## Pavonia hastata

Pavonia hastata is a small shrub with delicate pink flowers, common in open woodland and forest, along roadsides and in disturbed areas. There are about 200 species of Pavonia, a genus closely related to Hibiscus: Pavonia has a 10 lobed style, Hibiscus a 5-lobed style.

Pavonia hastata is rather an has enigma, it many as characteristics that we might consider typical of an Australian native plant and it is so widespread in eastern Australia that you may well be inclined to think that it is an Australian native. In fact, that's what botanists have thought for quite a long time. Beadle, Evans and Carolin (1982) in the Flora of the Sydney Region, included *P. hastata* as a native plant



and The *Electronic Flora of South Australia* still has it listed as a *native* of NSW, Queensland and South America, but *naturalised* in South Australia.



Pavonia hastata in Australia Atlas of Living Australia

Justification for its indigenous status comes from early collections – collected by botanist Robert Brown at *Paterson's, Nepean and Hawkesbury Rivers, near Sydney (Port Jackson)* in 1802, and somewhat later, by explorer and botanist Ludwig Leichhardt at *Mr Dawson's Place, Belford, Singleton* in the Hunter Valley in 1842.

There has been a general acceptance that if a plant was present in Australia prior to European settlement of

Australia in 1788 when the First Fleet arrived in Sydney Cove, then it is a *native* plant, although this definition seems unsuitable, particularly for species of northern Australia, an area fringed by seas which have seen 3000 years or more of maritime traders from Indonesia and the western Pacific, and Europeans from the 16<sup>th</sup> century onwards.

If Pavonia hastata is a native plant, it has an extraordinary disjunct distribution as it occurs in eastern Australia AND South America (Argentina, Bolivia, Brazil, Paraguay and Uruguay).



Prior to James Cook landing at Botany Bay in 1770, there are



records of 54 European ships (and possibly many more unrecorded) known to have sailed into Australian waters. Botanists J R and G Forster, who sailed with Cook on his second voyage of discovery to the Pacific (1772 – 1775), recorded numerous plants known to have come from the Americas, on islands in the Pacific, probably brought there intentionally or otherwise, by Spanish ships. Who knows what plants they may have brought to Australia? Keep in mind that long distance dispersal by ocean currents, by wind, or by migratory birds, may well have been responsible for the presence of some

disjunct plant species in Australia. Botanist Greg Jordan from University of Tasmania found that most disjunct native species shared between New Zealand and Tasmania were commonly occurring plants, had flowers with both male and female components, very small seeds, fruit that was often hooked, and frequently from aquatic coastal came or communities. Pavonia hastata certainly fits most of those categories.



Pavonia calycina in Australia Atlas of Living Australia

There is one *Pavonia* species that *is* considered to be an Australian native, the yellow-flowered shrub, *Pavonia calycina*, which has been collected along the Kimberly coast in the north of Western Australia. It is also known from East Timor, Malesia, Asia and Africa, which begs the question, is *P. calycina* an introduced species too? And if so, was it brought here by early mariners or by natural, long distance dispersal?

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Atlas of Living Australia:

Australian Native Plant Society (Australia): <a href="http://anpsa.org.au/p-has.html">http://anpsa.org.au/p-has.html</a>

Australian Native Plants Society (Australia): <a href="http://anpsa.org.au/APOL15/sep99-14.html">http://anpsa.org.au/APOL15/sep99-14.html</a>

Electronic Flora of South Australia:

http://www.flora.sa.gov.au/cgi-bin/speciesfacts\_display.cgi?form=speciesfacts&name=Pavonia\_hastata Western Australian Herbarium (1998–). FloraBase—the Western Australian Flora. Department of Biodiversity, Conservation and Attractions. https://florabase.dpaw.wa.gov.au/

Jordan G J. 2001. An investigation of long-distance dispersal based on species native to both Tasmania and New Zealand. *Australian Journal of Botany* **49**, 333–340. doi: 10.1071/BT00024

Plantnet: http://plantnet.rbgsyd.nsw.gov.au/cgi-bin/NSWfl.pl?page=nswfl&lvl=gn&name=Pavonia









Hibiscus species and varieties, close relatives of Pavonia