



Georgia Speleological Survey  
c/o Brent T. Aulenbach  
195 Windy Court SW  
Lilburn, GA 30047-6442

16 February, 2006

Buddy Lane, SCCi Frick's Cave Property Manager  
40 Hidden Brook Lane  
Signal Mountain, TN 37377-2063

RE: Georgia Speleological Survey Saturday, January 7<sup>th</sup>, Sunday January 8<sup>th</sup>, and  
Saturday, February 4<sup>th</sup>, 2006 Trip Reports for Resurvey of Frick's Cave, Walker County,  
Georgia

Dear Buddy,

The 15<sup>th</sup> and 16<sup>th</sup> days of surveying in Frick's cave was held by the Georgia Speleological Survey (GSS) on Saturday and Sunday, 7 and 8 January, 2006.

On Saturday, there were three participants (Paul Aughey, Ben Theune, and myself (sketcher)) making up one survey team. Meeting time was 9:30 am.

We went to survey where the main water flow enters the main passageway. We were prepared with wetsuits and planned on going back to the upstream end of the passage and survey out so that we could save the wet belly crawl to the end of the day. Luckily the water level was low, and after about 100 feet of low, wet crawlway and an ear/eye dip, we got out of the water onto a gravel bank. Ben did a short (maybe three minutes) dig through the gravel bar into a 3' high room. Water was cascading in from multiple points along a breakdown wall. Working around the left edge of the breakdown, we got up into a walking passage with water cascading in from about six different spots along the wall. It was very loud and exciting. Around the corner was a room with a 6' high waterfall, some nice draperies, and an upper level flowstone area. Continuing upstream went up a 3' high waterfall followed by a couple of hundred feet of walking streamway. This lowered to a belly crawl under many soda straws and small stalactites to a standup room. The cave was sucking lots of cold air here - your breath got sucked upstream rapidly. The description from Alan Cressler's cave log from the trip he took with John Stembel, Richard Blackburn, and Randy Heath on September 10, 1988 indicated that they probably reached this point in the cave and turned around.

From the standup room, the water flowed from of a too miserable crack. Another crack connected to another passage that had water flowing into and out of it. We moved one small boulder so that we could see into the room and it looked like one might be able to continue possibly upstream and downstream in hands and knees crawlways. It might be possible to get into this passage at the wide spot in the crack at floor level by moving another small boulder and fully submersing oneself. Getting soaked at this point was not an option if we were to stay warm and survey so we left this lead and started surveying.

On the way out we surveyed the upper level flowstone area. This area was unusually warm so we named it the Warm Room. Because of difficulties in surveying the wet stream crawl on our way out, we had to resort to reading the compass by putting it against the pulled tape and reading it from the top and we skipped the clinometer readings – I don't think this resulted in too much error as that the stream did not loose much elevation through this relatively pooled section. We named this streamway the Frickin Crawl. This passage is not feasible to traverse during very wet conditions with its low air space and rapidly flowing water.

We surveyed a total of 542.4 feet of passage in 32 shots. We entered the cave a bit after 10 am and exited around 5 pm. The topographic overlay indicated that the passages in this upstream end of the cave was between 85 and 95 feet below the surface and only 100 feet from underlying the Left Fork Coulter Branch streambed.

On Sunday, Manuel Beers (new surveyor), Matt Blake (new surveyor), ET Davis, Jane Morgan (ghost sketcher), and I (sketcher) went to work on some cleanup survey. Meeting time was 9:30 am. After giving a lesson on surveying and reading instruments, we entered the cave at 10:30 am.

First we resurveyed a bad loop closure at the first breakdown pile going into the cave from the main entrance. Then we tried to finish up surveying past the Pancake Room, a ceiling level belly crawl off the main streamway between the first breakdown pile and The Junction Room (breakdown room below the Bat Room). We aborted this effort after not everyone fit through a tight spot. We then headed upstream to a passage that I had first noticed the day before because it is usually under completely underwater under a ledge, but was now visible since the pool had drained. This went about 100 feet. We also surveyed a parallel passage that had previously been too wet to survey. We exited the cave around 3:30 pm. We surveyed a total of 249.8 feet in 15 shots including resurvey.

After that some of us went up Left Fork Coulter Branch streambed to see where the stream was sinking during the low flow conditions. The stream was sinking about 1/3 of a mile uphill from where the cave neared the streambed (as determined from the previous day's survey). The water flow was similar to the flow observed in the cave suggesting that the water flowed through a karst conduit instead of just contributing to the groundwater aquifer. This suggests that there could be a lot more passage in this area! GPS location of water sinking was 34° 46' 14.1" N 85° 25' 42.1" W (NAD27) with an elevation of 1,240 feet (as determined from plotting the location on the 7.5 minute topographic map). We also took a GPS location where Alan Cressler remembered

observing the stream sinking during wetter conditions adjacent to the upstream passage in the cave. The location was 34° 46' 28.4" N 85° 25' 30.6" W with an elevation of 1,043 feet.

