# Burchardia umbellata

florabank



Bruce

Burchardia umbellata is a white-flowering perennial lily which dies back in summer to a dormant bulb or tuber [9]. Its common name is Milkmaids or Star-of-Bethlehem [6].

Population map: www.ala.org.au/explore/ species-maps/

### **Natural Populations**

Burchardia is a genus of 2 species of perennial herbs. Burchardia umbellata is widespread and found in all states except NT [7] while Burchardia multiflora is found only in Western Australia [9]. It occurs naturally on moist, well-drained soils in open forests, woodlands, grasslands, heathland and in damp areas including swamps [9,10, 12].

## **Flowering and Seeds**

*B. umbellata* flowers from September to December [12]. Seed is available from late November until early February. The fruit is a capsule and needs to be monitored closely as mature seeds shed within 3-14 days [6]. Collect capsules by hand when red-brown and brittle, mature seed should be dark brown and hard [4]. Dry seed capsules in paper bags and thresh lightly when capsules have opened [4].



## **Cultivation and Uses**

Plants can be propagated from seed, which does not require pretreatment for successful germination [9]. The role of smoke in germination of *B. umbellata* is ambiguous - WA populations of *Burchardia* are apparently difficult to propagate without smoke, whereas Vic ones can germinate without smoke but are promoted by smoke [16], and untreated seed emerged better than smoke-treated seed in SA trials [3]. In WA, charred wood of *Eucalyptus* marginata induced an increase in the proportion of *B. umbellata* germinating under test conditions [5]. Seedlings may grow poorly. Adding soil from beneath parent plants should improve growth [6].

Because low densities of this species occur in remnant vegetation, and seed collection yields low quantities, the most efficient use of seed may be in tubestock or hand direct seeding [3].

Although a characteristic species of Box-Gum Grassy Woodlands [14], *B. umbellata* is not often cultivated as plants are rarely, if ever, available in nurseries [9]. They are small plants, which are inconspicuous when not in flower and are easily overwhelmed by more vigorous plants growing nearby [9], but can be attractive planted as clusters amongst trees with a light canopy, in rockeries or in containers [12].

In cultivation, these plants require moist but well drained soils [9, 12] and a sunny or lightly shaded location [9, 12], but are frost hardy [13]. Most cultivation conditions are suitable but watering must be controlled, with plenty of water in late winter and spring and less in the dormant period. These plants are suitable for poorly drained areas [17] and are also resistant to *Phytophthora* [13].

They are suitable to grow in containers [9], however it has been observed that this species can have poor seedling growth in potting mix and may require soil fungi to grow [4].

*B. umbellata* was an important food source for indigenous Australians. The carrot-like tubers are high in starch [8] and were eaten raw or roasted [12, 15].



To source seeds or plants: www.grassywoodlands.org.au

#### References

[1] Ramsey, M. and Vaughton, G. (2000). Interference by self pollen intensifies pollen limitation of seed set in *Burchardia umbellata* (*Colchicaceae*). *American Journal of Botany* 87: 839-865.

[2] Ramsey M. and Vaughton G. (2000). Pollen quality limits seed set in *Burchardia umbellata (Colchicaceae). American Journal of Botany* 87: 845-852.

[3] Murphy R.G. and Dalton G.S. (1996). Understorey establishment research. Technical Report No 249. Primary Industries South Australia.

[4] Ralph, M. (1993). Seed Collection of Australian Native Plants For Revegetation, Tree Planting and Direct Seeding. 2nd ed. Fitzroy, Victoria: Bushland Horticulture.

[5] Bell, D.T., Vlahos, S. and Watson L.E. (1987). Stimulation of Seed-Germination of Understorey Species of the Northern Jarrah Forest of Western-Australia. *Australian Journal of Botany* 35(5) 593 – 599. Online: http://www.publish.csiro.au/paper/BT9870593.html

[6] Stelling, F. (ed.) (1998). South West Slopes Revegetation Guide. Murray Catchment Management Committee, Albury, NSW.

[7] Harden, G. (ed.) (1990-1993). Flora of New South Wales. Volume 4, p.109. Sydney, NSW: NSW University Press, Kensington.

[8] Bonney, N. (2003). What Seed Is That? A field guide to the identification, collection and germination of native seed in South Australia. Tantanoola, SA: Neville Bonney.

#### Internet links

[9] Australian Society for Growing Australian Plants Fact Sheet: http://asgap.org.au/b-umb.htm

[10] PlantNET - NSW Flora Online – species description & distribution: http://plantnet.rbgsyd.nsw.gov.au/cgi-bin/NSWfl.pl?pa ge=nswfl&lvl=sp&name=Burchardia~umbellata

[11] University of New England, Plant Reproductive Ecology: http://www.une.edu.au/botany/vaughton/gvres.htm

[12] Yarra Ranges Local Plant Directory: http://www.yarraranges.vic.gov.au/Residents/Yarra\_Ranges\_Plant\_Directory/Lower\_ Storey/Lilies\_and\_Irises/Burchardia\_umbellata

[13] Western Australian natives resistant to Phytophthora cannamomi: http://www.dwg.org.au/files/Western%20Australian%20 Natives%20Resistant.pdf

[14] Grassland Quality Indicator Species List: http://www.fog.org.au/indicator\_species.htm

[15] Barwon Bluff Marine Sanctuary: http://www.barwonbluff.com.au/koorie/Plants.htm

[16] Seed Germination Data Sheet (1996). Greening Australia Victoria. http://www.florabank.org.au/files/documents/ seedgerminationanddo/20070801-20.pdf

[17] Australian National Botanic Gardens & Australian National Herbarium, Harden Species List: http://www.anbg.gov.au/ greening-grainbelt/harden-species-list.xls



Greening Australia Capital Region Ph: 02 6253 3035 http://www.greeningaustralia.org.au/community/capital-region

