

# Nova Scotia Collecting & The 3-Hour pocket

By Nathan C. Martin

When I initially announced that I would lead a fieldtrip to Nova Scotia this spring, I described it as a “bucket list” field trip offering great scenery and a chance to collect some spectacular mineral specimens. As with any fieldtrip I had high hopes, but little did I know just how good my personal collecting experience would turn out to be.

**Field Trip Overview.** In planning the trip I drew extensively on the information gained from a BMC fieldtrip led by Ed Norton in 2009. Our home base for the trip was the town of Parrsboro, located on the west side of the Bay of Fundy. Most of us stayed at the Sunshine Inn, a nice clean “mom & pop” motel just outside of the town. A total of 18 BMC members participated in the trip. Figure 1 shows the group assembled at the beginning of our ½ mile hike down the beach to Wasson’s Bluff. Everyone is shown there except Anna Golitsyna, who was busy taking the photo. Some of our participants were attending their first ever field collecting trip.



**Figure 1. Field trip Participants.**

**Geology and Localities.** There is a geology museum in Parrsboro that sells a bedrock geology map of Nova Scotia. All of the well-known zeolite collecting areas can easily be spotted from this map as they all lie in areas dominated by the North Mountain Basalt formation that borders the Bay of Fundy. The 3 localities we visited were all within an hour’s drive of Parrsboro and two, Partridge Island and Wasson’s Bluff, were very close to town. The third destination, Cape d’Or, was about a 1 hour drive to the west.

**Tides.** The unique shape and length of the Bay of Fundy produce a tidal resonance phenomenon that gives the bay the highest tides anywhere on earth. Access to the zeolite collecting areas requires walking over and collecting in areas that are underwater at high tide. Thus the scheduling of the trip was largely governed by the timing of low tide during daylight hours. Collecting was limited to the 3 hour period before and after low tide. This is not a place where one can safely lose track of time.

**Day 1 – Partridge Island.** Partridge Island was our first day’s destination (see Figure 2). A safe parking area is easily accessed from Parrsboro via decent dirt roads that

do not require 4WD. The best collecting areas are on the Southwest side of the island and we had to wait for the tides to recede before carefully working our way over and around boulders covered in seaweed.



**Figure 2. Partridge Island (view from the west)**

Several people found good calcite crystals in and around some large boulders that had come down over the winter. Chabazite specimens were also found. Just before it was time to head back to the cars, I found an open stilbite seam near the base of a cliff and although the basalt matrix was rotted and crumbly I was able to extract some small but nice specimens of white calcite rhombs on stilbite (see Figure 3).



**Figure 3. Calcite on stilbite from Partridge Island.**

**Day 2 – Wasson’s Bluff.** Wasson’s bluff is also relatively close to Parrsboro but it is accessed from a very steep jeep trail that leads down to the beach followed by a ½ mile hike to the primary collecting area. There also are areas that are off limits to any collecting due to the rare vertebrate fossils that have been found there. The day before the start of the trip Rod Tyson (Tyson’s Minerals in Parrsboro) had been kind enough to walk with me along the beach and point out the areas where we could legally collect. During that walk I picked up the nice stilbite specimen shown in Figure 4 at a small slide area that forms a natural funnel for material weathering out of the cliffs above. Figure 5 shows the same area on the day of our trip there. Several people found nice specimens of stilbite and/or chabazite there during our day at Wasson’s bluff.



**Figure 4. Wasson's Bluff stilbite**

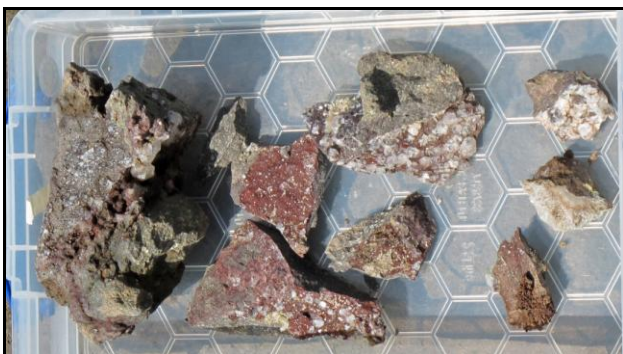


**Figure 5. Slide area at Wasson's bluff**

At our primary destination we found numerous boulders that had fallen from the cliffs (see Figure 6). Several people found nice analcime and/or natrolite specimens in the boulders and numerous stilbite specimens were collected as well. Figure 7 shows the box of specimens collected by Jonathan Goldberg from an especially productive boulder.



