



# WAYNE COUNTY GEM AND MINERAL CLUB NEWS

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## **President's Message**

April showers are greening up the yard quickly. Hard to believe that the fearless adventurers of WCGMC ventured into the wilds recently in blowing snow to find buckets of horn coral. The path was slippery so I was spared the walk to find specimens. At one point, Bill Lesniak wanted to cross Rt. 20 but visibility was almost zero. It cleared quickly though, and we proceeded to Fayette to collect selenite. By this time, the weather had changed to rain but that didn't detract our crew. Selenite XLS [crystal] slabs abounded and the mood was like a school snow day. Wait a minute. It WAS a snow day. Then, it was onward to Big Rock where we finished the day collecting fossils. The scenery and adventure was improved by the sightings of deer and turkeys in full display. More field trip opportunities exist in the next few months. Be sure to check out [www.wcgmc.org](http://www.wcgmc.org) for any updates – things change from month to month. See you at our next meeting - May 8<sup>th</sup> where we'll learn about different techniques for cleaning minerals!



Pat

## **STERLING HILL EVENT UPDATE FROM TRIPMASTER**

(contributed by Bill Lesniak) There are only a couple of days left before the annual Sterling Hill mineral diggg !! This is just a reminder that on-line registration was closed at 1 a.m. on Monday, April 20th. However, if you have not registered you can still check in and pay at the gate (CASH only) on Saturday morning; the disadvantage is that none of the check-in forms will have been pre-printed with your info, so you will have to fill everything out on the spot. And of course those who have pre-registered will be admitted first. We have 142 pre-registered diggers, so it should be an exciting day at the mine! REMINDER: the diggg and events go on "rain or shine" -- so come prepared for not-so-nice weather (chilly, rainy, etc. -- probably not snow!) and remember that it gets fairly cold up there at night, and you'll want to be down in the pit for the spectacular UV-lighting of the fluorescent wall of colors. An updating weather map has been added to the main page of the website at this link <http://UVworld.org> to help you anticipate Saturday's weather. We're looking forward to seeing all of you on Saturday. ----Jeff Winkler, Tripmaster

Please remember to sign up for  
bringing refreshments and / or  
door prizes to the next meeting!!!

## **Tough Times? Go Gold Mining! -Tourists in Former North California Mining Towns** By

Tim Jaconette, ABC news October 17, 2008

Financial markets are turbulent, family finances are unstable and the economy is imploding. Perhaps your next vacation or weekend jaunt should be a gold mining trip. Former Northern California mining towns offer tourists the opportunity to try their luck at gold panning. Find a large golden nugget, and quit worrying about Wall Street investments. "People frequently find gold flakes if they are persistent enough; however, every few months, someone will find a significant gold nugget which can be worth about \$700 to \$800," said California state park ranger Suzie Bowman in Coloma, Calif.'s Marshall Gold Discovery State Historic Park. "In my personal opinion, you have to be 7 or under to find them. It always seems like its a little kid who finds them." While the stock market is volatile, gold maintains some semblance of stability. "Gold is an asset that bears no credit risk and, therefore, involves no counterparty and is no one's liability; this is an extremely attractive characteristic to investors, given the current turmoil in credit markets," said Natalie Dempster, head of investments for North America at the World Gold Council. Even if there is no opportunity to yell "Eureka!" gold mining towns offer a unique perspective on life during the California gold rush.



PHOTO: Janice Ross, right, of Bellvue, Fla., pans for gold at Gold Prospecting Adventures, May 6, 2008, on Woods Creek in Jamestown, California. With gold Trading near \$900 per ounce, people are flocking to California's gold country in search of gold. Companies offering gold panning tours are being inundated with reservations and mining supply stores are seeing a spike in people interested in purchasing supplies. (Photo by Justin Sullivan/Getty Images)

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**KUDOS-** Thank you to Mother Nature for bringing the nice weather after a long winter! Got anyone to cheer on? Email your message to this e-address: {waynecounty.gemaandmineralclub@yahoo.com} before the 22<sup>nd</sup> of each month and submit it!

### **EXCERPT: A meteorite strike near home?**

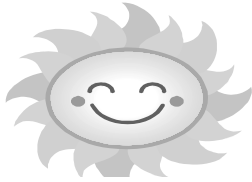
"One evening in 1894, at a farmhouse in Fishers, Ontario County, New York, the Woolston family heard a roar that shook their home. Had something struck the ground? A search of their property the next morning revealed a huge hole fifteen feet across and thirty feet deep. Dirt had been thrown up in all directions. Recognizing an unusual geologic phenomenon had occurred; Mr. Woolston contacted Herman Leroy Fairchild, professor of geology at the University of Rochester. The next day the professor was at the site exploring the cavity. Soil samples were taken by wagon to the university. Henry A. Ward of Ward's Natural Science Museum, and his assistant Frank Pugsley of Pittsford, dug away trying to find the meteorite presumed to have created the hole. The digging was not successful and no meteorite was ever found (Fisher, 1987)."

