

# *Butterflies* on Rottne<sup>s</sup>t Island



Although butterflies have a short life span,  
their appearance brings pleasure to many people.  
In this photo essay, Andrew Williams and Robert  
Powell describe some of the species that can be found  
on the idyllic island of Rottne<sup>s</sup>t.

by Andrew A.E. Williams and Robert J. Powell

**R**ottneest Island lies 18 kilometres off the Western Australian mainland, almost due west of Perth. Irregular in shape and covering an area of some 1,900 hectares, its varied natural features and diverse habitats give it a special charm. Not surprisingly, it has become a favourite destination for Western Australian and other visitors.

By its very nature, Rottneest Island caters for a wide range of activities. For many, leisurely walks and bike rides around the island are the main attraction. Others go there to fish and swim, or scuba dive off nearby reefs. Some simply enjoy the scenery, exploring the isolated coves and picturesque salt lakes. Still others find great enjoyment in the wildlife, watching quokkas and the abundant birdlife. There are, however, other attractions for the keen observer, particularly in spring and early summer. These include an

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**Main:** Rottneest Island.

Photo – Marc Muller

**Inset:** Lesser wanderer.

Photo – Babs & Bert Wells/CALM

**Below:** Inland lakes from Lookout Hill, Rottneest Island.

Photo – Marie Lochman



assortment of butterflies, and a little time is all you need to enjoy them.

Butterflies are insects that belong to the order Lepidoptera, a name of Greek origin that refers to the tiny scales that cover their wings. All butterflies start life as eggs, which hatch into small soft-bodied caterpillars. These caterpillars feed voraciously on their respective food plants, and grow through several stages until they are ready to pupate and form a chrysalis. In this immobile state they go through a miraculous transformation, finally emerging as perfect butterflies.

Butterflies are more robust than might be expected, and some have remarkable powers of flight. The Australian painted lady, for example,

regularly flies across Bass Strait from the mainland, appearing in Tasmania. Butterflies also make the crossing to the Abrolhos islands, 60 to 80 kilometres off the Western Australian coast near Geraldton. It's not surprising, therefore, that some species also appear as vagrants on Rottneest, probably reaching the island with the aid of easterly winds.

Seventeen species of butterflies have so far been recorded on Rottneest. Some of these are residents, living and breeding on the island; others (like most of us) are transient visitors from the mainland.

Some of the species you might well encounter on your next visit are shown on the following pages.





**Right:** The monarch larva feeds on a toxic foodplant, narrowleaf cottonbush. This makes it unpalatable to predators.  
Photo – Trevor Lundstrom

**Far right:** Monarch butterfly pupa that is close to emergence.  
Photo – Peter Marsack/Lochman  
Transparencies

**Below left:** Silver-chequered ochre showing the distinctive silvery white markings on the underside of the hind wing.  
Photo – Eric McCrum

**Below centre:** Salt-bush blue on its larval foodplant grey saltbush *Atriplex cinerea*.  
Photo – Allan Wills/CALM

**Below right:** Two-spotted line-blue showing the characteristic spots on the trailing edge of the hind wing.  
Photo – Trevor Lundstrom



### SILVER-CHEQUERED OCHRE (*Trapezites argenteoornatus*)

This small butterfly belongs to the skipper family; as the name suggests, it has a rapid skipping flight. It is common on the island, adults first appearing in early October, with numbers peaking in November. Occasional specimens may still be seen around Christmas. Silver-chequered ochres are especially prevalent in areas adjacent to the salt lakes, where the food-plant prickly lily (*Acanthocarpus preissii*) is abundant. The butterflies fly close to the ground, often landing on low shrubs or exposed rocks. A good place to observe them is at Vlamingh Lookout overlooking Garden Lake. Alongside the road between Garden Lake and Herschel Lake, flowering shrubs of thick-leaved fan flower (*Scaevola crassifolia*) attract many individuals, offering photographic opportunities to the enthusiast. The



upperside of the butterfly's wing is brown with orange-yellow spots and blotches. Underneath, the hindwing has distinctive silvery white spots. These are very noticeable when the butterfly is at rest, and distinguish it from other species on the island.

