

CCFMS Outstanding Public Education Award 2022
Julia and John Breckenridge and the Crystal Cave Mineral Exhibit
Nominated by the Nipissing Rock and Mineral Club Inc.

- To recognize CCFMS-affiliated clubs, an individual or group from a CCFMS-affiliated club, or an outside organization that excelled in public education in the realm of rocks, minerals, fossils, geology, lapidary, or any combination – plaque.

Background

In June 2018, Julia and John Breckenridge opened the Crystal Cave Mineral Exhibit on the premises of an old lumber yard and building centre at 11077 Highway 124 in the village of South River, Ontario. The facility houses the extensive, spectacular personal rock and mineral collection of these two passionate rockhounds who have been rockhounding for more than 60 years, and who continue to collect today to enhance the exhibit. The exhibit includes numerous interactive displays, augmented reality technology that brings fossil specimens to life, a classroom, a large fluorescent mineral room, and outdoor exhibits as well. Spectacular close-up photos of minerals taken by Julia are hung on the walls, and framed collections of translucent agate slices hang in the windows. The exhibit is open to the public 5 days a week from June to September, and irregularly at other times from March to December 31.

Attributes of the Exhibit

The Breckenridges specialize in large specimens that add to the “wow” factor of this exhibit. The display cases are stunning, highlighting the variety of mineral forms and colours, and the grand diversity of fossils. The specimens in the exhibit are from the region and around the world, and are generally organized by mineral family (silicates, phosphates and so on) or fossil groups, with tags noting the chemical formula (if a mineral) and location where collected. In many cases there are questions or comments on placards inviting visitors to think about the items on display from a particular perspective. Here are just two of the many examples in the exhibit: (i) the attributes of meteorites are described and a placard beside an unknown specimen asks “Is this a meteorite?” (ii) at a small tank, visitors are invited to drop in a rock, see if it floats and ask why it floats. There are thought-provoking displays throughout the exhibit.

As noted above, there are many opportunities for visitors to learn on their own. However, during the official open hours of the exhibit, visitors are greeted by Julia and John themselves, or by a tour guide (trained by Julia and John), who tell a variety of engaging stories about the minerals, fossils, and the collection, and work very hard to draw them into the fascinating world on display. These awesome interactions cannot be “downloaded” or even read about. Each visitor is given a unique experience.

Classroom and School groups

Schools have taken advantage of the tremendous learning opportunities at the Crystal Cave Mineral Exhibit by booking sessions for groups of homeschooled children, First Nations children, and students from the Public and Catholic Boards of Education in Ontario. In 2022, 6 buses full of students each spent a day touring the exhibit, finding answers to the questions in

the “Crystal Cave Activity Book” and performing the experiments described there, and engaging in educational activities in the classroom. There have also been college and university groups, and special presentations given by Julia and her assistants via ZOOM to schools in the Greater Toronto area. In all, many hundreds of students have enjoyed special sessions at the Crystal Cave Mineral Exhibit.

Other Contributions by Julia and John Breckenridge

Julia and John Breckenridge are active members of the Nipissing Rock and Mineral Club (NRMC). Julia acts as co-president, and is an inspiration to collectors of all ages while on field trips, providing guidance on how to search and find specimens. Julia is also a supervisor at the NRMC workshop, which is on the premises of the Crystal Cave. Julia and John often show visitors the workshop and describe the activities of the NRMC. This has more than doubled the membership of the NRMC since the Exhibit opened in 2018. In addition, the Breckenridges have invited the NRMC to hold many jewelry-making sessions for the public in the classroom at the Exhibit, free of charge to the club. This has generated money for the NRMC and exposed hundreds of people to the wonderful world of the lapidary arts.

Julia and John did not receive any grants to assist in renovating the building, which now houses an exhibit that was described by one visitor as “Impressive. Beautifully displayed. Compares to top museums” and by another as “An excellent collection! We’ve been to the ROM and Harvard Museum of Natural History, and your collection is wonderful and as interesting.” Another visitor commented that “When we were visiting the Natural History Museum (NHM) in London, UK, we saw many samples from the same regions as are represented in the Crystal Cave Mineral Exhibit, and the samples at Crystal Cave are at par and in many cases better than those at the NHM, and we didn’t get the great narrative at the NHM as we get at Crystal Cave.” The Breckenridges have received small grants to help to subsidize the hiring of assistants to help to act as tour guides during busy times, and the small admission fee (\$5.00 per person, children under 12 are free) also helps to pay the tour guides. However, the majority of the cost, all the inspiration, and all the hard work is owing to the creativity, energy, and generosity of John and Julia Breckenridge.

