

EARTH SCIENCE CLUB OF NORTHERN ILLINOIS 2008

<u>OFFICE</u>	<u>NAME</u>	<u>STREET</u>	<u>TOWN, ZIP</u>	<u>PHONE</u>
President	Jim Fairchild	1144 Siesta Keys	Elgin, 60120	630-497-6278
1st Vice Pres.	Rod Sula	1761 Gary Ave.	Aurora 60505	630-236-9695
2nd Vice Pres.	Irene Broede	2510 S. Forest Ave.	N. Riverside, 60546	708-447-5295
Recording Sec.	Karen Nordquist	6340 Americana #808	Willowbrook, 60527	630-325-8189
Corresp. Sec.	William Vinikour	7729 Knotty Pine Ct.	Woodridge, 60517	630-985-6114
Treasurer	John Good	1891 Windward Lane	Hanover Park,,60133	630-483-2363
Publicity	Don Cronauer	6S180 Cape Road	Naperville, 60540	630-357-6570
Librarian	Andrew Jansen	2 Langford Ct.	Bolingbrook, 60440	630-739-7721
Curator	Randall Bultman	P.O. Box 2262	Joliet, 60434	815-722-0449
Historian	Judy Dedina	11 N. Cumnor Road	Westmont, 60559	630-969-2522
Field Trip	Richard Rock	P. O. Box 726	Wilmington 60481	815-476-7040
Editor	Don Cronauer	6S180 Cape Road	Naperville 60540	630-357 6570
Circulation	Howard Svoboda	17046 W. Bluff Road	Lemont, 60439	630-739-7913
Past Pres.	John Good	1891 Windward Lane	Hanover Park,,60133	630-483-2363
Membership	Eileen Mizerk	2094 Windward Lane	Hanover Park, 60133	630-289-7736
Liaison Rep	John Good	1891 Windward Lane	Hanover Park, 60133	630-483-2363

STUDY GROUP CHAIRS

Archaeology	Bryan Nugent	6621 Westmoreland	Woodridge IL 60517	630 960-5147
Lapidary	Sheila Bergmann	401 S. Lombard Ave.	Lombard, 60148	630-629-5785
Min/Micromt.	Kathy Dedina	11 N. Cumnor Road	Westmont, 60559	630-969-2522
Paleontology	John Good	1891 Windward Lane	Hanover Park, 60133	630-483-2363
Junior	Open			

John Good & Karen Nordquist are delegates to Chicagoland Gems & Minerals Association.
Betsy and Floyd Rogers were Show Chair for 2008

The aim of the **Earth Science Club of Northern Illinois** is to promote an interest in the Earth Sciences. In addition to the regular General Meeting, study group meetings are held monthly. They are held by groups of **ESCONI** members interested in the studies of Archaeology, Mineralogy, Micromounts, Paleontology, and the Lapidary Arts. There are also study sessions for Junior members to help them learn more about the earth sciences. From time to time field trips are arranged. **ESCONI** has a fine library of books on the earth sciences that are available to members.

We welcome the attendance of all interested persons at any or all sessions. The schedule is printed on the back page (date, time and place of meeting). Specific information is published in this bulletin.

Membership is \$20.00 (which includes the Bulletin) for family membership. Dues are payable either at the monthly meetings or by mailing to the **Membership Chair** listed above.

Deadline for Bulletin articles to the editor is the 2nd weekend of each month.

Articles in this publication may be reprinted if full credit is given the author and **The Earth Science News**. Exchange bulletins may be mailed directly to the Editor.

ESCONI website is www.esconi.org
Webmaster is John Good

September 2008**President's Message**

As fall descends upon us, I find the irresistible urge to reflect on how fast time goes by. It seems like only yesterday that I was reminding members to sort through recently thawed buckets of Mazon Creek fossils and now it is time to put them out for a new freeze thaw cycle. A few of my buckets show the signs of wear that reveal many years of collecting. Like countless others, I got involved in collecting Mazon through ESCONI. I have no idea how many years ago I joined the club; however, I fondly recall pictures of my toddler children on ESCONI field trips. Great memories. Now, at the exact moment that I write these words, my youngest toddler who is 6'6" tall is attending his first college class.

ESCONI has provided me with knowledge, great experiences and friends that I know I will have for life. If you feel the same way, please consider how you can help ensure that the club continues to thrive and prosper.

Express your appreciation to those ESCONI members who have made a difference.

Get involved in club activities

Invite friends to shows and meetings. (especially kids)

Donate your excess rocks (especially quality live auction materials)

Take someone out collecting.

Be sure to check our website for any updates www.esconi.org.

PS Any member who wishes to exclude personal information from being published in the membership list of our summer news letter, please let Eileen or myself know.

Jim Fairchild, President
jimfairchild@comcast.net

HELP WANTED

The ESCONI Board of Directors is looking for help with club activities; especially the web site and newsletter. This can be as simple as contributing ideas, pictures, stories and articles. Think big. ECONI could use a newsletter editor or webmaster. The current web site has over 25,000 hits. The newsletter can communicate our ideas (and yours) to over 200 members. ESCONI can help with expenses where necessary. Contact Jim Fairchild at jimfairchild@comcast.net or John Good at jgood10481@aol.com or just speak up at any ESCONI meeting.

SEPTEMBER 2008 ESCONI EVENTS

General Meeting 8:00 PM, Friday September 12 College of DuPage K-131	Ancient historical sites of Great Britain By Don Cronauer Visitors are welcome; refreshments will be served; parking and admission are free.
Mineral-Micromount 7:30 PM, September 13 College of DuPage K-131	Show and Tell. A Video will be shown. Visitors are welcome; refreshments will be served; parking and admission are free.
Paleontology 7:30 PM, September 20 College of DuPage K-131	Show and Tell. Bring fossils collected from the summer. Visitors are welcome; refreshments will be served; parking and admission are free.
Archaeology 7:30 PM, September 27 College of DuPage K-131	"Introduction of Horses in the Americas" by Sheila Bergmann Visitors are welcome; refreshments will be served; parking and admission are free.
Junior	Subject to reorganization.
ESCONI Field Trips September 20, 21 2008 (Tentative) 9:00 am to 2:00 PM	Tentative field trip scheduled to Braceville, Illinois for Mazon Creek Concretions Lone Star Oglesby, Illinois for Fossils TBA See Web Site, www.esconi.org , for more details. Contact John Good for reservations at 630-483-2363 or ESCONI@hotmail.com
BOARD MEETING 7:30 PM, September 26, 2008 College of DuPage K-131	Next Board Meeting is September 26, 2008

Rocktober" Geode Festival in Keokuk

Located in Keokuk on October 3 - 5, 2008. Rock displays, geode hunts, food vendors. Meet at Hy-Vee parking lot. Call 800-383-1219 for more information or visit www.keokukiowatourism.org.

