

Easter Cave Resurvey and History

text and photos by John Dunham with excerpts by Bob Dion, Chuck Porter, Steve Higham, and Larry Botto

In the June 1995 issue of *The Northeastern Caver*, Bob Dion wrote:

"I would rather go into a hundred feet of passage that no one has ever been in than go through a mile of well-traveled cave passage. Will it get bigger? Smaller? How far will it go? No one knows... absolutely no one. If you set foot on the moon you could look at a map and know what lies ahead, but not here. This is the real unknown. This is discovery!"

Between writing those words and their publication in the *Caver*, Bob dug open and began exploring Easter Cave, one of Vermont's most unusual and sporting caves. In the same June 1995 issue, Chuck Porter included an updated report on the discovery:

"This had been a four-inch diameter melt-hole which Bob says he never would have dug if he hadn't seen the melt spot. It opened up a 10-foot-deep fissure with a too small opening leading on. On April 22, Bob enlarged the hole and he and his brother Tom were able to enter. The opening was still too small [for Steve Higham, who stayed in the fissure and gave support as needed]. They found about 100 feet of passage starting in massive breakdown and fissures but eventually getting into solutionally-sculpted bedrock. There are several narrow leads and a room behind a breakdown slab. Bob named it Easter Cave."

Easter Cave was then and remains now an oddball in Vermont Caving. Together with Tom Dion, Larry Botto, Steve Higham, and several others, Bob dug and explored over 600ft of solutional passage in Readsboro Vermont, far from known marble areas. The cave is formed in what was formerly considered the Sherman Marble, now classified as part of the Mount Holley complex: isolated, highly metamorphosed calcite and dolomite marble, over a billion years old, surrounded by calc-silicate gneiss, and far from the major carbonate areas in the Chaplain valley. Although some active water flows into the cave, it is mostly a maze of fissures and crawlways connected by tight pinches and breakdown areas. With three entrances, it offers a sporting through trip with fun climbs, tight crawls, pretty banded marble, and enough variety to challenge any Northeast caver.

Easter was originally surveyed at 620ft, making it one of the two dozen most significant caves in the state. The original survey, though, was conducted in sections and with some known errors that prevented the three major areas of the cave from connecting properly. As a result, we decided it was time for a better map that could do the cave justice and connect all three sections in a single survey. That map resulted in 608ft of survey and the original survey held up remarkably well overall, despite some errors and changes over time. The new and old maps are presented here, along with a summary of the exploration in the intervening 23 years.

The first exploration of Easter Cave was on Easter Sunday, 1995, and subsequent trips quickly found more passages. In an article in the December 1995 *Northeastern Caver*, Bob wrote:

"A new cave, or should I say, 'very old cave,' was dug open on Easter Sunday this year. It is a very interesting cave in many ways. First, Easter Cave is developed in Precambrian Sherman Marble. It is the first cave listed in Windham County. It's big! (by Vermont and Berkshire standards). So far there are 341 feet surveyed plus about 100 feet of additional new passage and three open leads with air blowing. Also, it has formations in one section.

Easter Cave is very sporting with a lot of climbing, crawling, and squeezing. Even though it's fairly tight in spots, it's not too tight. If you can do Morris Cave this is similar, but smaller. The cave is very complex with passages criss-crossing at different angles and elevations. A good portion of the cave has

a sand floor. The second (Windy Cave) entrance is a 40-foot climb. Easter Cave is noticeably windy and damp, which makes it seem much colder than most, so dress warmly."

By the time of this report, a second entrance (the Windy Entrance) had been dug open and connected to the first section (accessed via the Main Entrance). Surveys in June and September of 1995 had yielded 403ft of passage, and the leads were looking good!

