

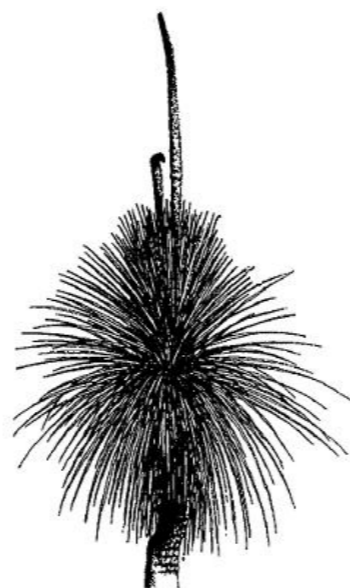


9. Flame heath

Flame heath, *Astroloma conostephioides*, is easily identified by its bright red flame-shaped flowers and small tough prickly leaves. This erect plant is found in the lower layers of the plant community; growing to waist height and flowering through winter into spring.

10. Grass skirts

The yakka or Tate's grass-tree, *Xanthorrhoea semiplana* ssp. *tateana*, occurs in both open bushland and open heath communities. Watch out for the spiky tips of the leaves! You can see why the wide prickly skirts make such a good 'boarding house' for many small birds and animals, even pygmy possums. Cream coloured flower spikes usually occur after fire, rich in nectar, these too are irresistible to birds and insects.



11. Fire — a management tool for survival

Fire plays an important role in assisting the regeneration of native plants. At this last post you will notice that the vegetation has been burnt. Many Australian plants require fire to:

- germinate native plant seed contained in the soil
- make nutrients more accessible — via the burnt vegetation and
- assist them to regenerate e.g. regrowth from lignotubers.

Many of the significant endemic plants of this area will disappear or 'drop out' if the area is not burnt from time to time. The burnt vegetation will slowly regenerate and new plants will appear. Look closely and you may spot some endemic plants emerging. Currently the Department of Environment, Water and Natural Resources is researching the use of fire as a tool in restoring and managing threatened plant species and communities.

Further information

Natural Resources Kangaroo Island

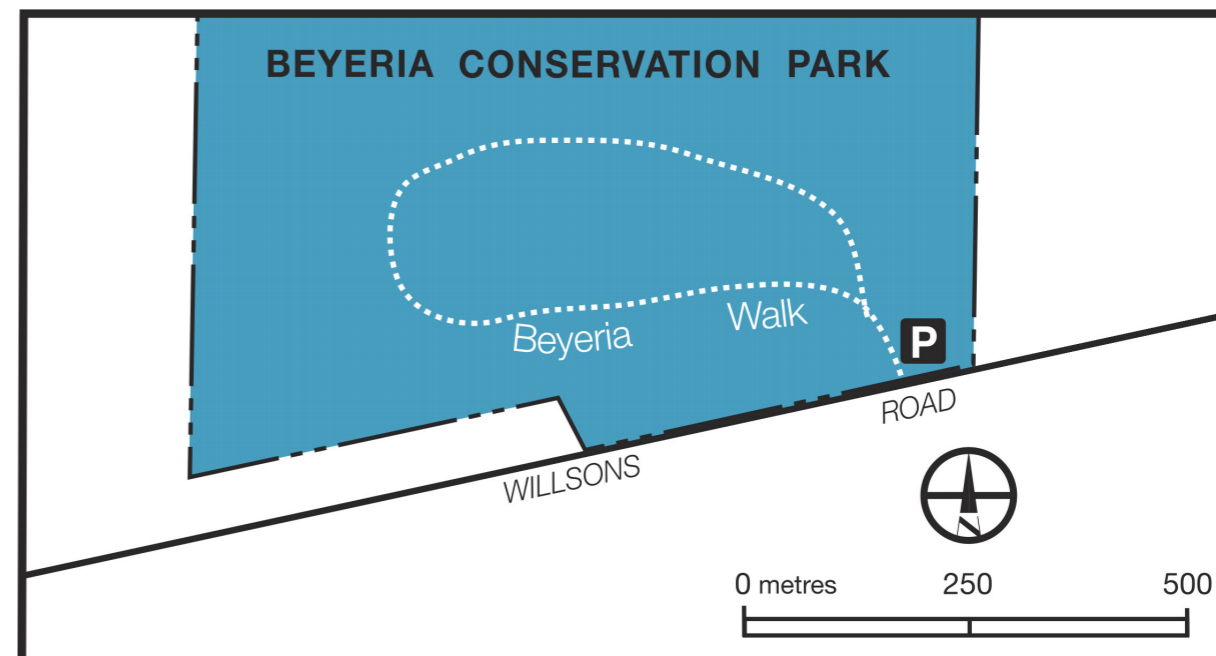
Telephone: (08) 8553 4444

<http://www.environment.sa.gov.au/parks>

Beyeria Walk

Come and discover the Kangaroo Island narrow-leaf mallee broombush plant community and some of its unique plants. This 1.5 km self-guided walk has eleven numbered posts that highlight the main features of the narrow-leaf mallee vegetation community and its ecological processes. Please refer to the information contained in this brochure that correlates to each stop.

Beyeria Conservation Park was dedicated to protect rare endemic plant species and is named after the endangered Kangaroo Island turpentine bush, *Beyeria subsecta*. Botanists and conservation groups sought to prevent further clearance for agriculture in this vicinity. Consequently Beyeria Conservation Park was proclaimed on 14 May 1987, for long-term protection and management.