On Sunday, January 22, 2006, I went into the cave on my own for a few hours to resketch some passages at the top of the Junction Room leading into the Bat Room that needed more detail. I realized that the side passages in this area between the two rooms did not get surveyed or sketched. This oversight was due to that each room was mapped separately without surveying the intervening area. I assessed what needed to be done on a later survey trip. The notes of the resketched passages are attached.

The 17<sup>th</sup> day of surveying in Frick's cave was held on Saturday, February 4th, 2006. There were five participants splitting up into two teams. Meeting time was 9:30 am and teams entered the cave at 10:20 am.

One team was made up of Ben Theune and ET Davis. They took a few survey shots of a room I had sketched in on Sunday, January 22, 2006 but had not been surveyed. Then they proceeded to relocate and flag all the survey stations in the Bat Room to allow me to go in the next day and resketch this room. They exited the cave around 5 pm.

A second team was made up of Adam Byrd, Doug Strait, and myself (sketcher). We surveyed the passages between The Junction Room and the Bat Room. Three leads were noted in this area. One was a high lead that would need a tall ladder or a bolted traverse of about 10' to a hands and knees crawl that might go left and/or right after about 20 feet. A second lead was noted through a too tight crack that intersected a room or passage with a wall 10 feet beyond. It is possible that this room/passage might be a continuation of the possible left hand passage at the end of the first lead, which is at the same level about 60 feet away. A third lead was down a 10-foot undercut drop into a broad (8 feet wide at bottom) fissure. Passage might lead out of the bottom of this out of sight, but a hand line or vertical gear would be needed to check this out.

Next, we went to the area below the Pancake Room and verified some problematic survey shots. Then we relocated survey stations in the Pancake Room and surveyed additional passage at the back of the room. I sketched in a 40-foot long passage at the base of a 10-foot down-sloping tight crack at the back of the room. I had to take my cave suit off in order to fit. We then exited the cave at 4:45 pm. The two groups surveyed 407.5 feet in 23 shots.

When we exited, Nikki, Steven, and their daughter Kenzie Castleberry were just entering the cave to assess the guano piles in the Bat Room. Adam and I dropped off some gear at the vehicles and accompanied them. Nikki and Kenzie waited at the base of The Junction Room while Adam, Steven, and I went up to the Bat Room. Steven made notes and sketches of the areal extent of the piles and I helped probe the depth of the piles. I also pointed out some of the smaller piles along the main streamway on the way out. We spent a bit over an hour in the cave.

On Sunday, February 5, 2006, I went into the cave on my own to resketch the Bat Room and sketch a cross section in The Junction Room. I entered the cave at 8:10 am and exited at 2:45 pm. The notes of the resketched passages are attached.

After exiting the cave, ET Davis and I went up Left Fork Coulter Branch to see where the stream was sinking during wetter, but certainly not really wet, conditions. Streamflow sunk into a cobble pool at  $34^{\circ} 46' 25.4''$  N  $85^{\circ} 25' 36.8''$  W  $\pm 18$  feet with an elevation of 1,086 feet. There were two more pools 15 and 30 feet downstream. This location in the stream was about a tenth of a mile upstream from where the upstream cave passage is next to the stream and where Alan Cressler recalled seeing the stream sink during wetter conditions.

The cave is now at 11,567 feet long (after removing set-up and splay survey shots), crossing the two-mile mark on these survey trips. This should be the last trip for surveying unless some of the leads are later pushed. I may request to go into the cave at some point to get some additional floor detail if I later find that some of the sketches are lacking.

Two participants were taught how to survey on these last three trips for a total of 18 new surveyors for the whole project. Jane Morgan ghost sketched on one of the trips making a total of four ghost sketchers for the project. There were five people who participated for the first time on the last three trips. 55 different people have participated on the project in seventeen days of trips representing 100 cave trips.

I have been continuing work on rough drafts and electronically drafting the cave. I currently have about 35% of the cave electronically drafted.

If you have any questions, comments, or problems, please feel free to contact me.

Respectfully Submitted,

Brent T. Aulenbach, Frick's Cave Resurvey Project Coordinator

cc:

John Hickman, SCCi Chair  
John Klayer, GSS Chair  
Jane Morgan

Attached:

Copies of all survey notes with survey data file from Compass  
Line plot of cave from Compass with passages surveyed on these trips highlighted  
Line plot of cave with topographic overlay  
Cave survey statistics from Compass  
Reduced station locations from Compass  
Loop closures from Compass