



Exploratory caver Emily Zuber gets to literally go where no man (or woman) has gone before, but pays a price for her adventure lifestyle.

By Jayme Moye

BENEATH *the* SURFACE

Inside the deepest cave in the western hemisphere, Emily Zuber follows the glow of her headlamp. More than 1,000 feet underground, she's long past the point where the sun shines. Wearing a helmet and harness, she moves methodically down a rope, which is tied to a bolt in the rock. Over the course of the next few hours, Emily climbs, crawls, and slithers, leading a small team through an undiscovered section of the labyrinthine Huautla cave system in Mexico. If she's afraid, she keeps it to herself. "On an expedition of this caliber, fear is not part of the equation," she says. "You have to be focused, dedicated, and able to do what you said you'd do when you were back up on the surface."

The monstrous Sistema Huautla leaves little room for error. Since its discovery in 1965, it's become known as the most complex deep cave system on the planet—a mysterious world of underground waterfalls tumbling 60 stories into subterranean lakes called sumps, massive 300-foot tall chambers, and seemingly endless passages. In 2013, a British explorer reached a depth of 5,069 feet, officially making Huautla the deepest known point in the hemisphere. "It's completely overwhelming," says Emily. "And completely amazing."

Her small team of speleologists—those engaged in the scientific study and exploration of caves—is in Mexico to map and survey a previously undiscovered section of Sistema Huautla, or what's known as "booty" in exploratory caving. It is the most gratifying, and most dangerous, type of caving. At the end of the day, Emily and her team will have mapped 1,700 feet of a place where literally no man (or woman) has gone before.

At a glance, it's difficult to imagine that Emily regularly spends time thousands of feet under-

ground. Her pixie haircut, supermodel smile, and big blue eyes don't exactly scream troglodyte. More often than not, she's the only woman on her team. And not many 25-year-olds have her breadth and depth of exploratory caving experience: a dozen expeditions to-date.

But those who know Emily's history are not surprised by her path. Her father, Ron Zuber, was also an exploratory caver and is a fellow of The Explorer's Club. His notable work includes co-discovering a previously unknown amphipod

in a Glacier National Park cave. Emily's only sibling, older brother Adam, has been caving since 2003. "It's in my blood," Emily says. "I grew up hearing all my dad's stories of caving and mountaineering."

Even as a child, Emily was extreme. From nearly the time she could walk, she was backpacking and paddling with her family. Growing up in a small town in the San Juan Islands in Washington, she concentrated on sports. By high school, she'd committed herself exclusively to soccer. "I was obsessed with it," she remembers. Then a knee injury her sophomore year forced Emily off the field, and into an identity crisis. Without the physical challenge of sports, the academic and social elements of high school no longer held her attention. "When I couldn't be an athlete, everything changed," she says. "Maybe it was the first time I'd ever experienced what it felt like to be cynical, but high school suddenly seemed like bullshit."

For her junior and senior years, Emily enrolled in a Running Start program, which allowed her to earn her diploma by taking classes at community college instead of attending high school. The credits also counted toward university. She had multiple surgeries on her knee, but Emily would never play soccer again, at least not at the level she aspired to.

In 2007, Emily's dad, who had graduated from college in Bozeman, encouraged her to consider a caving expedition in the Bob Marshal Wilderness in northwestern Montana.

Desperate for any kind of physical activity, she decided to try. "I fell in love instantly," Emily says. "There's a really intense athleticism required for caving, and the exploration is fascinating."

Later that year, Emily did her first expedition in Mexico and solidified caving as her new obsession. She would continue to explore caves in Mexico while she pursued a degree in gender



studies and creative writing at Fairhaven College at Western Washington University.

From the earliest expeditions, Emily stood out as precocious, tenacious, and talented. "Emily is unique," says Bill Steele, fellow of the National Speleological Society, fellow emeritus of The Explorers Club, and the author of two books on caving. "She asked me for advice on becoming a cutting edge explorer, got it, and then actually acted on it."

Emily's approach to exploratory caving was similar to her earlier soccer dedication. "When I really get into something, I learn as much as I can, and push it as hard as I can," Emily says. She was soon participating in some of the most significant underground explorations on the planet, alongside industry icons like Steele. In addition to Montana and Mexico, she's explored caves in Washington, Idaho, Canada, and China, and lectured nationally and internationally.

In 2013, she was admitted membership into The Explorer's Club, and spoke to a standing-room only crowd at the annual dinner in New York City. Her topic? "Blessings for a Dark Future: Coming of Age through the Lens of Expeditionary Caving."

"Emily gave a thoughtful talk that went far beyond the talks of much more experienced explorers," says attendee Milbry Polk, the Founder and Executive director of Wings WorldQuest. "Other explorers have her courage and skill, but she'll go far because she also has the ability to express herself."

The question Emily gets asked most during her presentations is if she ever feels claustrophobic. She doesn't, but she says she was terrified of heights growing up. These days, she worries more about money. "It's funny because I almost didn't go to New York to do that speech," Emily says. "I didn't want to spend the money on a plane ticket." It was her dad who convinced her that it was worth it, so she put the flight on a credit card and went.

Emily's career path is technically not a career. She doesn't get paid for her efforts "pushing" a cave, the term for exploring virgin passage, or the mapping and surveying work that she and her team complete. Nor is she sponsored. Unlike mountaineering, caving is a low-profile activity that isn't featured on the covers of major magazines. All of Emily's expeditions have been self-funded, or occasionally father-funded. "I wish there was more money for it," she says, "because there's so much to explore, and most of us are living like bums trying to do it."

