

Watching over Wadjemup

Rottneest Island's
loyal volunteers



Many Western Australians have fond memories of time spent on Rottnest Island. For some, their love of the island and its diverse natural, social and historical significance, drives them to volunteer their time to ensure the island is understood, protected and enjoyed for years to come.

by Jon Dodd, Elizabeth Rippey
and Judith Harvey



The beauty and charm of Rottnest Island are enjoyed by more than 800,000 visitors each year, making the island one of Western Australia's most popular and accessible destinations. The many local, interstate and international visitors enjoy the island's unique ambience and its natural and historic attractions, especially its marsupial mascot, the quokka (*Setonix brachyurus*), its beautiful beaches, coastal scenery and abundant birdlife.

The Rottnest Island Authority (RIA) manages the island and funds the maintenance of its diverse natural and cultural heritage. However, arguably the public face of the island is that of the volunteers who play an important role, especially in environmentally-focused activities including the provision of interpretive tours, beach clean-ups, dune rehabilitation, tree planting, fauna monitoring, and maintenance and construction works.

Rottnest Island is part of the traditional lands of the Whadjuk Noongar people, who know the island as Wadjemup or 'place across the water where spirits come to rest'. The Aboriginal connection with Rottnest is ancient, dating back tens of thousands of years before it became an island 6500 years ago when it was separated from the mainland by rising sea levels. There are some highly significant Aboriginal sites on the island, several linked to the former prison building (the Quod) and the adjoining burial ground.

FOR THE LOVE OF THE ISLAND

The Rottnest Voluntary Guides Association (RVGA) was established in 1986 with the aim of promoting an increased awareness of the island's environment and history by conducting informative tours around the island. The RVGA has more than 300 active members who provide a wide range of daily tours on the island and have up to 250,000 interactions with visitors annually. The RIA engages the assistance of several other partner volunteer groups including the Rottnest Foundation, the Rottnest Society, the Winnit Club, Conservation Volunteers Australia and more.



Previous page

Main The Gabbi Karniny Bidi walk trail lined with Coastal groundsel (*Senecio pinnatifolius*) and revegetation plantings above Geordie Bay with Lake Baghdad and the Indian Ocean beyond.

Photo – Elizabeth Given/Alamy

Inset Nursery volunteers Judith and Dais transplanting seedlings.

Photo – Rebecca South

Above Rottnest Society volunteers ready for tree planting near Serpentine Lake, July 2010.

Photo – RIA

Right RVGA guides Lucy and Rose surveying plants at Pink Lake.

Photo – Jon Dodd



Increasingly, volunteers have been involved with botanical activities such as conducting plant surveys, monitoring populations, seed collecting and propagation of island plants, undertaking scientific studies, and revegetation.

A major botanical activity undertaken by RVGA members in 2016 and 2017 was the comprehensive collection of the island's native and naturalised plants, completing a task begun by RIA staff. Plant identifications were confirmed by the WA Herbarium.

The resulting collection, known as the Rottnest Island Reference Herbarium, is housed on the island and consists of around 400 specimens of 220 plant

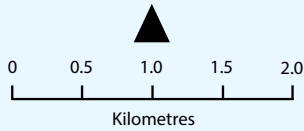
species, of which 121 are native. The specimens are valued conservatively at \$50 each, but collectively they have an immeasurable scientific value as a resource that provides baseline information on Rottnest's plants at the start of the 21st century.

Every fortnight a bunch of keen volunteers make their way to Rottnest to help the island's environmental technicians with running the Rottnest Island Authority Nursery.

The nursery volunteers are a dedicated team, some of whom have been participating since the nursery's inception in 2006. They help with raising seedlings and cuttings, preparing propagation trays for

Legend

-  Toilets
 -  Drinking fountain
 -  Surfing
 -  Fishing
 -  Snorkelling
 -  Tennis courts
 -  Island Explorer bus stop
 -  Sanctuary Zone
 -  The Settlement
 -  Roads
 -  Tracks
 -  Train Line
- Walk trails**
-  Ngank Yira Bidi (9.4km)
 -  Gabbi Karniny Bidi (9.7km)
 -  Wardan Nara Bidi (10km)
 -  Karlinyah Bidi (5.9km)
 -  Ngank Wen Bidi (7.6km)



Right Salmon Bay.
Photo – Marie Lochman

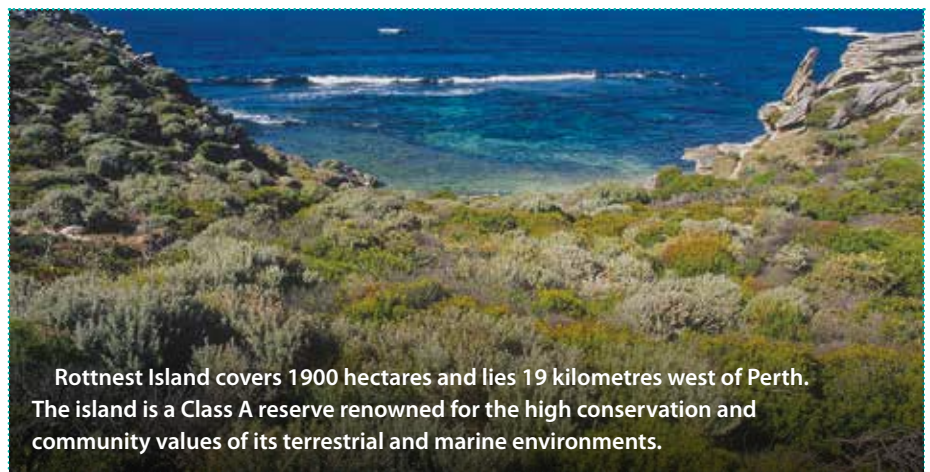
Below right Nursery volunteer Bruce at work in the nursery shadehouse.
Photo – Rebecca South

new seedlings, cleaning and upgrading the nursery and many other jobs.

