

# The Lake George Gem and Mineral Club -

***Club News,  
September 13, 2008***



## **Meeting Time 9:00 AM!**

### **Field Trip for the month:**

After a short business meeting, we will be *Panning for GOLD* near Lake George!

Loren Lowe has agreed to be Trip Leader. Loren is a confirmed "gold bug", and an experienced panning instructor. Bring a shovel, a gold pan if you have one. Waders can be handy, but provisions will be made for folks who don't have water-proof footwear. Loren will bring some pans for those who do not have one.

### **The Annual Show:**

A big **THANK YOU!** to **Rebecca Blair & John Rakowski**, who did an outstanding job as Show Chair and Dealer Chair, respectively. John submitted the following report.

## **SHOW REPORT**

I really appreciated the strong support I got from the Club Members for setup and teardown of the show and the volunteer help during the show. When many people pitch in to help like this it keeps the show running smoothly and keeps it fun for everyone rather than a burden to a limited number of folks. I appreciate the guidance and advice I received from our previous Show Chairmen - Andy Weinzapfel and Richard Parsons. Thanks Team!

In spite of the weather the dealers seemed to be pleased with their overall sales from the show although most of the sales were on Sunday when the weather broke for us. If the weather had not been so bad on Friday and Saturday this would have been an extraordinary show for all. The turnout by dealers and the public confirmed that our show is a good one and worthwhile to have every year. We have been contacted by several potential new members whose interest in LGGMC has been kindled by the show.

Some people really put in EXTRA EFFORT and lots of time such as, but certainly not limited to: Dee and Roger Loest plus Becky Blair. We got extra help from Dave & Gerdy Wyatt, Dave & Linda Leidy, Char & Dave DeVries, Wayne & MaryAnn Johnston, Joe Kraudelt, Brooke and Ingrid Hamilton and Jack Null. Then there were a horde of club members that pitched in from time to time for the setup and during the show. Thanks to all of you the show came off well.

John Rakowski, Show Chairman

# Coming Events

## **Dinosaur Discovery Day at Dinosaur Ridge, near Morrison**

Free public tours with volunteer guides, 10:30-2:30 p.m. First Saturday of each month through October. The walking tour is free, or for a small donation, you can ride the "Vanosaurus" bus up one way and hear guides explain the interpretive sites as you walk back. For more info see [www.dinoridge.org](http://www.dinoridge.org), call 303-697-3466, or stop and see the Visitors Center at 16831 W. Alameda Parkway. The new highway interchange at C-470 and Alameda Parkway is now open.

... **Now  
through  
October**

## **Lake George Gem and Mineral Club**

Monthly Meeting, 9:00 at the Lake George Community Center, followed by [panning for gold near Lake George](#)

... **Sept. 13**

## **Free USGS GPS, Map, and Compass Classes.**

September 12 and the second Friday of every month through November, Building 810, Federal Center, Lakewood; 9-11 a.m. Map & Compass, 12-4 p.m., GPS class. Call 303-202-4689 or email [gpsworkshops@usgs.gov](mailto:gpsworkshops@usgs.gov) for reservations, or see [www.cr.usgs.gov/gpsworkshops/index.html](http://www.cr.usgs.gov/gpsworkshops/index.html) for more information.

... **Now  
through  
November**

## **Annual Open House, Colorado School of Mines Geology Museum**

This is a "dressy" evening reception with tours of the museum, music and beverages, a silent auction and the formal unveiling of the Museum's new gift shop. Call Bruce Geller at 303-273-3823 for information or to RSVP.

... **Sept. 10**

## **Denver Gem and Mineral Show**

Denver Merchandise Mart, 58th Ave. at I-25; sponsored by nine area gem and mineral societies, and the second-largest mineral show in the U.S.A.; the show's theme this year is "Minerals of Colorado". For info see <http://www.denvermineralshow.com/> and for interesting photos of last year's show, <http://geology.com/articles/denver-gem-and-mineral-show.shtml>

... **Sept. 12 - 14**

**Colorado Mineral and Fossil Show** held at the Holiday Inn-Denver Central (4849 Bannock St. frontage road on the west side of I-25, just north of I-70). For info see [http://www.mzexpos.com/colorado\\_fall.htm](http://www.mzexpos.com/colorado_fall.htm)

... **Sept. 10 - 14**

## **Lake George Gem and Mineral Club**

Monthly Meeting, 9:00 at the Lake George Community Center, followed by a field trip to the Godsend claim, courtesy of owner Rich Fretterd.