Check the ESCONI web site for details, www.esconi.org

Mastodon Excavation Field Trip

Over 35 ESCONI members led by Joe Kubal went on the Mastodon Camp Field trip at Pratt's Wayne Woods Forest Preserve on August 1, 2008. The weather was hot and muggy; early morning rains turned the area into mud. ESCONI dug away; bringing buckets of dirt to the stations where they could sift out the fossils



Mastodon Molars Found in 2005



ESCONI Members digging at the site



The dirt was brought in buckets to the wire mesh so any fossils could be identified, separated and stored

Mastodon Excavation Field Trip



Kids (and Adults) had a great time learning about paleontology in the field; the science and work in collecting.



Many thanks to Jack MacRae, Naturalist with the Dupage County Forest Preserve; Scott Demal, Field Museum Archaeologist and Tom Prey, Department of Education, of the Forest Preserve District of DuPage County.

KEMMERER, WYOMING: FOSSIL FISH

By Richard S. Rock

My grandson, Pete age 13, and I headed west for Kemmerer, Wyoming this past July, to collect fossil fish. I had not been to Kemmerer in about 20 years.

The drive was long and a little boring, two days and 19 ½ hours of driving. From Wilmington to Kemmerer is 1,285 miles, each way! From 1-80 it is 46 miles north. The country side was beautiful. Lots of rain has made everything green, with small pools of water scattered among the lowland hills.

We checked into our motel, Fairview, which has no air conditioning, but fans. I took a fan from home with which was quiet running and a blessing. There are several motels and an RV Park in town. A visitor center is located in the triangle, down town. It is a good place to gather information, and learn the history of the area. Kemmerer/Diamondville Chamber of Commerce number is 1-888-300-3413.

I
t was too late to go collecting, and we didn't know where to go, so we headed for Fossil Butte National Monument, 1-307-4455, www.nps.gov/fobu. It is about 10 miles from Kemmerer. WOW!!! The fossils are unbelievable, fish, turtles, snake, bat, birds, plants, and much more. The visitor center is small, but well worth the visit.

We stopped at Creative Creations and discovered a total of four places to collect fish. I read each of the advertisements and decided on trying Warfield Quarries first. Why Warfield...first, you didn't need reservations...second, you get to keep more fish...third, you have more time to collect.

The Four Quarries:

1. Ulrich's Fossil Tours, 1-307-877-6466. By appointment only, meet at 9 AM and you are driven out to a quarry and you will return within 3 hours later. You get to keep 6 or 8 fish! Cost is \$85 per person. They will cut your fish with a saw to square them for you, wrap them, and ship them if you wish. They have a gallery of some beautiful fish and in my opinion some very ugly framed fish. They have sprayed many, way to many, of these fish, which to me makes them not look real. I asked about wholesale and there prices were the wholesale prices....ya right!

2. Creative Creation has a store down town in the triangle. To collect meet at their shop at 9 AM, cost is \$55, \$35 for children 7 to 18. Sunday by special appointment. Collecting time was unclear because there quarry was closed for cleaning. It would open in a few days.

3. Tynky Fossils located across the triangle from Creative Creations. This is a must stop for three reasons. A. Fossils on exhibit for sale. B. Best prices for retail. C. Best wholesale prices, now that we all have tax numbers and are dealers, because of MAPS, we can buy at wholesale prices. Prices start as low as \$2 for a very nice fish, and go up to large fish prices, but still very reasonable. They have a quarry at \$55 per person, under 10 free. You get two hours for 6 to 10 complete fish.

4. Warfield Quarries, Fossil Safari, 1-307-883-2445, www.fossilsafari.com. To get to the new quarry, starting at Route 30 and Route 180, on the north end of Kemmerer, turn right, north, onto Route 180, continue for a half mile and turn left onto Route 223. When you pass the 4 mile sign, turn left at the next road, you may miss it as it is around a curve.

KEMMERER, WYOMING: FOSSIL FISH, Continued

When you pass the 4 mile sign, turn left at the next road, you may miss it as it is around a curve. When you turn left you cross a cattle guard, a sign says B.L.M. Road 4211, it is small. It is 7.3 miles to the quarry. Stay on the most used road. Cross 3 more cattle guards. It is 1.5 miles to the turn off after the 4th cattle guard, left to the quarry. The cost is \$63 including tax, for 4 hours of collecting. You keep all the common fish you find, any size.

Brad is the quarry operator. He has been working there for 14 years. He helped us move several large slabs and although he normally doesn't square up a large slab, he trimmed for us two large slabs with his chop saw, each has 5 fish on them.

There are other quarries that operate but we didn't find the owners. One quarry that is past Warfield is Charlie's quarry. I have been told he does "share digging", but I like to work for myself.

All the quarries let you keep Knightsia, Diplomystus, Phareodus, Mioplisus, Amphiplaga, and Priscacara, any size. Any rare fossil is property of the mine owners. This is the famous Green River Formation, Eocene Period, about 50 million years old.

If it rains hard you may need a four wheel drive truck. Usually the average car can make the drive.

Three of the nicer motels were: Dee's Motel, 307- 877-6226, Energy Inn , 307-877-6901, and Fossil Butte Motel.307-877-3996.

Campgrounds included: Kemmerer Public Camp 307-828-2366, tents only, Foothills RV Park, 307-877-6634, and Riverside RV Park, 307-877-6634.

Request a down stairs room, so it is easier loading and unloading your vehicle.