Originally published in the *Proceedings of the Rochester Academy of Science*, Volume 18 Number 2, November 1998, the entire paper "Herman Leroy Fairchild: An Early Promoter and Defender of Meteorite Impact Cratering" (complete with citation references) by Jutta Siefert Dudley, can be found by reading it on the Rochester Academy of Science's website. She is on the board of Directors of RAS and gives presentation of the research. Volume 18 may be purchased through the Serials and Binding Dept of the Rush Reeves Library, U of R, as well. Contact Jutta Dudley [director1@rasny.org](mailto:director1@rasny.org) or RAS *Bulletin* editor [editor@rasny.org](mailto:editor@rasny.org) Send mail to: Rochester Academy of Science, Inc. P.O. Box 92642 Rochester, NY 14692

## **UPCOMING WCGM CLUB MEETINGS**

**MAY 8th, 2007 (Friday) Park Presbyterian Church, Newark, NY**

**Use north entrance doors. Mini-miners meeting 6pm - 7:30pm. Darryl Powell is bringing pizza! Adult meeting to start at 7:30pm. Dave Millis's program on chemical cleaning will start at 7:30pm. Bring items for taking notes. A variety of cleaning methods will be discussed! See ya there!**



**June 5, 2009 (Friday) ?????**

North entrance doors open at 6pm.

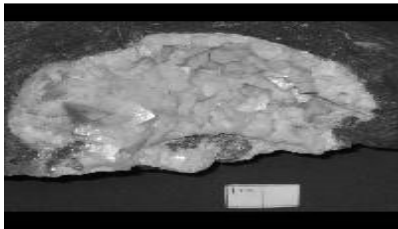
Mini-miners start at 6pm and end at 7:30pm.

Adult meeting at 7:30pm

Scheduling changed due to NewarkFest!

### **Penfield Dolomite Quarry Open House on May 2, 2009**

The Penfield Dolomite Quarry is having an Open House on Saturday, May 2, 2009 from 7 AM to 12 PM. Please bring your quarry PPE [hard hat, steel toed shoes, safety glasses] & digging utensils. Hard rock digging. Dolomite – looking for fluorite, sphalerite, & calcite. Safety meeting mandatory at 7 AM. See you there! Courtesy of the Dolomite Group, Inc. 1150 Penfield Road, Rochester, NY 14625 office (585) 381-7010 Pat Chapman can give directions to the site. (contributed by Pat Chapman)



Dolomite in light brown rhombic crystals 1

### **SCOUTS' GEOLOGY BADGE EVENT**

Our May 30th Scout-Geology-Badge committee has met. The scouting event will occur at Ginegaw Park in Walworth [behind to the American Hobby Shop ]. We will need 1 inch type samples of different minerals so the boys can start their collections. We will need help to sign in boys and sign off their worksheets. For info, see Bill Lesniak or Pat Chapman.

### **ROCK-HOUNDING AND FINDING U. S.A. in MAY 2009 .....**

**2-3: Pittston, PA** - 6th Annual Treasures of the Earth Show-Sale by Mineralogical Society of NE Penn! Oblates of St Joseph, Pittston, PA

**2-3: Topsfield, MA** - 46th Annual Mineral Show by the North Shore Rock & Mineral Club. Topsfield Fair Grounds, Rt 1; Topsfield, MA.

**2-3: Portland, ME** - 26th Annual Maine Mineralogical & Geological Society Gem & Mineral Show sponsored by the Maine Mineralogical & Geological Society at Sullivan Gym, "U of Southern Maine", Portland, ME.

**16-17: Cologne, NJ** - Spring Rock, Gem & Jewelry Show sponsored by the Cape Atlantic Rockhounds. The Clubhouse, Cologne, NJ

**16-17: Orange, CT** - 36th Annual Minerals, Gems, Jewelry & Fossils Show sponsored by the New Haven Mineral Club. Amity Regional Jr. High School, Orange, CT.

**16-17: Leesport, PA** - 41st Annual World of Gems & Minerals sponsored by the Berks Mineralogical Society. Leesport Farmers Market Banquet Hall, Rt 61, Leesport, PA.

