





*It was a very  
good year in...*

THE  
WILDFLOWER  
STATE



THERE IS LITTLE DOUBT THAT  
WESTERN AUSTRALIA HAS JUST  
ENJOYED ONE OF THE BEST  
WILDFLOWER SEASONS FOR DECADES.  
THE WINTER OF 1995 WAS WET,  
COLD AND PROTRACTED, AND OUR  
WORLD RENOWNED NATIVE PLANTS  
RESPONDED IN THEIR VARIOUS WAYS.  
NEVILLE MARCHANT, FROM CALM'S  
BIO-RESOURCES GROUP, DESCRIBES  
WHAT MADE THIS YEAR SO  
SPECTACULAR.

BY NEVILLE MARCHANT



**W**ildflower displays can be seen in Western Australia at any time of the year, but the peak flowering period, commonly known as 'the wildflower season', depends on a variety of environmental factors such as the timing of the rains, the levels of rainfall, the length and timing of dry spells after the rains begin and how cold the winter becomes. This year, the cold beginning and middle of winter were sufficient to delay growth and the activities of the pollinators to which the plants are attuned. This led to an extended season, with an overlap between the early and late-flowering plants.

## THE NORTH-WEST

In January 1995, Cyclone Bobby dropped rain over the Pilbara and areas to the east and south. This resulted in one of the best displays ever of the mulla mullas, Sturt peas and the wealth of other flowers that characterise the interior of the State.

The perennial plants of the dry interior from the Pilbara to the Goldfields are incredibly hardy. Like the ubiquitous mulga, the poverty bushes, spinifex grasses and wattles are able to cope with successive dry seasons. But when the rains come, they respond quickly and flower profusely, setting their seed to add to a bank of propagules in the soil. Spinifex responds immediately to rain, with leaves changing from dull to vivid green and yellow-stemmed flower spikes appearing.



In a good year, the wildflowers of the dry interior comprise annual species that complete their life cycle—from germination to setting seed—in very a short time.

There are many more annuals in the Pilbara and Goldfields than in the south-west. They cover the open ground between the scattered perennials, have short lives and make full use of the brief growing season to reproduce and ensure a good supply of seed for the following year.

The justifiably famous carpets of everlastings, which grow as pure stands or mixed with relatives of the lechenaultia family, are annuals that are well geared to the vagaries of the climate. In a dry year, with a short growing season, the

*Previous page*

*Main:* Tall mulla mullas in Millstream-Chichester National Park, with wattle shrubs and the coolibah *Eucalyptus victrix*. Photo – Bill Bachman

*Inset top:* Common in the South West, milkmaids (*Burchardia umbellata*) have waxy, six-petalled flowers.

*Inset Bottom:* The fringe lily is a delicate, short-lived flower, lasting only for a few hours in a single morning.

Photos – Chris Garnett

*Left:* The red beak orchid is commonly seen flowering after fire in the forests and woodlands of the South West.

Photo – Ann Storrie

*Below:* *Helichrysum macranthum*, one of the large everlasting daisies of the south-west. In this open habitat, its seeds are dispersed by the wind.

Photo – Alex Bond

everlastings flower at the usual time, around late July and August. But their stems are short, often with slightly smaller blooms, the individual plants are far apart and the displays are only spectacular in localised areas—where there has been enough prolonged moisture to ensure better growth to maturity.

In wet years, like 1995, the main displays of everlastings are to be found in the Murchison, especially in an area between Mt Gibson, Yalgoo and Cue.

In the Wheatbelt, everlastings can form spectacular carpets during July and August. They attract many tourists, particularly to the northern Wheatbelt around Perenjori and Morawa and up to Northampton. Usually, they occur as drifts under the mulga and other wattles.

In areas closer to Perth, they occur in pockets in the forests and, because the growing season is longer as we go farther south, they usually flower around September. This year, they were still flowering in November.

## THE SOUTH-WEST

The south-west corner of Australia—the area below a line drawn from Shark Bay to Israelite Bay, east of Esperance—is known as the South West Botanical Province and is recognised throughout the world as an area of megadiversity—that is, an area characterised by a high number of species. It is largely characterised by shrubby species, which shelter the many annuals, making them less obtrusive. Shrubby species, many of which do not occur in other parts of Australia, are also common components







**Above:** An open plain at the base of Mount Augustus with mulga, sennas, the pink-flowered cotton bush, pale yellow goodenias, daisies and the straggling burra (*Eremophila fraseri*), with its pink flower bases.  
Photo – Bill Bachman

**Right:** One of a few species of vine which dwell in southern forests, the coral vine can climb many metres into the tree canopy, or clamber on the ground. It is spectacular because of its brilliant heads of red, pink and yellow pea flowers.  
Photo – Alex Bond

of the low heathlands or the understorey of the dry forests and woodlands.

Grass-like plants and the famous kangaroo paws abound. Orchids, too, are well represented, but these are mostly ground-dwelling species and not ones that have evolved in the tree tops and mossy rock faces of the eastern rainforests.

