

# DVESScapades

*escapades: interesting, stimulating, exciting activities and adventures*



## DELAWARE VALLEY EARTH SCIENCE SOCIETY NEWSLETTER



**May 2015**

**Next Meeting:** May 13th

**Program:** Gene Hartstein on Mazon Creek, a Suburban Lagerstatt

### Upcoming Programs:

**June:** John Sanfacon on Agates of the World

**July:** Edward Gimmi on The Chemical Bonding of Minerals

**Meeting location:** Education Bldg. behind Centenary United Methodist Church,  
149 South White Horse Pike, Berlin NJ 08009

\*\*\*\*\*

### May 2015 Field Trips by Mark Leipert

**Big Brook and Ramanessin Creek** on Saturday, May 16th. Details and sign up at meeting on May 13th. Meeting at Woodcrest Station parking lot 8A.



## President's Message by Ann Lynne Benson

Spring has had a great deal of difficulty arriving this year, being thwarted by low temperatures, late frosts and high winds, but the SuperDig went on anyhow and was well attended. Last year we hosted about 200 people and the year before that 400, so this year we split the difference with about 287 (including walk-ins and about a dozen pre-registered no-shows).

Seven volunteers were also no-shows which practically doubled the work-effort needed from the remaining handful of volunteers. But the sun was shining and the glowhounds were eagerly awaiting as we were finishing preparations at 8 am on Saturday, April 25. Some of them knew exactly what they wanted, and they must have known exactly where to find it because they began weighing out at 10 am; I suspect several were headed over to the Franklin show, which Lorraine, Sherry and I attended on Sunday. I renewed friendships with folks I had met at WildAcres, and made new friends with glowhounds from as far away as Colorado.

I want to take you back to the annual Eastern Federation of Mineralogical and Lapidary Societies (EFMLS) Convention which I attended on our behalf March 27-29 in Hickory, North Carolina. We are all members of the Federation, and the President of every EFMLS-affiliated club is a Director of the Federation. Each club is expected to send the Director and/or a Delegate to the annual business meeting which is preceded by the "Cracker Barrel" - an informal sharing of ideas, concerns and issues that need to be acted upon. This year it was run according to parliamentary procedure, and went very well. One topic of concern was pending legislation that would make illegal the possession of bones and ivory. Scott Peters, an attorney from Delaware Mineralogy Society who is the Chair for Conservation and Legislation, will be looking into this. Larry Heath was elected to follow Merrill Dickinson as Federation President. The next Convention and Annual Business Meeting is a year and a half away in Rochester, NY.

Merrill and I shared the ride to Hickory with Betsy Oberheim, Each One Teach One chair and Michael Kessler, former Vice-president for Region 2 (that's us) and current chair of the Eastern Foundation Fund. In a future newsletter I'll tell you more about what they do for us in those positions.

The current Region 2 Vice-president is Janice Kowalski who lives on Long Island. It has been great getting to know Janice, first at the Convention and then at the SuperDig.

Reivan Zeleznik generously donated a GIA Mark V Gemolite Stereoscopic zoom microscope (made by Bausch & Lomb) for a drawing to benefit the Eastern Federation activities at Wildacres sessions. The microscope is in good working shape with excellent optics. The drawing will take place during the August session at Wildacres but the winner does not need to be present. Tickets are \$5 and can be purchased prior to August 15 by sending a self-addressed, stamped envelope to our club member Gerry Cox, who is also chair of the EFMLS Ways and Means Committee, at 2304 S. Rolfe St., Arlington, VA 22202; checks should be made out to EFMLS.

As members of DVESS, we are part of an interesting, multi-faceted family. EFMLS is our extended family. So keep on Rocking!

**SuperDig Photos** by Jim Brennan







## Gray Fossil Site

by Ann Lynne Benson

The **Gray Fossil Site** in Gray, Tennessee is a little known but highly significant fossil trove of plants and animals previously unknown to science located in the heart of the Appalachians.

A Tennessee Department of Transportation road construction crew shocked the paleontology world in late May of 2000 when they uncovered one of North America's greatest deposits of prehistoric animals on the outskirts of Gray, Washington County, Tennessee.

All road work was immediately halted and 4 months later Tennessee Governor Don Sundquist ordered the road project relocated to save the fossil site for research and education.

The 7 to 4.5 million years old site - now run by the run by the East Tennessee State University and General Shale Natural History Museum (ETSU) - was once a series of sinkholes formed from the collapse of an underground cave that preserved Miocene era flora and fauna remains in a dark clay matrix. "Having a museum and educational facility directly on a fossil site is extremely rare, and provides unique opportunities for hands-on learning" according to Dr. Blaine Schubert, director of the Don Sundquist Center of Excellence in Paleontology at the site.

The collection houses approximately 15,000 vertebrate, invertebrate, and plant specimens. The museum displays a diverse ecosystem including a new species of alligator closely related to the living species, *Alligator mississippiensis*; an articulated skeleton of the latter represents the numerous fossils of the ancient alligator recovered from the locality.

Gray holds the record as the world's largest fossil tapir site; nearly 100 different individual tapirs have been recovered in addition to several newly-discovered animal species, including *Pristinailurus bristoli* (Bristol's Appalachian Panda), *Arctomeles dimolodontus* (Woodland Badger) and diverse exotic plant species, such as *Sinomenium macrocarpus* (moon seed) and *Vitis lanatodies* (oriental grape).

According to Jim Mead, curator of the Vertebrate Paleontology Lab, another creature to lose its life in the ancient sink hole was the venomous beaded lizard, *Heloderma*, today found from Arizona south to Guatemala. Dr. Mead calls the Gray Fossil Site "a unique treasure house of strange findings".

