Quarantine Cave

By Christian DeCelle and Alex Fischer

In April 2020, we ridge-walked the western half of the Hollow Brook Karst to get eyes on all the sinkholes in the area which were visible on Lidar. As we wrote in the June 2020 *Northeast Caver*, we found a decent-sized sink and redirected the stream into it. The sink took the stream, which we then dye-traced to Coon Hollow Cave the following week.

After the dye trace, we decided to start digging the sinkhole: a decision which quickly turned into 16-hour days and multiple overnights. The whole process, from start to survey, took 10 trips from April to June 2020.

Alex, Christian and Peter lifting a rock out of the sink

The majority of the dig was just the two of us, so we employed a lot of rope work to save our backs. We rigged a highline which allowed us to lift and swing buckets away from the sink with minimal effort (we are very proud of the highline). We also regularly rigged 3:1 and 9:1 pulley systems to lift the large blocks.

Around trip 5, we were close to abandoning the dig after finding out that the ceiling above us was sagging "death-blocks" cemented in dirt. After ripping one of those out and finding more unstable ceiling, we called off the dig. About 6 hours later, we realized we could just dig in through the top, and we returned the following weekend to do just that.

After a few more trips and some help from some UMass Outing Club members we were able to dig through the top, straight down to a depth of about 14 feet (this entrance drop is easily downclimbed). From here, we started pushing into the passage which seemed to be visible through the cracks. We battled with more unstable ceilings for what seemed like ages until we were finally able to safely enter the cave through a small gap (which we would widen later) into a small room with clean-washed marble walls and ceilings.

We quickly explored the cave, which consisted primarily of one long, very low sloping room around 25 feet long and 10 feet wide. The room paralleled the surface stream and was choked with breakdown on both ends. Almost all of the cave was a muddy low belly crawl offering little reprieve to anyone larger than imp-size.

The cave slopes down along the ~30° dip of the bedding at the contact where a pale-yellow, dolomitic marble overlays a blue-white, calcitic marble. The pattern of dissolution in the cave shows that the dolomitic marble is clearly more chemically resistant than the calcitic marble. However, the dolomitic marble was more fractured, with many blocks in the ceiling moving when pushed on.

Above: passage formed along the contact between blue/white calcitic marble and yellow dolomitic marble.

Below: Alex in main passage

Despite the main passage quickly ending, there was one lead going perpendicular to the main passage. This passage was a very tight, but tall, fissure passage which quickly comes to a T-intersection. Christian was able to slide into the passage on the right and see what appeared to be a small room with breakdown in it, but after contorting his body, laying sideways, jammed in a fissure, he decided to not push it, fearing getting stuck. We dubbed this passage "The Twister", which we hope anyone who visits will understand. If anyone does want to return and possibly push the Twister, we advise you be 5'4" or shorter (short femurs necessary), and very thin.

The Twister has a noticeably different geology than the rest of the cave. Following the trend of the main room, the Twister should be formed in the yellow, dolomitic marble, but it is instead formed in a bluish marble containing white angular clasts. This brecciation leads us to believe that the Twister is formed along a fault.

On our 10th trip to the area for this project, we surveyed as far as we were able to push, which resulted in 105 feet of passage with a maximum depth of 20 feet. We dubbed it "Quarantine Cave," which was fitting for the times and for how many of our friends have refused to ever return. It is one of the tightest, sportiest, least stable caves either of us have ever been in, but the pretty marble walls and odd geology make Quarantine an interesting addition to the area.

There are multiple dig leads remaining in Quarantine, one which would be an attempt to trench through the gravel underneath the twister, bypassing it (a relatively simple, but arduous dig), and another which would push through breakdown at the downstream end of the cave (difficult dig). Both of these seem promising, with the Twister moving further underneath the ridge which has many large sinkholes, and the other dig headed further downstream. If anyone is interested in continuing the project, feel free to reach out to either of us.

