

## UPCOMING SHOWS

March 23<sup>rd</sup> and 24<sup>th</sup>  
30<sup>th</sup> Annual Festival of Gems & Minerals  
The Island Rock Hounds, Inc.  
The American Legion  
Amityville Post # 1015  
79 Park Avenue, Amityville, NY

April 13<sup>th</sup> and 14<sup>th</sup>  
Village of Freeport Recreation and Parks Dept.  
27<sup>th</sup> Annual Gem & Mineral Show  
Freeport Recreation Center  
130 East Merrick Road, Freeport, NY  
For information: Chairman J. Anderson, PO Box 551,  
North Bellmore, NY 11710

April 27<sup>th</sup> and 28<sup>th</sup>  
30<sup>th</sup> Annual NJ Earth Science Assoc. Gem & Mineral Show  
Franklin, NJ  
For information: Sterling Hill Mining Museum (973) 209-7212  
The Club is sponsoring a one-day bus trip on April 27<sup>th</sup> for this  
event



P. O. Box 302  
Bohemia, L.I., NY  
11716

MARCH 2002

**THE CONGLOMERATE**

*The Monthly Newsletter of the Suffolk Gem & Mineral Club, Inc.*

## CLUB OFFICERS

<b>President - Charles Runko</b>	<b>543-7873</b>	<b>Recording Sec'y.-Thomas Wines</b>	<b>472-4395</b>
<b>Vice President - Kerry Dicker</b>	<b>277-0994</b>	<b>Director - Elaine Casani</b>	<b>567-3342</b>
<b>Treasurer - Roberta Besso</b>	<b>666-8023</b>	<b>Director - Sophia Martins</b>	
<b>Corres. Sec'y.- Amanda Bielskas</b>	<b>360-1364</b>	<b>Director - Doreen Wilson</b>	

**The Conglomerate:**

**Editor - Judi Wines**

**Co-Editor - Marty Besso**

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### Last Meeting

Mimi Bazan conducted a hands-on demonstration on making a bead-knotted necklace.

### Next Meeting March 18<sup>th</sup>

Gary Vorwald will answer the question "How did the sharks get into the stream at Big Brook, New Jersey?". After Gary's lecture, we know you'll be eager to visit the stream. Therefore, the Club is organizing a one-day caravan to the site in April to "fish" for prehistoric sharks teeth. Big Brook is located in Monmouth County and transects the border of Colts Neck and Marlboro, New Jersey. The stream cuts through sediments that were deposited during the Late Cretaceous. The locality is famous for its prolific fossils, especially the diverse and plentiful shark fauna. Be sure to attend this meeting for details.

As always, refreshments will be served.

### President's Message

I am very pleased that quite a few new members have joined the Club in the past several months. This message is addressed particularly to those new members.

This is your Club. A club is only as strong as the members make it. Even if you are new, your input is welcomed and encouraged. If there is some subject you are interested in, may be some others would be interested also. We can try to have a lecture on it. Or, if there is field trip site you would like to recommend as a Club activity, please talk to any board member or me.

We try to develop activities and meetings that will of interest to all members. If you have an idea, let us know. Others may have the same idea but haven't spoken yet.

In addition, the old saying "the more the merrier" is still true. So, if you have any friends who have an interest in minerals, gems, or jewelry, please invite them to one of our monthly meetings. This is the best way for them to get acquainted with what our Club is all about. Surprisingly, the best way for the Club to grow is through word of mouth of our members.

See you at the next meeting, and welcome to the Club.

**Charles Runko**

## Amanda's moving

The Club's Corresponding Secretary, Amanda Bielskas, is moving to New York City. Consequently, we are in need of someone to fill her position.

## Club Trip to "The Big Apple"

On Saturday, March 2<sup>nd</sup>, the following individuals took the Club sponsored bus trip to the Museum of Natural History in New York City to view the special exhibition of pearls. Later in the day, the members attended the New York City Gem & Mineral Show at the Holiday Inn on 440 West 57<sup>th</sup> Street. Everyone had a good time.

<b>Roberta &amp; Marty Besso</b>	<b>Amanda Bielskas</b>	<b>Diane Buss</b>
<b>Marie Campo (Island Rock Hounds)</b>	<b>Elaine Casani</b>	<b>Jean Coleman</b>
<b>Joe and Norma Donafrio</b>	<b>Diane Eyester</b>	<b>Tom Gangi &amp; Friends (Island Rock Hounds)</b>
<b>Marilyn Inkels</b>	<b>Joe &amp; Nickolas Kuri</b>	<b>Laura Lee &amp; Jeff Miller</b>
<b>Madeline Mirenda</b>	<b>Pat Prezorski</b>	<b>Marline &amp; Claus Rust</b>
<b>Judi, Tom &amp; James Wines</b>	<b>Linda Zizza</b>	

## Westward Ho Next Month to Franklin, NJ

The Club is planning another one-day trip to the indoor and outdoor 30<sup>th</sup> annual New Jersey Earth Science Association's Gem and Mineral Show in Franklin, NJ on Saturday, April 27<sup>th</sup>. Touted as the "Million Dollar Show", this is one of the East Coast's largest event with over 100 dealers in gems, minerals and fossils. Last year 37 people took the opportunity to travel to the show and had a very delightful day. For those who missed out last year, we encourage you to make an effort to join us this time. The cost of the bus trip for members is \$10.00 and \$20.00 for non-members. Please call Elaine Casani or Marty Besso at (631) 585-3409 (daytime) or either (631) 567-33432 or (631) 666-8023 (evenings).