**Figure 6. Alex Tsuernik searching for analcime at Wasson's bluff.**



**Figure 7. Jonathan Goldberg's analcime & natrolite specimens**

**Day 3 – Cape d'Or.** The drive to west to Cape d'Or on Hwy 209 is very scenic and takes just about an hour. Just before you get to the town of Advocate Harbour there is a turnoff for a gravel road that leads to the Cape d'Or lighthouse. We followed the road all the way to its end and parked in the lot at the top of bluff overlooking the lighthouse. Figure 8 shows the view down to the lighthouse at high tide and Figure 9 shows the collecting area to the west of the lighthouse. Note the sequence of rock falls from the high basalt cliffs. These rock falls are the prime collecting areas.



**Figure 8 The Cape d'Or lighthouse at high tide**



**Figure 9. Cape d'Or collecting area**

To get to the collecting area we had to climb down and around the basalt dike that can be seen running into the water in the lighthouse photo. This is only possible at mid to low tide. It was then a difficult walk over a water-worn and seaweed covered boulder field to get down the "beach" to the rock falls. I was definitely feeling my age as it took me about an hour to get to where I wanted to be.

**The 3-hour Pocket.** Some members went further down the beach to other rock falls but in 2009 I had good luck collecting stilbite from a large pocket in a boulder at the first major rock fall and decided to look for other pockets there. I spotted a patch of light green mineralization on this boulder in a region where I could safely swing a hammer and decided to see if it would open up. Figure 10 gives a good view of the boulder with me for scale. In the photo the apophyllite pocket appears as a small white blob just below and to the right of my right knee.



**Figure 10. Nate Martin and his favorite boulder**

I decided to avoid a direct attack and work on the basalt around the pocket to minimize the damage to any crystals that might be inside. That turned out to be a wise decision. The basalt fractured fairly easily and the pocket had a rind that helped to keep it intact as I carefully cleared rock away from the region around it. Finally a piece of the pocket fractured and when I removed the small piece of apophyllite I was ecstatic to see that there was space in the interior of the pocket and I could see light green crystal faces. Figure 11 shows a photo I took at that point so that I would know what I had encountered even if the contents did not survive my attempts to extract them.



**Figure 11. The pocket opens up & crystal faces can be seen**

The outer rind of the pocket was a tough layer of a mixture of basalt and apophyllite. Just inside the pocket was a layer of small chabazite crystals. The front and bottom of the pocket was nearly filled with apophyllite and the top of the pocket featured tan stilbite on white apophyllite. I continued working on the basalt around the pocket while muttering under my breath, "I hope I don't screw this up!"

At some point there was nothing more to accomplish by working around the margins, plus the tide was coming in and it was getting close to the time we needed to leave. I started working specimens out of the pocket. Figure 12

shows some of the first specimens to come out. My 4 lb crack hammer provides a crude scale. Needless to say I was delighted but the best was yet to come.



**Figure 12. Initial specimens removed from the pocket**

Figure 13 shows the specimen that remained in the pocket. As you can see it had a point of contact at the top. All I could do was to hope that it would break cleanly with as little damage as possible. I could also see some nice stilbite crystals on white apophyllite on the top of the pocket. Well the big apophyllite specimen did come out in reasonably good shape (see Figure 14) and now occupies a prominent place in my mineral cabinet along with the best specimen from Figure 12 and the best stilbite specimen from the top of the pocket.



**Figure 13. The big apophyllite specimen waiting to be extracted.**



**Figure 14. The big apophyllite specimen (5 x 4.5 x 4.5 in)**

It was time to go so I wrapped everything in paper towels and took the best specimens into my soft-sided lunch cooler and placed it in my backpack for the trek back up to the lighthouse. I had worked for 3 hours to empty this pocket and it was the best experience I have ever had on a collecting trip. That pocket had been there for four years waiting for me to return. Countless collectors must have passed by that light green patch on the side of the boulder without considering it worth working. For some reason I decided to give it a try. Amazing!

Figure 15 shows the seaweed-cover basalt dike that we had to work our way over to get back up to safety. I gratefully accepted some help with my bucket of tools on the way out but the specimens went out on my back. After completing the climb back up to the lighthouse and then the trek up the access road to the parking lot I was dead tired and realized that at age 68 this was very likely the last time I would collect at Cape d'Or. If that is true, it's OK; the box next to Cape d'Or on my bucket list has been checked and I can't imagine a better way to check it off.



**Figure 15. The basalt obstacle course at Cape d'Or.**

The photographs in Figures 1, 10 and 15 were taken by Anna Golytsyna and all others were taken by the author.