Rhode Island Mineral Hunters
A 501 (c) (3) HP Organization

BOWEN-LITE

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CUMBERLANDITE –OFFICIAL STATE ROCK

BOWENITE – OFFICIAL STATE MINERAL

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RIMH

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*If anyone would like to submit an article or anything for future publication let me know

Upcoming Meeting Details

Executive Meeting date in February is:
Tuesday February 7th. All meetings start at 7pm.

This year meetings will be held at Lou Fazzinas' rock shop (Apple Valley Minerals)
7 Homestead Avenue
Smith field, RI 02917
*Homestead is off Farnum Pike.

There are no general meetings this month

FIELD TRIP

RIMH Members 1st Field Trip

February4th, 2017.

Meeting Time 9:45 at location. It's about a 2 to 2 1/2 hr drive depending on driving style and traffic

Our1st field trip of the year will be to the Peabody Museum of Natural History at Yale University in New Haven, CT. For those that have been there before, they have redone their mineral hall and from what I have heard it's really something to see. For those that have never been it's a good place to see many New England minerals and I highly recommend it. We will meet in the parking lot at 9:45AM. the cost is $13.00 for adults, $9.00 seniors over 65, $6.00 children 3 to 18 and college students with college ID
More info at
http://peabody.yale.edu/visit
Please call Rachel Cesana at 401-766-9076 before Feb. 2nd to signup
Cell number for day of trip 401-787-3129 please call if you can't make itafter signing up so we don't wait for you.
Directions from:
Providence
Rhode Island
Get on I-95 S from Westminster St, Broad St and W Franklin St
6 min (1.1 mi)
Follow I-95 S to Trumbull St in New Haven. Take exit 3 from I-91 N
1 h 32 min (101 mi)
Take Bradley St to Whitney Ave
2 min (0.4 mi)
Yale Peabody Museum of Natural History
170Whitney Ave, New Haven, CT 06511
PARKING LOT IS LOCATED RIGHT AFTER BUILDING. TAKE LEFT INTO LOT. LOOK FOR RED JEEP TO SIGN IN

A note from the new field trip coordinator Rachel Cesana

If anyone knows of any places we can go for a field trip please let her know. She wants to line up some places for the upcoming year. Please relay all pertinent information to her such as place names, contacts(property owners and/ or persons in charge), phone numbers or other means of contact. Rachel's phone number is (401) 766-9076. Email a_cesana@verizon.net

Mineral of the Month

In this continuing series, I am providing information for those members who are new to the field of mineral collecting and need to know what you are looking for when you go out on field trips or just on your own. Some common minerals you may see but, might not know what they are. This month, I will be looking into the mineral *calcite*.

Calcite is the one of the most common minerals. It occurs in a great variety of shapes and colors, and it constitutes a major portion of many of the earth's rocks.

Calcite belongs to the *calcite group* of minerals, a group of related carbonates that are isomorphous with one another. They are similar in many physical properties, and may partially or fully replace one another, forming a solid solution series. All members of the calcite group crystallize in the trigonal system, have perfect rhombohedral cleavage, and exhibit strong double refraction in transparent rhombohedrons.

Calcite and Aragonite are polymorphous to each other. Although Calcite and Aragonite contain the same chemical composition, they differ in crystal structure. Calcite forms trigonal crystals, whereas Aragonite forms orthorhombic crystals. Sometimes the crystals of Calcite and Aragonite are too small to be detected, and it is only possible to distinguish these two minerals by complex scientific optical tests. Since the true identity of microcrystalline forms of Calcite or Aragonite may not known, they may be mislabeled as the wrong mineral.