Many of the wildflowers near Kalbarri, farther inland and on the spectacularly species-rich sandplains between Perth and Geraldton are, like the species in the wetter parts of the South West, mostly shrubby species such as *Melaleuca* and the wax genus *Chamelaucium*, which flower during early to mid-August. This year, flowering extended into October, and the winter-flowering species were still displaying as the early summer flowers came into bloom. That is what made 1995 so special, the whole flowering season was extended so that species normally separated in flowering time were seen blooming together.







## THE FORESTS, WOODLANDS AND HEATHLANDS

In the South West forests, woodlands and heathlands, the real wildflower season begins with the shortening days of April and May. The woody shrubs belonging to the heath family, Epacridaceae, are the first to display their usually cream or white-coloured blooms. They brighten up the bush even before the first rains set in.

After the woody shrubs have bloomed, the early-flowering wattles start their display, increasing to a peak in September and October. The grevilleas, dryandras,

hakeas and a host of other proteaceous plants generally have bright colours in massed clusters. Exceptions are the grey blooms of the smokebushes, which dot the landscape from July to early summer. Eucalypts, wax flowers and other myrtles have bright colours and frequently have their flowers aggregated into compact cauliflower-like heads or bottlebrushes.

The cold winter of 1995 delayed the onset of some of the spectacular spring-flowering plants, such as the tree hovea, so their peak was about October to November.

The verticordias are some of the most

striking wildflowers in the middle or upper level of the heaths. Like most myrtles, they enjoyed a longer flowering season this year, with excellent displays even in late October. The Stirling Range is often at its peak in late September and early October, but it too was delayed a few weeks. Even the inland districts still supported their displays of annuals—most of which were in early fruit development, but still offered colourful displays under the late flowering shrubs.

After a bumper wildflower year, there will be plenty of seeds and a replenishment



**Top left:** Provided there is enough winter moisture, even disturbed situations, like this fence line near Mount Magnet, will provide a spectacular show of the large papery flowered everlasting *Rhodanthe chlorocephala*. The purple daisy is a *Brachycome*. Photo – Chris Garnett

**Top Right:** One of the mulla mullas with an amazing ability to thrive on bare red sand is *Ptilotus appendiculatus* a tangled shrub with pale coloured stems forming a clump up to a metre across. Photo – Richard Woldendorp

**Left:** *Velleia*, a member of the lechenaultia family, frequently grows with everlastings or it may form an almost pure carpet. The yellow daisy seen here growing under wattle is a *Myriocephalus*. Photo – Chris Garnett





of the seed supply in the soil. The numerous animals, especially the birds and insects that depend either directly or indirectly on the nectar or the seeds are attracted by the extra food of a bumper year. But it is not just the native animals that benefit. Western Australia's wildflowers attract thousands of visitors each year. They come from overseas and interstate to revel in the magnificent displays captured so graphically on these pages. It is during seasons like this that Western Australia can truly boast the title 'The Wildflower State'.

Succulent plants are not characteristic of Australian arid zone vegetation. Exceptions are the pigfaces and this parakeelya, a species of *Calandrinia* which dominates the alkaline soil of this clay pan in the Murchison.

Photo – Bill Bachman

The introduced rosy dock (*Rumex vesicarius*) is so common it is often mistaken for a native. Its bladdery flowers and fruits are red-veined, hence the common name.

Photo – Bill Bachman



This species of mulla mulla clings to the southern rim of Weano Gorge near Oxers Lookout in Karijini National Park. Apart from the yellow *Senecio* and the snappy gums, the rocky slopes are dominated by hummocks of spinifex grass, which have become green in response to recent rain.

Photo – Bill Bachman

The spectacular scarlet banksia (*B. coccinea*), photographed here in the Stirling Range National Park, has a few stems each topped with a head of hundreds of small flowers.

Photo – Alex Bond



Neville Marchant is Head of CALM's Bio-resources Group and Director of CALM's Western Australian Herbarium. He can be contacted on (09) 334 6500.





Visitors can walk in the treetops along a series of walkways, platforms and stairways at the new Forest Heritage Centre in Dwellingup. (See page 10.)



A major survey of the Carnarvon Basin has recently been completed by staff from CALM, the WA Museum and the University of WA. What did they find? (See page 15.)

# LANDSCOPE

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It was a very good year in the Wildflower State. Find out just how good in our story on page 38.



Australia has its own families of songbirds that are very different from their European namesakes. See 'True Blue Birds' on page 45.



Quokkas were once widespread on WA's mainland, but the most visible populations are now found on just two islands. 'Where Have All the Quokkas Gone?' (See page 49.)

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## COVER

Western black-footed rock-wallabies are on the increase in Yardie Creek, thanks to a CALM fox-baiting program. Their numbers are being monitored by local tour operators Neil and Rhonda McGregor. See our story on page 36.

Illustration by Philippa Nikulinsky



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