Above: Brecciation seen in the twister

Below: Quarantine Cave during site remediation after the end of the dig

Quarantine Cave

Berkshire Co. Massachusetts

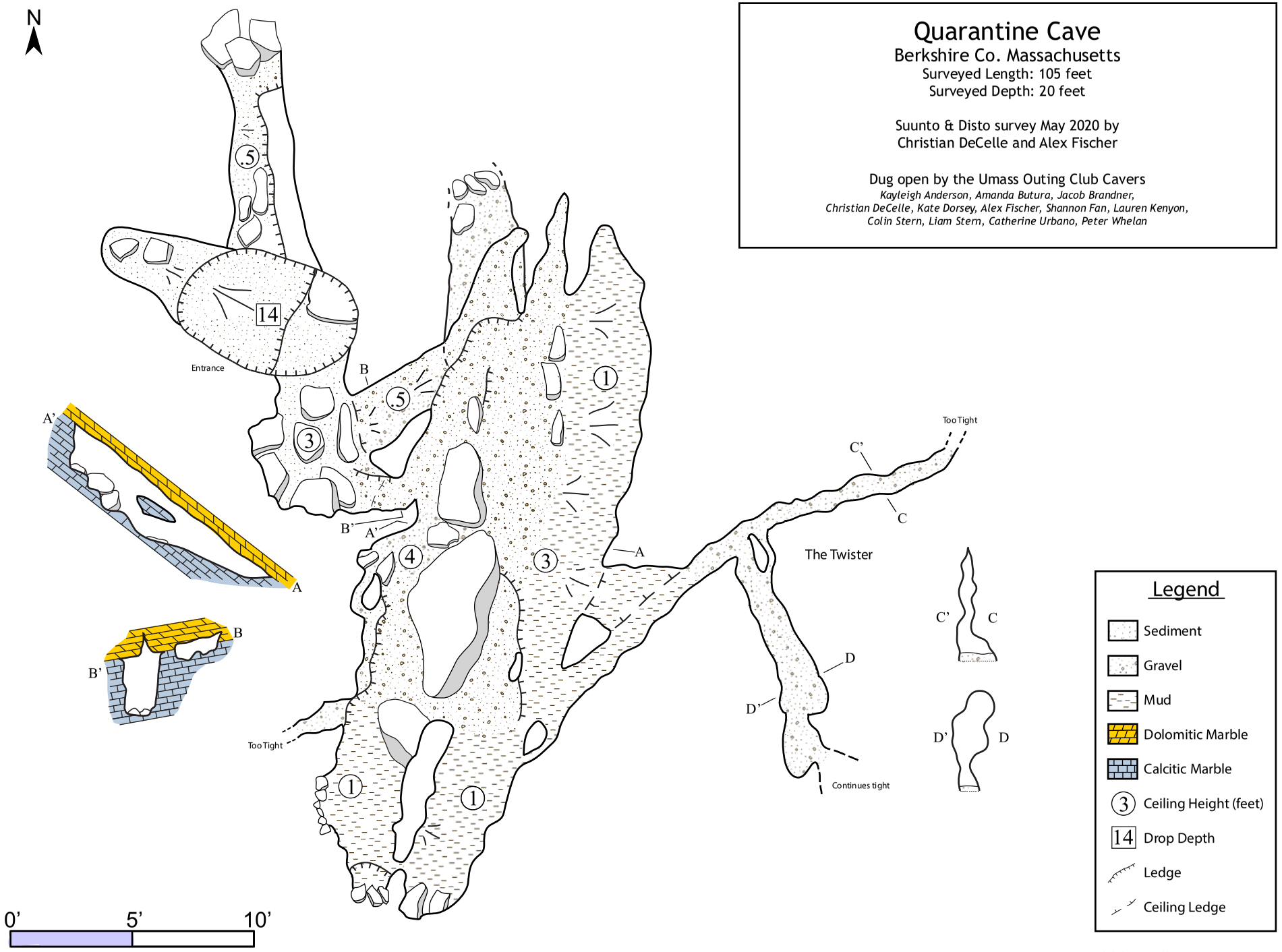
Surveyed Length: 105 feet

Surveyed Depth: 20 feet

Suunto & Disto survey May 2020 by
Christian DeCelle and Alex Fischer

Dug open by the Umass Outing Club Cavers

Kayleigh Anderson, Amanda Butura, Jacob Brandner, Christian DeCelle, Kate Dorsey, Alex Fischer, Shannon Fan, Lauren Kenyon, Colin Stern, Liam Stern, Catherine Urbano, Peter Whelan



Christian DeCelle Aug. 2020