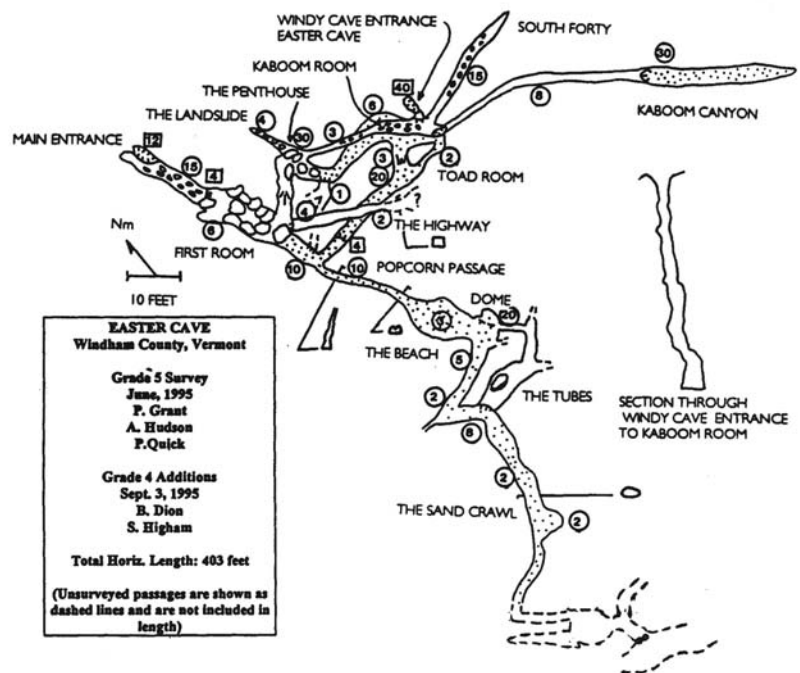
On December 26th 1995, Bob and Tom Dion worked the end of the Sand Crawl passage and had a small breakthrough, as well as a close call. Larry Botto reported the event in the March 1996 *Northeastern Caver*:

"Bob and his brother Tom were digging in a portion of the cave which has great air flow but seemed to be plugged by either breakdown or clay/dirt combinations. Tom looked upwards into the ceiling of the cramped area they were in and could see blackness between

some boulders in the distance. Digging here just after Christmas, Tom had the misfortune to nearly become a casualty. He was pulling rocks out of the ceiling while Bob was in another section of the cave doing the same. They were able to maintain voice contact while they both tried to get into the huge void overhead. Suddenly Tom yelled that he was in! Actually, his head was into the room and his shoulders were level with the floor. Standing in a tight fissure, he glanced about the place, and felt something brush the back of his head. Figuring that some small rocks had dislodged, he quickly ducked down into the fissure. But on his arm

extended above him, he felt the pressure of some heavy breakdown landing. He yelled for Bob, who reached him in seconds. Tom managed to yank his arm free and they both sat for a few seconds. Then a large avalanche occurred, and the spot where Tom had been ceased to exist as it totally collapsed!

Upon returning to the spot a week later we soon found out that the dig in that area is suicide at best and the area that Bob had dug at will take a lot longer than we had figured. Bob and I took turns swinging a small hand sledge at a glacial boulder that blocks our way, while Tom and his brother-in-law Mark went out to the surface. Later, they remarked that they could hear us pounding away. The spot on the



Extent of exploration in Fall 1995



The Sand Crawl, beyond which Bob and Tom were digging

surface is near a large boulder which has some melt spots near it. All we can do now is wait for spring so a surface dig can be started."

In the Spring of 1996 they returned to the Easter area several times with cavers from the VCA and Boston Grotto and opened the third section of the cave, now called the Ladder Section. In the June 1996 *Northeastern Caver*, Steve Higham gave an update on exploration:

"Bob and Larry Botto spent a few weekends working on another dig nearby. After digging there on March 16, 1996, Larry, Bob, and I went poking around east of Easter Cave. Larry noticed a small melt spot near a huge boulder at the tree line. A bit of digging opened up a crack blowing warm air. By the end of the day the hole was deep enough to drop rocks into a sizable room underneath the rock. On March 30, a crew including Larry, Bob, Greg Racicot, and several Boston Grotto members, broke through. On April 6 (the day before Easter), a large crew assembled for pushing, surveying, and possibly connecting this new cave to Easter Cave. On hand were Larry, Bob, Greg, myself, Brian Pease, Kevin Harris, Peter Grant, and several Boston Grotto members whose names I didn't write down (sorry)."