... **Oct. 11**

## **29<sup>th</sup> Annual New Mexico Mineral Symposium**

Macey Center, New Mexico Institute of Mining & Technology, Socorro, New Mexico. The registration fee for the symposium is \$30.00; the fee for seniors over 55 is \$25.00. The cost for the Saturday night dinner is \$20.00. Download a registration form at [http://geoinfo.nmt.edu/museum/minsymp/NMMS29\\_reg\\_form\\_web.pdf](http://geoinfo.nmt.edu/museum/minsymp/NMMS29_reg_form_web.pdf) or contact Dr. Virgil Lueth for further info ([vwlueth@nmt.edu](mailto:vwlueth@nmt.edu)).

... **Nov. 8 - 9**

## **Presentations at the 2008 Denver Gem and Mineral Show**

***Catch the Denver Show!*** Along with the spectacular displays and 2-300 dealers to browse, there are a number of interesting presentations to check out. Of these, three presentations involve Lake George Club members. Of particular interest is the presentation on the Club's Guffey Project, to be given by Steven Veatch. The Denver Show's website includes the following descriptions. All programs are in the Lecture Room, located between Isle's G and H in the Merchandise Mart.

### **From Mineral Strike to Meteor Strike: Guffey and the Freshwater Mining District, Colorado** Presentation by Steven Veatch

#### **SATURDAY at 4:00 PM**

The town of Guffey and the Freshwater Mining District, in Park County, Colorado, is situated in a very scenic area near the base of three ancient volcanoes. Guffey was started by prospectors on a chance there might be another rich gold strike like the one in the nearby mining camp of Cripple Creek. Guffey became the center of activity in the Freshwater Mining District where copper, lead, zinc, mica, feldspar, and other minerals were produced. Although enormous gold discoveries were forecasted, it was the mining of other minerals that kept the small town going. Nearby cattle ranches and lumber operations sustained the small community during periods when mining brought in little money. Two local cowboys discovered a large nickel-iron meteorite just outside Guffey in 1907, making it the largest one ever found in Colorado. This presentation is the result of research done by the Lake George Gem and Mineral Club. Steven Veatch acted as principal investigator for the club's project on Guffey. He was assisted by Dan Alfrey, Jo Beckwith, Becky Blair, Wayne Johnston, Maury Hammond, and Roger Loest.

Bio: Steven Veatch is an explorer, researcher, writer, and geologist. Steve is an adjunct professor of earth science at Emporia State University where he received an MS in earth science. Steve studied oceanography and meteorology while serving in the U.S. Navy. Steve credits his intense passion for the earth sciences to his family. His great-great grandfather, a hard-rock miner, grew up in Caribou, a mining camp near Boulder in the early 1870s. On the other side of the family, his great-grandfather came to work at the Elkton Mine, one of the big producers in the Cripple Creek District. Steve, coming from a mining family, was destined to make a rock collection and spend a lifetime searching for rocks, minerals, and fossils.

### **Starting a Mineral Collection** Presentation by Dr. Peter J. Modreski

#### **SATURDAY at 1:00 PM**

Learn about the basics of minerals and mineral collecting. This talk is aimed at children or anyone with a beginning interest in minerals. He'll show specimens to illustrate the difference between a rock and a mineral, how you use the properties of minerals to tell them apart, and "what else every collector needs to know".

Bio: Dr. Peter J. Modreski is a geochemist with the U.S. Geological Survey. He has worked for the USGS in Denver for 28 years. His specialties include mineralogy, mineral deposits, gemstones, and igneous petrology. Pete's work has included the study of mines, caves, volcanoes, and geology in Colorado, New Mexico, Arizona, Utah, Idaho, Montana, Hawaii, Poland, and Russia. He is the USGS geologic resource specialist for gemstones, as well as abrasives, quartz, beryllium, cesium, and rubidium. Pete is a co-author of the book, "Minerals of Colorado", published in 1997, and he is an Executive Editor of *Rocks and Minerals*

magazine, and a Research Associate with the Geology Department, Denver Museum of Nature and Science. Pete is presently responsible for public communication and educational outreach for the USGS, and he has given numerous lectures, workshops, classes, and field trips for schools, teachers, professional groups, and the general public.

