# **DVESS**CAPADES

Newsletter of the Delaware Valley Earth Science Society – DVESS

Year 50, Volume #2 February 2007

Meeting Place: Training Room, Linden Hall, RowanUniversity 201 Mullica Hill Rd., Glassboro, New Jersey Meeting Time: 7:30 PM, 2nd Wednesday of each month (except July and August)

Meeting Date: February 14, 2007

Main Program

A video presentation

on the minerals and

geology of the New

**Jersey Highlands** 



## Junior Rockhounds

The Juniors will be studying iron containing minerals

February 18, 2007 for the annual bus trip, this year's destination is NYC and the Museum of Natural History Sign up now at <u>www.whoscoming.com/dvess</u>



American Federation of Mineralogical Societies



Eastern Federation of Mineralogical & Lapidary Societies



Special Congress Representing Involved Bulletin Editors

# **DVESS**CAPADES

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### BACKGROUND

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, knowledge, and the development of skills in the "earth sciences." These interests include mineralogy, paleontology, lapidary arts, archeology, and local preservation. The Society supports the conservation of natural resources, advocates the availability of collecting sites, and maintains close contact with those in the academic field.

#### **MEETINGS**

The Society meets the 2<sup>nd</sup> Wednesday of each month from September through June, at Rowan University, Linden Hall, Glassboro, New Jersey. At 7:30 PM members meet to socialize, view displays, sign the registry and receive a door-prize ticket, toward a specially chosen specimen. Meetings start promptly at 8:00 PM and include the evening's program followed by the monthly business meeting, concluding around 10:00 PM. Meetings are open to the general public.

#### **MEMBERSHIP**

See the Membership Chairperson for an application for membership in the Society. Regular memberships are entitled to participate in all DVESS activities and to receive a newsletter when published. Sponsoring memberships are entitled to all of the above plus a specially chosen mineral specimen. Membership rates for the Society are:

\$5.00

### Regular Membership

\$15.00 for the  $1^{st}$  family member + \$5.00 for each family member \$10.00 for the  $1^{st}$  Senior (65+) member + \$5.00 for each family member \$10.00 for Students with College ID

#### Sponsoring Membership

1<sup>st</sup> Member Level "Silver" \$50.00 "Gold" \$75.00 "Platinum \$100.00

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= Geode Specimen = Native Gold Specimen = Premium Specimen

Dues are renewable each year in January

Delaware Valley Earth Science Society Inc., DVESS P.O.Box 372 Maple Shade, New Jersey 08052

**DVESS 2007 SPONSORS** 

**DVESS** Website: http://www.dvess.org

EFMLS Website: http://www.AmFed.org/EFMLS

#### Editor's Notes

Editor is not responsible for authenticity of information in any articles submitted for publication. Nor are the opinions expressed in the "DVESScapades" necessarily those of the officers of the Delaware Valley Earth Science Society, Inc., and/or the editors.

To submit an article for publication in the DVESS capades contact the Newsletter Editor.

Privilege to enter Rowan University facilities is limited to the night of the meeting between the hours of 7PM & 10PM under the direction of the University staff. Permission from the University staff is required to enter the school at any other time.

**DVESS** 2007 Officers & Positions

President Jr. Rockhound Coordinator Gerald Feigin gfeigin@co.gloucester.nj.us

1<sup>st</sup> Vice President WWW Research Spec.

> Grant Elliott (856) 728-1731 gle@verizion.net

2<sup>nd</sup> Vice President Lou Detofsky

Treasurer **Program Chairperson** Gary Weinstein (856) 234-0708 – Home (856) 795-5077 – Work garyskyrock@comcast.net

### Website Coordinator

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### **Recording Secretary**

Mel LeCompte (856) 783-0969

#### **Newsletter Editor Membership Chair**

**Field Trip Coordinator** Chuck O'Loughlin (856) 663-1383 editor@dvess.org

Assistant Newsletter Editor Asst. Field Trip Coordinator Past Pres. Liaison **Dir. Metaphysical Research** Counsel to the Exec. Bd. **Director of EAS Research Member Grievances Chair** Society Election Supervisor Thaddeus Butterstone butterstonet@yahoo.com

**Special Events Coordinator** 

**Past & Future President** Ann Lynne Benson (856) 783-0969 SeleniteQueen@comcast.net "Putting the fun back into dysfunctional" Thaddeus Butterstone, Editor.



