



# Species rediscovered

Scientists are discovering new species of plants all the time. Indeed, some 50 to 100 new species of plants are described in Western Australia each year. But two recent finds turned out to be not so much discovered as rediscovered.

by Kevin Thiele



In 2010 botanist Cate Tauss was in the field, feet in the mud, doing a flora survey of clay-based wetlands in Perth's Kenwick area. Among the many species she recorded was an unusual specimen of mulla mulla (*Ptilotus*) that had her puzzled. Unable to name the specimen, Cate brought it to the attention of *Ptilotus* expert Rob Davis at the Department of Environment and Conservation's (DEC's) Western Australian Herbarium. Rob had also not seen another *Ptilotus* like it so, in 2011, the specimen was described as the new species *Ptilotus christinae*.

But the story doesn't end there. Further research at the herbarium uncovered a small drawing of the presumed-extinct species *Ptilotus pyramidatus*, described by a French botanist in 1849 based on a specimen collected by colonial botanist James Drummond a few years previously. Labelled simply 'New Holland', the specimen was clearly collected somewhere in south-west WA, as Drummond had not collected elsewhere in Australia. The drawing and the new species were similar. Careful examination of the only known specimen of *P. pyramidatus*, at the National Herbarium of Victoria, showed that they matched. *Ptilotus pyramidatus*, not seen for 160 years and listed as 'presumed extinct' by DEC, had been rediscovered less than 15 kilometres from the Perth CBD.

### Another species rediscovered

A similar rediscovery, this time in a highly cleared area of the Avon Wheatbelt, again involved colonial botanist James Drummond. In 2009, Western Australian Herbarium botanist Mike Hislop brought to attention a specimen of *Hibbertia* he had collected several years previously near Goomalling. It was collected while surveying remnant bushland on private property as part of the DEC-World Wildlife Fund Woodland Watch project. Again, this did not match any recognised species of *Hibbertia*.

**Left** The mulla mulla *Ptilotus pyramidatus* was rediscovered after 160 years.

Photo - Kevin Thiele/DEC



**Above** *Hibbertia leptopus* was presumed extinct before being rediscovered in 2009.

Photo - Kevin Thiele/DEC

Searching through the herbarium brought to light three other specimens of the same species which were all collected since 2003 in the same general area. A literature survey revealed a species that appeared to match—*Hibbertia leptopus*, described in 1863, again based on a single specimen collected by Drummond. Examination of the original specimen showed that it was indeed the same. *Hibbertia leptopus* had been rediscovered after 160 years. In this case, the species was not listed as presumed extinct, having been removed altogether several years previously from the census of Western Australian plants.

While surprising, these rediscoveries are not altogether unusual. Indeed, similar botanical research, both in the field and at the Western Australian Herbarium, has in recent years reduced the list of presumed extinct plant species in WA from 53 in 1991 to 13 at present. This is a significant achievement for conservation.

### New species

Such research is also resulting in the continual growth in our knowledge of WA's plant species. Indeed, completely new and highly localised species are discovered every year, many of them rare and restricted. These species are known as 'short-range endemic plants'—species that occur naturally only in a very restricted area. They occur throughout WA, though mostly in areas that are floristically diverse, such as the Mount Lesueur area, Fitzgerald

River National Park, the banded iron formation ranges on the edge of the South West Botanical Province and, perhaps surprisingly, the Swan Coastal Plain around Perth.

Unfortunately, the high incidence of short-range endemics in areas such as the Swan Coastal Plain and Avon Wheatbelt also means that clearing probably resulted in many species becoming extinct before they were discovered or scientifically described. These are lost forever.

For the two species discussed here, however, extinction has been forestalled, at least for now, by careful floristic surveys and taxonomic research. It remains for equally careful planning and conservation efforts to ensure that these vulnerable species continue to thrive in their special and restricted habitats.



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- 46 Bill Wills and the nature of memory  
Memories of life on the Nullarbor Plain reveal a once-thriving suite of mammals that has now all but disappeared.
- 52 Controlling cats: the work continues  
Controlling cats to protect our native animals is proving no easy task, so research into baiting programs continues.
- 59 An extraordinary story of a rock-wallaby colony  
A rock-wallaby population clings to life in an unlikely setting.

## Regulars

- 3 Contributors and Editor's letter
- 15 Bookmarks  
*The Canoe and Kayak Guide to Western Australia*  
*Biodiversity monitoring in Australia*  
*Guide to the Great Western Woodlands*
- 44 Feature park  
Serpentine National Park
- 31 Endangered  
Quindanning spider orchid
- 62 Urban Antics  
Mozzies

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