A second lifeline for the critically endangered pyramid mulla-mulla, *Ptilotus pyramidatus*

By Grazyna Paczkowska and Rob Davis

Pyramid mulla-mulla (*Ptilotus pyramidatus*) is a mysterious little plant species with a fascinating track record of human discovery. The first collection of pyramid mulla-mulla was made in 1845 by James Drummond, a pioneering Western Australian botanist and naturalist. The exact location of Drummond's collection remains unknown and given only as 'in Nova Hollandia'. With no clues on its habitat or location, it was not a surprise that this species had not been seen for some 140 years and was listed as 'presumed extinct' in May 1991. However this is where good vegetation survey skills, combined with rigorous taxonomic and curatorial works, and sheer luck has led to confirming that *Ptilotus pyramidatus* is still alive.

In 2010, an unusual *Ptilotus* plant was spotted by Botanist Cate Tauss during a flora and vegetation survey of the Greater Brixton Street Wetlands, Kenwick. At the time, it was thought to be a new undescribed *Ptilotus* species. Rob Davis, a botanist at the Western Australian Herbarium with an interest in *Ptilotus*, and Cate described and named the new find as *P. christineae* in 2011.

A year later, while curating the *Ptilotus* collection at the Western Australian Herbarium, Rob came across a small line drawing of *P. pyramidatus*. It was clear from the depiction of the plant's habit that it represented an earlier name for the recently discovered *P. christineae*

at Greater Brixton Street Wetlands. And this is how the pyramid mulla-mulla, previously presumed extinct, was re-discovered some 160 years after it was first collected.

In 2018, a colleague of Rob, Tim Hammer, discovered a collection of *Ptilotus pyramidatus* in the State Herbarium of South Australia under *Ptilotus* sp. The collection by R. Bates in November of 1992 was made, according to him, south-west of Wagin. Unfortunately, Bates had a reputation for unreliable locality statements, so there was some doubt this location was correct. Rob surveyed the surrounding area around Wagin in 2019 but found the likely area somewhat degraded with a rising water table, salinity and weeds. If the location was correct, it's unlikely the pyramid mulla-mulla would have survived.

Management of the critically endangered pyramid mulla-mulla, when known only from one location at the Greater Brixton Street Wetlands, has been very challenging as little is known about its biology and the current population is at a risk from a <u>range of threatening processes</u>.

In the event of a catastrophic incident at this location, the entire species could be wiped out. Therefore, we are always on the lookout for new populations in potentially suitable habitat around Perth and its surrounds, though without success so far.

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Ptilotus pyramidatus at the Mount Barker location. "I was just out chasing bee photos when it caught my eye," said Kate. Photo – Kate Brown.



Ptilotus pyramidatus are small plants that grow to only 5cm.

A second lifeline for the critically endangered pyramid mulla-mulla, *Ptilotus pyramidatus* continued ...

So we all breathed a collective sigh of relief when Kate Brown contacted Rob with a possible new location of *P. pyramidatus* west of Mount Barker.

Kate Brown is a former colleague of ours, retired from DBCA after a long and distinguished career with the Urban Nature program, and was involved in the management of Greater Brixton Street Wetlands and *Ptilotus pyramidatus* while working for the department. Mount Barker to Kenwick is a huge disjunct distribution, some 400km away from the current known location. Rob was able to confirm it was indeed the pyramid mulla-mulla.

This is exciting news! It is a relief to know that the Greater Brixton Street Wetlands' population of *P. pyramidatus* is not alone. The new find will expand our knowledge of habitat preference, genetics, and assist in management of this species.

We are still on the lookout for new populations of the pyramid mulla-mulla, but it looks like we may need to cast the net much wider!

Local group wins DBCA volunteer award By Grazyna Paczkowska



The Friends of Paganoni with their well-deserved award. Norm Hodgkinson (from left), Anne Bellman, Diana Badcock, Erica Dearle and Leonie Stubbs with Hon. Klara Andric MLC, Member for the South Metropolitan Region. Photo – DBCA.

Congratulations to the Friends of Paganoni Swamp on being one of the winners of the 2021 DBCA Outstanding Service award in the community category. These awards are given each year to recognise volunteers for their commitment, dedication, and contribution to the natural environment of Western Australia. The Friends of Paganoni Swamp have been actively involved in the management and protection of Paganoni Swamp (Rockingham Lakes Regional Park) since 2004. The Friends are not only very active, but also very resourceful in attracting funding for on-ground management and conservation.

Over the last year, consistent with previous years, the Friends have made a significant contribution by volunteering over 1,400 hours to all aspects of bushland management including weed control, rubbish pickups, and restoration projects such as seed collecting and planting. They are also working on research

projects with external partners such as building nest boxes for phascogales and bats. The Friends of Paganoni are also very vocal in protecting Paganoni's value through raising local community awareness about the bushland's high environmental values.

Congratulations to all other worthy recipients and thanks to all our volunteers.

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