In the same June 1995 issue of the *Caver*, Larry Botto described the breakthrough into the new section of cave:

"I went up to a large boulder which had had a melt spot near it at the beginning of winter. I poked my pry bar in the ground along the edge of the previous digs that we had done there. It went into what felt like a small pocket but when I pulled it out the small roots that were hanging there started dancing in the breeze now flowing out of the golf-ball-sized hole. I sat and watched them for a minute or so just to make sure it was real. Then I stuck my face up to that little hole and felt the rush of warm cave air hit me! I frantically yelled to Bob that I had something. After a lot of digging we had a good view into what seemed like the top of a dome with a fair amount of dirt and collapse showing."

After further digging shenanigans, a few avalanches of dirt and rock, and a return visit, they decided the hole was unstable and would be best equipped with a ladder. Larry continues:

"Bob and Brian had returned and now we tried to send the 20-inch-wide by 14-foot-long ladder down into the lower room, forgetting that there was an offset and the holes did not line up. After a bit of surface removal and some jumping, pushing, pulling and swearing, the ladder fell in. I was in the first room and ready to go so in I went.

Carefully going down rung-by-rung, I looked at the wall that had collapsed so many times earlier. As I reached the bottom I looked left and could see a large slope of old breakdown and dirt. I went to the right, scrambled down a four-foot drop, and was now looking over and between some more breakdown into another smaller room. As I explored I relayed the info to Greg who stayed at the top of the ladder until I said it was looking good. He was soon standing beside me and the others were getting ready to come down too. I climbed up and



Ramon Armen at the bottom of the ladder climb

over the boulder that partially blocked the way into the next room. The marble was lighter-colored here and well-sculpted, and the floor was littered with lots of breakdown, most of it small. This was GREAT!"

In his article in the same issue, Steve Higham described the passage in the new "Ladder Section:"

"The entrance is a winding pit leading to a ladder. The total drop is 22 feet. This leads to a good-sized room. The entire cave is formed along fissures, with generally uncertain heights. The new cave is wetter than Easter Cave, although that may just be due to the time of year. There's no running water, but there are drips everywhere. The marble is jagged due to the thin 'beds' of impurities everywhere. Like all but one of the other caves in this karst, it seems to have been formed by surface water percolating into a cracked marble pavement. North of the Ladder Room is the largest room in the cave, which is in a cross fissure. A north trending fissure beyond the second room splits into two levels, then joins the last cross fissure in the cave. To the left the last fissure becomes too narrow; to the right there is a diggable pit and a narrow continuation."