Here is my submission to newsletter. I've concentrated on genealogy this time-Love & Kisses, Grant

### SCIENTISTS UNEARTH FOSSIL OF TWO-HEADED REPTILE or the Tale of Butterstone, THE BEGINNING

Scientists have unearthed the fossil of a young, two-headed marine reptile that lived when <u>dinosaurs</u> still walked the Earth.

"My first reaction when I saw that fossil was of the 'Oh my God!' type," said lead researcher Eric Buffetaut of the Center for National Scientific Research (CNRS) in Paris, France. "It's something you would not really expect to see, because the chances of such a freak being fossilized are so slim."

The discovery, detailed in of the Feb. 22 issue of the journal Biology Letters, marks the earliest known occurrence of a well-known birth defect, called axial bifurcation, in living reptiles. This double-noggin phenomenon occurs when an embryo is damaged and some body parts develop twice.

Buffetaut and his colleagues uncovered the remains in the Yixian Formation in northeastern China, a rich fossil deposit famous for its treasure trove of <u>feathered dinosaur</u> and early bird remains. The creature, called Hyphalosaurus lingyuanensis, died at a young age during the <u>Cretaceous period</u> 120 million years ago, during the twilight of the dinosaur's reign.

While a reptile, Hyphalosaurus was not a dinosaur. Instead, it belonged to a diverse group of primitive aquatic and semi-aquatic creatures called choristoderes. Some choristoderes looked like lizards or crocodiles, while others resembled miniature versions of <u>plesiosaurs</u>, ancient marine reptiles with barrel-shaped bodies, short tails, paddle-like limbs and, in some cases, long serpentine necks — somewhat like the mythical Loch Ness monster.

Hyphalosaurus belonged to this last class of choristoderes. While the

two-headed fossil was just over three inches long, an adult Hyphalosaurus could grow up to three feet in length and would have looked like a baby Nessie. "But the limbs were not flipper-like as in plesiosaurs," Buffetaut said. "They were similar to lizard limbs." How the creature died is unclear. "It seems to have been a hatchling, and perhaps it was still-born," Buffetaut told LiveScience. "In any case it didn't live long."

The new baby Hyphalosaurus specimen not only had two heads; it also had two necks. While rare, this kind of malformation is well known among modern-day reptiles, including lizards, snakes, turtles and tortoises. <u>Two-headed mammals</u>, including sheep, calves and kittens, are also known but these animals don't typically live as long.

## "Two-headed reptiles manage to survive for some time, probably because they have less complex brains and behaviors than birds or mammals," Buffetaut said.

© 2007 LiveScience.com. All rights reserved. Editor's note: It is yet another example of life imitating art or is it art imitating life?

### Dvessfunctional Press goes one on one with Society First VP Rantt L. E. Ott

**DP** – FVP Ott, first of all congratulations on reaching your 65<sup>th</sup> birthday.

**Ott** – Thank you, please be sure to bring that to the attention of the membership chair so that I get the senior discount on dues. **DP** - The membership was looking forward to your planned appearance at last month's meeting, when you were scheduled to conduct the annual reading of the Society's Constitution and By-Laws. What happened?

Ott – I was at the Evergreen School, but no one else was. You can only do so much, but if the membership does not wish to participate, it's not my fault.

 $\mathbf{DP}$  – You are aware that it has been two years since we last met at the Evergreen School? Perhaps that explains why we have not seen you at any recent meetings.

Ott - Well when you turn 65 you sometime forget where you are and where you are supposed to be.