For photos from the 2001 trip to Franklin, see the Club's website: [www.suffolkgem.com](http://www.suffolkgem.com)

## GEM OF THE MONTH

### **March – Aquamarine**



#### **PHYSICAL PROPERTIES**

**Aquamarine Chemical composition:** Be<sub>3</sub>Al<sub>2</sub>(Si<sub>6</sub>O<sub>18</sub>)

**Class:** cyclosilicates

**Crystal system:** hexagonal; 6/m2/m2/m

**Crystal habit:** prismatic crystals, elongate or flattened, are often vertically striated and grooved. Some crystals show varying degrees of etching.

**Twinning:** twinning is very rare and simple on pyramidal planes{3141} or {4041}

**Specific gravity:** 2.68 - 2.80

**Index of refraction:** 1.563 - 1.583

**Birefringence:** weak (0.005 - 0.007)

**Pleochroism:** distinct in strongly colored specimens, blue or green/colorless

**Hardness:** 7.5 - 8.0

**Color:** blue to blue-green to sea-green

**Luster:** vitreous, some specimens have chatoyancy (cat's-eyes and stars)

**Transparency:** transparent to translucent

**Cleavage:** imperfect, parallel to the basal pinacoid {0001}

**Fracture:** conchoidal to uneven, brittle

**Streak:** white

## **GEM OF THE MONTH (cont.)**

### ***HISTORICAL INFORMATION AND USES***

- The name aquamarine is of Latin origin meaning sea water in allusion to its color.
- Aquamarine is used as a gemstone.
- Traditionally, sailors for protection have used aquamarine as a charm while at sea. It also is believed to preserve and enhance mutual love and to maintain a good marriage, and to ensure truth in relationships and business dealings.
- The astrological signs of aquamarine are Pisces and Scorpio.
- Aquamarine is the modern birthstone for the month of March; it is also an optional birthstone for October.

### ***BACKGROUND INFORMATION***

Beryl ( $\text{Be}_3\text{Al}_2(\text{Si}_6\text{O}_{18})$ ) is a relatively common mineral although it does contain the rare element beryllium. It is most well known however for its gem varieties: the pale green to blue aquamarine, the intense green emerald, the pale yellow to yellowish-orange heliodor and the pale pink to salmon coloredmorganite. Beryl also occurs as the colorless gem variety goshenite, and as the very rare red gem beryl variety bixbite.

### ***OCCURRENCE AND DIAGNOSTIC FEATURES***

Aquamarine ( $\text{Be}_3\text{Al}_2(\text{Si}_6\text{O}_{18})$ ) occurs primarily in granite pegmatites and to a lesser extent in miarolitic cavities in granites, also in hydrothermal carbonate veins and greisens. Aquamarine is typically associated with quartz, feldspars and muscovite, and often occurs with other pegmatite accessory minerals such as biotite, garnet, phenakite and topaz. Because of aquamarine's relatively high hardness and specific gravity, it is sometimes found in eluvial and alluvial deposits.

The color of aquamarine is due to trace amounts of iron impurities in the beryl structure. The color ranges from pale green to pale blue to blue depending on the relative concentrations of  $\text{Fe}^{2+}$  to  $\text{Fe}^{3+}$  and on where the iron impurities are located within the beryl crystal structure. The beryl crystal structure contains channels outlined by rings of  $(\text{Si-O})_6$  units. These rings are stacked upon each other leaving space within the channels for water or other impurities. Color influencing iron impurities can be present in these interstitial channel sites or substituting for aluminum in octahedral sites. When  $\text{Fe}^{3+}$  is present substituting for aluminum in the octahedral site a yellow color is produced. When  $\text{Fe}^{2+}$  is present in the interstitial channel site a pure blue color is evident. When both are present the typical blue-green color of aquamarine is produced. Heating green-blue aquamarine to approximately 300 degrees Celsius reduces the  $\text{Fe}^{3+}$  to  $\text{Fe}^{2+}$ , thereby eliminating the yellow and green colors leaving only the pure blue color that is most popular today. Irradiation can reverse this process restoring the yellow and green colors.

Aquamarine is usually recognized by its hexagonal form, color and specific gravity. Distinguished from apatite by its greater hardness.

### ***METAPHYSICAL PROPERTIES***

- Aquamarine is said to release anger and negativity replacing them with mental peace and clarity, providing emotional and mental balance. It is also said to aid in meditation, and to give courage and to assist in self-expression.
- Aquamarine is said to help reduce dependence on drugs, to aid in digestion, as a remedy for swollen glands and to maintain the health of the jaws and teeth.