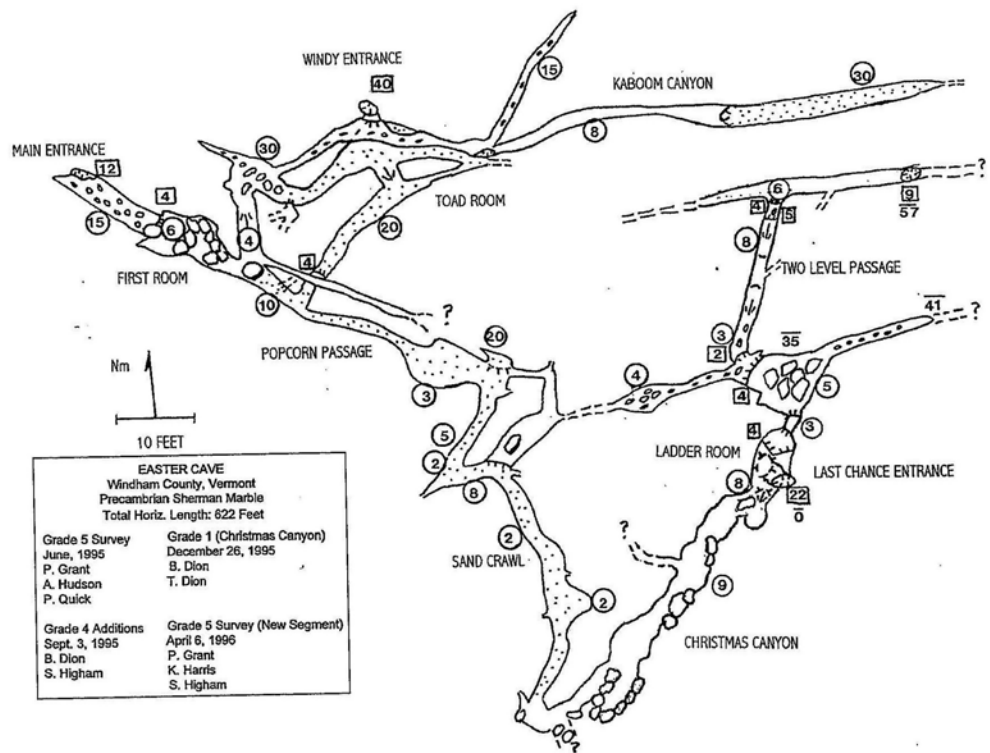


Morgan Ingalls in Ladder Section passage

Later in the article, Steve notes:

"In fact, at the end of the day on April 6, diggers broke into a room below the Ladder Room. Bob thinks it looks an awful lot like Christmas Canyon. Since only memory mapping was done the day after Christmas, it is possible that the orientation and length of Christmas Canyon as shown on the map are wrong, and that it extends below the ladder room. A dig session on April 27 should provide the answer."

Over the next few digs, they did break through between the Ladder Section and Christmas Canyon, albeit via a tight contortion under a fallen boulder. The connection revealed that the location of the new survey was off, and connected all three sections into a single significant cave. It seemed like other breakthroughs were imminent, but although Bob, Larry, and others managed to dig open several small caves elsewhere in the karst, none connected back to Easter.



Final original map, with some sections corrected by Bob Dion to reflect actual passage locations

In the subsequent decade, regular water and ice flow in the Windy Entrance

collapsed a boulder into the hole, blocking entry to that section of the cave as well as the connection to the Main section and part of the entry to Kaboom Canyon. Other collapse plugged the unstable connection between the Ladder and Main sections of the cave.

When Bob Dion took me to Easter on one of my early dig trips with him in 2006, only the Main and Ladder sections were accessible, and those as separate caves. It has been an ongoing project, when we have the time, to reconnect these sections into one cave. As part of the VCA after-meeting activity in October 2010, Bob Dion, Morgan Ingalls, and I did some digging and reopened the Windy Entrance (*see report in the April 2011 VCA Newsletter*). In late 2011, after Tropical Storm Irene flooded Easter Cave and most of the rest of southern Vermont, Morgan and I returned to try for a reconnection between the Main and Windy sections. We were successful, though Kaboom Canyon eluded us (*see report in the December 2011 VCA Newsletter*). In May of 2016, Glenn Becker and I returned to the Ladder Section and made a successful connection back through to the Main Section, and then Morgan, Larry Bernier, and I returned in November of the same year and successfully reopened Kaboom Canyon (*see report in the December 2016 VCA Newsletter*).



Bob Dion in the reopened Windy Section



Morgan Ingalls in Windy/Main connection passage



Larry Bernier in Kaboom Canyon

These reconnections paved the way for a new, more detailed survey of the cave in 2016 and 2017, which I completed along with Bob Dion, Jacob Morris-Siegel, and Mieke Geffen. and I've recently completed a new map based on that data. The updated survey shows the cave is 608 feet in length and 49 feet deep, more than respectable for a cave far from the mountain-side marbles of the Taconic range.

Easter Cave is on public land and generally open to visitation. It is not currently known to have hibernating bats, however parts of the cave are often blocked by ice from January through May, and the entrances can be difficult to locate in the head-high vegetation of late summer.

