

A milestone has just been achieved in Western Australia's botanical history. A few weeks ago we passed the 10,000 mark in the number of native, vascular plant species<sup>1</sup> known to occur in the State.

As Mark Harvey and I have said before in this series, discovery of new species is a regular occurrence in WA, both in plants and animals. In fact, WA has one of the highest rates of new species discovery in the world, a combination of two factors: we live and work in a global biodiversity hotspot that has not yet been fully explored biologically; and we have teams of dedicated taxonomists at the WA Herbarium and Museum (linked with many colleagues elsewhere) who get a great deal of job satisfaction from finding, understanding and naming new species.

Taxonomic discovery is important for a whole raft of reasons. Most importantly, only by knowing what species occur in WA, where they occur, and how common or rare they are, can we plan conservation strategies and policies that will give the best chance of survival for all the species with which we share this State.

Secondly, knowing what species we have is a first step in uncovering a whole range of fascinating stories. Every species is a treasure-trove of stories – how it lives and thrives, how it interacts with other species, how it has evolved and what it can tell us about the recent and distant evolution of the land we live in and the creatures we share it with. These stories connect us with our natural environment, a connection that's becoming more and more important in handling the many challenges we and the natural world face.

And the 10,000th species is ... a very small and very rare (but pretty cute) daisy, named this year in the Herbarium's taxonomic journal *Nuytsia* as *Angianthus globuliformis* by Parks and Wildlife botanists Mike Lyons and Greg Keighery. It was discovered in 2000 growing on gypsum-rich dunes around the margin of a small salt lake in the Wheatbelt, and is still known from only one specimen from one location. It belongs to a small genus of



## *Angianthus globuliformis*

**“WA has one of the highest rates of new species discovery anywhere in the world.”**

about 20 species found in semi-arid regions throughout southern Australia, mostly in the south-west. As far as we know, it's extremely rare, and perhaps threatened by changing salinity level, grazing by feral animals, or climate change.

Other than that, we currently know next to nothing about *Angianthus globuliformis*. We don't know how widely or narrowly it's distributed, exactly how rare it is, or what its conservation needs and threats are. We don't know what pollinates it, what eats it, or how it survives in its rather inhospitable environment. We certainly have no idea whether, perhaps, it contains some chemical substances that one day may be discovered and found to cure disease or help humankind in some other way.

But that's the great thing about taxonomy. Now that we know that *Angianthus globuliformis* exists, have given it a name and collated and published the little we do know, it becomes possible to

discover more. The very next step will be to initiate more surveys to try to determine its distribution and conservation status. Once it's secure, then all the other stories that it may one day tell can be discovered also. Discovery – it's a wonderful thing.

<sup>1</sup> While we have just passed 10,000 species, the number is higher if we count the other taxonomic ranks. Some species are classified into two or more subspecies or varieties. Counting all species, subspecies and varieties gives more than 12,400 named kinds of vascular plants. Vascular plants comprise flowering plants, ferns, conifers and cycads.

**Above *Angianthus globuliformis***  
Photo – Mike Lyons/Parks and Wildlife

**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).