BOTANICAL BIODIVERSITY

The island's woodlands, heaths, revegetation areas, and avenues lined with giant, shade-giving fig trees provide the backdrop to many visitors' memories and experiences, while the walk trails and cycle routes bring visitors close to nature, especially its plant life.

Rottnest Island lies within the South-West Botanical Province, a region famous for its plant biodiversity arising from its large numbers of unique, endemic plant species. Unlike the adjacent mainland, Rottnest has relatively few plant species,



Rottnest Island covers 1900 hectares and lies 19 kilometres west of Perth. The island is a Class A reserve renowned for the high conservation and community values of its terrestrial and marine environments.





New Bush Book for Rottnest

Based on the knowledge arising from recent surveys of the island's flora, a Bush Book titled *Plants of Rottnest Island* was released in November 2020. In keeping with this popular series, this latest Bush Book – the first in over a decade – will be a user-friendly field guide to Rottnest's characteristic plants and their special features, and a companion to the related Bush Books *Marine Life of Rottnest Island*, *Marine Plants of the Perth Region* and *Bush Tucker Plants of the South-West*.



“...very few plant species have been lost over the past two centuries and the island, with its beautiful scenery and coastline, remains a source of delight for its many visitors.”

most of which are widespread and found elsewhere along the WA coast and beyond. The island also lacks many of the plant types characteristic of the mainland, such as eucalypts, banksias, grass trees and zamias that died out on Rottnest because of exposure to the island's nutrient-poor sandy soils and salt-laden winds blowing from all directions.

Because the island's plant life is not as diverse and species-rich as the equivalent area on the adjacent mainland, it is a great place to get to know some of WA's fascinating plants. Winter and spring

are the best seasons for seeing plants flowering on Rottnest, especially species such as Shark's tooth wattle (*Acacia littorea*), Cockies tongues (*Templetonia retusa*), Coastal groundsel (*Senecio pinnatifolius*) and the Rottnest daisy or Blue lace flower (*Trachymene coerulea*), which are missed by summer visitors.

BUSH TUCKER AND MEDICINAL PLANTS

The plant life of the south-west of WA has been a sustainable source of almost all of life's necessities for countless generations of Aboriginal people, by providing food, medicines, weapons and household needs such as shelter, warmth and utensils.

Many of Rottnest's characteristic plants are known to be important to Noongar people. For example, *moonah* (Rottnest teatree, *Melaleuca lanceolata*) and *marro* (Rottnest pine, *Callitris preissii*) are sources of traditional medicines – their crushed foliage relieves congestion by inhaling the vapours and was used in hot poultices to treat aches and pains. The

Top Injid or Cockies tongues (*Templetonia retusa*).

Photo – Pam Ghirardi

Above left Rottnest daisy or Blue lace flower (*Trachymene coerulea*).

Photo – Jon Dodd

Above right Coastal beard-heath (*Leucopogon parviflorus*) produces edible fruits.

Photo – Graham Zemunik



One guide's personal journey

Volunteering on Rottnest – the rewards can be far greater than the contribution!

Guiding on Rottnest became an absorbing focus of interest shortly after migrating to Australia. It presented an enormous challenge in learning, interpretation, and delivery for a rather shy introvert.

The learning, or knowledge, is too great to be encompassed, and you can take it as far as you like: astronomy, history, marine science, weeds, sustainability of the island and its coastline... And the knowledge changes as time and research dictate.

The interpretation is a joy – the search for causes, effects, processes and relationships.

Perhaps the greatest gifts have been the friendships and joint projects. The Guides are a highly diverse group: academics, administrators and actors; scientists, soldiers and children's story tellers; physicists and photographers... These are extraordinary, beautiful people who passionately contribute their own genius to any venture or adventure.



versatile *marro* also has durable timber and its resin was used to attach axe heads to handles. Other well-known Rottnest plants are sources of food: *yackel djarr* or *injid* (Cockies tongues, *Templetonia retusa*) has edible flowers and its crushed seeds were used for bush tea, while Nitre bush (*Nitraria billardierei*) and Coastal beard-heath (*Leucopogon parviflorus*) have edible fruits. *Kerbein* (Coast sword sedge, *Lepidosperma gladiatum*) has fibre-rich leaves used for making twine and nutritious rhizomes valued as a source of food, as were the tuberous roots of *taaruk* (Old man's beard, *Clematis linearifolia*).

Rottnest Island has been a dynamic place during the brief 6500 years of its existence. Changing sea levels, strong salt-laden winds, grazing and fires have caused radical vegetation change and extinctions of most of the island's original plants and animals. Settlement on the island brought development and further vegetation change with introduced plants, increased quokka numbers and the loss of natural woodlands. But very few plant species have been lost over the past two

centuries and the island, with its beautiful scenery and coastline, remains a source of delight for its many visitors.

The future for the island's plant life looks good. Careful management of the terrestrial environment, revegetation and education will ensure that the island's plant cover, wildlife and scenic coastline will continue to be enjoyed by increasing numbers of visitors for many years to come.

Top left Marro or Rottnest Island pine (*Callitris preissii*) at Vlamingh Lookout.

Above left Taaruk or Old man's beard (*Clematis linearifolia*).

Photos – Jon Dodd

Above RVGA guide Teresa Wright with group viewing quokkas.

Photo – Pam Ghirardi

Below Train approaching the Oliver Hill guns.

Photo – Tourism WA



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Plants of Rottnest Island *Bush Book* can be purchased in selected bookshops, newsagents and online at shop.dbca.wa.gov.au

For more information on the Rottnest Voluntary Guides Association visit rvga.asn.au