Testimonials by Visitors

Visitors who have signed the guest book identified themselves as coming from all over Ontario (Toronto, Timmins, Cayuga, Stony Creek, Englehart, Sault Ste Marie, Sarnia, Bancroft, Collingwood, South River and beyond), across Canada (Northwest Territories, Labrador, Saskatchewan, Nova Scotia, New Brunswick, British Columbia), the USA (Michigan, California, Tennessee, Washington) and around the world (Australia, England, Argentina, Brazil, the Bahamas, Iceland, Czech Republic, Germany, Russia, Poland, Jamaica, Trinidad). Here are some quotations from the guest book:

- Thank you for opening our eyes
- Thank you for creating this place
- So excited to be here
- Thank you for your collection
- Best place ever

- Thanks! We learned so much
- Breathtaking
- Shall return again and again
- The kids were amazed
- So glad you shared your collection for all to see
- What a wonderful experience
- We will be back. It will take several visits to absorb this wondrous collection
- Reminds me of my geology classes at Queen's University
- Emma Green returning for the 5th time from Hamilton. Only 7 years old and she is now obsessed with the Crystal Cave
- In a world of social media, to see our 13 year olds so fascinated is beautiful
- A fun, big place to learn about rocks!
- It's nice to have such a great place as this in our small town

Below is a testimonial by 18-year-old Kristoffer Trulsen Hunt, a member of the Nipissing Rock and Mineral Club.

The Crystal Cave, By Kristoffer Trulsen Hunt

When I first moved north, journeyed to the Crystal Cave for the first time and entered the museum, it was breathtaking. The sheer number of discoveries it contained intrigued my interest. As I toured the many displays, the minerals were like eye candy, and to reinforce my quest for knowledge there were convenient descriptions of each mineral. I found myself making connections to the chemical formulas I was learning in the chemistry class I was participating in at school in grade 9.

All my life I have maintained an interest in rocks and minerals. When I was younger it was very rare that I would go on an adventure and not at least pick up a rock to ponder its nature. It was not until visiting the Crystal Cave that I felt a welcoming atmosphere and the encouragement to gain knowledge about the many interesting properties of rocks and minerals. Shortly after my incredible visit, my Mother and I joined the Nipissing Rock and Mineral club and got to know Julia and John Breckenridge. I attended my first field trip, to the Beryl Pit in Quadeville, Ontario, and due to the rich mineralization there, I had many questions to be answered.

It was Julia and John who answered my every question, and even taught me things I didn't know enough to ask about, like the curved trigonal crystal shape of black tourmaline. Regardless, I am always overjoyed when they have information to share. I personally nominate them for this award because it was through their generous sharing of knowledge and their incredible Mineral Exhibit that I was encouraged to pursue a career in the earth sciences.

For all of the above reasons, the NRMCM believes John and Julia Breckenridge and the Crystal Cave Mineral Exhibit are ideal candidates for the CCFMS 2022 "Outstanding Public Education Award".

These pictures are provided to support our application.

Julia and John Breckenridge



The Crystal Cave in South River Ontario on the site of an old lumber yard



The mineral exhibit contains a wide variety of interesting display cases and fantastic mineral specimens that allow visitors to make new discoveries around every corner

The displays are fun and fantastic



Even the windows are used as places to display attractive specimens



The Breckenridges have collected and purchased countless enormous specimens that add to the exhibit's "wow" factor

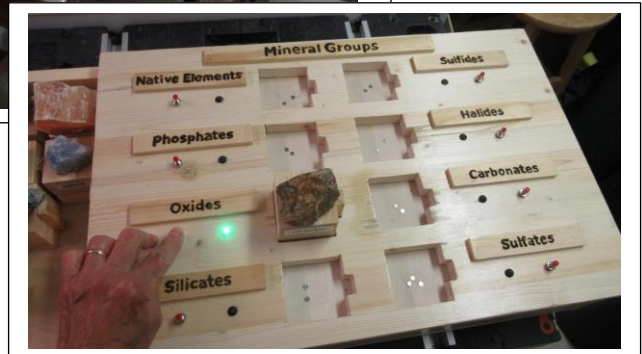
Julia and John and their assistants give visitors tours, complete with technical information, memorable stories, and hands-on experiences



The displays are splendid, illustrating the amazing diversity of forms, colours, and sizes of common and rare mineral species



The Mineral Exhibit building includes a classroom where the Breckenridges have provided hundreds of students of all ages with memorable sessions



Julia and John have many fun and interesting activities throughout the exhibit where visitors can learn how to identify, classify, study, and enjoy rocks and minerals

