**Dietes robinsoniana**

Lord Howe Island
Wedding Lily
A biogeographical enigma

Bushland regenerators in Sydney will recognise a number of species of *Dietes* as increasingly problematic weeds in local bushland, and yet the geographic distribution of this predominantly African genus is quite extraordinary. There are six species of *Dietes*, five from Africa, but one, *Dietes robinsoniana*, from Lord Howe Island. How on earth did that happen?

This is one of the great puzzles of plant biogeography. The geographical remoteness of *Dietes robinsoniana* is an example of a **disjunct distribution**. Disjunct distributions can be caused by major changes in the environment, such as sea level rises, continental drift, or mountain building (**vicariance**), or they can be the result of **long-distance dispersal**, for example, seeds carried long distances by migrating birds or animals.
Dietes robinsoniana is also known as the Lord Howe Island Wedding Lily and grows on exposed cliffs, on forest margins and from sea level to the top of the two mighty peaks, Mount Lidgbird and Mount Gower. This is the largest of all Dietes species.

Dietes belongs in the Iridoideae, a sub-family of the Iris family (Iridaceae) and is closely related to Iris which we know from many spectacular garden hybrids as well as species. Curiously, there are no other genera of this sub-family in Australia. Long-distance dispersal from Africa well before the Pleistocene, was initially thought to be the most likely explanation. At that time, Australia was separated from Africa, but India, mid-way between the two, could have provided a land bridge between them. However, molecular evidence now shows that the Iris family differentiated in the more southerly landmass of Antarctica-Australasia, after which species in the Iridaceae radiated into southern Africa and the temperate and montane areas of South America. The alternative hypothesis applies to the genus Dietes, separated into discontinuous populations by geographical barriers (vicariance) rather than by long distance dispersal.
Three African species of *Dietes*, *D. bicolor*, *D. grandiflora* and *D. iridioides*, are commonly grown as garden plants in Sydney. They are remarkably tough, have leathery, sclerophyllous leaves and are drought tolerant. Unfortunately, all three have potential as invasive plants and produce an abundance of readily germinating seeds and unwanted plants are often dumped in bushland.


Weeds of Australia, Biosecurity Queensland: [https://keyserver.lucidcentral.org/weeds/data/media/Html/dietes_grandiflora.htm](https://keyserver.lucidcentral.org/weeds/data/media/Html/dietes_grandiflora.htm)


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