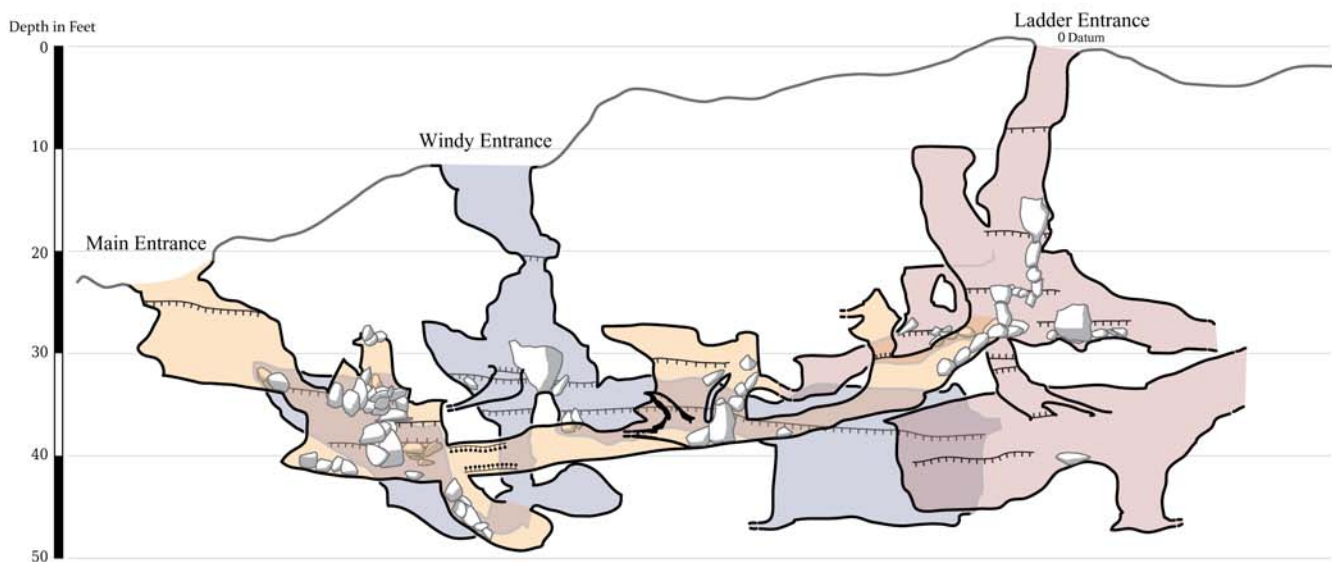
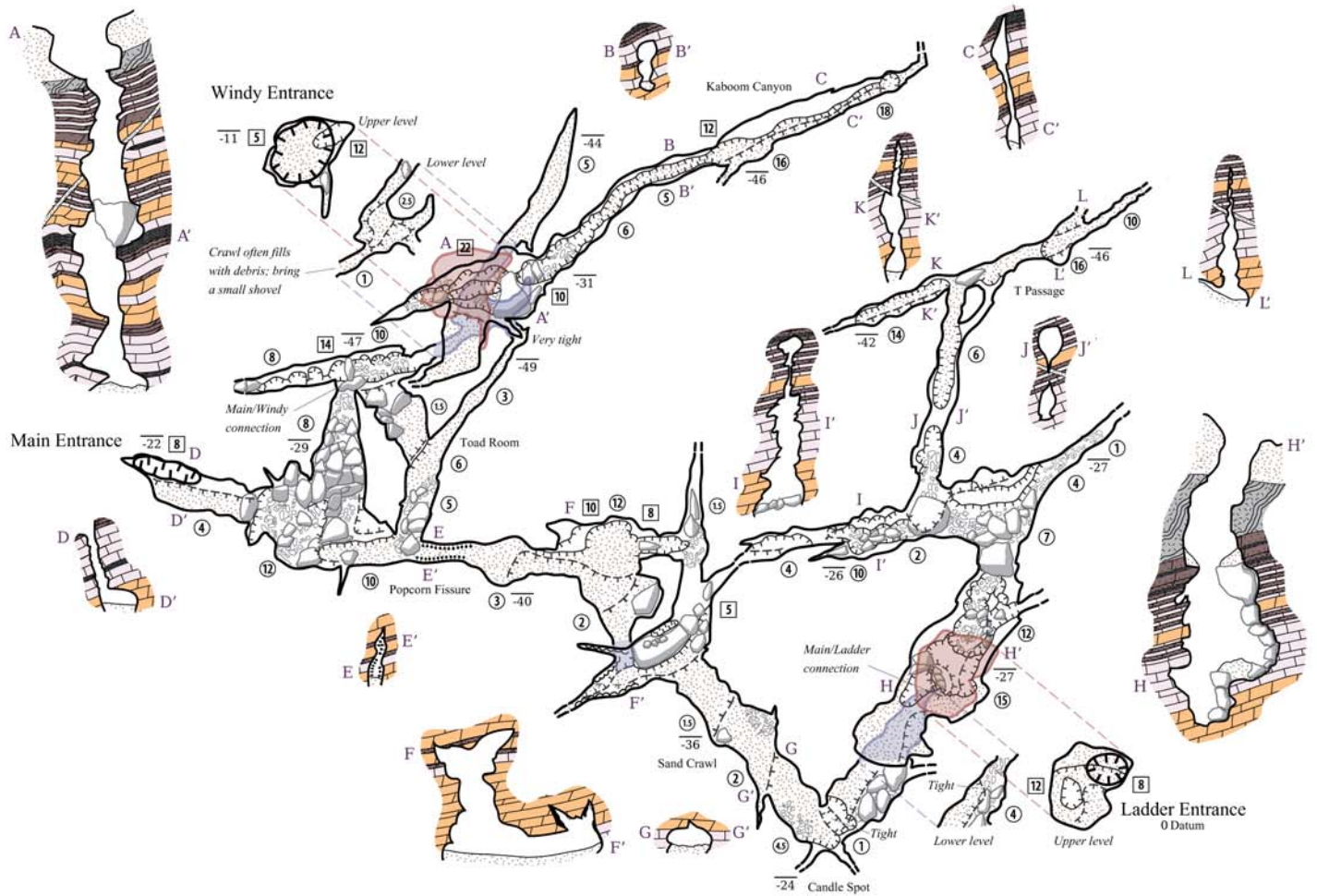
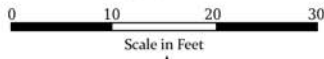
Easter Cave

