wednesday morning after thinking all night about what to name it.

She said she settled on naming it "The Illusion Diamond" because at first she thought it had been a piece of glass but after holding it in her hand realized it was an actual diamond.

Gilbertson is regular visitor to the park.

"I'd collected four buckets of dirt for me to search and two for the other visitors," she says. "The diamond ended up being in one of my buckets."

"I've found other diamonds at the park, but when I first noticed this one, I couldn't quite believe that something that large could be a real diamond. I thought it was a piece of glass. So, I asked another visitor, this is a diamond, right?"

That's how it became "The Illusion Diamond."

"The diamond is jaw-dropping," says park interpreter Waymon Cox. "It's icy white with a metallic luster. And, it's a flat trapezoidal-shape crystal and the size of a nickel."

**Diamond continued –**

The search area at the Crater of Diamonds State Park is a 37 ½-acre plowed field, the eroded surface of the eighth largest diamond-bearing deposit in the world in surface area. It is the world's only diamond-producing site open to the public.

It's about 120 miles southwest of Little Rock.

[kdvr.com/news/kdvr-colo-woman-finds-giant-diamond-20110428,0,6758322.story](http://kdvr.com/news/kdvr-colo-woman-finds-giant-diamond-20110428,0,6758322.story)

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**As the World Turns**

**By C. CLAIBORNE RAY**

**Q. Do the shifts of the Earth's axis produced by earthquakes alter world weather?**

A. "In short, no," said Allegra N. LeGrande of the Center for Climate Systems Research at Columbia University. "The changes are simply too small."

Researchers at the NASA Jet Propulsion Laboratory calculate that the recent earthquake in Japan pushed the Earth's rotational axis more than 6.5 inches, while the quake in Chile in 2010 shifted it by 2.8 inches, through slightly altering the distribution of mass across the Earth.

But "natural shifts in the Earth's mass in the atmosphere and oceans also cause changes of about 39 inches in the rotational axis each year," Dr. LeGrande said. "In other words, the shifts associated with earthquakes are much smaller than the unnoticeable shifts that occur each year anyhow."

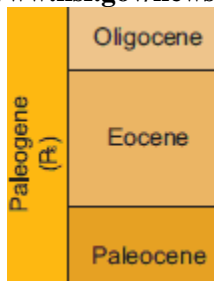
Large shifts in the axis do cause climate changes, Dr. LeGrande said. The cyclical change in the axis tilt associated with astronomical changes, called obliquity, has a very long cycle, about 41,000 years, and changes the tilt from around 22.1 degrees to 24.5 degrees. Right now it is about 23.4 degrees.

At high latitudes, greater obliquity means greater total annual irradiation. At low latitudes, the opposite is true, and at middle latitudes, there is almost no change. When obliquity is high, Dr. LeGrande said, the difference between the equator and the poles in total irradiation, and also in temperature, is larger, and as a result the seasonal cycle becomes more extreme.

"But the changes that occur each year with obliquity are so tiny as to be unnoticeable," Dr. LeGrande said. ~April 25, 2011

## Fossil Sea Cows Shed New Light on Ancient Climate

[http://www.nsf.gov/news/news\\_summ.jsp?cntn\\_id=119336&org=NSF&from=news](http://www.nsf.gov/news/news_summ.jsp?cntn_id=119336&org=NSF&from=news)



**April 21, 2011**

What tales they tell of their former lives, these old bones of sirenians, relatives of today's dugongs and manatees.

And now, geologists have found, they tell of the waters in which they swam.

While researching the evolutionary ecology of ancient sirenians--commonly known as sea cows--scientist Mark Clementz and colleagues unexpectedly stumbled across data that could change the view of climate during the Eocene Epoch, some 50 million years ago.

Clementz, from the University of Wyoming, published the results in a paper in this week's issue of the journal *Science*.

He and co-author Jacob Sewall of Kutztown University in Pennsylvania used their findings to dispute a popular scientific assumption about the temperature and composition of seawater during the time marked by the emergence of the first modern mammals.

The Sirenia, named for the sirens or mermaids of Greek myth, is an order of aquatic, plant-eating mammals that live in swamps, rivers, estuaries, marine wetlands and coastal waters.

Four species of "sea cows" are alive today, in two families and genera: the dugong, with one species, and manatees with three species.

Sirenia also includes the Steller's sea cow, extinct since the 18th century, and others known only from fossil remains. The order evolved during the Eocene more than 50 million years ago.

In their paper--"Latitudinal Gradients in Greenhouse Seawater  $\delta^{18}\text{O}$ : Evidence from Eocene Sirenian Tooth Enamel"--the scientists used the isotopic composition of sirenian fossils from a broad time period and geographic area, along with climate simulation data, to add to the long-running debate over Eocene climate.