**23: Towson, MD** - Chesapeake Gem & Mineral Show hosted by the Chesapeake Gem & Mineral Society. Ruhl Armory, 1035 York Rd (MD 45 just off I-695), Towson, MD.

**30-31: Monroe, NY** - Annual Mineral, Gem, Jewelry & Fossil Show sponsored by the Orange County Mineral Society. Museum Village, Rt. 17M; Monroe, NY.

(And also: **June 6&7** trip to Middleville for Herkimer Diamonds and Wayne Co.'s OCTOBER '09 show....)

# New Late Cretaceous macrobaenid turtle with Asian affinities from the High Canadian Arctic: Dispersal via ice-free polar routes

Deborah Vandermark<sup>1</sup>, John A. Tarduno<sup>1,2</sup>, Donald B. Brinkman<sup>3</sup>, Rory D. Cottrell<sup>1</sup>, **Stephanie Mason**<sup>1</sup> <sup>1</sup>Department of Earth and Environmental Sciences, University of Rochester, Rochester, New York 14627, USA <sup>2</sup>Department of Physics and Astronomy, University of Rochester, Rochester, New York 14627, USA <sup>3</sup>Royal Tyrrell Museum of Palaeontology, P.O. Box 7500, Drumheller, Alberta T0J 0Y0, Canada

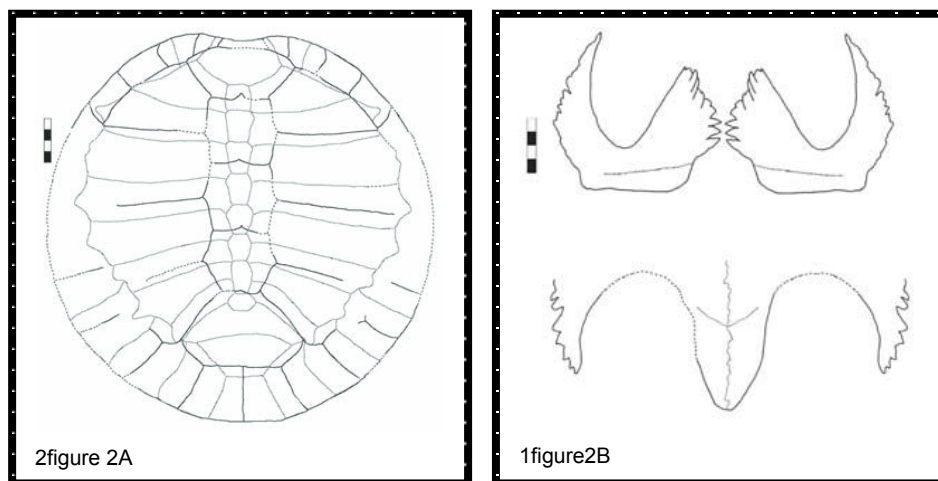
(Downloaded from geology.gsapubs.org on 6 February 2009- © 2009 Geological Society of America )

**DESCRIPTION (continued from last newsletter)** (Fig. 2B). Remnants of limb and girdle elements are visible on the surface, including a scapula and undetermined limb bones. The shell resembles those of macrobaenids generally in being smooth, low domed, and in having a reduced cruciate plastron with weakly developed buttresses (Sukhanov, 2000). The large size of the carapace and absence of costal-peripheral fenestrae indicate that the specimen is from a mature individual. Although the length of the carapace (36 cm) is comparable to that of other Late Cretaceous macrobaenids such as *Judithemys sukhanovi* (e.g., see Parham and Hutchison, 2003), the width (~34 cm) and smoothly curved edges give the carapace a rather circular appearance. A slight depression extends along the midline of the carapace and is bordered by bulges that become more prominent anteriorly. The depression and inflated borders impart an m-shaped anterior profile to the carapace, a feature that has been noted previously for that of the Campanian macrobaenid *J. sukhanovi* (Parham and Hutchison, 2003). The nuchal bone is wider than long when measured along its anterior edge, and although this differs from that of other Late Cretaceous eucryptodirans from Axel Heiberg (Brinkman and Tarduno, 2005), it is well known in macrobaenids. As in most macrobaenids, a pronounced nuchal emargination is present on the carapace of *Aurorachelys*. Eight neurals are present, the first being rectangular in outline, and the remaining hexagonal. The eighth neural differs from the preceding neurals in being both smaller and shorter. Two suprapygals are present, both having a triangular-shaped outline with their widest ends contacting, and the first suprapygial being wider than the second. The pygal is much shorter than wide, as in *J. sukhanovi* (Parham and Hutchison, 2003). The anterior peripherals are short and narrow, but become wider posteriorly (specifically from peripherals 8–11), giving the carapace a slightly flared appearance. A notch is present on the ventral surface of peripheral 8, likely marking the location of articulation of the hypoplastral buttress. The cervical scute is trapezoidal, wider than long, and is restricted to the nuchal bone, as in *J. sukhanovi*. The first and fifth vertebral scutes are wider than long, whereas the second to fourth scutes are subequal in length and width. The anterior marginal-pleural sulci coincide with peripheral and costal sutures. Posteriorly, the pleural scutes extend onto the peripherals, and the twelfth marginal scutes extend onto the second suprapygial scutes. Faint traces of the pectoral and abdominal sulci are present on the hyoplastron. A smooth edge of finished bone extends along the medial margin of the hyoplastron, just posterior to the pectoral sulcus, suggesting the presence of a fenestra between the hyoplastron and hypoplastron, similar to plastra of *Osteopygis emarginatus* (e.g., see Parham, 2005) and other macrobaenids (except *J. sukhanovi*; see Parham and Hutchison, 2003). Unlike the plastron of *O. emarginatus*, however, a tight sutural contact between the hyoplastron and xiphiplastron in *Aurorachelys* indicates that a fenestra was not developed between these elements.