**DP** – Since the membership was not at the Evergreen School to hear your lecture can you give us a brief summary? **Ott** – Glad to sonny. The Club's Constitution is all about E Pluribus Unum and a bunch of other silly words which is all greek to me, so we don't pay much attention to that. Now the By-Laws are a different story. They are like a highway By-Pass

(get it by-laws, by-pass) and basically allow you to get around the constitution and do whatever you feel like doing.

### Experts Debate if NJ Object is a Meteorite by Thaddeus Butterstone

A great deal of controversy has been generated in both professional and amateur Neo-ologist (those who study near earth objects) circles by a recent object that fell through a residential roof in NJ. Is it a meteorite, space junk or an elaborate hoax? Well the **Dvessfunctional Press** wanted to know so we asked three prominent South Jersey Neo-ologist who just happen to also be members of DVESS. Fearing that their reputations will be trashed by their comments, they only agreed to be interviewed on condition that they remain anonymous, therefore we will refer to them as Moe, Larry and Curly. **Larry - I** have serious doubts about this object. First and foremost, it does not seem to exhibit any "fusion crust" or

at least some exterior evidence of entry into Earth's atmosphere. Very suspicious.

**DP** – I believe that so rather knowledge people have inspected the object and are convinced of it authenticity. **Curly** – Yea, there is very little about the New Jersey object that resembles a freshly fallen meteorite. Its shape is so ambiguous--- at best---that the only possible way to determine whether it was a freshly fallen meteorite is for a little destructive analysis. The parameters used for the identification: density, magnetic properties, markings and coloration are wholly insufficient in the determination of the origin of such an object. While it may ultimately be among the most unusual freshly fallen meteorites known to exist, such an assessment cannot and should not ever have been made by simply passing it around for a casual analysis and singing kumbaya.

**DP** – Well if you all doubt that the object is a meteorite, how do you explain the hole in some poor slob's roof. **Moe** – Well one theory making the rounds in the astronomy community is that it MAY be a piece of the Russian space debris (i.e. rocket booster) which fell the same day in Colorado. The sky is falling.....

**Larry** – That a good one Moe, I heard that in order to perpetrate a self-serving hoax, an individual obtained a rocket propelled grenade launcher and a cheap Nantan meteorite specimen, climbed the highest adjacent tree, and fired it at his roof.

**Curly** – Meteorite Ha! It more like meteorwrong. It looks a lot like a piece of iron that was kicked out of a tubgrinder or shredder/chipper. If there was such a machine operating within 300 or 400 yards of the impact site, it could have been hammered around in the machine a while, leaving it somewhat rounded and dented, and then kicked out with enough velocity to go hundreds of feet in the air, and fall back with a velocity of 100 to 150 miles an hour, depending on the size of the machine etc. The horizontal travel would depend on the angle of ejection, and most importantly on the wind speed.

**DP** – Those are very interesting theories but can they be proven?

**Moe** – We recently saw an episode of the TV show "Myth Busters" and we have been working on establishing our theories.

**Curly** – That right, we have already tried shooting a chunk of metal from a shredder/chipper, but all it did was bend the blades and clog the machine. Boy did we catch hell when we took it back to the equipment rental place. **Larry** – We expect to have better results with the grenade launcher.

## President's Message or "Kernels of Wisdom" by Society President Gerald Feigin

I hope everyone who can make the trip to The Museum of Natural History. I will be there. Not only is the museum a great place to go to, but the bus ride is a lot of fun with drawings, videos, conversation, and a chance to let someone else sit in traffic on the NJ Turnpike.

This June the DVESS will be presenting the Leonard Morgan Memorial Award, please nominate to a Society officer, the person who you feel best exemplifies the spirit that Len gave to DVESS and has added the most to our club. The award will be a specimen with a hand-written label from Len.

## January 10, 2007 General Meeting Minutes by Milord de LeCompte, Recording Secretary

The first meeting in the reign of the new Recording Secretary for the Society got off to a very quick start. Butterstone was apparently placed in charge of the audio visual equipment and prematurely started the video and was unable to stop it once it got started. Consequently by the time the Queen and I arrived the show was in progress. What we saw of the video on rodocrosite from the Sweet Home Mine in Alma, CO, was very entertaining and highly informative. Due to the length of the video no business was transacted.