We each collected, 10 to 15 complete fish on the first day and more on the second day. My largest fish was 8" long and 2½" wide. both halves, on a large slab. We used a lot of bubble wrap and newspaper to wrap our fish. Brad said it is better if you stand up the fish than to lay them down, breakage is less. We broke nothing on the way home. So, we had a great trip and found a lot of fossil fish, and had a lot of fun.

Thar's fish in them thar hills, or something like that!!!

Editor's note: The following fossil examples are taken from www.fossilsafari.com:

Diplomystus, 8"

Priscacara 5 - 16"

Notogoneus up to 24"

More than Just Corn in Illinois

by Joseph D. Kubal

Nestled deep within the cornfields of central Illinois is a treasure trove to those of us that find splendor in things dealing with the earth sciences. The Funk Prairie Home and Gem and Mineral Museum in Shirley is situated about 131 miles to the southwest of the College of DuPage. It is often overlooked by passersby along a rural section of I-55 near Bloomington. There is no sign pointing to this roadside attraction. However, it is well worth a visit.

The Funk Prairie Home was constructed in 1864 by La Fayette Funk, Sr., son of Isaac Funk who originally settled Funk's Grove in 1824. La Fayette, Sr. was a prominent Illinois State Senator, director and co-founder of the infamous Chicago Stockyards and cattle kingpin. The home was built in Victorian style and houses 13 rooms of original furnishings. Those that enjoy antiques will marvel at the yesteryear ambiance as well as the working Victrola phonograph. It was one of the first homes in the area to have hot and cold running water, but to those of us that find joy in geologic riches, we turn to the museum.

The Funk Gem and Mineral Museum, adjacent to the home, was built in 1974 to house the collection of La Fayette Funk II. It is considered by many the largest single person display of gemological, mineralogical, paleontological, and lapidary art specimens in Illinois. They are all here - quartz, amethyst, selenite, wulfenite, mimetite, agate, smithsonite, endlichite, hematite, azurite, adamite, diopside, fluorite, mammoth teeth, petrified wood, geodes, and much, much more. There is also a fine display of Native American artifacts and a collection of worldwide seashells and corals. Another room houses fluorescent minerals shown in their glory using UV light.

According to a 1975 *Lapidary Journal* article written by Russell P. McFall, La Fayette Funk II, "became interested in minerals when one of his two sons was taking a course in geology about 30 years ago at the University of Colorado at Boulder. On a field trip with his son, he picked up several attractive specimens and, as so often happens, he found a hobby, too." He combined business with pleasure, often taking time out to go mineral collecting. Mr. Funk, also according to the article, "was elected president of the Midwest Federation of Mineralogical and Geological Societies and was chairman of the 1968 convention of the American Federation and the Midwest Federation held at Normal, IL."

Reservations must be made to see the Funk Prairie Home and Gem and Mineral Museum and can be obtained by calling Bill Case, Guide and Historian at (309)827-6792. Admission to both venues is free. The home and museum are open Tuesday through Saturday from 9 a.m. until 4 p.m. but closed during the months of January and February. Directions to the property also will be given. Nearby, you may want to stop off in Funk's Grove to pick up a pint or quart of ambrosial maple sirip (and, yes, according to the Funk family [descendents of the original Funks], sirip is spelled correctly.)

Reference: MacFall, Russell P., "The Funk Gem and Mineral Museum," *Lapidary Journal*, San Diego, CA, 1975.

My Fifteen Minutes of Fame

LaVergne Novak

Andy Warhol said that everyone enjoys fifteen minutes of fame in his lifetime. My fifteen minutes took almost a lifetime to materialize, but the wait has surely been worthwhile.

In the late 1960s and early 1970s I was an avid fossil hunter. With a group of friends, I spent many happy days climbing around the hills in the old Peabody strip coalmines around Braidwood and Morris, Illinois in the Mazon Creek area. My group consisted of members of the Lizzadro Museum of Lapidary Art in Elmhurst, Illinois. Our mentor was Wilbert Rath, a wonderful man who ran the museum's lapidary school and who was much more knowledgeable about fossils than the rest of us. He was always happy to share his knowledge. When I got home with my bounty, I would label each one with the date and place of discovery and try to identify it by referring to books on paleobotany. Over the years I accumulated quite a nice collection.



One day in April, 1970 we were hunting for the first time in Dresden. I wasn't having too much luck, finding only a few fossil-bearing concretions. Suddenly I tripped over a sort of large, flat rock that was partially buried. It didn't look like the rest of my concretions, but I picked it up anyway and tapped the tip with my rock hammer. Much to my surprise, it fell open and revealed a beautiful, large fern fossil that was different from any other I had ever found. As usual, I ran to Wilbert to show him my discovery, and he said, "LaVergne, that's a crying fossil". I asked him what in the world a crying fossil was, and he said, "I'm crying because you found it and I didn't". I couldn't find it in

any of the books I consulted, so I just labeled it "Dresden, April, 1970" and put it in the carton with the rest of my collection.

Now fast-forward 36 years!

All my fossil-hunting companions have passed away. Our favorite fossil-hunting areas have just about disappeared. The old strip mines have been leveled and covered over by new high-end subdivisions and a golf course. Both Braidwood and Dresden are now home to nuclear power plants and are unapproachable. The fossils that remain will be hidden for as long as the power plants endure.

In November, 2006 Karen Nordquist--my friend and next-door neighbor--and I went to a fossil show at the Lizzadro Museum. Karen told me that Jack Wittry, who volunteers at the Field Museum and who had just published a definitive book on Mazon Creek fossils, would be there signing and selling his books and giving a slide show presentation. Karen suggested that I take along my mystery fossil, because she was sure he would be able to identify it for me. After she introduced me to Jack, I showed him my fossil.

My Fifteen Minutes of Fame, Continued

We couldn't believe his startled reaction when he saw it. He said, "I can't tell you what it is because I have never seen one like it before. I know the Field Museum doesn't have one, and I know the Smithsonian doesn't have one because I researched both collections for my book."

With my permission, my fossil was put on display in a locked, lighted cabinet. Later, Jack Wittry asked me what my plans were for it. I said that after he had identified it for me, I had planned to put it back in the carton in my closet. He said, "Oh, please don't do that." He said it was an important specimen that should be studied, researched, and identified. Before the end of the day and after much deliberation, I realized that if I truly had a fossil that was of scientific value, the best thing I could do would be to donate it to the Field Museum for study, so that's what I did.