The museum opened on August 31, 2007. Only about 1% of the deposit at this site has been excavated. Jeff Supplee, field crew chief, observes "If we continued digging at the current rate, after 100 years the majority of the deposit will still be untouched."

I interviewed Jennifer Barber, Marketing representative, who said there are specific dig days in the summer but all finds must be turned over to the facility. Notwithstanding, adults and Juniors alike are excited to discover fossils such as the rare red panda (found only once before in North America). The Gray Fossil Site also hosts a Natural History Paleo Summer Camp where kids in the first through eighth grade can explore paleontology, science, art, and nature on the 5 acre grounds.

Fossil Identification Nights take place on the last Tuesday of alternate months. Rocks or fossils found anywhere - on a river bank or by the ocean, in a field being excavated for new construction, or in an acquired collection -- can be identified by ETSU's expert team of paleontologists. Of particular interest to them are specimens collected by members of the local community in the short time between May and September of 2000 while the site was "unprotected"; the team is willing to clean, prepare, preserve, photograph - and return - any Gray site fossils that are brought in. The photographs become part of the site's collection.

The Gray Fossil Site is an exciting travel destination but it's not necessary to leave home to experience it. According to education coordinator Sarah Mullersman, "Creating meaningful experiences for visitors is at the core of our museum." Children can enjoy activities on ETSU's website: coloring pages, word puzzles and a fossil viewer can be found at <http://www.etsu.edu/naturalhistorymuseum/education/funstuff.aspx>.



## Websites of the Month

### Lagerstätten

[http://www.museum.state.il.us/exhibits/mazon\\_creek/lagerstatten.html](http://www.museum.state.il.us/exhibits/mazon_creek/lagerstatten.html)

**Lagerstätten** are deposits that exhibit extraordinary fossil richness and completeness. The word literally translates as "lode places." Perhaps a better (but looser) translation would be "mother lodes." *Lagerstätten* are the types of deposits that paleontologists search many lifetimes to find.

The Mazon Creek deposit is one of the world's major *Lagerstätten*.

### Mazon Creek Site

[http://www.museum.state.il.us/exhibits/mazon\\_creek/MazonCreekSite.html](http://www.museum.state.il.us/exhibits/mazon_creek/MazonCreekSite.html)

### Mazon Creek Paleontology

<http://paleobiology.si.edu/mazoncreek/mazonPaleo.html>

The Mazon Creek area, located in the northeastern portion of Illinois, was named for the stream in whose bed and walls the first fossils were found. These fossils were destined to make this area the best known Pennsylvanian flora in North America. With representative specimens found in all the great natural history museums of the world.



## Quote of the Month

“The fact that a cloud from a minor volcanic eruption in Iceland—a small disturbance in the complex mechanism of life on the Earth—can bring to a standstill the aerial traffic over an entire continent is a reminder of how, with all its power to transform nature, humankind remains just another species on the planet Earth.” — *Slavoj Žižek*



## Shows and Events

### May

**May 16: Big Brook and Ramanessin Creek field trip.** Details and sign up at meeting on May 13th.

**May 16–17: Mays Landing, NJ** - Cape-Atlantic Rock Hounds Annual Spring Gem, Jewelry, Rock, Mineral and Fossil Show. 2641 Cologne Ave., Mays Landing, NJ 08330. Free Parking & Admission, with food onsite. Saturday and Sunday 9 am to 5 pm (rain or shine).

<http://capeatlanticrockhoundsclub.webstarts.com/>

### June

**June 6–7: Monroe, NY** - Orange County Mineral Society will host its annual Mineral, Gem, Jewelry, Fossil SHOW SELL & SWAP at Museum Village 1010 Rt. 17M, Monroe, NY 10950. 10 am–4 pm rain or shine. Adults \$5.00, Senior & Kids \$3.00, Special admission for Show and Museum. All uniformed Scouts are free. On Display, the most complete Mastodon found in NY, Local Minerals, and our new Fluorescent Mineral Display.

See <http://www.orangecountymineralsocietynewyork.com/index.html> for more information.



## Membership Information

*Regular memberships* are entitled to participate in all DVESS activities.

*Sponsoring memberships* are entitled to the same plus a specially chosen mineral specimen. Dues are renewable each year in January.

### *Regular Membership:*

\$20.00 for the 1st family member + \$5.00 for each family member

\$10.00 for the 1st Senior (65+ ) member + \$5.00 for each family member

### *Sponsoring Membership: (each additional family member - \$5.00)*

"Silver" \$50.00 for 1<sup>st</sup> family member – receive a Geode Specimen

"Gold" \$75.00 for 1<sup>st</sup> family member – receive Mineral Specimen

"Platinum" \$100.00 for 1<sup>st</sup> family member – receive Premium Specimen

## Delaware Valley Earth Science Society Information

The Delaware Valley Earth Science Society, Inc. (DVESS), a non-profit organization, was founded in 1956 and incorporated in the state of New Jersey in 1957. The Society:

- promotes interest in, knowledge of, and the development of skills in the "earth sciences." These interests include mineralogy, paleontology, lapidary arts, archeology, and local preservation.
- supports the conservation of natural resources, advocates the availability of collecting sites, and maintains close contact with those in the academic field.
- is a member club of the Eastern Federation of Mineralogical and Lapidary Societies (<http://www.AmFed.org/EFMLS>)



**Delaware Valley Earth Science Society Inc. (DVESS)**

P.O. Box 372

Maple Shade, New Jersey 08052

DVESS Website: <http://www.DVESS.org>

To submit an article or photos for publication in the DVESScapades, contact the Newsletter Editor at [aquamarinepaisleyorchid@yahoo.com](mailto:aquamarinepaisleyorchid@yahoo.com).