### SALT-BUSH BLUE (*Theclinesstes serpentata*)

The salt-bush blue is a tiny butterfly, blue above with grey-brown and white chequered fringes to its wings. Underneath, its colouring is more cryptic, blotched with greys and browns. It is so named because its caterpillars feed on various types of salt-bush. On Rottnest Island it can often be seen flying around seaberry saltbush (*Rhagodia baccata*) and grey saltbush (*Atriplex cinerea*), which fringe many of the island's salt lakes. A particularly good place to find the butterflies is along the southern side of Garden Lake, not far from the main settlement. Salt-bush blues are most common in spring and summer, but may also be seen in



autumn. The larvae are green and extraordinarily well camouflaged. They generally pupate in sheltered places on the stem or leaves of the food plant, the butterflies hatching within a few days. The species produces several generations a year, and so can be seen in any of the warmer months. At times when the butterflies are very abundant, welcome swallows can be seen swooping low over the salt bushes to catch them.

### TWO-SPOTTED LINE-BLUE (*Nacaduba biocellata*)

This tiny butterfly inhabits stands of summer-scented wattle (*Acacia rostellifera*), on which its caterpillars feed. It may also be seen in spring around flowering shrubs in the botanic golf course. Males are lilac above with blue basal areas, while females are blue with a broad border of brown. Underneath, both sexes are yellowish brown. Two small round spots on the trailing edge of the hind wing give the butterfly its name.





**YELLOW ADMIRAL**  
(*Vanessa itea*)

The pale yellow patches on the forewings give the yellow admiral its name, and immediately distinguish this medium-sized butterfly from all other species on the island. This species, also called the Australian admiral, is a powerful insect that can travel long distances; it is thought to be a seasonal visitor to the island, rather than a resident. It appears on the island in winter and spring each year, having apparently migrated from the mainland. It then breeds on two annual plant species that grow prolifically round the settlement at this time: native pellitory (*Parietaria debilis*) and the introduced stinging-nettle (*Urtica urens*). Both these food-plants die off in summer. The caterpillars conceal themselves in dome-like shelters, which will reveal their presence to the keen observer. The butterflies often fly fast round the treetops. They are, however, more easily seen when feeding at flowers or laying eggs on their food-plants. In the late afternoon, a good place to see them is Vlamingh Lookout, where the males establish territories to meet virgin females, a behaviour known as 'hilltopping'.



**AUSTRALIAN PAINTED LADY**  
(*Vanessa kershawi*)

This medium-sized butterfly is one of our most recognised species, being commonly found throughout mainland Australia. On Rottnest Island it is mostly seen in spring and early summer, either flying, or basking on the ground with outstretched wings. It often feeds at the flowers of Rottnest Island daisies (*Trachymene coerulea*). There may well be a stable population of painted ladies on Rottnest, as one of its preferred food-plants, Cape weed (*Arctotheca calendula*), grows on the island. However, like the yellow admiral, it is a strong flyer and known migrant, well able to reach Rottnest from the mainland.

**CABBAGE WHITE**  
(*Pieris rapae*)

This medium-sized species is not native to Australia, but was accidentally introduced to Victoria in 1937; it arrived in Perth more than fifty years ago. It is called the cabbage white because its larvae feed on cabbages and other plants in the cabbage family; it will also breed on garden nasturtiums. The cabbage white has only recently become established on Rottnest, where it is seen round the main settlement. Coming to Australia from temperate regions, it can fly in cool, cloudy weather, unlike many native species, which are active only when it is warm and sunny.

**Left:** Cabbage whites are most frequently seen around the settlement area on Rottnest Island.  
Photo – Robert Powell/CALM

**Far left:** The yellow admiral has striking pale yellow patches on the forewing.  
Photo – David Pike

**Lower far left:** Australian painted lady basking in early morning sunshine.  
Photo – Robert Powell/CALM

**Below:** The monarch is the largest butterfly found on Rottnest Island.  
Photo – Matt Williams/CALM

**MONARCH**  
(*Danaus plexippus*)

This spectacular species, with a wing span of 9–10 centimetres, is by far the largest butterfly on Rottnest Island. In spring and summer, several may be seen at one time gliding effortlessly over the island. The monarch, also called the wanderer, originated in North America, but has now extended its range across the Pacific to Australia, first being recorded in Perth more than 100 years ago. On Rottnest Island, it is most often seen near the salt lakes, where the plant on which it breeds, narrowleaf cottonbush (*Gomphocarpus fruticosus*), has become established. Unfortunately, narrowleaf cottonbush is an introduced noxious weed, which needs control. If the plant can be maintained at low densities rather than eradicated, then this spectacular addition to Rottnest's lepidopteran fauna will continue to be enjoyed by its many visitors.