A couple of weeks later I received a Certificate of Appreciation from the Field Museum for my donation and a letter of thanks from Dr. Ian Glasspool, the Paleobotany Collections Manager. Dr. Glasspool said he had already e-mailed images of my specimen to his colleagues in the UK and Canada, and they were all eager to study it.



With the help of high-resolution scanning electron microscopy, Dr. Glasspool is able to see unbelievable details in tiny portions of the fern. He sent me a set of wonderful pictures and invited me to visit him at the Field Museum to see his workplace and the collections in his care. Of course, I took him up on his invitation and spent a fascinating and most informative afternoon with him. He took me to the air-conditioned, humidity-controlled subterranean quarters that house the Paleobotany and Geology collections. I saw my fossil in a drawer in its new home. How I wish that Wilbert were still alive to see what has become of my "crying fossil". Among the many things that Dr. Glasspool showed me that day was a bit of charcoal that is 2.3 **billion** years old, a remnant of fires that raged on Earth in its infancy. This area is always kept locked and is not open to the public. I feel privileged to have been taken there.

This has led to subsequent e-mails between Dr. Glasspool and me. Since then, he has accepted eight more of my fossils on behalf of the Museum. None of them is rare, but Dr. Glasspool says that each of them contains features that might be of scientific interest. As of this date my Dresden fossil still has not been identified and, therefore, has not yet been named. I am satisfied that I could not have found a better home for it than at the Field Museum in Dr. Glasspool's care.

Meanwhile, I am enjoying my "fifteen minutes of fame" and the new friends I now have at the Field Museum. Life is good!

MINERALOGY/MICROMOUNT May 10, 2008

The meeting was called to order at 7:38 PM by Kathy Dedina. John Good spoke about upcoming shows for 2008, and a field trip to St. Paul, IN on June 21. Assignments for the June meeting on the minerals and geology of Cripple Creek, Colorado were set up. Other plans were: Minerals- Jim Daly; History- Kathy Dedina; and Geology- Sheila Bergmann.

This month's program was on Morocco. Kathy Dedina gave a presentation on the history and mines of Morocco, which is summarized below.

Jim Daly spoke on the minerals, showing pictures from his collection and from Mindat.org.

Kathy and Judy Dedina and Dave Bergmann showed specimens from Morocco.

We had a small silent auction of material from Jean Reynolds. More will be auctioned next month. Jim Daly had another batch of micromounts from the Harry Dryer collection for sale.

Refreshments were provided by Kathy Dedina

Submitted by Jim Daly

Minerals of Morocco

Morocco, for a relatively small country, is quite rich in the number of mineral species found. Mindat lists 306 species, of which Morocco is the type locality for 21. Of course, most of the minerals are the common species. We won't try to talk about all of them, just the more interesting species.

There are only a few localities for minerals in Morocco. There are quite a few mines, but they tend to be grouped into general areas with similar occurrences.

First, let's talk about Mibladen. This area would include Medelt, which is nearby. This is the locality noted for the spectacular vanadinites. The vanadinite is found not only as the typical red, red-orange and brown crystals, but also comes in gray. The vanadinite often is found with or on blades of white barite. Other minerals from Mibladen are cerussite, anglesite, galena, wulfenite, aragonite and gypsum.

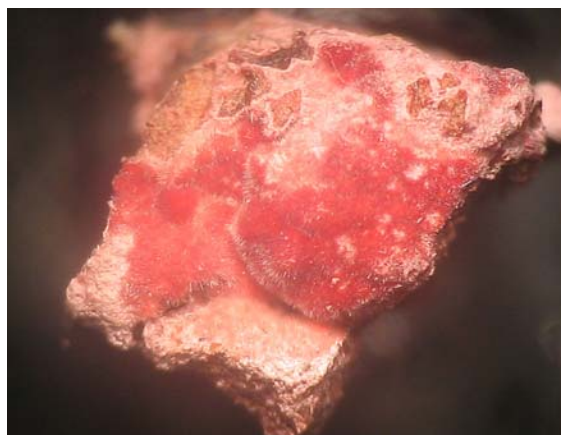
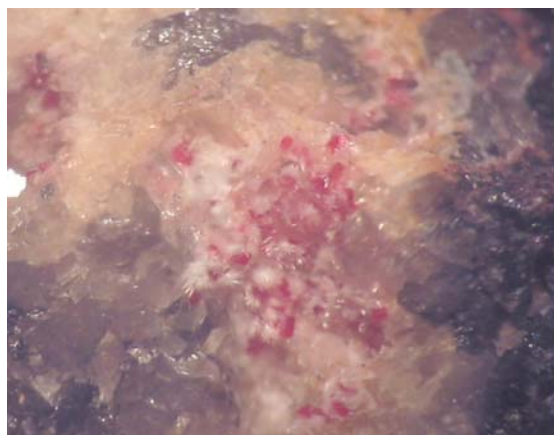
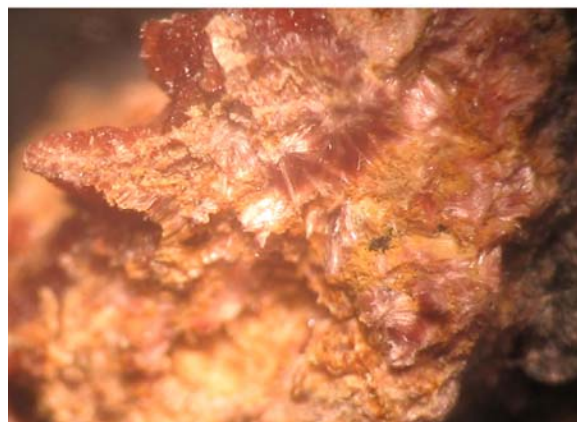
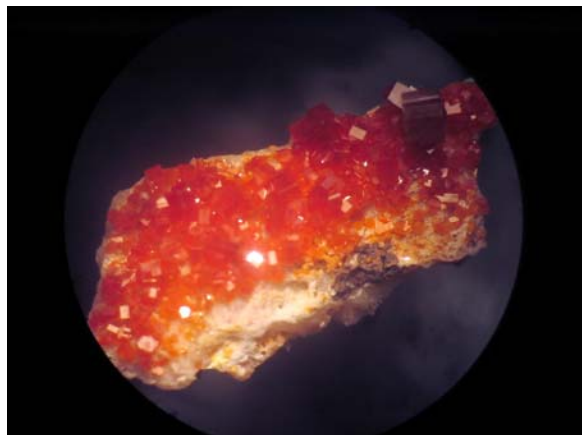
The most interesting locality in Morocco is Bou Azzer. You'll see a number of mines in labels from Bou Azzer, including the Arbhar, Khder and Ait Ahmane mines. These mines all produced cobalt and nickel, so many of the minerals are brightly colored, violet and green. Perhaps the most famous of the minerals from Bou Azzer is erythrite. It is found as tabular crystals, blades, and fine, almost fibrous crystals. Some of the other minerals are red sphaerocobaltite, sometimes with sprays of white picroparmacolite, roselite-beta, skutterudite, lotharmeyerite and cobaltkoritnigite.

