## Nymphaea caerulea Blue Egyptian Waterlily



Nymphaea caerulea in a lagoon on Fraser Island, south-eastern Queensland

Many waterways of eastern Australia are enhanced by the presence of *Nymphaea caerulea* – the Blue Waterlily, or Blue Egyptian Waterlily. This splendid, blue-flowered, aquatic waterlily might seem to be at home here, but it comes from Africa, probably from along the River Nile and elsewhere in East Africa, and dispersed from there to the Indian subcontinent and to south-east Asia.

The Blue Waterlily has played a major role in Ancient Egyptian art, in paintings and in stone carvings; it can be seen in the temple of Karnak and in the tomb of Tutankhamun. In Egyptian mythology, it symbolised the sun, open during the day, closing at night, and opening again at dawn. The god, Nefertum, symbolised both the sun and the fragrance of the blue waterlily.



Nefertum, a mythological Egyptian god, portrayed as a human with a blue waterlily on his head. Image by: Jeff Dahl / CC BY-SA (https://creativecommons.org/licenses/by-sa/4.0)



There are about 70 species of waterlily in about five genera of the waterlily family, Nymphaeaceae. They have long been of interest to plant taxonomists and, because they have large flowers with multiple unspecialised parts, considered by traditional botanists to represent the floral pattern of some of the earliest flowering plants. Recently, their evolutionary position as basal, or early angiosperms (flowering plants) has been confirmed by molecular studies. although genera with multiple floral parts are now considered to be more derived than

those with fewer floral components. Species with *multiple* floral parts are pollinated by *beetles*, those with fewer floral parts are either self-pollinated, wind-pollinated or pollinated by bees or flies,

so the presence of *multiple* floral components is not an ancestral condition, as early botanists had determined.



In 1682, botanist John Ray separated flowering plants (*Angiosperms*) into two readily identifiable

groups, *Monocots* and *Dicots*, and we have used this classification until relatively recently. However, since the mid-1990s, new molecular biology techniques have allowed us to better understand both the evolution of, and the relationships between, plants, and it is much more complex than previously understood. This *very* simplified diagram of the relationship between monocots and dicots shows that what we understood to be dicotyledonous plants are now separated into two groups, *Early Angiosperms* and *Eudicots*.



Botanists of the Angiosperm Phylogeny Group, in the current classification system for flowering plants (APG IV system), have confirmed the basal position of the family Nymphaeaceae, which is placed second only to Amborella, an understorey shrub from New Caledonia, which is considered to be the most primitive of all flowering plants.

It would not be possible to talk about waterlilies, without mentioning the work of French Impressionist painter, Claude Monet (1840 – 1926), who was passionate about the waterlilies in his garden at Giverny, Normandy, France. Monet painted no fewer than 250 paintings of waterlilies in the last 30 years of his life.



Two waterlily paintings by Claude Monet, from *Waterlilies* (*Nymphéas*), a series of ~ 250 oil paintings, painted during the last 30 years of the artist's life.





Nymphaea caerulea – distribution in Australia

There has been some about uncertainty the scientific name of the blue waterlily that grows in eastern Australian waterways. We have followed Atlas of Living Australia (ALA), and the Australian Plant Name Index (APNI), in using N. caerulea. Plants in Australia are often referred to as N. capensis and Nymphaea past, in the caerulea subsp. zanzibarensis has been used

- how good is that! - '*caerulea*' for sky blue, and '*zanzibarensis*', from Zanzibar, even more exotic!





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Atlas of Living Australia: <u>https://bie.ala.org.au/species/https://id.biodiversity.org.au/node/apni/2905238#overview</u> Australian Plant Name Index (APNI): <u>https://biodiversity.org.au/nsl/services/search?product=APNI&tree.id=&name=Nymphaea+cap</u> <u>ensis+Thunb.&inc.\_scientific=&inc.\_cultivar=&inc.\_other=&max=100&display=&search=true</u> Plantnet: <u>http://plantnet.rbgsyd.nsw.gov.au/cgi-in/NSWfl.pl?page=nswfl&lvl=sp&name=Nymphaea~capensis</u> Wikipedia: <u>https://en.wikipedia.org/wiki/Nymphaea\_caerulea</u> Wikipedia: <u>https://en.wikipedia.org/wiki/Water\_Lilies (Monet\_series)</u> Wikipedia: <u>https://en.wikipedia.org/wiki/Amborella</u> Wikipedia: <u>https://en.wikipedia.org/wiki/Nymphaeaceae</u> Wikipedia: <u>https://en.wikipedia.org/wiki/Nymphaeaceae</u> Wikipedia: <u>https://en.wikipedia.org/wiki/Nymphaeaceae</u>