To support her exploration habit, Emily works seasonal jobs. She's been a bartender, server, shipwright, and scratch chef. She is currently working for a catering company and living outside of Dubois, Wyoming (pop. 171), in a cabin built by her boyfriend. They have no running water and, this winter, used a snowmobile to travel to and from the cabin, as snowplows couldn't reach them. Despite the challenges, Emily seems to relish her unconventional lifestyle, or at least appreciates the humor. "It's fun," she says. "I shit in a bucket."

EXOTIC CAVING DESTINATIONS

For a less dirty, but equally amazing underground experience, add any one of these three destinations to your next international vacation. No caving experience required.

RIO SECRETO

Riviera Maya | Cost: \$69 | Time: 3–4 hours

Nine of the world's deepest caves are found in Mexico. Get a taste of why Emily has done so many expeditions south of the border by visiting the Secret River—an ancient underground world of crystalline water, stalactites, and stalagmites. Wetsuit and gear provided.

ACTUN TUNICHIL MUKNAL

Belize | Cost: Varies | Time: Full day

After a 45-minute hike into the jungle, visitors are guided through Actun Tunichil Muknal, which translates as cave of the crystal sepulchre. The cave is a living relic of the Mayan underworld, including burial chambers with calcified skeleton remains, ceremonial vessels, and other cultural artifacts left by the Maya thousands of years ago.

CAVES OF PANG MAPHA

Thailand | Cost: \$18–\$37 | Time: Full day

In northern Thailand, in the Pang Mapha district of the Mae Hong Son province are hundreds of limestone caves. Experts at the Cave Lodge Guest House (cavelodge.com) lead day trips. Visitors can tour caves containing 280 million-year-old fossilized shells, prehistoric remains, underground waterfalls, river tunnels, massive caverns, giant natural stone columns, and crystal flowstones 65-foot high.

Emily's good nature and ability to withstand harsh conditions are, of course, some of the traits that make her so successful in exploratory caving. "Emily is a dream expedition member," says Steele. "She can cook and jumps to do a chore, is tireless, always cheerful, and brave as a Viking."

But Emily's sunny disposition can belie the dark side of her passion. In exploratory caving, the risk-reward tradeoff is skewed toward risk. Despite no monetary reward, Emily takes the ultimate risk on every expedition. Besides the inherent danger of being inside a cave—a rock could fall from above, or a flash flood could fill the cavern—explorers are woefully dependent on their gear. If Emily's anchors pull out of the rock, she could fall to her death.

Call it youthful naiveté, or perhaps wisdom far beyond her years; Emily says that the reward is worth the risk, and that the reward is something more important than money. For her, exploratory caving is a spiritual experience. "It's

a deeply personal satisfaction to fulfill my own wonder for the unknown," she says.

Emily is saving up for her next big expedition, a return to Sistema Huautla in April 2014, to continue mapping and surveying more booty. She also started expanding her outdoor interests to include above-ground pursuits by taking up cycling and fly-fishing. In typical Emily go-big-or-go-home fashion, she spent the summer of 2012 biking 2,700 miles unsupported through the Rocky Mountains, and, during the summer of 2013, she went fly-fishing every day.

She talks about eventually using her creative writing and gender studies background to become a steward for women in the outdoors. "I have a lot of interests, but it all comes back to exploration, to being outside and learning what nature has to offer," she says. "It's helped me overcome challenges in my own life, and I really want to find a way to teach that to other women."

TRY A WILD CAVE TOUR

Exploratory caving may be an expert-only endeavor, but there are numerous established caves in the western hemisphere where visitors can experience the underground world. Professionals call these caves "commercial show caves," and most offer walking tours. For the more adventurous, there are Wild Cave Tours, where a guide leads a small group on a caving expedition off the beaten tour path. Here are a few of our favorites:

MAMMOTH CAVE NATIONAL PARK Kentucky | Cost: \$48 | Time: 6 hours

Emily's mentor Bill Steele started exploring Mammoth when he was 19. It remains America's longest known cave system, with more than 400 miles explored. The Wild Cave Tour covers five miles worth of underground wonders and is rated extremely strenuous. Participants must be at least 16 years of age.

JEWEL CAVE NATIONAL MONUMENT South Dakota | Cost: \$27 | Time: 3–4 hours

The second longest cave system in the U.S., Jewel features calcite crystals and other natural wonders that inspired its name. Participants must prove themselves by squeezing through an 8.5-inch by 24-inch crawl space before starting the Wild Cave Tour.

WIND CAVE NATIONAL PARK South Dakota | Cost: \$23 | Time: 4 hours

The U.S.'s third longest cave system, Wind Cave is known for its unusual honeycomb-like formations called boxwork. The Wild Cave Tour is an introduction to basic caving that includes scrambling, climbing, and belly crawling. It's rated as moderately strenuous.

GLENWOOD CAVERNS Colorado | Cost: \$25 | Time: 2 hours

For a memorable kid-friendly experience, Glenwood Caverns is a safe bet for ages 10 and up. The Wild Cave Tour is shorter and less rigorous than those in the larger and more famous caves, while still providing plenty of unusual underground formations and belly-crawling opportunities.

