

8. Vegetation of Port Campbell National Park

Aim

This activity will familiarise students with the main types of vegetation species found in this coastal environment. They should be able to recognise and recall the main characteristics of some main species of each vegetation community.

Materials

- Resource sheet: Vegetation of Port Campbell National Park.
- Plant identification field guides.
- Books about native vegetation and coastal plants.

Activities

1. Referring to the resource sheet, list the main vegetation communities found in Port Campbell National Park. Write these in column one in a table similar to the one below, listing each community on a new row.

2. Referring to the resource sheet and books about coastal vegetation, identify one or two key species found in that vegetation community within Port Campbell National Park. List them in column 2 of the table.

3. In column three add dot points to summarise some key features of that plant that help it survive in that coastal environment.

Plant community type	Key species	Key characteristics

Link to Section 2

See also Section 2 of this education resource kit, in particular:
Parks and Science

- 29. Vegetation and its effects on rates of erosion.
- 30. Soil compaction effects on vegetation.
- 31. Soil compaction effects on erosion.



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Port Campbell National Park contains a wide range of vegetation types and a remarkable diversity of plants, including many rare and unusual species. There are 23 species of conservation significance recorded in the park.

Some broad vegetation communities found in the park

1. Open Forest

Swamp Gum, with some Manna Gum, dominate this open forest. Tree heights range from 8 to 15 metres. The shrub layer includes wattles and tea tree. The ground layer reflects a history of frequent burning with Austral Bracken and Guinea Flower being common.

This vegetation community covers most of the catchment of the Sherbrook River. There has been a history of plant disturbance through burning and pine plantation establishment. The area was almost completely cleared and planted with pines. The mature pines were harvested in various stages from the 1950s to 1970.

Today the native vegetation forms a patchwork plant cover reflecting its different stages of regeneration. Large patches do not yet have a eucalypt overstorey but have wattles and tea tree which screen out most of the light, restricting the growth of understorey species. Occasional pines occur throughout most of this area.

2. Heathland

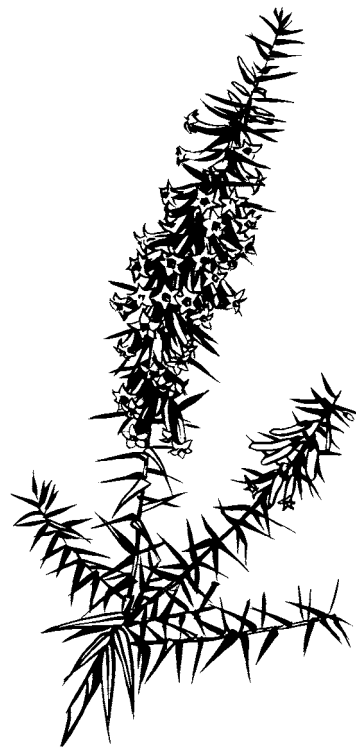
Port Campbell National Park protects important areas of remnant Coastal Heathland.

Scrub Sheoak is the main plant in this heath community. Heathland is found where soils have a high organic matter content in the surface layers and grade into light grey parent sand with greater depth (30 cm or more). A characteristic hard layer or pan (cemented sand) is found at 60 cm or more depth. Clay occurs under this layer.

Heathlands shrubs are typically 1 to 2 metres in height and contain a large variety of shrubs including Manuka, Silver Banksia and Common Heath. Twiners and creepers often weave among the shrubs. The ground cover contains many perennial species including Bare Twig-rush, Coast Saw Sedge and Tussock Grass.

Where there is sandy-clay soil toward the cliff tops on areas of slightly lower elevation, Tea Tree is the dominant shrub with Silver Banksia and wattles forming a more open heath of 0.5 to 1 m in height. The shrubs are generally stunted because they are close to the sea and the effects of salt spray.

A distinctive feature of this heathland community is the almost total absence of weeds, due to the infertility of the soil and the lack of disturbance.



Victorian Common Heath © MT

3. Heathy woodland

This vegetation type consists mainly of scattered trees of Messmate or Shining Peppermint with an understory of heath plants.

This vegetation occurs on the better soils of the coastal area, although the soils are still comparatively infertile.

4. Cliff top grassland / shrubland

Tussock grass (*Poa* species) is the main plant in these tussock grasslands. They have been previously maintained by grazing and annual burning by leaseholders. Since the declaration of the park in 1964 the frequency of fire has been greatly reduced and Manuka, Bare Twig-rush and other shrubs are invading the grassland.

This grassland community occurs on the seaward fringe of the coastal plateau. Salty seaspray has a strong effect on the vegetation: The salt deposited on the plants causes leaf dieback. The buildup of salt in the soil also affects plant growth. When the salt spray is combined with high rainfall there is a strong leaching of the soil. This results in a lack of soil profile. Plants which occur on these soils are shallow rooted and smaller in size. In areas where the claypan is near the surface there are shallow depressions, the soils are salty and often waterlogged. Coast Saw-sedge and other grassy tussocks grow in these conditions.

Nearest the coastline, where disturbance from grazing has been less, shrubs including Cushion Bush and Coast Daisy-bush and Coast Beard-heath form an open shrubland. Succulents and low-lying forms of *Correa* and Ridged Ground Berry are also common here.



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