

THANK YOU TO ALL

Submitted By Anne Turner, Club Hostess Chair

Thank you for your continued support in helping with refreshments for club meetings over the past years. Thanks to Sarah McNay for being willing to step in when I decide to be a gypsy. Thank you all for bringing such a wonderful abundance and array of foods for the Christmas party -- I thoroughly enjoyed the dinner. We are blessed with great cooks, fun people, and wonderful camaraderie. Besides, I learn a lot, too. Most of all, thank you for loving, encouraging, supporting me, and letting me be a part of such an awesome group!

Thanks, *Anne T.*

Birthstone (Continued from page 1)

viewed from a distance. It also forms as a star garnet. Rhodolite is also a variety of red garnet. It is a mixture of about 55% pyrope and 37% almandine along with other elements. Its color is described as being raspberry, or it can be a darker shade of purple, but raspberry is generally the choice with collectors. Specimens of five or more carats in weight are considered rare. Malaia, a red garnet from Tanzania and Kenya, contains needle-like rutile inclusions and is actually a mixture of pyrope and spessartine, but does not fit in any other red garnet categories.

Spessartine, also known as "Mandarin Garnet" and normally an orange to reddish-orange garnet colored by iron, but at times becomes a darker red or even appears almost black. Mandarin, a vivid pure orange colored gem, is one of the most rare and most sought after of the garnets. Specimens of 10 carats are very unusual. Grossular garnets include tsavorite, hessonite, grossularite, roselite, blue grossular, and colorless. Tsavorite, the most sought after vivid green variety can rival the natural emerald. Its color is due to vanadium and sometimes chromium. When cut, tsavorite is usually less than three carats. Hessonite, also known as "cinnamon stone," is a brownish-orange color and has been used in jewelry for thousands of years. The clearest stones are the most prized. Grossularite, a gem combining a little more yellow than green, is sometimes mistaken for peridot. Roselite, a little known pink color and the colors blue and colorless are all very rare and difficult specimens to find. Andradite garnets include demantoid, topazolite, and melanite, which are yellowish-green, brown, and wine-red colored stones. Topazolite is the yellow version, while melanite, containing titanium, is the black variety. Demantoid, the green variety, is the most rare and most valuable of the andradite garnets. Specimens are small, usually about one carat. Its fire is greater than diamond and its best quality green rivals that of emerald. Uvarovite, a constantly beautiful emerald green color, is rarely used as a gem because its crystals are normally too small to be cut. Localities of garnet are too numerous to mention worldwide... *Will*

Sources: Guide to Gems by Oldershaw; Gems by Dennis; Rocks, Gems, & Minerals by Zimm & Shaffer; Gemstones of the World by Schumann

A W R G J k l e X

TIPS - RETURNING THE SHINE TO SILVER PIECES

By Della Samuel for *The Mountain Gem*

Place piece in tumbler with white rice and tumble. *Source: The Mountain Gem, 10/2009*

PREVIOUS MEETING REVIEW

By Mark Easterbrook

Last month we had our annual Christmas party. The tables were all set up at the Ashley River Fire Department meeting room. Everyone brought wonderful food for the pot luck and we had a spirited gift exchange. Congratulations to the winner of the word search puzzle - Van Atkins. Van won a fluorite specimen on matrix from the Cave-in-Rock, Illinois area donated by Mark Easterbrook. There was a lot of food and desserts left over that was given to the firefighters of the Ashley River Fire Department along with a monetary gift. Everyone had a wonderful and festive evening.



BE SAFE - BE WELL

Falls - Revisited

By Don Monroe, Chairman, Safety Committee

If you have been a faithful reader of our safety articles, you may remember the first article I submitted to the Lodestar, published in September 2005, was titled "Falls." Well, it is time to do a reminder concerning the dangers of falls. Very recently the brother of a very dear friend fell from a ladder and was killed. He was not very high up, only about fifteen feet, but a blow to the head can prove fatal.

As I assembled this article, I wrestled with how to get the message across. So many of us suffer falls! I am offering the following points for you to consider.

First go back and read the article from 2005. It really did have a lot of "meat" in it and is worth re-reading.

see 'Be Safe - Be Well' (Continued on page 6)

OLYMPIC PENINSULA FOSSIL CRAB

By Larry Moss

Many years ago when I was a college student at the University of Washington, our geology class took a field trip to the Pacific Ocean side of Olympic Peninsula, which



Olympic Peninsula Fossil Crab

is located in the northwest corner of Washington state. Our professor knew that fossils could be found on the beach as they weather

out of an Eocene sandstone deposit. Our professor said to look for nodules of sandstone. The calcium in the shells of the sea creatures like crabs would leach into the surrounding sand and harden the sandstone. When the fossil crabs weathered out of the sandstone, they would be inside these nodules. I was lucky enough to find one of these nodules. It had a crack in it and when I opened it, I found a fossil of a crab just like the professor described.

The other day I decided to search Google® to see if I could finally identify the species of crab. When the search results came up, I got a surprise. It appears there is a place in Maryland on the Chesapeake Bay where fossils also weather out of Miocene sandstone formations. The formations are located in the Calvert Cliffs of southern Maryland. The cliffs are named after Calvert County. The formations are located on the west side of Chesapeake Bay for a 25-mile stretch. They are composed of three distinct formations: the Calvert, Choptank, and the St. Mary's with the Calvert being the oldest. They are all Miocene in age.

Most of the cliffs are located on private land. A good collecting location is a place called the Matoaka Cottages. It is a tiny resort, 30 miles south of Annapolis. It is located just east of St. Leonard off of Calvert Beach Road. There is a daily beach access fee. It rests atop strata of the Choptank Formation (known collectively as the Chesapeake Series, the formations tend to get younger as you venture south).