In addition, you're all familiar with austenite, which is typically yellow, or green when it contains some copper. At Bou Azzer, there is cobaltaustinite, which is red and nickelaustinite, which is green.

Another locality in Morocco worth mentioning is the Imiter mine, Jbel Sarbro. This is primarily a silver mine, with proustite, xanthoconite and imiterite.

Minerals of Morocco, Continued

The following pictures are drawn from the slide presentation, left to right and top to bottom: 1. Vanadinite, Mibladen, 2. Erthrite, Bou Azzer, 3. Sphaerocobaltite and Picropharmacolite, 4. Cobaltkoritnigite, Bou Azzer, 5. Cobaltaustinite, Bou Azzer, and Skutterudite, Bou Azzer.



Minerals of Cripple Creek, Colorado

Although when we hear of Cripple Creek our first thought is gold and the gold tellurides, there are 121 different minerals known from the Cripple Creek District. Of course, a lot of them are the rock-forming minerals in the "country rock".

Not much description is needed for gold- we all know it when we see it. While there have been some spectacular specimens found, most of the gold is in the form of grains disseminated in the matrix.

The other famous species are the tellurides:

- Calaverite is AuTe_2 It is silvery-white to pale yellow metallic, and easily confused with pyrite, with which it is sometimes intergrown. Calaverite crystals are elongated and striated, while pyrite is usually cubes or pyritohedrons. In the massive form, you have to rely on hardness to distinguish them- calaverite is much softer than pyrite.
- Sylvanite is $(\text{Au,Ag})_2\text{Te}_4$ and is less yellow. The color is described as silver-white to steel-gray.
- Krennerite is $(\text{Au,Ag})\text{Te}_2$. It is very hard to distinguish from sylvanite.
- Hessite Ag_2Te is much less common than the other tellurides. It is found as microscopic grains in calaverite.

Melonite NiTe_2 is only found at the Cresson Mine, as reddish-white metallic overgrowths on calaverite.

Most of the other minerals found in the district are common and not particularly attractive. There are a few exceptions, as follows:

- One is quartz, variety amethyst. Many spectacular specimens exist, but no one knows which mine they came from.
- Another is rhodochrosite, which forms orangish-pink crystals. They are somewhat rare. Another is creedite. It is found as violet aggregates at the Cresson open pit.

One final comment: be careful when buying specimens from Cripple Creek. Many specimens are inaccurately labeled with respect to locality- either the wrong mine, or in some cases the specimens aren't even from North America!

Great Beasts Peppered From Space

D. C. Cronauer

An interesting article concerning the bombardment of earth by a great number of small meteorite particles was reported in the BBC News web site (see Jonathan.Amos-INTERNET@bbc.co.uk)

In summary, it was observed that eight tusks of mammoths from Alaska dating 35,000 years ago were peppered with meteorite fragments. Similar observations were noted in a Siberian bison skull. This bison survived the occurrence as shown by bone growth over the sites. These embedded fragments appear to have exploded inside the tusks and bone, and some shards cut little channels. These pieces are magnetic and have a high iron-nickel content, which is consistent with meteor samples. The impacts appear to have occurred on one side of the animals, thereby indicating that they all came from a single direction. Apparently other similar meteor showers have occurred through time.



Board Meeting

May 30, 2008

President Jim Fairchild called the meeting to order. 2nd Vice President Irene Broede reported the room K131 is reserved for June and August and the April bill is paid. Recording Secretary Karen Nordquist presented the Board minutes for April 25, 2008 and they were approved as amended. Corresponding Secretary Bill Vinikour had nothing to report. Irene Broede asked that he send a thank you letter to the Field Museum for their exhibit at our ESCONI Show.

Treasurer John Good presented the Treasurer's Report. He also had the insurance bill which did not change for 2008. The Treasurer's Report was approved. The Historian Judy Dedina had nothing to report. John Good said that there were no signups for the St. Paul field trip so it has been postponed to the fall. There are some self-guided trips on the web site. Circulation Chairman Howard Svoboda reported that even though the postage went up in May our bulk rate actually went down slightly. Membership Chair Eileen Mizerk reported about 7 new members since the cull last month.

John Good, Chicagoland liaison reported that the Chicagoland show went pretty good. However they could have used more help. John also mentioned that the ESCONI Newsletter will need to go out before July 4.

Under Old Business, Rob Sula is planning the Holiday Party as a dutch treat at Charlies before the December General Meeting. They can handle up to 40 people and all can order off the menu. We may want to make the meeting earlier on December 5 rather than December 7. Irene should check on the availability of a meeting room that night.

Jim asked Mark Kuntz if he would consider being our Show Chair in 2009. He is considering it. We need to decide where to have the show and what weekend. Irene will check with COD on availability of K Commons and SRC for the first three weekends of March next year. We need to check with Scott Williams on PaleoFest but it will probably be the first weekend in March in 2009.

Under New Business, John Good had an e-mail about identification of fossil plants and he turned it over to Jim Fairchild to handle. There was also a new book from Fossil News to be considered for purchase for our Library which will be turned over to Andy Jansen for consideration. Irene Broede reported on the current status of ESCONI Associates.

