



Cambridge University Caving Club Austria Expedition 2009

In July and August 2009, Cambridge University Caving Club returned to the Totes Gebirge mountains in the Austrian Alps to continue exploring the cave systems of the Loser Plateau. After four weeks of bolting down airy, vertical pitches, extruding ourselves through tight squeezes, bivouacking in the mountains, and enduring everything the weather could throw at us (from blazing sunshine to driving rain – the latter both above and below the ground...), we returned to the UK with just under 3km of new cave passage surveyed. The foundations had also been laid for some exciting discoveries in future CUCC expeditions.

In mid-July, a small fleet of cars in various states of disrepair, and crammed to the roof with caving and camping gear converged on our base camp, the campsite at the Gasthof Staud'nwirt near Bad Aussee. Much of the first week was spent toiling across the limestone plateau at the top of the Loser Panoramastrasse, teetering under the load of rucksacks full of caving and camping gear, which had to be transported to our mountain bivouac, 'Top Camp'. Once there, the rainwater collection system was set up, together with the solar panels used to charge drill and lamp batteries, and the tarpaulins which, if we were lucky, would keep the worst of any rain off us as we camped. The weather was very kind at this point – so much so that we were reduced to melting snow for water.

After a few caving trips to rig the caves to the limit of the previous years' exploration, we were finally ready for the exciting bit - exploring potholes!



Steve Jones tackles the Satan's Sitting Room traverse in Kaninchenhöhle.

CUCC first explored the caves of the Loser Plateau in 1976, and we have returned almost every year since. The most notable cave in the area is the Schwarzmooskogelhöhlen system; 55km long and over 1km deep. More recently, two new caves, Steinbrückenhöhle and Tunnockschacht, had been discovered. By inputting the cave measurements from previous expeditions into the computer at base camp, we knew that the southernmost reaches of Steinbrückenhöhle lay only a few metres away from an area of the Schwarzmooskogelhöhlen system known as Kaninchenhöhle. Similarly, the northernmost reaches of Steinbrückenhöhle were tantalisingly close to Tunnockschacht. The goal of this year's expedition was therefore to

continue exploration of Stenbrückenhöhle, Kaninchenhöhle and Tunnockschacht, with a view to ultimately finding connections between the three caves, to form one huge system.

With three caves to explore, each containing dozens of possible leads and many new vertical shafts of unknown depth, every last scrap of rope that we could muster was taken underground. Any new passages or pitches that were explored were carefully measured using laser-based rangefinders, clinometers and compasses. The results were then plotted on the computer at base camp to slowly build up the 3D picture of the inside of the mountain and to enable us to produce cave surveys later.



Ian Walker in 'The Slot' in Steinbrückenhöhle

A return trip to the furthest reaches of Kaninchenhöhle took about 6 hours. We started drill-bolting our way down some of the numerous, gaping chasms that are to be found in 'The Far North', the closest point to Steinbrückenhöhle. The first such pitch was an impressive, clean washed 50m deep shaft, which we called 'Satan's Sitter'. Frustratingly, the only way on at the bottom



The view from our mountain bivouac 'Top Camp'

was a narrow rift, far too tight for any human to fit down. This soon became a familiar story as the expedition progressed. Another lead dubbed 'Private Investigations', dropped down a series of beautifully sculpted cascades before once again terminating in an impossibly tight rift, 'Dire Straits'. Several more pitches were explored but none went anywhere. Finally, in the final week of the expedition, some promising leads were explored. The first was a pitch series called '6 Mile Bottom'. By the time that both the rope and time had run out, no floor had been reached. A large, horizontal, phreatic passage was also found on the last 'pushing' trip and was still going strong at the end. In all, just under 800m of new cave was found in Kaninchenhöhle, and hopes for a connection to Steinbrückenhöhle are high.

Meanwhile, in Steinbrückenhöhle itself, we returned to explore a large pitch series that had been discovered at the end of last year's expedition (exciting finds just before derigging begins seems to be an ongoing theme of our expeditions!). This pitch series was found at the bitter end of a very unpromising looking body-sized tube. At the bottom of the pitches, a new horizontal level was discovered, containing well over 500m of large passages. Amongst the passages, numerous vertical shafts were found which will be explored in future years and suggest that there is plenty more cave to be found there. This may offer alternative, easier route into deeper parts of the system.



Kathryn Hopkins abseiling in Steinbrückenhöhle

Tunnockschacht is the most recently discovered of our caves and up until this year consisted of several kilometres of passages mainly existing on a single horizontal level. Last year, many pitches were dropped in search of lower horizontal levels. However, they all ended in blockages with no way on. This year the breakthrough finally came. A 100m pitch named 'The Usual Suspects' was explored and a horizontal level was found at the bottom. During the initial exploration of the Usual Suspects pitch, a huge thunderstorm struck on the surface and a flood pulse swept through the cave. The pitch rapidly became a waterfall, and the three cavers exploring the passages below were forced to wait, shivering for several miserable hours whilst the water levels dropped sufficiently to enable them to prussic out of the cave. Subsequently, an alternative route was found, which will enable future cavers to ascend and descend the pitch away from any water. Just under 1.5km of virgin cave was found in Tunnockschacht.

The nature of the Austrian Alpine caves is such that there are hundreds of open leads left for us to explore, from gaping shafts to tiny

partially blocked passages. Keeping an accurate record of all the caves is becoming very difficult! This year we began trialling a new piece of software known as Troggle, and written by expedition members, which aims to keep an accurate record of the various cave surveys, descriptions, measurements, logbook entries and databases of open leads that are produced during each expedition. The software showed real promise and we expect it to become invaluable on future expeditions. In fact, this year we ended up finding more new leads than we ticked off! We will just have to go back next year and find more cave!

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Expo members: Edvin Deadman, Kathryn Hopkins, Ollie Stevens, Jess Hatchett, Jess Stirrups, Becka Lawson, Julian Todd, Tony Rooke, Steve Jones, Wookey, Emma Wilson, Julia Bradshaw, Anthony Day, Martin Green, Frank Tully, Martin Jahnke, Andrew Atkinson, Mike Richardson, Noel Snape, Holly Bradley, Ian Walker, Gareth Phillips.



On the way to the entrance to Kaninchenhöhle