"This study demonstrates the value of the fossil record, and of examining the deep time record of paleoclimatological events, so we can better understand climate change today," says Lisa Boush,

**Fossil Sea Cows Shed New Light on Ancient Climate – continued**

program director in the National Science Foundation (NSF)'s Division of Earth Sciences, which funded the research.

"This novel approach will potentially transform our way of thinking about the hydrologic response to global climate change."

"I wasn't looking at it from this direction when we started the project," says Clementz, whose research is part of an NSF CAREER award.

"But once we started accumulating enough samples, we could step back and get a better understanding of the habitat and dietary preferences of these fossil species, and also of the big picture. We saw that it could be reflecting climate and environmental change."

A new look at climate during the Eocene, when Earth underwent a dramatic change, could help scientists better understand global climate change today.

Most scientists assumed that the oxygen isotopic composition of seawater in the past was very similar to that of today, with high values at low latitudes and low values at high latitudes.

Isotopes are variants of atoms of a particular chemical element, in this case oxygen, with differing numbers of neutrons.

"But when we looked at the oxygen isotopic values of the fossils from low-latitude sites for the Eocene, they were much lower than we would predict," says Clementz.

The finding suggests that low-latitude sites during the Eocene were much wetter than today.

"This created a very different distribution in the oxygen isotopic composition of seawater for this time interval, which would, in turn, significantly impact estimates of paleoclimate and paleotemperature in the distant past," says Clementz.

"Scientists have used this assumption of the oxygen isotopic values of seawater to constrain temperature estimates for the past."

In their paper, Clementz and Sewall show that the assumption may be flawed, which could mean that previous estimates of water temperature are incorrect.

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**For all of you micromount friends, there is a very interesting website I stumbled onto that you may want to check out. It is dealing with many aspects of microscopes in geology; the evolution of magnification, the role of magnification in solving a problem in Argentina, magnification in hand lens, New Mexico geology, and much more. It is actually put together to be used in a classroom you might find something you did not know by visiting [http://geoinfo.nmt.edu/publications/periodicals/litegeology/29/lite\\_geo\\_29spring11.pdf](http://geoinfo.nmt.edu/publications/periodicals/litegeology/29/lite_geo_29spring11.pdf) .**

## The eyes have it: Some dinosaurs were nocturnal



The pterosaur *Scaphognathus crassirostris* was a day-active, flying archosaur. (Lars Schmitz/courtesy photo).

The movie "Jurassic Park" got one thing right: Those velociraptors hunted by night while the big plant-eaters browsed around the clock, according to a new study of the eyes of fossil animals. The study was published online today (April 14) in the journal *Science*.

This conclusion overturns the conventional wisdom that dinosaurs were active by day while early mammals scurried around at night, said Ryosuke Motani, professor of geology at UC Davis and co-author of the paper.

"It was a surprise, but it makes sense," Motani said.

The research is also providing insight into how ecology influences the evolution of animal shape and form over tens of millions of years, according to Motani and collaborator Lars Schmitz, a postdoctoral researcher in the Department of Evolution and Ecology at UC Davis.

Motani and Schmitz, a former graduate student of Motani's, worked out the dinosaur's daily habits by studying their eyes.

Dinosaurs, lizards and birds all have a bony ring called the "scleral ring" in their eye, a structure that is lacking in mammals and crocodiles. Schmitz and Motani measured the inner and outer dimensions of this ring, plus the size of the eye socket, in 33 fossils of dinosaurs, ancestral birds and pterosaurs. They took the same measurements in 164 living species.

Day-active, or diurnal, animals have a small opening in the middle of the ring. In nocturnal animals, the opening is much larger. Cathemeral animals -- active both day and night -- tend to be in between.

The size of these features is affected by a species' environment (ecology) as well as by ancestry (phylogeny). For example, two closely related animals might have a similar eye shape even though one is active by day and the other by night: The shape of the eye is constrained by ancestry.

### **The eyes have it: Some dinosaurs were nocturnal - continued**

Schmitz and Motani wrote a computer program to separate the "ecological signal" from the "phylogenetic signal." The results of that analysis are in a separate paper published simultaneously in the journal *Evolution*.

By looking at 164 living species, the UC Davis team was able to confirm that eye measurements are quite accurate in predicting whether animals are active by day, by night or around the clock.

They then applied the technique to fossils from plant-eating and carnivorous dinosaurs, flying reptiles called pterosaurs, and ancestral birds.

The measurements revealed that the big plant-eating dinosaurs were active day and night, probably because they had to eat most of the time, except for the hottest hours of the day when they needed to avoid overheating. Modern megaherbivores like elephants show the same activity pattern, Motani said.

Velociraptors and other small carnivores were night hunters, Schmitz and Motani showed. They were not able to study big carnivores such as *Tyrannosaurus rex*, because there are no fossils with sufficiently well-preserved scleral rings.

