



16th Australasian **Botanic Guides Conference**

Beauty rich and rare
Kings Park and Botanic Garden Western Australia

16 - 20 September 2019

WALK SUMMARY: DIVERSE DIVAS OF THE SANDPLAINS

This walk showcases some of WA's unique species of the Hakea and Grevillea genus and also the spectacular plants of the Kwongan region (northern sandplains) which abound in the Roe Memorial Garden.

With stunning views over the Swan River, the walk is centred within the Roe Memorial Garden. The walk commences below the Roe Memorial with an acknowledgement of the contribution made by our first **Surveyor General, John Septimus Roe**. It also acknowledges the significance of the park for Aboriginal people and notes the park's Aboriginal heritage.

The walkers then proceed to the Grevillea and Hakea bed via the Kwongan bed within the Roe Garden, where some of the stunning plants of the Kwongan can be seen, including various Pileanthus (Copper Cups), Banksia and Conospermum (Smokebush) species.

Grevilleas and hakeas are members of the **Proteaceae family**, named by Linnaeus for the variability between the plant genera (the god Proteus "ever changing" his appearance) and that despite the great differences in appearance between the various genus there is a common flower structure (described on the walk).

The Hakea genus is Australia's most numerous solely endemic plant genus numbering approx. 170 species (at least 115 in WA) and has evolved unique characteristics to enable them to survive extreme climatic conditions and low nutrient soils. Named for Baron Christian von Hake who funded research into the genus, Hakea have evolved unique adaptations to enable them to endure in harsh dry conditions. These adaptations include the production of thick woody fruit which endure, seeds that can last for up to 10 years, flowers produced in the axils, toughened leaves and membranous seeds contained in very tough seed follicles. Sixty percent (60%) of hakeas are multi stemmed and have lignotubers. These features can be viewed throughout the garden.

Hakeas on view during the walk include ***Hakea cinera*, *Hakea orthorrhyncha* and *Hakea victoria***

The Grevillea genus is the third largest genus in Australia numbering over 340 species; 220 species in WA with 190 in the South West. Grevilleas are more wide ranging than hakeas and grow in rainforests as well as in more arid areas, ranging in size from rainforest trees to shrub like and prostrate varieties. Named for Charles Greville, (co-founder of the Royal Horticultural Society), in 1804, grevilleas have been very successfully (although at times with significant challenge) cultivated in native gardens across Australia. Kings Park plant breeding programme required 7 years to produce the "**RSL Spirit of the Anzac**" **Grevillea** (planted around the State War Memorial in 2015). Unlike hakeas, grevilleas have thin walled or leathery fruit that are released on maturity and their flowers occur on branch terminals. Like hakeas they prefer well drained soil and many are bird pollinated. The similarities and differences between and hakeas and grevilleas can be seen across the garden.

Grevilleas on view during the walk include ***Grevillea armigera*, *Grevillea leucopteris*, *Grevillea petrophiloides*.**

Other features briefly discussed include, the relationship with fire for seed dispersal, the relationship with bird pollinators, adaptations to promote plant/seed survival (eg serotiny) and plant uses within Aboriginal culture.