Windham County, Vermont

Surveyed Length: 608 feet
 Surveyed Depth: 49 feet

Surveyed Fall 2016 and Spring 2017 with DistoX2 and Suunto by: Bob Dion, John Dunham, Mieke Geffen, and Jacob Morris-Siegel
 Original survey 1995-1996 with Suunto and tape by: Bob Dion, Tom Dion, Peter Grant, Kevin Harris, Steve Higham, Alan Hudson, and Peter Quick

Cartography by John Dunham



Plan View Symbols	Profile View Symbols
Passage	Main section passage
Underlying passage	Ladder section passage
Overlying passage	Windy section passage
Floor ledge (teeth on low side)	Ledge on far wall
Ceiling ledge (teeth on low side)	Ledge on near wall
Dirt floor	Large breakdown
Small breakdown floor	Popcorn
Large breakdown	Flowstone and Soda Straws
Popcorn	
Flowstone and Soda Straws	
Ceiling height in feet	
Dropoff depth in feet	
Depth below zero datum in feet	

Geologic Symbols	Geologic Summary
Calc-silicate gneiss	<p>Geologic Summary</p> <p>Easter Cave is formed in a small area of highly metamorphosed calcite and dolomite marble in the precambrian Mount Holly Complex. The marbles occur here as a pod some 60 feet thick and covering about two acres. They are bounded on all sides by calc-silicate gneiss, although similar areas of marble outcrop in multiple places within a five-mile radius.</p> <p>These marbles were originally designated as a separate formation, the Sherman Marble, which is still recorded in Massachusetts, but which in Vermont has been reclassified as part of the Mount Holly Complex.</p> <p>All geologic structures depicted here were mapped as part of the cave survey and extrapolated where necessary. Deformation occurs across multiple axes; most structures are locally clear, but inconsistent from passage to passage.</p>
Quartzose dolomite	
Calcite marble	
Graphite Schist	
Dolomite marble	
Prominent quartz vein	