

Softball-sized spider species discovered in Baja California caves

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In the hills of Baja California, Michael Wall and Jim Berrian found a creature that's the stuff of nightmares for most people: a cave spider nearly the size of a tarantula.

For the two San Diego Natural History Museum researchers, it was an exciting windfall - an unknown arachnid as wide across as a softball.

"This is the type of [spider](#) that a lot of people would shriek and run from," Wall said of its thick, fang-like structures, hairy, inch-long body and legs stretching 4 inches across.

Berrian, however, described it in more flattering terms. "I think it's a really pretty spider," he said. "The head and legs are kind of a chocolate brown. The abdomen is a dull yellow. And it's kind of plain, but very striking."

After confirming the spider as a [new species](#), the researchers named it *Califorctenus cacachilensis* after the Sierra Cacachilas mountain range where they found it, and published the discovery in the journal *Zootaxa* last month.

There are 1.1 million [species](#) of insects and spiders that have been scientifically described, but an estimated 4 million species are yet to be identified and named, Wall said. So encountering a new type of spider isn't necessarily unusual.

"The odds of discovering a new species are pretty high," Wall said. "But ... generally, (most) new species discovered are itty-bitty things that people don't pay attention to, so given the size of this spider, that was surprising."

Berrian first saw shed exoskeletons of the species in a grotto in the Cacachilas during a 2013 expedition, and was on the lookout for a live specimen. Soon he and Wall found one in a nearby cave, and another in an abandoned mine shaft. Local ranchers with broad knowledge of the area's wildlife hadn't seen it before, but the researchers kept searching. They spotted more of them in the cement pit of an old outhouse and others in secluded crevices.

"Once we knew that they were in these dark, reclusive places, we started targeting those and ended up finding more of them," Wall said.

They located about two dozen, Berrian said, and brought back about eight specimens.

Convinced that the spider was unlike others in the area, but unsure what it was, they consulted Mexican entomologist Maria Jimenez to nail down its taxonomy. She concluded that the new species belongs to the family of wandering spiders, which includes the Brazilian wandering spider, known for its potent, sometimes lethal venom.

Cacachilensis looks like it could wield an impressive bite as well.

"They're pretty meaty," Wall said. "They do have clearly visible fangs."

Under rows of black eyes, the spider has hairy pincers that can deliver a venomous sting. That's how the wandering spiders, named for their habit of roaming for prey, hunt for food and defend themselves.

"It's intimidating, and that can be enough for a lot of things to leave you

alone, except loony-toon arachnologists," Berrian said.

And, unlike its Brazilian cousin, he discovered that *cacachilensis* doesn't seem to be lethal.

"I was bitten by one of these spiders down in Baja," he said. "It was like being poked by a cactus spine and a little mild pain, but it went away in a few hours."

The spider's discovery came during a series of expeditions by researchers at the San Diego Natural History Museum to explore and catalog the flora and fauna of remote regions of Baja. They believe the species is unique - or endemic - to certain areas of the Baja Peninsula. So that makes it an important find in terms of research and conservation of the region.

"This spider has a very small range," Berrian said. "Along with other endemics - birds and reptiles - altogether, it tells a story of the uniqueness of that area. And we can use that to justify protection."

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