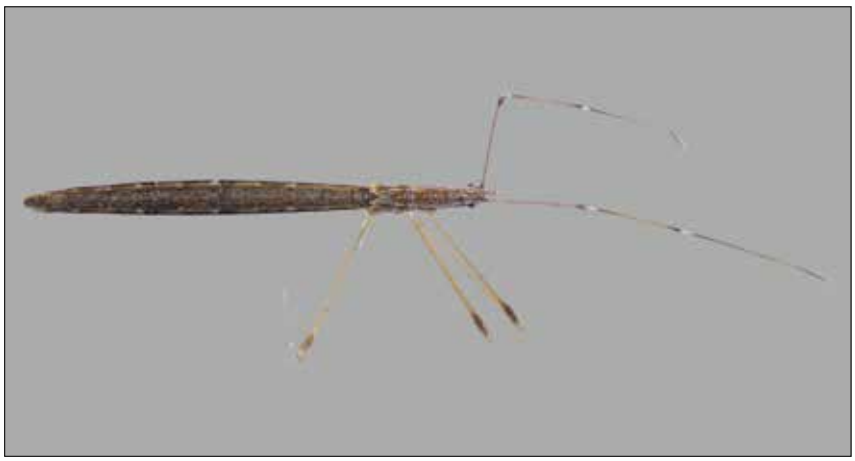

Lamington stilt bug *(Aridenedis cocosdiaspora)*

Insects represent the most diverse group of living organisms on the planet, with approximately one million named species. The total number of species that remain to be named is not known with certainty, but experts estimate that there might be as many as five million species.

This staggering diversity is under pressure from a variety of threats including habitat loss, climate change, pesticides and pollution.

While a few species are a nuisance—who hasn't cursed mosquitoes or bush flies?—the demise of these six-legged animals will have a flow-on effect in many other ecosystems. They provide innumerable ecosystem services including plant pollination, control of pests, removal of carrion, conversion of rotting plants into humus, water filtration and food for other animals.

With four million species yet to be described, entomologists continue to celebrate the diversity of the insect world and thousands of new forms of insects are described every year.

One of the most recent discoveries in Western Australia is a bug, and by 'bug' I mean a 'true bug'—the order Hemiptera. These insects are characterised by mouthparts that are modified into a stylet that is a long tube used to suck plant or animal fluids. Some of the more familiar hemipterans are cicadas, aphids, stink bugs and scale insects.

The newly-discovered Western Australian bug is a stilt bug, aptly named due to their extremely long, thread-like legs. They are members of the family Berytidae and are sometimes called thread-bugs. Most of the world's 200 species occur outside of Australia, and there were only seven described Australia species prior to 2022, and mostly from eastern Australia.

The new species was discovered and named by Dr Nikolai Tatarnic from the Western Australian Museum. A few specimens were found in the Cape Range area and a single specimen was later found at the summit of Mount Meharry in the Pilbara.

They range from 8.5 to 9 millimetres in body length, but their long legs and antennae give a larger overall length. Dr Tatarnic found that the new species couldn't be accommodated in any of the existing genera, and so he described a new genus that he called *Arideneides*, meaning a *Neides* (one of the original genera in this family) that lives in arid environments. The species was called *Arideneides cocosdiaspora*, meaning 'dispersed coconut' which is an allusion to the white setae against the brown body colouration that reminded him of a lamington, Australia's iconic and much-loved dessert.

Despite collecting trips in similar habitats in Western Australia, this lovely little lamington-coloured insect hasn't yet been found anywhere else. Nik collected the Cape Range specimens from a daisy bush of the genus *Olearia* that had woolly pubescence on the leaves and stems, and has glands that produce an aromatic exudate. It is not known how the bugs cope with the stickiness, but they may use the plant to avoid predators such as spiders and carnivorous insects.

Above *Arideneides cocosdiaspora* with left legs removed for DNA analysis.
Photo – Nikolai Tatarnic/Western Australian Museum

The eating habits of the lamington stilt bug are unknown, but it most likely feeds on plants like most other stilt bugs. Given that they were found on daisy bushes, it seems likely that they also feed on them, although this hasn't been proven.

The few specimens captured so far are micropterous, meaning that they have tiny non-functional wings. Related stilt bugs also have micropterous adults, but some also have brachypterous (short-winged) individuals in the same population. Neither life stage are able to fly, so their presence in Cape Range and Mount Meharry is peculiar.

The Western Australian insect fauna contains thousands of unique forms found nowhere else on earth. And thanks to Nik's painstaking research, there is now a lamington stilt bug.