Flying creatures, including early birds and pterosaurs, were mostly day-active, although some of the pterosaurs -- including a filter-feeding animal that probably lived rather like a duck and a fish-eating pterosaur -- were apparently night-active.

The ability to separate out the effects of ancestry gives researchers a new tool to understand how animals lived in their environment and how changes in the environment influenced their evolution over millions of years, Motani said.

The work was funded by the National Science Foundation and a postdoctoral fellowship from the Deutsche Forschungsgemeinschaft (Germany) to Schmitz.

### **About UC Davis**

*For more than 100 years, UC Davis has engaged in teaching, research and public service that matter to California and transform the world. Located close to the state capital, UC Davis has more than 32,000 students, more than 2,500 faculty and more than 21,000 staff, an annual research budget that exceeds \$678 million, a comprehensive health system and 13 specialized research centers. The university offers interdisciplinary graduate study and more than 100 undergraduate majors in four colleges — Agricultural and Environmental Sciences, Biological Sciences, Engineering, and Letters and Science. It also houses six professional schools — Education, Law, Management, Medicine, Veterinary Medicine and the Betty Irene Moore School of Nursing. April 14, 2011*

Via [http://www.news.ucdavis.edu/search/news\\_detail.lasso?id=9822](http://www.news.ucdavis.edu/search/news_detail.lasso?id=9822)

**Pollution**

**Environmental pollution is the release of environmental contaminants, generally resulting from human activity.**

Carbon monoxide, sulfur dioxide and nitrogen oxides produced by industry and motor vehicles are common air pollutants.

Arguably the principal source of air pollutants worldwide is motor vehicle emissions, although many other sources have been found to contribute to the ever growing problem.

Principal stationary pollution sources include chemical plants, coal-fired power plants, oil refineries, nuclear waste disposal activity, incinerators, large animal farms, PVC factories, metals production factories, plastics factories, and other heavy industry.

Pollutants can cause disease, including cancer, lupus, immune diseases, allergies, and asthma. Adverse air quality can kill many organisms including humans.

Motor vehicle emissions are one of the leading causes of air pollution.

Principal stationary pollution sources include chemical plants, coal-fired power plants, oil refineries, petrochemical plants, nuclear waste disposal activity, incinerators, large livestock farms (dairy cows, pigs, poultry, etc.), PVC factories, metals production factories, plastics factories, and other heavy industry. Some of the more common soil contaminants are chlorinated hydrocarbons (CFH), heavy metals (such as chromium, cadmium--found in rechargeable batteries, and lead -- found in lead paint, aviation fuel and still in some countries, gasoline), MTBE, zinc, arsenic and benzene.

Ordinary municipal landfills are the source of many chemical substances entering the soil environment (and often groundwater), emanating from the wide variety of refuse accepted, especially substances illegally discarded there, or from pre-1970 landfills that may have been subject to little control in the U.S. or EU.

Pollution can also be the consequence of a natural disaster. For example, hurricanes often involve water contamination from sewage, and petrochemical spills from ruptured boats or automobiles. Larger scale and environmental damage is not uncommon when coastal oil rigs or refineries are involved. Some sources of pollution, such as nuclear power plants or oil tankers, can produce widespread and potentially hazardous releases when accidents occur.

Adverse air quality can kill many organisms including humans.

Ozone pollution can cause respiratory disease, cardiovascular disease, throat inflammation, chest pain, and congestion.

Water pollution causes approximately 14,000 deaths per day, mostly due to contamination of drinking water by untreated sewage in developing countries.

Oil spills can cause skin irritations and rashes.

Noise pollution induces hearing loss, high blood pressure, stress, and sleep disturbance.

Via <http://www.sciencedaily.com/articles/p/pollution.htm>

**Dates to Remember****May**

7-8 – Aitkin, MN, Cuyuna Rock, Gem & Mineral Society Show, contact Kat Thomas, [katmosse@wildblue.net](mailto:katmosse@wildblue.net) or (218) 678-3298

14-15 – Berea, OH, 43<sup>rd</sup> Annual Show of the Parma Lapidary Club. Contact John Zaborowski, [j751@centurytel.net](mailto:j751@centurytel.net) or (440)949-8242

14-15 – Wauwatosa, WI, Annual Show of the Wisconsin Geological Society. Contact Paul Schmidt [pvs@wi.rr.com](mailto:pvs@wi.rr.com) or (414) 771-8339

**June**

4-5 – Viroqua, WI, Annual Show of the Coulee Rock Club. Contact Gary J Krause, [garyjkraus@yahoo.com](mailto:garyjkraus@yahoo.com) or (608) 637-2574

10-12 – Park Hills, MO, Rock Swap. Contact Jeanine Mielechi [jaynine9@aol.com](mailto:jaynine9@aol.com) or (734)421-6226

Dorothy Hess  
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