

56 new species of arachnids found in Western Australia

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Researchers at The University of Western Australia and the Western

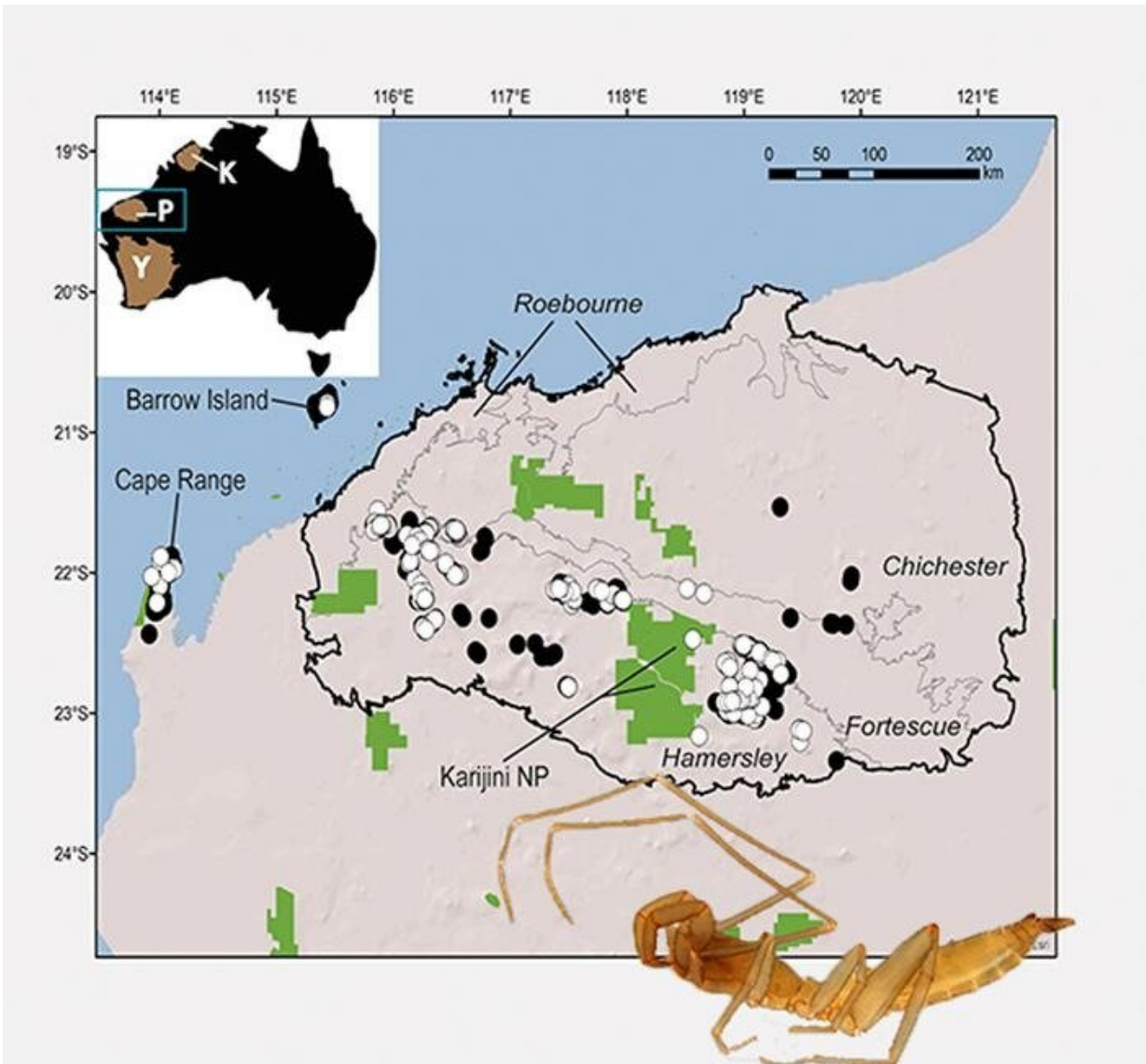
Australian Museum have discovered 56 new species of arachnids, known as schizomids, in Western Australia's Pilbara region.

The research, published in *Molecular Phylogenetics and Evolution*, found all the new species, apart from one surface-dwelling species in Karijini National Park, live their entire lives underground—which makes them difficult to collect.

Lead researcher Dr. Kym Abrams, from UWA's School of Biological Sciences, said although the research team had not yet formally named the new species, they were able to use DNA sequences and [physical characteristics](#) to determine that there were at least 56 new species from WA alone.

"The current known named Australian fauna is 53 species so we have just doubled this number," Dr. Abrams said. "Worldwide there are approximately 350 species known so once we've described these new species, Australia will have around one third of the known schizomid fauna."

The arachnids are also called "whip-sprickets" because of their whip-like, long front legs which they use almost like a cane. They have no eyes so they tap around their environment with their extra-long antenna-like legs, and the spricket part comes from them looking like a cross between a spider and a cricket, according to Dr. Abrams.



"We think there are likely to be a lot more species out there because they have such small distributions, they are poor dispersers and we've only been able to sample a few places; most of these have been collected during environmental impact assessment surveys in mining tenements or through scientific research," she said.

Dr. Abrams said WA was already globally recognized as a hotspot for subterranean fauna with an estimated 4000 species.

"This discovery of multiple [new species](#) of schizomids reinforces how unique and highly diverse the fauna is," she said. "Currently there are 10 species of schizomid on the WA threatened [fauna](#) list (listed as vulnerable or endangered) because they live in habitats that are vulnerable to disturbance and destruction from [habitat loss](#).

"Having said this, mining companies follow a range of protocols to manage their sites to preserve some [habitat](#) and they conduct monitoring surveys to ensure that the animals are still surviving in their tenements. Preserving habitat is important because subterranean schizomids are so well-adapted to dark, humid environments that they can't survive on the surface and so can't move to new habitat if their current habitat is destroyed."

In 1995, co-researchers Dr. Mark Harvey and Dr. Bill Humphreys, from the WA Museum named the [species](#) from Barrow Island *Draculoides bramstokeri* after Bram Stoker's novel *Dracula*, because they are found in caves and have extra processes on their "fangs."

More information: Kym M. Abrams et al. Too hot to handle: Cenozoic aridification drives multiple independent incursions of Schizomida (Hubbardiidae) into hypogean environments, *Molecular Phylogenetics and Evolution* (2019). [DOI: 10.1016/j.ympev.2019.106532](https://doi.org/10.1016/j.ympev.2019.106532)

Provided by University of Western Australia

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