

# *Anigozanthos* 'Masquerade' The new, *Blue* Kangaroo Paw!



Kangaroo Paws are among the most iconic Australian wildflowers, none more so than the Red and Green Kangaroo Paw, *Anigozanthos manglesii*, the floral emblem of Western Australia. But now, Kings Park and Botanic Garden brings you something new and really astonishing, a *blue* kangaroo paw. Kangaroo Paws come in a great range of colours, red, green, yellow, orange, pink, crimson but until now, never a blue kangaroo paw. What is the mystery surrounding this *blue* flower? Why is *blue* so special.

Well, extraordinary as it may seem, true *blue* pigment does not occur naturally in flowers. You may think that you have seen blue flowers, but the blue colour that you have seen is a crafty combination of certain pigments (*anthocyanins*) and reflected light, to dupe you into thinking that you are seeing *blue*. There are three main classes of anthocyanin pigments, *cyanidin* which gives red flower colours, *pelargonidin* orange, and *delphinidin*, magenta or violet/blue depending on pH. Some enzymes are of particular importance in the production of *blue* flowers. Flowers tend to be more purple- and magenta- coloured, and more likely to present as *blue* when a particular enzyme 3[prime], 5[prime]-hydroxylase is present.



Red and Green Kangaroo Paw, *Anigozanthos manglesii*

In June 2021, Robyn Williams (*Science Show*, ABC Radio National), interviewed Digby Grows, senior plant breeder at Kings Park and Botanic Garden in Perth and they discussed the development of a new, *blue*, hybrid kangaroo paw named *Masquerade*. Since 2007, plant breeders at Kings Park have been working to develop varieties of kangaroo paws that are disease resistant, able to survive drought and high temperatures and that live longer in gardens. Mr Grows said that by breeding from five different species, new colours began to appear. Purely by chance, in 2012, they developed a plant with bluish flowers from a combination of a green-flowered and a purple-flowered form of the common red and green kangaroo paw. Using traditional hybridisation methods and many generations later, they produced this

exciting new *blue* flowered hybrid kangaroo paw which we understand will be available in nurseries later this year.

There are 11 species of kangaroo paws in the genus *Anigozanthos*, plus just one, the black and green kangaroo paw, in the genus *Macropidia* – *M. fulginosa*. They are only found in the south-west of Western Australia. They are extremely popular garden plants and as cut flowers, and in addition to the 11 species, there are now countless varieties and hybrids sold in nurseries and garden centres and grown in gardens worldwide.



Kangaroo Paws were first collected near Esperance in 1792 by French botanist, Jacques-Julian Houton de Labillardière, only 22 years after Lieutenant James Cook arrived on the east coast of Australia. On Labillardière's return to Europe, his Kangaroo Paws were seized by the British, but ultimately returned to him, thanks to successful intervention by Sir Joseph Banks.

Kangaroo Paws are pollinated by birds, honey eaters and wattle birds in particular. Pollen is deposited on the heads of visiting birds, but there is a clever twist to this arrangement. Different species of Kangaroo Paws deposit pollen on specific places on the heads of bird pollinators, so that pollen from one species is unlikely to be spread to flowers of another species. They are also pollinated by small marsupials.



Black Kangaroo Paw, *Macropidia fulginosa*

Robyn Williams and Digby Gowns, *Science Show*, ABC Radio

National, 2021, [Biased botanists, a new blue kangaroo paw and playing birds have bigger brains and longer lives - The Science Show - ABC Radio National](https://www.abc.net.au/radionational/programs/science-show/2021-09-11/biased-botanists-a-new-blue-kangaroo-paw-and-playing-birds-have-bigger-brains-and-longer-lives-the-science-show-abc-radio-national)

Australian National Botanic Gardens and Centre for Australian National Biodiversity Research, 2012, viewed 11 September 2018: <https://www.anbg.gov.au/anigozanthos/>

Australian Plant Society (Australia): <http://anpsa.org.au/a.man.html>

Map modified from Atlas of Living Australia:

[https://biocache.ala.org.au/occurrences/search?q=lsid:http://id.biodiversity.org.au/node/apni/2900921#tab\\_mapView](https://biocache.ala.org.au/occurrences/search?q=lsid:http://id.biodiversity.org.au/node/apni/2900921#tab_mapView)

Wikipedia: [https://en.wikipedia.org/wiki/Kangaroo\\_paw](https://en.wikipedia.org/wiki/Kangaroo_paw)

Wikipedia: [Basics of blue flower colouration - Wikipedia](https://en.wikipedia.org/wiki/Basics_of_blue_flower_colouration)

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