After paying the beach fee, you then hike down to the beach (you should be stunned by the quantity of fossiliferous material). It was everywhere, eroding out of the cliffsides, washing in the surf. The beach was littered with shells, accumulating in some places like shelly snowdrifts. Most of the shells on the beach were fos-

sils, although a few contemporary forms (razor clams, ribbed mussels, false angel wings) can be found and identified by having color and/or traces of periostracum. Species that can be found are nice ark clams (*Anadara staminea*), numerous oysters (*Ostrea percrassa*), and a few little ornate clams of the genus *Astarte*. Other bivalves are less common, such as a specimen of *Isocardia fraterna*, a clam whose smooth highly convex valve curves down into a curlycue beak.

If you have ever been to the cliffs on the Olympic Peninsula you will notice the difference in fossilization compared to what is found back east. The sandy clay of the cliffs washes free of the fossils once they have eroded out and tumbled in the surf. This results in matrix-free specimens with characteristics usually invisible in our Miocene fossils. For example, the Montesano bivalves are usually encased in hard sandstone with the cemented material filling in the cavity between the two valves. The Choptank specimens, on the other hand, reveal their internal surfaces complete with the muscle scars and hinge features that can aid in their classification.

It's illegal to chop into the hillsides here, and one must wait patiently for the forces of nature to aid in extracting newer and more complete specimens. Thus, as is the case on the Olympic peninsula, winter is the optimum hunting season. You then can find numerous small peccans, *Turritella* of two kinds (*variabilis* and *plebia*), a beautifully beaded little gastropod *Calliostoma philanthropus*, and a fragile black brachiopod *Discinisca lugubris*. You can also find a very large tree oyster (*Isognomon maxillata*).

Two items stand as the main attractions for most of the collectors that visit this beach. One is the variety of shark teeth that can be including those of the ancestor of the great white shark, the 60 foot *Carcharodon megalodon*. The other, a sort of Holy Grail in for fossil shell collectors, is the extinct murex *Ecphora*. This beautiful gastropod, which is Maryland's official state fossil, was the first fossil from the New World ever described. It appeared in a 1685 work by Martin Lister, the "Father of British Conchology."

While in western Maryland be sure to stop at the Calvert Marine Museum located in Solomons, Maryland. Check out the web site to see what they have to offer. The Calvert Marine Museum is located on State Route 2 in Solomons, Calvert County, southern Maryland, twenty

see *Fossil Crab* (Continued on page 6)

Fossil Crab (Continued from page 5)

miles south of Prince Frederick, and about an hour and 15 minutes from Washington D.C.

Calvert Marine Museum
14200 Solomons Island Road
Solomons, MD 20688

Website: www.calvertmarinemuseum.com/paleontology.htm. You can see the cliffs and gain access to the beaches for collecting at several public locations including:

1) **Bay Front Park** (formerly known as Brownie's Beach) is located on MD Rt. 261 at the northern end of Calvert County, immediately south of the town of Chesapeake Beach. Limited free parking, a short distance from the beach, is available. Open year round. Tel: 301-855-8398 or 410-257-2230.

2) **Breezy Point Beach** is located at the end of Breezy Point Road just off MD Rt. 261. There is a fee to gain access to the beach from April to October. Tel: 410-535-0259 (only from April 15-October 15).

3) **Matoaka Cottages/Beach Cabins** is located just east of St. Leonard off of Calvert Beach Road. There is a daily beach access fee. Open year round. Tel: (410) 586-0269.

4) **Flag Ponds Nature Park** provides access (on a seasonal basis) to its beach. There is a daily beach access fee. Tel: 410-586-1477 (direct line) or 410-535-5327 (reservations, groups).

5) **Calvert Cliffs State Park** is located five miles north of Solomons on MD Rt. 4. It has nature trails through a wooded park leading to the beach. The beach is a two mile hike from where you park your vehicle. Open year round. Tel: 301-743-7613.

WARNING! Digging in the cliffs is dangerous and prohibited on all State and federal lands. On private land, permission must be obtained from the owner before digging. If you see a skull, bone, or unusual fossil in the cliffs, please report it to the Calvert Marine Museum. The museum appreciates getting this information and, if justified by the importance of the find, will obtain the necessary permission and have trained personnel collect the specimen, giving full credit to the finder.

Source: Calvert Marine Museum and Issaquah Teacher Robles.

TIPS: OXALIC ACID

Spic and Span™ has oxalic acid in it. It is an excellent source for the final polish of tumbled stones. Use one cup of Spic and Span™ for each six pounds of stones (not suggested for calcite-based stones or other soft stones; test on your stones before using).

Source: *Chips and Splinters* website: www.sarmclub.com; via *The Pegmatite* 11/ 2009 and *The Mountain Gem*, 12/2009

A W R G J k I e X

Be Safe - Be Well (Continued from page 4)

Next consider the hazards of climbing ladders. They are really bad, bad, news and should be avoided.

Be aware of poor light situations. If you cannot see, you cannot safely walk.

Watch out for obstructions. Even small pebbles can be a hazard. Curbs, trash, and everything on your walkway can hurt you.

Now that we are coming into the cold season, frost, ice and snow can really put you down.

Do you wear glasses? Are they bifocal or trifocal? Can you comfortably navigate wearing them?

How are your shoes? I just donated a good pair of shoes to the Good Will store because they were simply too slick. Leather and some rubber compounds are not your friend and can also put you down.

My last word of advice is to stop carrying large loads. Don't carry a large bag of groceries in each arm. Make two trips and arrive safely.

A W R G J k I e X

Mineral Puns That Henny Youngman Threw Out

He was arrested for throwing dynamite down the mine shaft, but when they saw his gold specimens, they dropped the charges.

Source: Larry Rush from *Rockhounds Listserve*