hat's got eight legs and nippers at the front end, but lacks a stinging tail? Give up? It's a pseudoscorpion. These small arachnids resemble scorpions in many ways but lack the long tail with the terminal sting that is characteristic of their better-known brethren. Indeed, the largest known pseudoscorpion - the aptly named Garypus titanius from Ascension Island in the South Atlantic Ocean – barely scrapes past 1cm. Most species are a lot smaller and searching for them requires a keen eye and a preparedness to kneel on the ground a lot. And who can't fail to be enraptured by their ability to run backwards faster than they run forwards?

Pseudoscorpions are found all over the world and if you know where to look they can be surprisingly common. Western Australia is home to a wide array of species ranging from small litter-dwelling species less than 2mm in body length, to large rock-dwelling or cave-dwelling species over 5mm in length.

The discovery of new species in WA – a renowned biodiversity hotspot - is a regular occurrence. During recent biological surveys of Charles Darwin Reserve in the midwest region my eye was instantly drawn to the low but imposing granite domes scattered throughout the reserve. Some pseudoscorpions live exclusively between pieces of granite on such domes, often forming little colonies of a dozen or so individuals sitting inside their silken chambers. The most astonishing aspect of this lifestyle is the heat levels that they can tolerate - the granite gets quite hot during summer, but it seems to have little effect on these hardy little creatures.

We had barely begun sampling the Charles Darwin Reserve granites when the first specimens were found of a lovely species of *Synsphyronus* – a genus of some new 30 named species found over most of Australia, New Zealand and New Caledonia. They were found on three separate granite domes on the reserve, but we have yet to find them elsewhere else.

Once the description was completed, it was time to think of a name. Charles Darwin Reserve was formerly a pastoral



Synsphyronus christopherdarwini

"Pseudoscorpions are found all over the world and if you know where to look they can be surprisingly common."

station – White Wells Station – and become incorporated into the conservation estate through a generous bequest by Charles' great-great-grandson, Christopher Darwin, who now resides in Australia. It was fitting, therefore, to honour his foresight and commitment, and this tiny denizen of the midwest became known as *Synsphyronus christopherdarwini*. The description was published in June 2012 and the name became valid from that time.

Some pseudoscorpions are able to disperse by attaching themselves to flying insects. This phenomenon, known as phoresy, allows individuals to colonise new habitats and may explain how some pseudoscorpion species are found on oceanic islands far from any obvious continental land mass. Species of *Synsphyronus*, however, never seem to use phoresy, and the granite-dwelling

populations may have been isolated on these stony islands for a very long time. But how long have they been inhabiting these habitats? We're not sure, but it could be for millions of years.

Above Synsphyronus christopherdarwini. Photo – WA Museum

Discovered is a regular series prepared by scientists at the Western Australian Museum (Department of Culture and the Arts) and Western Australian Herbarium (Department of Parks and Wildlife). Each article highlights new and noteworthy discoveries of plants and animals in Western Australia, and offer insights into the work of the scientists whose jobs involve discovering, naming and describing Western Australia's marvellous living riches.