Osmanthus fragrans 桂花

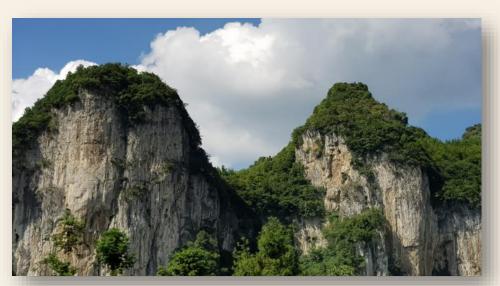
In Australia, Osmanthus fragrans is rather unremarkable, but the chances are that at some time you have been captivated by the intense, intoxicating fragrance of the flowers, even if you haven't been able to find the source. Sweet Osmanthus is not particularly common here, in contrast to its fame in China, where it is one of the 10 famous flowers of China. Botanist and horticulturalist Peter Valder referred to its lack of showiness



Osmanthus fragrans flowers.
Photo: Juni from Kyoto, Japan, CC BY 2.0 https://creativecommons.org/licenses/by/2.0, via Wikimedia Commons

with the quote: "It (Osmanthus) is one of the many plants appreciated by the Chinese for making its presence felt inconspicuously".

Osmanthus fragrans originates from three provinces in southern China, Guizhou, Sichuan and Yunnan, but has been cultivated for over 2,500 years throughout much of China, Japan and Korea to the point where it is now



Classic karst landforms and forests of Guizhou Province, southern China.

considered native to those areas. Osmanthus trees extensively are planted across China to this day, including the southern city of which Guilin, translates Osmanthus forest in Chinese. The region is a major producer of dried

Osmanthus flowers. Each year, 10,000 tonnes of Osmanthus flowers are harvested, with an annual yield of three billion yuan (about 640 million AUD).

There is a long history of use of *Osmanthus* in tea, food and other drinks and the flowers have been grown and harvested for thousands of years. During the Ming Dynasty (1368-1644), flower-scented teas became very popular and the dried





Osmanthus fragrans – Macquarie University biology courtyard.
Photo: Karen Marais

flowers of many fragrant species, including *Osmanthus* were used to subtly scent tea, a tradition that continues to present times.

Osmanthus fragrans plays an important role in many Chinese legends relating to the moon, and has particular significance at this time of year, the Mid-Autumn Festival, or Mooncake Festival — 中秋节—which celebrates the autumn harvest. According to legend, on the moon lives a Fairy, Chang E, the Jade Rabbit, a giant named Wu Gang and

an enormous *Osmanthus* tree. The giant was sentenced by the Jade Emperor to cut down the tree, but its magical powers enabled it to recover instantly, so the Giant was effectively sentenced to an endless task for eternity. This story reminds us of the two invasive species of Privet, *Ligustrum lucidum* and *Ligustrum sinense*, which, like *Osmanthus*, belong in the Olive family, the Oleaceae, and by co-incidence, both have their origins in southern China. In the case of the two Privet species, we are the ones sentenced to a purgatory of never ending cutting down of the plants, only to have them regenerate seemingly immediately.



Osmanthus delavayi – from southern China. The flowers are more eye-catching than those of *O. fragrans*, but not as fragrant, although the plants are more suitable for cooler environments.

The Olive family, Oleaceae, comprises 28 genera and about 700 species, present in temperate and tropical environments on all continents apart from Antarctica, of course. They include a surprising number of taxa of economic importance: timber (Ash); oil and fruit (Olives); and fragrance (Osmanthus, Jasmine and Lilac).

The genus *Osmanthus* itself comprises about 30 species, mostly evergreen woody plants with one species from Turkey and the Caucasus, the others from across East Asia from Tibet to

World-wide distribution of *Osmanthus*. Modified from Royal Botanic Gardens Kew, Plants of the World Online: https://powo.science.kew.org/taxon/urn:lsid:ipni.org:names:328107-2

south-eastern China, Korea and Japan. Botanists have now determined that the genus originated in Europe in the mid-Miocene and dispersed eastwards to the eastern Tibetan Plateau by the late Miocene. From there, it continued to spread even further east. It is unusual in that it is the only genus in the subtribe Oleinae of the Olive (Oleaceae) family to have a distribution/dispersal centre in East Asia where it is considered to be a relict genus.

Anon. Guilin's Osmanthus industry yields 3b yuan annually. *Invest in China*:

https://investinchina.chinadaily.com.cn/s/202210/28/WS635b6081498ea274927a6d56/guilin-s-osmanthus-industry-yields-3b-yuan-annually.html

Dupin J, Raimondeau P, Hong-Wa C, Manzi S, Gaudeul M, Besnard G. 2020. Resolving the phylogeny of the Olive Family (Oleaceae): Confronting information from organellar and nuclear genomes. *Genes*. 11(12):1508. https://doi.org/10.3390/genes11121508

Flora of China: http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=210001392

Li Y, L X, Nie S, Zhang M, Yang Q, Xu W, Duan Y, Wang X. 2024. Reticulate evolution of the tertiary relict *Osmanthus*. *Plant J*, 117:145-160. https://doi.org/10.1111/tpj.16480

 $Nilsson\ J\ E,\ Gotheborg.com:\ \underline{https://www.gotheborg.com/glossary/osmanthus.shtml\#F}$

Valder P. 1999. The Garden Plants of China. Florilegium, Glebe, NSW, Australia.

Wikipedia: https://en.wikipedia.org/wiki/Mid-Autumn_Festival Wikipedia: https://en.wikipedia.org/wiki/Osmanthus_fragrans

Alison Downing, Wenfeng Ren, Brian Atwell, Karen Marais, Kevin Downing