Editor's note: Yes the word "premature" appears once again in the newsletter. When it last appeared in the December issue there were several complaints registered with the Society's Member Grievance Chair, Thaddeus Butterstone, alleging that the word had a sexual connotation. Butterstone and I have investigated those complaints and have been unable to find a credible source that list the word "premature" as an unmentionable. DVESScapades refuses to abandoned perfectly good words just because some persons have co-opted those words for illicit or commercial purposes. The following is an excellent example of this co-opting of our language; "ED" is no longer a nick name for Edward, but a debilitating disease that can only be cured by the mass consumption of expensive medications produced solely by Pharmaceutical Houses of ill repute. While we are on the subject of mega corporations, it is just not the pharmaceuticals' that are robbing the language of useful words. Apple Computer has tried to strip the word "pod" from the English language claiming that they have the exclusive rights to that word. Consequently peas, at least for now come in natural casings, although the sausage industry is disputing their right to that title, and groups or families of whales are now referred to as clans, but again I believe one of the Scotch Whisky distillers is challenging that moniker. Even the mega corporations are at each other throats on this issue as our good friend, Apple Computer, trying to take advantage of the I-Pod name recognition, named their new multi-functional electronic device an I-Phone, only to find themselves being challenged by Cisco who claims to already have the name copyrighted. Regardless of how this turns out it is obvious that sooner or latter we will lose the pronoun "I" from the language as some corporation will surely license that. Poor Edward, not only will he not be able to call himself by his nick name, but he'll not be able to use a pronoun to refer to himself either.

## Junior Rockhound News by Gerald Feigin

Juniors will be studying iron containing minerals at our next meeting.

## Programs by Gary Weinstein

February's program will be a thrilling video on the mineralogy and geology of the New Jersey Highlands. This unique geologic wonder resides in our own back yard and is the location of many of the Society field trips and world class mineral collecting locations such as Franklin, NJ and the Sterling Hill Mine in Ogdensburg, NJ. So come on out and learn a little about why New Jersey is a destination spot for rockhounds from around the world.

March's meeting will feature our very own life member and past president, Dr. Phillip Betancourt, who will present a never before seen lecture on Mont St. Hillaire.

DVESS's bus trip will be going to the <u>American Museum of Natural History</u> in NYC on Sunday February 18.

Pickup time at Underwood Memorial Hospital parking lot, Redbank Ave., Woodbury, is 7:30. No fee to park in lot; just say "DVESS" when entering lot. Pickup at Cadbury, 8:00 a.m. Be there early, so the bus can LEAVE at the designated times. After spending the day at the museum, we will board the bus at 5:30.

Last year we had a few no-shows for our completely booked bus, and a few people who wanted to go were therefore not able to, but they could have, had we known people were not going to show up. This year, we are adding a few rules to help ameliorate this situation.

• Non-refundable. Payments are non-refundable. DVESS is already subsidizing the cost of the trip, and an unsold seat costs DVESS that much more.

• Prepay to guarantee seat. Pay at the door is okay, but only prepayment will guarantee your seat. If someone wants to sign up after the bus is technically full, they will displace the most recent unpaid signup.

• Standby. On the morning of the trip, anyone who was unable to secure a spot may come to the Cadbury pickup point in case we have no-shows.

### TENEBRESCENT HACKMANITE by Ann Benson

On December 10, 2006, Mel LeCompte (2007 DVESS Executive Board Secretary), despondent at having missed ULTRAVIOLATION, attended a fluorescent mineral sale at the Lawrenceville, NJ home of former Lower Bucks member Larry Kennedy. Every such trip is a learning experience as well as a collecting trip for Mel, and he was very pleased at his success in both areas this time. Among the dozen or so specimens he purchased was **hackmanite**, a rare type of sodalite with which we were previously unfamiliar.

