Report on the 2017 CUCC expedition to Austria

This year saw a total of 39 people attending the Cambridge University Caving Club expedition to the Loser Augst-Eck plateau across the six weeks. We encountered a few setbacks due to inclement weather causing problems with access to some areas, although in general conditions were improved compared to the previous year. Over 7 km of new cave passage was surveyed this year, and the total length of the Schwarzmooskogel cave system now stands just shy of the 127 km mark (126.9 km).

This expedition divided its resources between three main pushing areas: deep leads found in 2015 below Kraken Chamber in Tunnocksschacht which had been pushed in 2016; further explorations in Balkonhöhle, now in its fourth year as a major project; and establishing a remote camp to resurvey and push new leads in the north of the plateau, most significantly Guten Morgen Höhle. Additional smaller projects completed this year included several promising surface leads to the west of the Steinbrucken camp; notably Fischgesicht and Glückliche Schmetterling.

Tunnocksschacht

Last year's expedition saw a camp established at around -600m in Kraken Chamber, Tunnocksschacht, to facilitate efficient exploration of deep leads below the camp, reaching a maximum depth of -903m. In 2017 we returned to this camp, and after some cleanup of the sleeping area, a great deal of pushing activity commenced once again. A lead at the very deepest level (Song of the Earth/Don't Stop Me Now) was pushed to a conclusion in a large breakdown chamber where no safe way on could be found. Many other leads below camp were also pushed, including an active streamway and an extremely muddy passage. The intention had been to kill off the leads here and pull out the camp - but on the final day of surveying, the team entered into promising ongoing passage, so the decision was made to leave the camp in situ for another year. We also left some ropes in place at pitch heads, safely out of the way of water flow, to speed up rigging down next year. Ropes anywhere known to flood were removed entirely for safety reasons.

<u>Balkonhöhle</u>

Since initial exploration in 2014, Balkonhöhle has been explored to around 11 km in length and was connected to the main SMK system via March of the Penguins in Tunnocksschacht. Most of this exploration has been along the first phreatic level; several new pitches were dropped in 2017 - Sloppy Seconds in particular yielded plenty of metrage. Last year's last-minute find, Galactica, turned out to be a massive chamber with sadly no way on to be found. Efforts were also concentrated in the Cathedral Chasm area; many leads pinched out or turned into bolt climbs up small wet avens, but there is still ongoing descent to be explored in the Flapjack pitch area (which requires some particularly entertaining rigging). Given the presence of three phreatic levels in the rest of the system, it seems likely that some of the ongoing leads will lead into the second level and thus significant new discoveries to keep us occupied in future years.

Organhöhle area

Organhöhle was first described in 1989 and the cave was last visited in 1992. It was rediscovered in 2015 and we believe it represents an excellent potential link to the SMK system from the north (a direction in which we are hoping to expand our explorations, both within the SMK system and from as-yet-unconnected caves). Our aim here this year was to establish another underground camp from which to attempt to find a bypass to the particularly tortuous Organgrinder passage, thereby making exploration from this end considerably safer to access.

In the end, the camp was established on the surface, as this made logistics a lot easier. It was warmer and had much easier access to water. A small platform for four was constructed with a rock bridge above to rig a tarpaulin off, and a hammock was installed to accommodate a fifth person.

We rigged down to the Organgrinder, and despite considerable searching for a bypass, none could be found. We took the decision not to explore further than the Organgrinder, as it really was a rather daunting prospect and not all expedition members on these trips were happy with proceeding. Two expedition members nonetheless attempted the Organgrinder to experience the delights first-hand it turns out those earlier explorers really were rather tough, and we would not like to have been attempting it while carrying kit!

Surface prospecting in this area proved a welcome alternative to the Organgrinder. Leads left in Radschlaghöhle were pushed to a (very tight) conclusion, and Big D (named after a 1989-dated peanut packet found in the entrance) was found and surveyed, unfortunately ending in a large and very unstable boulder choke that required an emergency bolt to be put in after a rather adrenaline-inducing shift in the rocks made a previously negotiable climb a lot more challenging.

Guten Morgen Höhle was also discovered and surveyed. This cave, deemed by the initial rigger to be "the very definition of doesn't go", yielded a way on up a 4m climb after examination by a second person, eventually revealing over 800m of very varied passageway, from tight squeezes to echoing pitches. This was rather promising, as it was very close to Organhöhle and may have represented a bypass to the Organgrinder, however all leads but one were pushed to conclusion. The one way on that could not be pushed to conclusion was a long blank-wall traverse that would have required in excess of 30 bolts, and we did not have the time to complete this this time. However, it remains an option for next year - and there was certainly a howling draught leading up to the traverse.

Also in this northern area, at least 7 further promising surface leads were located, GPSed and added to our new mapping app (developed in the field in 2017) ready for next year. Several more were investigated, found not to go, and then logged as such so that we can concentrate our efforts on the better prospects next time. Coupled with Fishgesicht and Glückliche Schmetterling (still ongoing and looking likely to connect to one another soon) in the west of our exploratory area, we certainly have plenty of promising options for newer members and those not wishing to "go deep" to look forward to in 2018.