



16th Australasian **Botanic Guides Conference**

Beauty rich and rare
Kings Park and Botanic Garden Western Australia

16 - 20 September 2019

WALK SUMMARY: BUSHLAND FLORAL GEMS

Within a short walking distance of Perth you can find yourself strolling on a sandy track, completely surrounded by bush, amongst flowering trees and shrubs, with only the sound of birds to interrupt the serenity of the moment. -- You are in the bushland of Kings Park.

Perth is known for its spectacular wildflowers. During this walk, while enjoying the ambiance and diversity of our W.A. plants, we are aware how they have managed to thrive in our climate.

Starting at Roe Gardens, the walk commences by walking on sand. Plants in Western Australia have to deal with sandy soil as well as long periods of heat and a lack of water. In order to survive they use a variety of techniques.

The soil has a low level of certain nutrients essential to the plants' survival. Plants have developed adaptations, particularly in their root systems, which allow them to find specialised means of obtaining nutrients to survive. Leaves also showed adaptations which allow them to cope with the heat and low humidity.

Banksias and **Sheoaks** are two examples of plants which have developed specialised root systems. Banksias survive with their bottlebrush-like clusters of rootlets which form along the lateral roots and are highly efficient in phosphorus and water extraction. The Sheoaks have root nodules containing symbiotic nitrogen-fixing bacteria which take in nitrogen from the air and convert it to nitrates and related inorganic compounds which can then be utilised by the plant.

Unique methods of pollination occur in **Orchids**, **Zamia** and **Kangaroo paws**, and, notably, buzz pollination of the Smoke bush.

Many Western Australian plants provide sources of food.

Milk Maids (*Burchardia umbellata*) produce a potato-like edible root, while the **Vanilla Lily** (*Sowerbaea laxiflora*) differs in that it has a cluster of carrot shaped roots that also taste like potatoes, which are a favourite food of the burrowing Quenda.

The **Marri** (*Corymbia calophylla*) tree produces large seeds used by Aboriginal people to make flour and then baked to make a damper.

Haemodorum laxum has red roots which have a strong curry flavour when cooked.

Many of our native flowers are high in sugars, such as those of the Grass tree (*Xanthorrhoea* sp.), and can be soaked in water to make a sweet drink. Grass trees have soft edible sprouts at the base of their fronds that are highly nutritious.

The notorious **Zamia** nut can be processed to render the toxic seeds edible and tasty.

Medicinal plants are also featured. The blood red sap of the **Marri** is used to treat stomach upsets and skin complaints, and the roots of **Haemodorum** are currently being investigated as a possible cure for cancer.

Various **implements** can be fashioned from the Grass Tree, some utilizing the resin or sap found at the base of the tree.

Our indigenous people, being hunters and gatherers, had to rely on the bush for their survival, and made the most of the above resources.

The bushland in W.A. has much to offer, including beauty, variety, utility and adaptations for survival in our harsh environment.

We hope that viewing the floral gems during this brief walk through bush trails in Kings Park has whet your appetites to see and learn more of our unique flora.