**Sodalite** is a rich royal blue mineral widely enjoyed as an ornamental stone. Massive specimens are opaque; crystals are usually translucent to transparent. A light (specific gravity 2.27), relatively hard (5.5) yet fragile mineral (clevage is dodecahedral (six directions)), sodalite is named for its sodium content.

Early in the nineteenth century, a pink color was noted in some specimens of freshly exposed sodalite from Greenland. The pink faded rapidly to colorless when exposed to light. When placed in the dark for a time, the pink color returned. This alteration between pink and colorless could be repeated again and again. Minerals that are capable of such color change are said to be *tenebrescent*, from a Latin word referring to darkness, or *photochromic*, a word that applies also to sunglasses which change in color density as the illumination level changes.

Sodalite that displays this behavior has been given the variety name *hackmanite*, named for Finnish geologist Victor Hackman. Actually two types of sodalite, hackmanite and tugtupite, both change from white to pink or purple with exposure to shortwave UV, and change back to white with exposure to bright white light or daylight.

In some specimens lengthy exposure to ultraviolet is required to produce a degree of pink color. In other specimens, exposure to short-wave ultraviolet will almost instantly produce a pink color (additional exposure for several minutes to a few hours will produce a deep pink to raspberry-red color). The speed with which the transformation is accomplished, and the depth of color achieved, varies from specimen to specimen.

When the specimen showing color is put into the dark, the deep pink or red color will remain, seemingly indefinitely. But visible light will quickly reverse this process and render the specimen again colorless. Hackmanite has been found at Bancroft and Mount Saint-Hilaire in Canada, Magnet cove in Arkansas, Ilimaussaq and Narssaq in Geenland, Langesundfjord in Norway and Khibina Massif at the Koala peninsula in Russia.

The chemical formula is expressed differently by different sources, but most are somewhat similar to this:  $Na_8Al_6Si_6O_{24}Cl_2$  or  $Na_4Al_3Si_3O_{12}Cl$ . Analyses of several grains show that sulfur content ranges from 0.05 to 0.30 wt. %  $SO_3$ ; the higher sulfur contents are correlated with more intense photochromic and fluorescent behavior.

Sodalite *var*. hackmanite is a member of the **feldspathoid** group of minerals. Feldspathoids occur in igneous rocks that have relatively high proportions of sodium and potassium. Their chemistries are close to that of the alkali feldspars and they would have formed feldspars if only more silica (SiO<sub>2</sub>) were present in the original magma.

They do not generally contain quartz because any free silica would have combined with the feldspathoid to produce more feldspar instead. Examples are nepheline (NaAlSiO<sub>4</sub> with a little potassium) and leucite (KAlSi<sub>2</sub>O<sub>6</sub>).

We've had a lot of fun amazing our friends with the hackmanite's ability to change color and then change back again. If you ever have the opportunity to get some of this unique mineral, don't pass it up!!

## Calendar of Shows and Events compiled by Chuck O'Loughlin from various sources

### January 2007

27: New Brunswick, NJ, Rutgers Geology Museum Annual Open House, 9:00AM to 4:00PM, Rutgers University, Scott Hall, College Avenue, New Brunswick, NJ. Talks include: an underwater ocean observatory in the Hudson; what past climates can tell us about future climate change; what happened to Pluto?; and sea-level changes in New Jersey. There is also the Mineral Sale and the Rock and Mineral ID (ID in Geological Hall, rm 202). All events are free.

### February 2007

24-25: Albany, New York, the 14th annual James Campbell Memorial Gem, Mineral & Fossil Show and Sale will be cosponsored by the **New York State Academy of Mineralogy and the Capital District Mineral Club** which will be held on the 4th floor of the New York State Museum at the Empire State Plaza on Madison Avenue, Albany, New York. The hours will be 10:00AM to 5:00 PM on both days. Free parking. The admission is \$6.00 which includes both the Gem, Mineral, and Fossil Show and the New York in Bloom Flower Show. For more information, call Mike Hawkins, Geology Collection Manager of the museum at (518) 486-2011 or (518) 473-7154. His email address is <u>mhawkins@mail.nysed.gov</u>.