The meeting was adjourned.

Respectfully submitted, Karen Nordquist, Recording Secretary



ESCONI Members helped out at the CGMA Demonstrations at the Dupage County Fair July 23—27

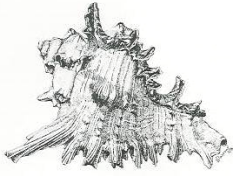


Here is the CGMA (Chicagoland Gem Mineral Association) sign and booth



Don Cronauer demonstrating silversmithing

Robert Beadle cracking geodes

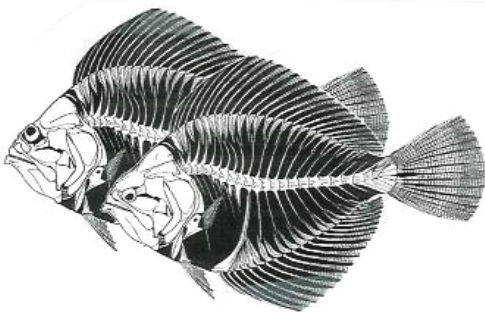


Karen's Komments



Flatfish Evolution Revealed – *Heteronectes*

All modern flatfishes have both eyes on one side of the head because one eye migrates during larval development. Because there were no transitional forms relating these flatfish to their symmetrical relatives they have been used in evolutionary debates against natural selection. However, after rummaging through the museums of Europe graduate student Matt Friedman of the University of Chicago has found the transitional fossils that tell the story of this cranial transformation over time. There are at least two species that help tell part of the story. *Amphistium*, which has been known for a long time, was its asymmetry was believed to have been the result of a crushed fossil. It is pictured above in reconstruction showing front and back individuals in the left lateral view.



Now with careful study of several fossils the unsymmetrical eyes are seen. And there is a new genus found in the Vienna Museum which he is naming *Heteronectes chaneti* meaning different swimmer in Greek. It was found in Lower Eocene of northern Italy which is similar to where some of the *Amphistium* fossils have been found. These fossils all show that this is the adult condition with completely mineralized skulls. The eye passes over the midline at 10-15 mm in living flatfishes and this fossil of *Heteronectes* is 142 mm. All the *Amphistium* specimens range between 103 and 200 mm long. The author places *Heteronectes* as more primitive to *Amphistium* leading to modern flatfishes (which include plaice, sole, turbot and halibut). They probably had a selective advantage just as do modern flatfish by depressing their dorsal and anal rays as they lay on the bottom waiting for prey. They both had long median fin rays and could use both eyes which had moved far up on the bottom side. They were fish eaters as one of the *Amphistium* fossils contained the remains of a fish about half its own length. (Friedman in **Nature** Vol. 454 7/10/08)

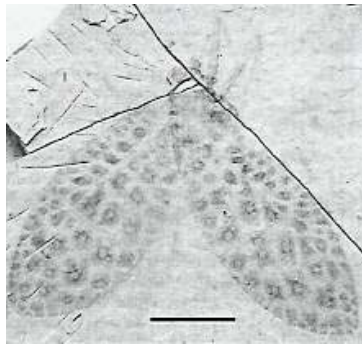
Short-lived Vertebrate – Madagascar Chameleon



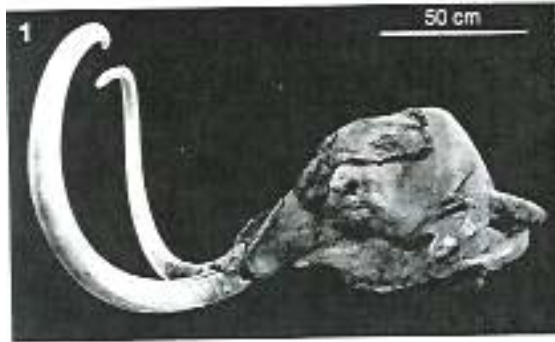
And we thought the life span of the *T. rex* was short at 30 years! The Madagascar chameleon *Furcifer labordi* lives only about a year and spends most of it in an egg. It seems they hatch in November, grow very fast reaching maturity by January, battle fiercely for mates, breed, lay eggs by February and then promptly drop dead. The next nine months is spent in the egg. This is the shortest life span ever recorded for a four legged vertebrate animal!! They live in the arid southwest of Madagascar and may have adapted to the weather. None of the other related vertebrates living in more stable environments seem to have adopted this annual life style.

Strangely this may suggest that the high death rate of chameleons in captivity may be due to natural adult life span. (Karsten et al in **PNAS** Vol. 105/26 7/1/08)

Karen's Komments, Continued

Leaf-mimicking Katydid Fossils from France and England – *Archepseudophylla*

This is an early example of leaf mimicry and was found in the Early Oligocene of France. They have found several fossils of the wings and bodies of katydids with wings with delicate venation mimicking leaves. They named them *Archepseudophylla fossilis*. On the Isle of Wight there were similar specimens that had been thought to be plant leaves, but now were reexamined. They were wing fragments with spots and for now are being considered a separate species, *A. melanopsila*. The story the specimens tell is that both areas were warm forest environments with paleolakes in the area at that time as these are temperature indicators. (Nel et al in **C. R. Palevol** 7 2008)

A Siberian Mammoth's Last Meal

A large male woolly mammoth, *Mammuthus primigenius*, was found in the permafrost in northern Yakutia of Siberia in 2002. The head, front legs and parts of the stomach and intestinal tract were recovered. The head (pictured at left) is so well preserved that it is still covered with thick skin and the mouth is closed making it impossible to inspect the molars without damaging them. They have been computer scanned and shown to be heavily worn. The pelvis was not found to identify the gender but the size and curvature of the tusks identify it as a male. Based on the length of the left front leg it is estimated to have stood 283 cm (9.3 ft) high at the shoulder, giving it an estimated weight of 4 to 5 tons. The last meal was preserved within its intestinal tract and they used microscopic, chemical and molecular techniques to reconstruct the diet and season of death and the paleoenvironment of the mammoth. The mammoth showed signs of spondylarthropathy or rheumatoid spondylitis in the 4th and 5th thoracic vertebrae. They have abnormal growth with pus channels. This disease usually affects the pelvis as well so it is unfortunate that the pelvis is missing. The analysis of the contents showed a wide range of plant matter. Pollen and plant material show that grasses and sedges were the main food but there were many dwarf willow branches and a variety of herbs and mosses. The presence of dung inhabiting fungi meant that the mammoth had also eaten dung. But the absence of any bile acids meant that it had eaten its own dung or only mammoth dung. Mammoths like elephants do not have bile. This animal lived in a cold treeless area with wet areas available. Because of the condition of the leaves and twigs they believe that the mammoth died between two growing seasons - late autumn and early spring. (van Geel et al in **Quaternary Research** Vol. 69 2008)