**RELATIONSHIPS** Parham and Hutchison (2003) subdivided the Macrobaenidae into a group of Early Cretaceous taxa in which the shell is <30 cm in length and the neurals are generally rectangular in shape, and a group of Late Cretaceous and Paleocene taxa in which the shell is >30 cm in length and the neurals have a well-formed hexagonal shape. Their cladistic analysis suggests that at least some macrobaenids (including the large-bodied Late Cretaceous taxa) may be more closely related to crown-group cryptodirans than to other Early Cretaceous macrobaenids. Nessov (1986) suggested that the large-bodied Late Cretaceous macrobaenids are closely related to chelonoids. To assess the position of *Aurorachelys* within macrobaenids, a cladistic analysis was undertaken. The data set used by Parham and Hutchison (2003) was used as a basis for this analysis. Three additional characters were added to reflect the differences between Early and Late Cretaceous macrobaenids recognized by Parham and Hutchison (2003), and to reflect the differences between macrobaenids and chelonoids. A list of the characters used and the data matrix are shown in the GSA Data Repository. In the resulting majority rule cladogram, *Aurorachelys* is a sister taxon to *Judithemys*, and these are sister taxa to crown-group cryptodira (Fig. 3). \*\*\*\*\*

Figure 2. Line drawing reconstructions. A: Carapace. B: Plastron. Scale bar = 4 cm. Abbreviations: c—costal; cs—cervical scute; hyo—hyoplastron; hyp—hypoplastron; m—marginal; nu—nuchal; p—peripheral; pas—pectoral-abdominal scale sulci; ple—pleural; py—pygal; sp1, sp2—suprapygals; xip, xiphiplastron—1, 4, 8, neurals.

(EDITOR'S NOTE- This is the article that also resulted from Stephanie Mason's Artic Trip. She said they named the find "Hugo". Figures 2a and 2b are to the right of this caption, while figure 3 will be in the next edition of this newsletter. Due to the overall size of the article, the newsletter will show it in segments. Please read or better, subscribe to "Geology" to read the entire article at one time. Thank you, Steph!)





## **STERLING HILL, NJ – Mine dig events for APRIL 25<sup>th</sup>, 2009**

### **UPDATE**

April 1, 2009 Hey Diggers.... did you catch the little "April fool" I snuck into Jeff's Tripmaster Letter? ;) But Jeff, being a Quality Control Inspector, wanted to be sure everything was accurate and specific; so he asked me to send out a "clarification" just so nobody gets the wrong interpretation... No, they didn't really drag "millions of tons" of soil and rocks down from NY State and Canada!!! Only about 750 pounds... but there ARE gazillions of tons of soiled dug up and exposed in the pits for you to explore and collect from... There are only THREE WEEKS left before the diggg... if you are not yet registered, and plan to come, please take care of registering right away... it's easy, from the link on the website at <http://www.UVworld.org> and PayPal takes credit cards, so you don't have to have a Paypal account to sign up. But we NEED to have at least 100 registered by the on-line registration cutoff date of 11:59pm on April 19th in order to cover the expenses of running the Diggg. So please, take care of registering right away -- it takes only a few minutes. Sent by: Jim Cooper webmaster for UVworld.org (contributed by Bill Lesniak)

