

## New unusual bee species discovered with doglike snout

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The female of the Leioproctus zephyrus species. Credit: *Journal of Hymenoptera Research* 

A new native bee species with a dog-like "snout" has been discovered in Perth bushland though Curtin-led research that sheds new light on our most important pollinators.

Published in the *Journal of Hymenoptera Research*, author Dr. Kit Prendergast, from the Curtin School of Molecular and Life Sciences, has named the <u>new species</u> after her pet dog Zephyr after noticing a protruding part of the insect's face looked similar to a dog's snout, and to acknowledge the role her dog played in providing <u>emotional support</u> during her Ph.D.



Dr. Prendergast said the rare and remarkable finding would add to existing knowledge about our evolving biodiversity and ensure the bees, named Leioproctus zephyr, were protected by conservation efforts.

"When I first examined the specimens that I collected during my Ph.D. surveys discovering the biodiversity of native bees in urbanized regions of the southwest WA biodiversity hotspot, I was instantly intrigued by the bee's very unusual face," Dr. Prendergast said.

"When I went to identify it, I found it matched no described species, and I was sure that if it was a known species, it would be quite easy to identify given how unusual it was in appearance.

"You can only confirm a particular species once you look at them under a microscope and go through the long process of trying to match their characteristics against other identified species, then going through museum collections.

"When perusing the WA Museum's Entomology collection, I discovered that a few specimens of Leioproctus zephyrus had first been collected in 1979, but it had never been scientifically described."

Dr. Prendergast said she was excited to play a role in making this species known and officially naming them.

"Insects in general are so diverse and so important, yet we don't have scientific descriptions or names for so many of them," Dr. Prendergast said.

"The Leioproctus zephyr has a highly restricted distribution, only occurring in seven locations across the southwest WA to date, and have not been collected from their original location. They were entirely absent from residential gardens and only present at five urban bushland



remnants that I surveyed, where they foraged on two plant species of Jacksonia.

"Not only is this species fussy, they also have a clypeus that looks like a snout. Hence, I named them after my dog Zephyr. She has been so important to my mental health and well-being during the challenging period of doing a Ph.D. and beyond."

Through DNA barcoding, Dr. Prendergast was able to confirm that the new species was most closely related to other species of unidentified Leioproctus.

The paper is titled "Leioproctus zephyr Prendergast (Hymenoptera, Colletidae, Leioproctus), an oligoletic new bee species with a remarkable clypeus."

**More information:** Kit S. Prendergast, Leioproctus zephyr Prendergast (Hymenoptera, Colletidae, Leioproctus), an oligoletic new bee species with a distinctive clypeus, *Journal of Hymenoptera Research* (2022). DOI: 10.3897/jhr.93.85685

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