Karen Nordquist, Paleontology

Local Calendar of Events

BURPEE MUSEUM EVENTS

2008 Family Fossil Field Trips: Join us on a fossil-hunting field trip! Enjoy a day prospecting for fossils in a local quarry with Burpee Museum paleontologists. You get to keep what you find. All ages and skill levels welcome.

All Family Fossil Field Trips (FFFT) are on Saturdays from 1:00-4:00pm

COST: \$8/members \$12/non-members

Pre-payment is required. We will send you directions and site specific information about one week before the FFFT you register for.

Sat, Sept 6; and Sat, Sept 20 are TBA.

September 27-28

10am-5pm Earth Fest

Burpee's Goes Green with our first annual EarthFest. Talks and lectures on the "hottest" earth-friendly topics. Interactive family workshops, vendor fair. Open to the public.

LIZZADRO MUSEUM EVENTS

September 20 "Fossil Dig"

Learn about the world famous Mazon Creek fossils from Illinois. These Coal Age fossils (350 million years old) are a unique part of Illinois geologic history and the fossil record. Learn where to collect these fossils and search for a Mazon Creek Fossil to take home.

Lecture/Activity - Ages 6 yrs. to Adult

60 minutes - 2 p.m.

\$3.00 per person, Museum Members Free

Reservations Recommended

14th Annual Harvest Pow Wow

Sept.27&28, 2008

Naper Settlement, 523 S. Webster Street, Naperville, IL 60540

Saturday 11am-10pm

Sunday 11am-5pm

Adults \$8 Seniors 61 and over \$5 Children 6-12 \$5

www.midwestsoaring.org or 773-585-1744

Curry's Public Auction Lapidary

September 6, 2008

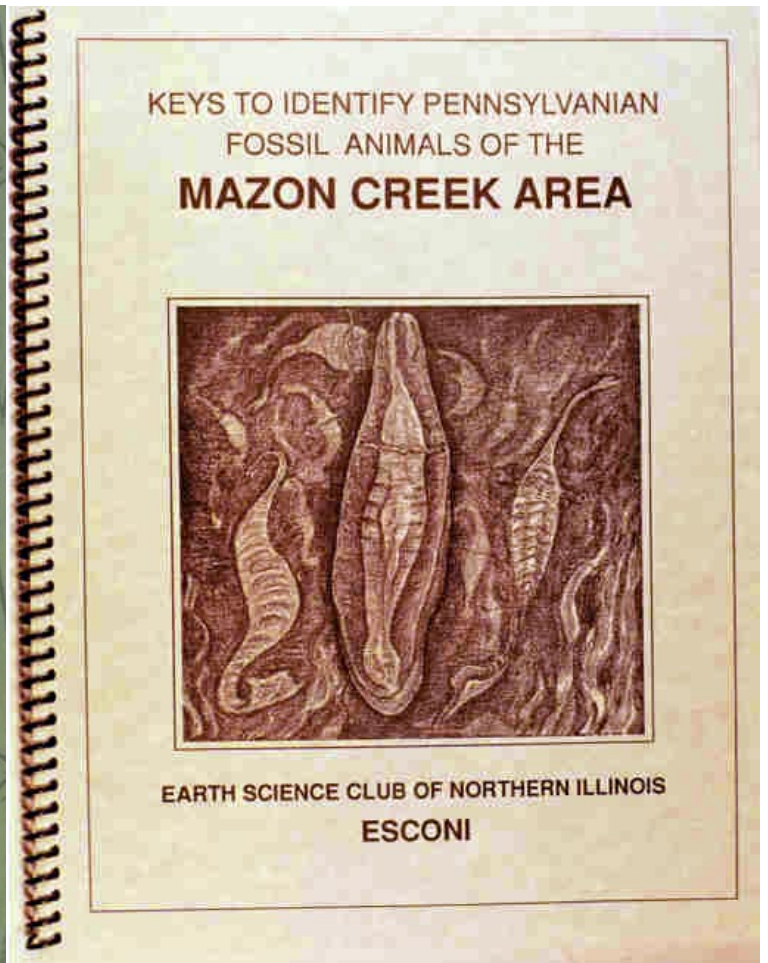
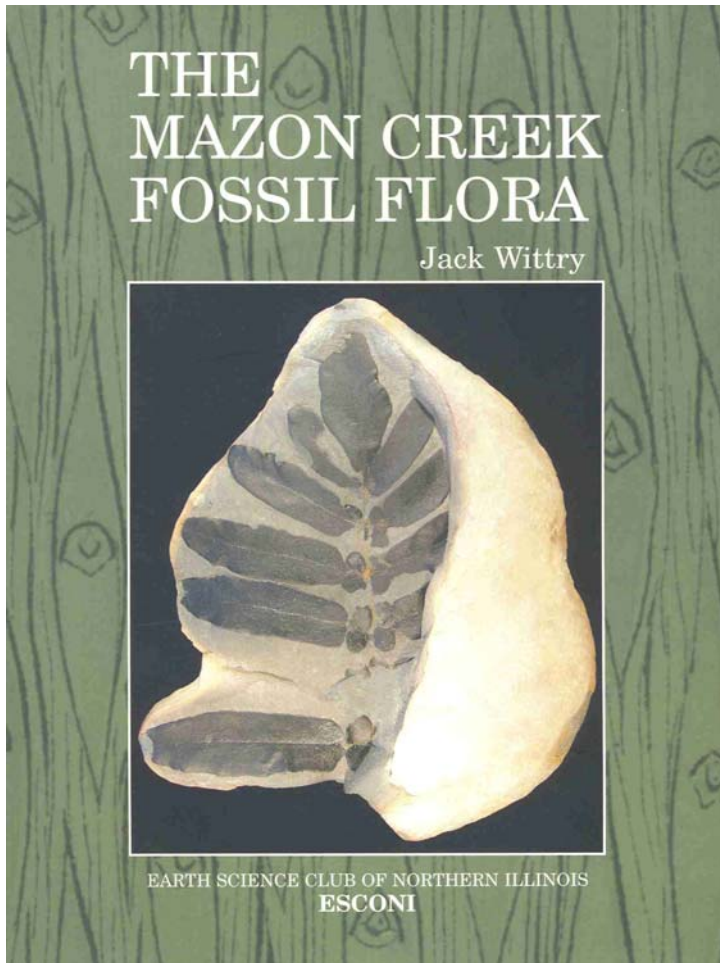
Boone County Fairgrounds