**Right:** Lesser wanderers are infrequent visitors to the island.  
Photo – Eric McCrum

**Lower right:** The marbled xenica is very common on Rottnest. Cryptic colouration on the hind wing provides camouflage when the butterfly is settled on the ground.  
Photo – Eric McCrum

**Far right:** Small grass-yellows have only recently been recorded on Rottnest.  
Photo – Robert Powell/CALM

**Lower far right:** Common grass-blue.  
Photo – Trevor Lundstrom

**Below:** Salt bush at Garden Lake, Rottnest Island.  
Photo – Andrew Williams/CALM



## LESSER WANDERER

(*Danaus chrysippus*)

This native species is a smaller relative of the monarch. As its name implies, it is very mobile. Its main area of occurrence is to the north of Perth, but influxes of the butterfly commonly occur in the south-west when favourable conditions prevail inland. At times, it is common on Garden Island, and was first recorded on Rottnest in April 1995.

## MARbled XENICA

(*Geitoneura klugii*)

The marbled xenica is abundant on Rottnest Island in spring and early summer. It is a medium-sized butterfly, yellow-brown above, with an irregular pattern of bold black markings. Underneath, it is coloured in varying shades of dark grey and brown, which enable the butterfly to blend into its surroundings when settled on the ground. Males first appear in

October, females two to three weeks later. It can be seen wherever the food-plant tall speargrass (*Austrostipa flavescens*) grows.

## SMALL GRASS-YELLOW

(*Eurema smilax*)

The yellow wings of this smallish species, brighter on the upper side, make it conspicuous and easily identified. It occurs widely in mainland Australia, but most abundantly in the north. Only occasionally do influxes occur in Perth. This species was recorded for the first time on Rottnest in September 1999.

## COMMON GRASS-BLUE

(*Zizina labradus*)

The common grass-blue is another

small butterfly found on Rottnest Island. It is blue above, and pale grey below with indistinct markings. Individuals may be seen flying around grassed areas near the main settlement, where one of its food-plants, an introduced clover, has become established. The butterflies are also commonly seen in sheltered swales and hollows at the western end of the island.

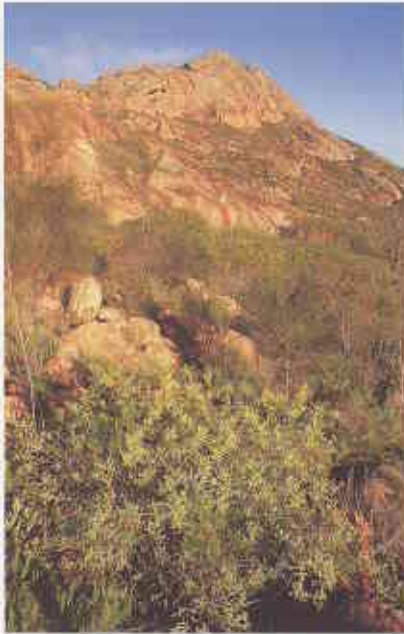
Next time you plan a trip or holiday to Rottnest, consider travelling in spring or early summer and you just might experience another aspect of this island playground. For a brief few weeks, it comes alive with delicate splashes of colour as the butterflies emerge from their resting places to grace us with their transient beauty.



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Peak Charles and Peak Eleanor, protected within Peak Charles National Park, form granite islands in a sea of bush. See page 10.



Butterflies have a short life span, but they bring pleasure to many people who visit Rottnest Island. See page 23.

Winner of the 1998 Alex Harris Medal for excellence in science and environment reporting.

# LANDSCOPE

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The Swan River is a recreation area for humans and a home for migratory birds. See page 16.



A partnership between State and Commonwealth governments, and a group of pastoralists is helping to fill the gaps in the conservation estate. See page 43.



Many marine creatures have evolved ingenious survival methods. See page 49.

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## COVER

Well-known Australian artist Ken Done captures the colour and turbulence of the horizontal waterfalls on the Kimberley's Wandjina Coast.

Painting by Ken Done  
Racing Tide, Kimberley Coast, May 1999  
(51 x 36 cm) oil crayon and gouache  
on paper.



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