

Wolffia australiana

COMMON NAMES

water-meal

SYNONYMS

Wolffia arrhiza var. *australiana* Benth.

FAMILY

Araceae

AUTHORITY

Wolffia australiana (Benth.) Hartog et Plas

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Herbs - Monocots

NVS CODE

WOLAUS

CHROMOSOME NUMBER

$2n = 20, 40$

CURRENT CONSERVATION STATUS

2017 | Not Threatened | Qualifiers: SO

PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Indigenous. North, South and Chatham Islands. Found throughout the Southern Hemisphere but exact distribution not clear

HABITAT

Coastal to lower montane (up to 400 m a.s.l.) in still, fertile, water in sunny situations. Often found in association with *Lemna minor* L., *Landoltia punctata* (G.Mey.) Les et D.J.Crawford, *Azolla filiculoides* Lam., *Ricciocarpos natans* (L.) Corda and *Riccia fluitans* L. Easily overlooked.

WETLAND PLANT INDICATOR STATUS RATING

OBL: Obligate Wetland

Almost always is a hydrophyte, rarely in uplands (non-wetlands).



The "large" leaf on left is *Lemna* sp. Waimeha Lagoon, Waikanae. Photographer: Jeremy R. Rolfe, Date taken: 23/04/2007, Licence: CC BY.



Lateral view showing submerged parts below green platelets that float on the water surface. Waimeha Lagoon, Waikanae. Photographer: Jeremy R. Rolfe, Date taken: 23/04/2007, Licence: CC BY.

DETAILED DESCRIPTION

Bright green, minute aquatic summer-green herb without roots. Platelets 0.3-1 mm long, bearing one vegetative bud per platelet, ellipsoidal, dorsal surface weakly convex, the central green part merging into a colourless rounded shoulder; submerged portion much larger than that above water, pale, loosely cellular, more or less semi-circular in side view but laterally compressed. Inflorescence in a cavity opening on upper platelet surface; bearing one male and one female flower united without spathe. Ovule 1. Fruit spherical. Seed smooth with prominent operculum.

SIMILAR TAXA

None. Could be confused with Lemna and Landlotia from which it differs by its much smaller size, absence of roots, uniformly green colour without red or purple pigmentation, and by the platelets bearing only one vegetative bud

FLOWERING

November - February

FRUITING

December - April

PROPAGATION TECHNIQUE

Easily grown in a suitable pond, pool or aquarium. During winter it sinks to the bottom sediment, and becomes dormant, returning to surface during warmer weather in late spring and summer.

ETYMOLOGY

wolffia: Named after Johann Friedrich Wolff, 18th century German botanist and physician

australiana: From the Latin australis meaning southern

WHERE TO BUY

Not commercially available

ATTRIBUTION

Description adapted from Moore and Edgar (1997).

REFERENCES AND FURTHER READING

Petterson, J., Rolfe, J. 2008. *Wolffia australiana* - mealweed. Wellington Botanical Society Bulletin, 51: 64-65

Moore, L.B.; Edgar, E. 1970: Flora of New Zealand. Vol. II. Government Printer, Wellington.

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/wolffia-australiana/>

PDF DATE

17 September 2024