**Alternatives to Mine Closure**  
Panel organized by Richard Parsons

**SUNDAY at 1:00 PM**

Mineralogists, mineral collectors and mining historians throughout the region have been concerned about the loss of access to abandoned mines. During a recent surge in closures of mines in New Mexico, the Geology Museum at New Mexico Tech succeeded in maintaining scientific access to a mineralogically important mine. What are the implications for Colorado? The program will include an overview of the State's mine closure program, and a presentation on how one Colorado mine has been kept open for tours. Panelists include Dr. Virgil Leuth of New Mexico Tech, Bruce Stover of the Colorado Inactive Mine Reclamation Program, and Chris Stone of the Hidee Mine, near Central City. *Panel Sponsored by the Colorado Chapter, Friends of Mineralogy*

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**New Fossil Genus Discovered at the Florissant Fossil Beds**

By Bret Buskirk and Herb Meyer\*

Early in the afternoon on July 11th, a species new to the Fossil Beds was discovered during a test excavation by the Paleontology crew at the monument. A *Ginkgo* leaf was found preserved in the 34 million year old lake shale. Having no prior ginkgos described here makes it a first for the park. This specimen helps to provide an enhanced view into the ancient forest that grew at Florissant just before the Eocene-Oligocene boundary, when a major climate cooling took place.



It also provides evidence for a wider geographic range than previously thought for ginkgoes during the Eocene. They have currently never been found from Eocene floras farther east than southwestern Montana. Finding this fossilized ginkgo has given the monument one more piece to the puzzle that is the Florissant Fossil Beds.

*Ginkgo biloba* is the only known surviving species of the *Ginkgoales*, a group of primitive gymnosperms. *Ginkgo* exists today solely in cultivated stands of trees and or as an ornamental used in landscaping. Although there are reports of possible natural occurrences of *Ginkgo* in China, it is uncertain whether the trees would have survived without cultivation over the millennia. Trees were commonly planted in temple gardens, perhaps because of their medicinal qualities. Their

survival has relied purely on human intervention. The *Ginkgoales* have existed since the Late Paleozoic, over 250 million years ago, and they were widely distributed and more diverse during the Mesozoic. They are commonly found among temperate climate fossil floras and thrive in temperate and subtropical areas today.

There are abundant *Ginkgo* fossils found on the West Coast of North America from places like the Miocene Ginkgo Petrified Forest outside of Ellensburg, Washington, and the Eocene and Miocene formations of the John Day Fossil Beds in eastern Oregon. Both areas have fossil floras that exemplify temperate to subtropical climates. As well, the Late Eocene to Early Oligocene Beaverhead Basins, in Southwestern Montana, have floras that are most similar to Florissant's and previously had the eastern-most *Ginkgo* fossil found in the continental United States from the Eocene. The new fossil *Ginkgo* from Florissant demonstrates that the geographic extent of *Ginkgo* was far larger than previously thought. The fossil is indistinguishable from the modern *Ginkgo biloba* and is the first fossil record for this species from Colorado.

The fossil itself is no larger than a deck of cards. It is 2 by 2.5 inches, and both part and counter-part of the fossil were collected. Having been preserved in lake shale, the fossil is incredibly fragile and prone to breaking, and because of this, careful stabilization techniques have been used. Since the discovery of the specimen, it was mounted and reinforced on additional pieces of shale and has been nested into a bed of conservation sheet foam that was cut and molded to its shape, helping to ensure that no disturbance or destruction should befall the specimen.

Paleontology at Florissant Fossil Beds is an ongoing endeavor in which amazing discoveries are still being unearthed. New information is constantly being gathered, detailing how life existed here more than 34 million years ago. To discover a fossil so rare and fragilely preserved as the *Ginkgo* is quite an extraordinary find. Scientific collecting at Florissant over the past 135 years has amassed more than 40,000 specimens, yet even with such huge collections, this summer's find represents Florissant's first and only fossil *Ginkgo*! We can only hope to continue finding such amazing fossils here at the monument in the future.