A microcrystalline type of Calcite in globular form is common in certain regions. This Calcite forms from precipitating calcium-rich water inside caverns or on limestone cliffs. It exists in the form of stalagmites, stalactites, flowstone, and strange globular growths. These growths constantly accumulate, forming layers. They are frequently impure, trapping in organic matter such as leaves, twigs, and moss as they accumulate. Because of their impure status, they are classified by some as rocks. These calcareous growths have designated names based on their shape, habit, or formation. Most of these growths are Calcite, but some are crystallized as Aragonite. The environment of formation, however, can be a key guide to whether the mineral crystallized as Calcite or Aragonite. Aragonite will generally develop only at hot springs, whereas most other calcareous growths will be Calcite.

Calcite may form as an undesirable coating on top of another mineral. The Calcite can be easily burned off by soaking it in acid, which will cause it to effervesce and eventually dissolve, leaving the mineral below exposed

Chemical Formula $CaCO_3$

Color Colorless, white, yellow, brown, orange, pink, red, purple, blue, green, gray, black. May also be multicolored or banded.
Streak white
Hardness 3
Shapes Occurs in a great variety of shapes, with the most common forms asrhombohedral and scalenohedral crystals. Crystals may be tabular, acicular, prismatic, flaky, and needle-like. May occur as bundles of scalenohedrons, intergrown rhombohedrons, hair-like masses of acicular crystals, grainy, stalactitic, fibrous, massive, and earthy. Scalenohedral twinning is common.
Transparency Transparent to opaque
Luster vitreous
Fracture Conchoidal rarely seen due to perfect cleavage
Tenacity Brittle
Other identifying characteristics 1) Commonly fluorescent; specimens from different localities fluoresce different colors. Some Calcite is also phosphorescent.
2) Transparent crystals exhibit strong double refraction.
3) May be thermoluminescent.
USES Calcite is the primary ore of calcium. Calcite is indispensable in the construction industry, forming the base of cement. Many important chemicals are created from Calcite, as well as useful drugs. It is also crucial in the manufacture of fertilizers, metals, glass, rubber, and paint. The transparent Iceland Spar variety, in which the double refraction is very apparent, was used as prisms for polarizing microscopes and other optical devices.

Calcite also forms rocks that are used for ornamental purposes, such as marble and banded travertine or tufa. Calcite is also the main component of chalk, which is processed for drawing chalk. To collectors, Calcite is one of the best-known and most commonly collected minerals. Most specimens are inexpensive except for those of exceptional size and crystal form, or from classic occurrences.

Some places commonly found There are thousands of excellent Calcite localities, and a guide such as this cannot practically list all of them. Only a select few of the author's favorites are listed here. The original Iceland Spar variety was described from an old mine on the east coast of Iceland called the Helgustadir Mine, in Reydarfjörder, which was known since the 1600's.

Two classic European Calcite localities are St. Andreasberg, Harz Mountains, Germany; and Pribram, Bohemia, Czech Republic. Prismatic, colorless Calcite crystals are well-known among collectors from Bigrigg and Egremont, Cumbria, England; and Yellow and orange Calcite crystals, sometimes in exceptional "butterfly twins," have come from Malmberget, Lappland, Sweden. Currently, most Iceland Spar on the market comes from Chihuahua, Mexico.
Large, golden-yellow to brown Calcite crystals have come from several areas in the tri-state mineral region of Kansas, Missouri, and Oklahoma. This includes excellent prismatic crystals have come from the Sweetwater Mine, Reynolds Co., Missouri; and large scalenohedral

crystals from Joplin, Jasper Co., Missouri. Very large, lustrous brown golden-colored crystals come from the Elmwood Mine, Carthage, Tennessee.

Calcite with a strong blue phosphorescence comes from Terlingua, Brewster Co., Texas. Pink and purple crystals, sometimes very large, have come from Rossie, St. Lawrence Co., New York. White and orange "Salmon Calcite" that fluoresces bright red is found at Franklin and Ogdensburg, Sussex Co., New Jersey. Prospect Park, Passaic Co., New Jersey has produced many different types, forms, and colors of Calcite. Beautiful orange Calcite has come from York, York Co., Pennsylvania.
For more information see Minerals .net

Images of some Calcite mineral specimens

For more photos See Minerals. net