### **Aragonite Carbonate Minerals**

Aragonite is calcium carbonate ( $\text{CaCO}_3$ ), with the same chemical formula as calcite, but its carbonate ions are packed differently. Aragonite and calcite are *polymorphs* of calcium carbonate. It is harder than calcite (3.5 to 4, rather than 3, on the Mohs scale) and somewhat denser, but like calcite it responds to weak acid by vigorous bubbling. You may pronounce it a-RAG-onite or AR-agonite, though the majority of American geologists use the first pronunciation. It is named for Aragon, in Spain, where notable crystals occur. Aragonite occurs in two distinct places. This crystal cluster is from a pocket in a Moroccan lava bed, where it formed at high pressure and relatively low temperature. Likewise, aragonite occurs in greenstone during the metamorphism of deep-sea basaltic rocks. At surface conditions, aragonite is actually metastable, and heating it to 400°C will make it revert to calcite. The other point of interest about these crystals is that they are multiple twins that make these pseudo-hexagons. Single aragonite crystals are shaped more like tablets or prisms. The second major occurrence of aragonite is in the carbonate shells of sea life. Chemical conditions in seawater, notably the concentration of magnesium, favor aragonite over calcite in seashells, but that changes over geologic time. Whereas today we have "aragonite seas," the Cretaceous Period was an extreme "calcite sea" in which the calcite shells of plankton formed thick deposits of chalk. This subject is of great interest to many specialists.

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**WAYNE COUNTY GEM AND MINERAL CLUB, INC.**

**MEETINGS:**

Held 2<sup>nd</sup> Friday night of each month  
at 7:30pm at Park Presbyterian Church basement,  
Maple Court, Newark, NY

**WEBSITE:** [www.wcgmc.org](http://www.wcgmc.org)

**ORGANIZED:** 1973 **INC:** 1976

Affiliated with the AFML and EFMLS of Mineral  
Societies since 1973.

**OFFICERS:** Elected at the October meeting, taking  
office In November for a 2-year term.

**FISCAL YEAR:** Oct. 1<sup>st</sup> to Sept. 31<sup>st</sup>.

**\*\*NEW ANNUAL MEMBERSHIP CLASSES AND**

**DUES (due Oct 1<sup>st</sup>):**

\$10.00 JUNIOR or STUDENT

(18 yrs> with no parents in the club)

\$15.00 REGULAR or ONE SINGLE ADULT (Over  
age of 18 years old)

\$20.00 FAMILY MEMBERSHIP

(Includes 2 adult votes and children)

Send due, SASE with your info to:

WCGMC, P.O. Box 4, Newark, NY14513

**OBJECTIVE:** TO STIMULATE INTEREST IN THE EARTH  
SCIENCES, IN COLLECTING AND CLASSIFICATION OF  
MINERALS, AND IN THE ART OF GEM CUTTING.

**The public is welcome!!**

**"OCTOBER SHOW" NEWS---** The Wayne County 2009 in Newark,  
NY show will have set up on Oct. 2 for the show on Oct 3rd and 4th. We look  
for people to do exciting displays for up to 6 cases we can use. Flyers will be  
available soon. Pass this info! Andrea Kords (315) 986-1171

**100 Ultimate Things for Geology Lovers to Do!**

(contributed by Bill Lesniak: <http://geotripper.blogspot.com/2008/12/100-things-youve-done-meme-geologists.html>)

- **35.** The Grand Canyon. All the way down. And back. **36.** Meteor Crater, Arizona, also known as the Barringer Crater, to see an impact crater on a scale that is comprehensible **37.** The Great Barrier Reef, northeastern Australia, to see the largest coral reef in the world. **38.** The Bay of Fundy, New Brunswick and Nova Scotia, Canada, to see the highest tides in the world (up to 16m) **39.** The Waterpocket Fold, Utah, to see well exposed folds on a massive scale. **40.** The Banded Iron Formation, Michigan, to better appreciate the air you breathe. **41.** The Snows of Kilimanjaro, Tanzania, **42.** See Lake Baikal, Siberia, to see the deepest lake in the world (1,620 m) with 20 percent of the Earth's fresh water. **43.** Ayers Rock (known now by the Aboriginal name of Uluru), Australia. This inselberg of nearly vertical Precambrian strata is about 2.5 kilometers long and more than 350 meters high **44.** Devil's Tower, northeastern Wyoming, to see a classic example of columnar jointing **45.** The Alps. **46.** Telescope Peak, in Death Valley National Park. From this spectacular summit you can look down onto the floor of Death Valley - 11,330 feet below.

*(Continued from the last newsletter and will continue in the next newsletter)*



Stamp

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**Newark, New York 14513**

First class: dated  
meetings and time  
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