\* *Herb Meyer is the paleontologist at the Florissant Fossil Beds National Monument. Bret Buskirk is the intern the Lake George Gem and Mineral club helped support at the Monument this year.*

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## **RUST MINERALS**

Bill Cordua, U. of W. - River Falls *via Leaverite News*

Iron oxides are extremely common minerals. Even people who don't collect minerals own many examples. Collecting trips to the famous iron ranges (the Cuyuna Range near Brainerd, MN, the Mesabi Range of Hibbing and Virginia, MN, or the Gogebic Range near Hurley-Ironton WI and MI.) turn up many fine specimens of iron oxides -primarily hematite (Fe<sub>2</sub>O<sub>3</sub>) and goethite (FeO(OH)).

Hematite gets its name from the Greek word for "blood" and was described as a mineral as early as 325 B.C. It is often as red earthy masses. Some hematite is steel gray to black and can be very sparkly. Nearly black platy or sparkly material is called "specular hematite". Hematite also forms stalactitic, botryoidal (bubbly) or reniform (kidney-like) masses made of parallel

groups of skinny radiating crystals. Some long coarsely fibrous hematite breaks in splintery masses known as "needle ore".

Goethite gets its name from the German philosopher and poet Goethe, who, in addition to writing such monumental works as Faust, made studies in geology and mineralogy. I've heard goethite pronounced many ways. I prefer pronouncing it "Gerthite". Fortunately for written articles such as this, it doesn't matter how you pronounce it -it's always spelled the same. Goethite usually forms yellow, brown or orange earthy masses. It can also form very dark brown coatings of drusy crystals known as "velvet ore". It can be stalactitic, botryoidal to reniform massive with radiating coarsely fibrous crystals. Caution: these crystals can give one nasty splinters!

The best way to tell these two mineral apart is to use a streak plate. Hematite will give a dark to cherry red streak (powder) when rubbed across a piece of unglazed porcellin. Goethite will give a yellow, yellow-brown or orange-yellow streak.

Limonite is a general term given to earthy mixtures of iron oxides, mostly goethite. Limonite's streak depends on the proportion of hematite to goethite present in the mixture. Despite all the iron in them, neither mineral is magnetic. If your samples are magnetic, it is probably because there is black magnetite ( $Fe_3O_4$ ) present. Magnetite gives a black streak. When intermixed with hematite or goethite, it will darken their streak.

Occasionally one will find black crystals, botryoidal masses or earthy material that is not magnetic, but does give a black streak. These are likely manganese oxides (i.e. pyrolusite, romanechite, manganite) They are particularly common in the Cuyuna and Gogebic Ranges. Other iron oxides are known, but are rare. Goethite has three relatives that have the same chemical formula but different internal structures. These are lepidochrochite, akaganeite and feroxyhyte. All of these are look similar to goethite, and are easily misidentified. They are probably thus more common than is generally thought.

So which iron oxides are forming on the fenders of your car?

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Both Hematite and goethite are commonly found in pegmatite pockets in the Pikes Peak district, often as pseudomorphs (replacements) after the iron carbonate *siderite*. Ed.

**Lake George Gem and Mineral Club**  
**P.O. Box 171, Lake George, CO 80827**  
**Website: <http://www.lggmclub.org/>**

**The Lake George Gem and Mineral Club** is a group of people interested in rocks and minerals, fossils, geography and history of the Pikes Peak/South Park area, Indian artifacts and the great outdoors. The club's informational programs and field trips provide an opportunity to learn about earth sciences, rocks and minerals, lapidary work and jewelry making, and to share information and experiences with other members. Guests are welcome to attend, to see what we are about!

The club is geared primarily to amateur collectors and artisans, with programs of interest both to beginners and serious amateurs. The club meets the second Saturday of each month at the Lake George Community Center, located on the north side of US Highway 24 on the east edge of town, sharing a building with the county highway shops. **In the winter we meet at 10:00 AM. From April through September, we meet at 9:00 AM, to allow more time for our field trips.**

Our organization is incorporated under Colorado law as a nonprofit educational organization, and is a member of the Colorado, Rocky Mountain and American Federations of Mineralogical Societies. We also sponsor an annual Gem and Mineral show at Lake George, where collectors and others may purchase or sell rocks, minerals, fossils, gems or jewelry. Annual membership dues (Jan. 1 through Dec. 31) are \$15.00 for an individual (18 and over), and \$25.00 for a family (Parents plus dependents under age 18).

### **Our Officers for 2008 are:**

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