Sandstone Basement Exploration Trip – July 3rd, 2008

On July 3rd, 2008, Nevin W. Davis, Jean Hartman, and Tony Canike entered Butler cave with the objectives of becoming more familiar with the Sandstone Basement and checking out a number of leads, including those noted by the Christensen/Kehs/Kehs/Jones surveys of the area from the mid 1990's.

We reached the Sandstone Attic in a little over two hours at a very easy pace, negotiating Penn State Lake, the climb up into Ike's fissure, Pittsburgh, and all the rest of the fun along the way. The decades-old dam built by Keith Wheeland and Nevin that diverts an infeeder from Penn State Lake was still functional. Once we reached the Attic, our time-consuming challenge was finding the way down to the Sandstone Basement. We wondered in muddy circles looking for any stations in the EK survey, eventually, by comparing the passage to a crude map we had brought along, we made a good guess at our location.

By crawling along what we later confirmed to be the survey from EK48 to EK54, we finally came to a junction and marked station at EK33. A passage from this junction goes to the northeastern extent of this section of cave to a point approximately 1100 feet from the end of the Woway in Barberry and in the same geologic horizon. Unfortunately the passages here are water collectors and get smaller as they go upstream. Nevin checked out the three leads on Keith Christenson's sketch that are marked A,B, and C. Though their listed dimensions are on the optimistic side, what Nevin saw didn't look promising at all. The passage at the northeast end (EK47) was blocked by rocks and he did not detect any air movement...so much for an easy way on to a connection with the Woway. For eager cavers though, this passage could be extended by digging.

Jean crawled beyond the EK34 station (the end of a branch of the EK survey), and noticed a small window which seemed to be looking up into a room. Since we had opted not to bring a hammer (which insured that we would need it) she used a rock to smash the edges off a rock in the way enabling her to squeeze into the room. Tony joined her after making the opening Tony-sized, and they estimate they saw about 60 feet total of passage. It was a small room with very low crawlways heading off in both directions. The room appeared to be filling with gravel and sand washing in from a higher level or a surface sink. There is a possibility for digging or other enlargement, and further pushing down the low crawlway to the left, but we did not note any air. As we had been separated from Nevin for nearly an hour, we went back to find him. When we rejoined, we decided we needed to get moving warm up rather than go back and survey the low crawlways.

So we crawled and climbed out of the Basement and investigated the northeast end of the Sandstone Attic. It ends in fill to the ceiling with a too tight crawl on the left side. Again no air was noted. It is interesting that the fill goes to the ceiling and has not slumped at all, so it make a tight seal. The southwest end of a passage in the Crystal Gallery is only 70 feet away (plan view) but 102 feet lower and in the Keyser below the lower sandstone. It ends in much the same way by being filled with fine sediment. Note that the Sandstone Attic is in the Breathing Horizon just below the Upper Clifton Forge Sandstone.

At this point we exited the cave without incident.

Keith Christensen, in a personal communication on August 21, 2008, reports that there are unsurveyed leads that team members crawled into, and that one lead looped back into main passage. Keith also

reported that the

> end of the Sandstone Basement, with is unsurveyed for the last 40 feet or so, is a very grim collapse.... It is geographically on the far side of the paved road, not far from the gate on the road in to the fieldhouse, and thus very close to crossing into the Chestnut Ridge hydrological setting.... Now, years later, I think that the amount of water in the Sandstone Basement is not equal to what should be available just from the Butler side of things. Some water must be coming from the Chestnut Ridge side.

Another trip will be needed to correlate our observations with Keith's.

Nevin suggests that should be a rope there for a top belay or a fixed rope for a self belay at the climb up into Ike's fissure. If there continue to be trips past the climb, sooner or later someone is going to fall at the fissure.

In summary, this is an interesting area of the cave that is only two hours from the SOFA entrance. There are passages to survey and leads to push. Recommend going out on a very cold or very hot day to help locate any air. Potential projects include:

1. Surveying and pushing the two crawlways that Jean opened up past EK34.
2. Locate the breakdown at the end of the Sandstone Basement and reexamine it for leads.
3. Survey the A, B, C leads, dig and push if possible.
4. Dig the northeast end of the Sandstone Attic. Take a couple mud pitons for steps, there is a mud bank to climb up that isn't hard, but there is significant fall potential.

Now that Nevin has a freshly-installed copy of Adobe Illustrator, we can look forward to an updated section map to support future trips to the area.

[Report jointly written by Nevin, Jean, and myself, except that all the errors are mine.]