

Rockin' Around the Christmas Tree

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O Christmas tree, O Christmas Tree, of the parasitic plants, you are by far the most radiant. With your spectacular outbursts of orange blossoms from November to December, you light up the south-west to ring in Christmas Day. It is no wonder *Nuytsia floribunda* has been colloquially termed the native Christmas Tree in WA.

Meet me Under the Mistletoe

As a member of the Loranthaceae family, the Christmas Tree is also a mistletoe. Like that weird cousin at the family lunch, *Nuytsia floribunda* stands apart from the mistletoe family by growing as a tree rather than a canopy-based mistletoe (Low, 2017). Instead the native Christmas Tree grows as a root hemiparasite which attaches to a host plant by cutting through the host roots using sclerenchymatous prongs that act as scissors (Calladine, Pate, & Dixon, 2000; Calladine & Pate, 2000). The native Christmas Tree then proceeds to suck up water and nutrients from the host roots (Low, 2017). A whole new meaning to kissing under the mistletoe.



Presents on the Tree

Not only is the native Christmas Tree striking to look at, but the species also holds significance to the Noongar people of the Perth area. In the Noongar language the tree is mudja and has a spiritual significance and connection to the afterlife as a place where spirits of the recently passed resided (Ryan, 2015; Low, 2017). Groups from elsewhere in the south-west pulled the roots up to eat the sweet, starchy material or mixed the flowers with water for a sugary drink (Ryan, 2015).

Early explorers and settlers have also been captivated by this tree with records describing a 'fire-tree' or 'flame tree' in reference to the dazzling display of orange blossoms (Ryan, 2015). Other records talk of a 'cabbage tree' in reference to the tender green leaves and apparent pungent smell from cutting into the wood (Ryan, 2015).



Radiant blossoms



In addition to being colloquially termed the native Christmas Tree in WA, the *Nuytsia floribunda* also holds significance to the Noongar people and environmentalists studying climate change.



Making a List and Checking it Twice

Recently, the native Christmas Tree has been included on the ClimateWatch list as an indicator species. ClimateWatch is a national program developed by EarthWatch Australia to better understand how climate change is affecting ecosystems (EarthWatch Institute, 2018). By participating in ClimateWatch citizens can help collect and record data to help shape Australia's scientific response to climate change (EarthWatch Institute, 2018). The Christmas Tree is a great indicator species because of its iconic and showy nature (EarthWatch Institute, 2018). ClimateWatch expect that the Christmas Tree will begin shooting and flowering earlier in the year as a result of climate change (EarthWatch Institute, 2018). Participating in ClimateWatch and recording sightings of the Christmas Tree is a great way to add to the knowledge of this species and the impacts of climate change in the south-west. More details on ClimateWatch are available from their website: <http://www.climatewatch.org.au/>.



Integrate Sustainability wishes its client and friends a Merry Christmas and a Safe New Year. We look forward to sharing our Insights with you again in 2019.



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