8791 Rte 76 (Fairgrounds Road)

Belvidere, Illinois

Saturday, September 6, 2008 9:00 AM

ESCONI Books



The Mazon Creek Fossil Flora by Jack Wittry
313 color pictures, 113 taxa, 145 drawings
\$65 hard covers for ESCONI Members
\$35 soft and \$6 to ship
Make check out to
ESCONI Associates

**Keys to Identify Pennsylvanian Fossil Animal
of the Mazon Creek Area**
125 Pages, 212 Black and White Drawings
\$12.00, \$5 to Ship

Andrew Jansen
2 Langford Ct.
Bolingbrook, 60440
630-739-7721
esconibooks@aol.com

2008 ESCONI CALENDAR

Revised 08/27/2008

GROUP	GENR'L MGTS.	MICRO Mineral	PALEO	ARCH	BOARD	JUNIOR
January	11	12	19	26	25	
February	8	9	16	23	22	
March	15-16 SHOW	8	X	22	28	
April	11	12	19	26	25	
May	9	10	17	X	30	
June	13	14	X	X	X	
July	X	X	X	X	X	
August	X	X	X	X	22	
September	12	13	20	27	26	
October	10 ?	11	18	25	24	
November	14	8	15	22	X	
December	5 HOLIDAY	13	X	X	X	
DAY	2 nd FRI	2 nd SAT	3 rd SAT	4 th SAT	4 th FRI	2 nd FRI
TIME	8:00	7:30	7:30	7:30	7:30	7:00

Dates are subject to change: see Bulletin.

College of DuPage (COD) Building K, Room #161 for most meetings, but note that the room number is subject to change – there will be a note posted on the entrance door.

ESCONI Show March 15-16 in **Commons Room** of Building K.

The Flea Market is under consideration.

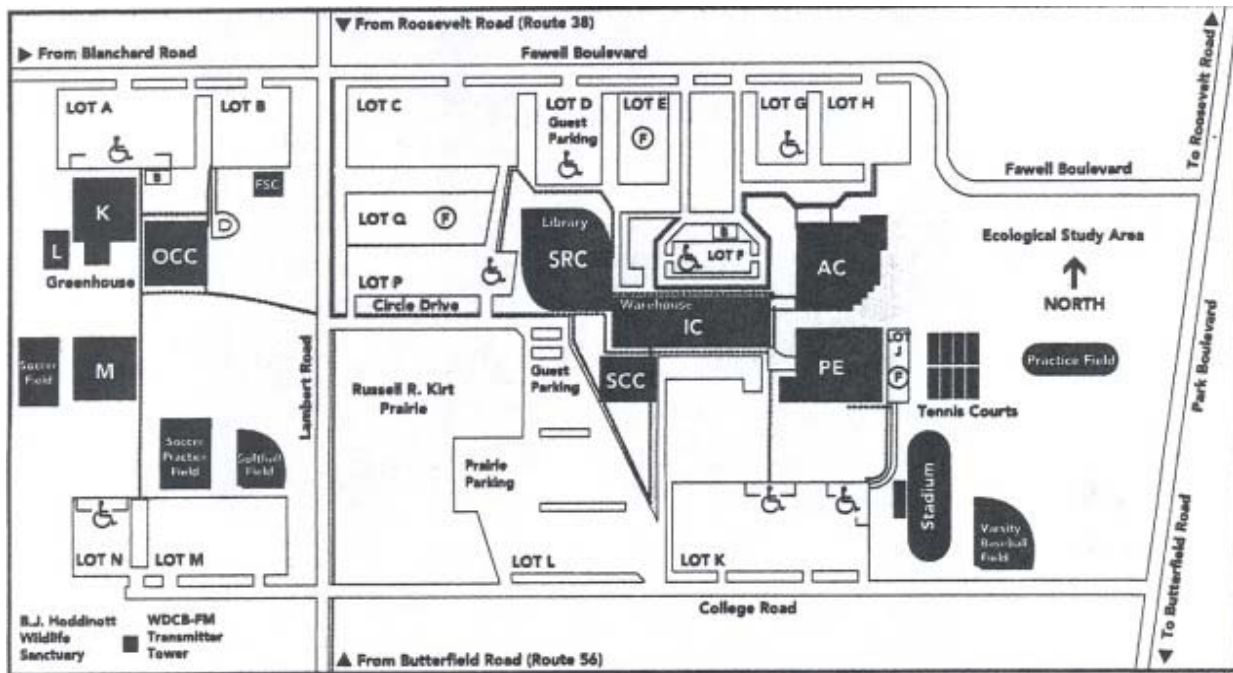
No scheduled meetings for Lapidary; contact Don Cronauer for information. (Lapidary may meet in Room #162, Arts Center if there is sufficient interest)

**EARTH SCIENCE CLUB OF NORTHERN ILLINOIS
BOX 321
DOWNERS GROVE, ILLINOIS 60515**

DATED MATERIAL!

NON-PROFIT ORG.
U.S. POSTAGE
PAID
PERMIT NO. 114
DOWNERS GROVE
IL 60515

E.S.C.O.N.I. Meetings Held In Building K Room 131



**SEND EXCHANGE BULLETINS TO
Don Cronauer; 6S180 Cape Road; Naperville, IL 60540**