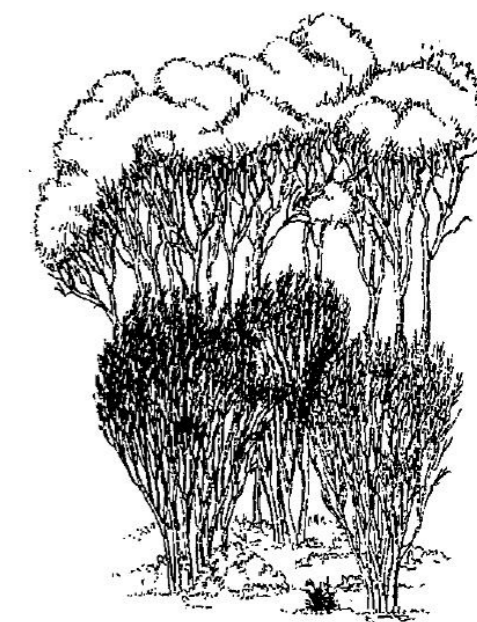


1. Welcome to the community

Vegetation communities:

- are complex and dynamic systems
- contain a number of plant layers — overstorey trees, shrubs and groundcovers.

Here the overstorey trees are narrow-leaf mallee with a shrub layer of broombush. As you progress around the trail you will learn more about the complexity of this vegetation community.





2. Narrow-leaf mallee

Narrow-leaf mallee, *Eucalyptus cneorifolia*, is a multi-stemmed tree growing up to 10 m in height. It has cream flowers in summer through to autumn. Apart from a few relic trees near Waitpinga on the Fleurieu Peninsula, this tree is now found on the eastern end of Kangaroo Island in small and isolated patches. This tree was used extensively in the past for oil extraction as its leaves are particularly rich in oil.

3. Broombush

Broombush, *Melaleuca uncinata*, is a dense upright shrub that grows to 2 m and has yellowish-cream flowers in spring. This plant has been depleted on the mainland through clearance for agriculture and harvesting. It is used commercially for brush fences. Permits are required to harvest it on Kangaroo Island.



4. The insect connection

Look closely at the cup gum, *Eucalyptus cosmophylla*, in front of you. What may seem like fruits along the branches and leaves are actually insect nests that have become galls. The tree forms extra cells around an irritation caused when an insect injects its eggs under the skin of a leaf. Eucalypts often thrive in poor soils by storing nutrients in their leaves. They can be too efficient at this and become attractive to insects. The insect's waste and damaged leaves eventually fall and break down, releasing nutrients back to the soil completing a nutrient cycle.

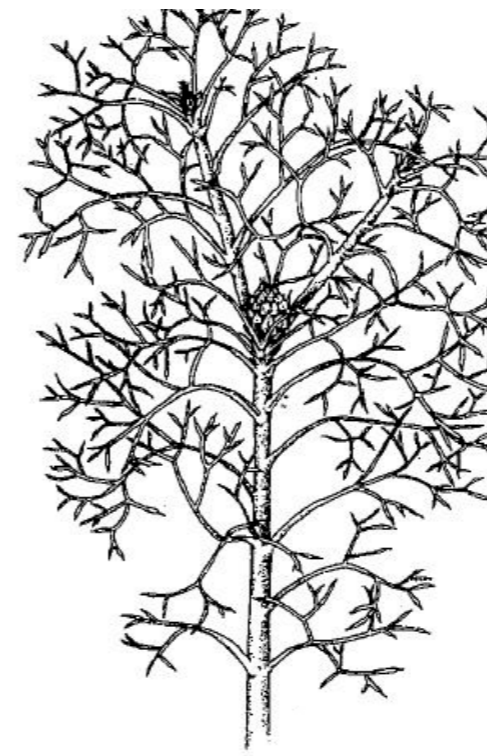
5. Slaty sheoak community

A variety of vegetation types are important in providing a diverse range of habitats. You may have noticed as you progress along the trail the vegetation community becomes more open and the overstorey trees look different. The tallest trees here are now coastal mallee, *Eucalyptus diversifolia*, and the midstorey plants are slaty sheoak, *Allocasuarina muelleriana*. Plant communities can change in response to disturbance and environmental influences such as: fire, drought, soil type, salinity, aspect, grazing pressure and weed invasion.



6. Holly-leaf grevillea

Holly-leaf grevillea, *Grevillea ilicifolia*, is an eye catching shrub with holly-shaped leaves that stands shoulder height. Yellowish-orange flowers appear in spring. Grevilleas are a favourite of many insects and birds, offering rewarding nectar for the trouble taken to pollinate them. Look out for New Holland honeyeaters. Look also for brown tree frogs that may be found in the leaves after rain.



7. Cone sticks

In amongst the ground level heath vegetation you will notice a prickly endemic plant known as the Kangaroo Island conestick, *Petrophile multisecta*. This plant has yellow flowers appearing in summer. They generally grow from suckers so a whole group of plants are a linked community; this makes them very susceptible to the introduced root-rot fungus, *Phytophthora cinnamomi*.

8. A struggle for survival

You will have noticed there are a number of dead trees and shrubs. Plants die for many reasons: old age, competition for resources such as water and from disturbance. Significant signs of vegetation dieback were observed on Kangaroo Island, including Beyeria Conservation Park, following below average rainfall and the persistence of dry conditions in 2004–2008. The average rainfall here is just 550 mm.

But not all plants die. Look closely at the bases of dead eucalypt trees and you may see new leaves and branches growing from them. This regrowth from the lignotubers, the heart of the tree, is a survival mechanism in these eucalypts, as they respond to disturbances such as fire and drought.