### March 2007

**3–4:** 44th Annual Earth Science Gem & Mineral Show sponsored by the **Delaware Mineralogical Society**. Delaware Technical & Community College, I-95 at Exit 4B, Churchmans Rd (Rt 58); Newark, DE

**10:** 31th Annual Mineral, Fossil and Micromount Show sponsored by the **Rock and Mineral Club of Lower Bucks County.** First United Methodist Church, 840 Trenton Road, Fairless Hills, PA

**10-11:** 43rd Annual Show sponsored by the **Gem, Lapidary & Mineral Society of Montgomery Co. MD**. Montgomery County Fairgrounds, 16 chestnut St; Gaithersburg, MD.

**10-11:** Clifton Gem & Mineral Show sponsored by the **North Jersey Mineralogical Society**. Pope John Paul II Elementary School, 775 Valley Rd (Rt 3 at Rt 46); Clifton, NJ.

**24-25:** Annual Show & Sale sponsored by the **Philadelphia Mineralogical Society and the Delaware Valley Paleontological Society**. Lu Lu Temple, 5140 Butler Pike, Plymouth Meeting, PA.

**30-April 1:** Atlantic Micromounters Conference hosted by the **Micromineralogists of the National Capital Area**. Maryland Hospital Association Conference Center, Elkridge, MD. For Registration & Info contact S. Weinberger <<u><cscrystals2@verizon.net></u>.

### May 2007

**19-20: Berks Mineralogical Society Presents** the 39th Annual "**World of Gems and Minerals**" at Leesport Farmers Market Banquet hall, Rte. 61, Leesport, PA; 8 miles south of Rte. 78/6 miles north of Reading, PA., Sat. 10-5, Sun. 10-4, admission donation \$1.00, students free. Raffles, exhibits jewelry, fossils and locally collected minerals. Sat. ONLY, Tailgate Section under roof for rental of \$10 per table for a "first come" set-up at 8am. Contact: info@berksmineralsociety,org

Additional shows and events are listed on the Eastern Federations Web site www.afms.org/efmls/

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## Membership by Chuck O'Loughlin, Membership Chair

Now is a great time to join or renew your membership in the Delaware Valley Earth Science Society for 2007.

Please complete the membership application bellow and return it by mail or in person at the monthly meeting or complete an on line application at <u>www.dvess.org</u> Payment can be made on line or by mail or in person at a regular scheduled meeting.

DVESS is a non-profit organization for people of all ages who share an interest in fossils, minerals, lapidary, geology and the earth sciences. Monthly meetings are held on the second Wednesday of each month, September through June. Meetings start at 7:30 PM with socializing and a Junior Rockhound lesson, followed by the general meeting at 8:00 PM.

## Membership Application

| <u>Membership Type</u><br>Basic Membership<br>Senior Membership (65+)<br>Student Membership<br>Silver Membership<br>Gold Membership<br>Platinum Membership<br>Additional Family Members | <u>Number</u> |               | Donation<br>\$15.00<br>\$10.00<br>\$10.00<br>\$50.00<br>\$75.00<br>\$100.00<br>\$5.00 each | <u>Total</u> |
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| Names of additional family members  | :             |               |  |              |
| Address:  |               |               |  |              |
| City:   |               |               |  |              |
| State:  |               | _ Zip Code: _ |  |              |
| Phone:  |               |               |  |              |
| E-Mail:   |               |               |  |              |

Return the completed application at the meeting or by mail to DVESS, PO Box 372, Maple Shade, NJ 08052. Please make your check payable to DVESS. Thank you for your continuing support.

The Newsletter of the Delaware Valley Earth Science Society PO Box 372 Maple Shade, New Jersey 08052



## **DVESS***capades*

## February 2007



This Month's Meeting: February 14, 2007 <u>Main Program</u> A video presentation on the minerals and geology of the New Jersey Highlands <u>Junior Rockhounds</u> Iron containing Minerals