





# Julimar

turning full circle

Just 100 kilometres north-east of Perth is an 'island' of woodland with an interesting past and an important future. Surrounded by farmland, **Julimar Conservation Park**, as it is now known, was used by early pastoralists. Later, it was partly cleared for farming and harvested for timber, and has also been used for beekeeping and armed forces training. Today it fulfills an ongoing and significant conservation role.

by Brent Johnson,  
Alice Reaveley and  
Keith Morris

At nearly 28,000 hectares, Julimar Conservation Park is a sizeable, very attractive area of mixed jarrah (*Eucalyptus marginata*) and marri (*Corymbia calophylla*) upland woodland with often thick parrotbush (*Dryandra sessilis*) understorey, valleys with open wandoo (*Eucalyptus wandoo*) woodland and outcrops of powderbark (*E. accedens*) on the lateritic breakaways. Nyoongar people would have been attracted to the area for hunting and gathering, as it contained a high diversity of plants and animals. The abundant grasstrees (balga), with their multiple uses and reliable bardi grub supply, along with honey drinks from the dryandra flowers, would have been among the attractions. There were also several freshwater springs within or near Julimar, however, many of those are now saline.

It was the valleys with their creeks, loamy soils and open wandoo woodlands that first attracted European settlers. These valleys proved easiest to clear and supported good pasture. Nearly half the area was taken up for farming under conditional purchase

leases. Only about half of these properties were cleared but, by the 1930s and the onset of the Great Depression, most farmers were forced to abandon the land. The leases reverted to Crown land and the area eventually became State forest in 1956.

By this time, Julimar had been subjected to years of unrestricted timber cutting and firewood collecting. On the other hand, it had been well protected from high intensity bushfires, the result of regular burning by beekeepers seeking to protect the wandoo trees and dryandra shrubs, their main source of honey. When the land was vested with the Forests Department in 1956, all timber harvesting and other activities in the area came under strict controls.



Thereafter, several licensed contractors operated in the area, supplying jarrah and wandoo logs to sawmills at Bindoon, Bolgart, Northam and in the Swan Valley. Additional industries—such as charcoal manufacture, at Wundowie, and tannin extraction, utilising wandoo trees, based in Toodyay—thrived during the late 1950s and through much of the next decade. A small Forests Department settlement was established and a succession of young, eager foresters, assisted and guided by bushwise forest workmen, forged their early careers controlling the timbercutters, improving the road network and regenerating harvested areas. The burning programs carried out by the beekeepers were continued, wildfires were suppressed and a fire lookout tower was erected.

Over the years, Julimar woodland has attracted interest on many fronts. Beekeeping for honey production has long been associated with Julimar, no doubt due to the flavours imparted by the abundant dryandra species and wandoo trees. Beekeepers are still very active in the area. Licensed wildflower pickers have also operated there. Nature lovers have regularly visited the area since the 1960s.

In 1966, with the impending closure of the Avon Valley Army Training Area (now the Avon Valley National Park), the Department of Defence sought a land swap and the Commonwealth government assumed management of the northern third of Julimar State forest to establish a new defence training facility. This facility is now an integral and important part of the Australian Army's training capabilities. The area remains mostly uncleared and retains the intrinsic values of the adjoining conservation park.

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**Main** Grasstrees in Julimar Conservation Park.

*Photo – Sallyanne Cousins*

**Left** Apiary site in wandoo woodland at Julimar.

*Photo – Brent Johnson*



**Right** Keighery's spikerush, a threatened plant, grows in a seasonally inundated area at Julimar.  
Photo – Alice Reaveley

**Below right** CALM volunteer Megan Dilly with a goanna.

**Below far right** Past logging activity has created ideal habitat for chuditch.  
Photos – Brent Johnson

The Water Corporation also showed interest in that area's potential as a water catchment at one time, describing Julimar Brook as 'one of the few remaining examples of a watercourse flowing through undisturbed wandoo'. Mining and agricultural interests have also given rise to many requests for access to the forest. Over the years, however, departmental officers have successfully defended Julimar from further fragmentation or tenure change. It was clear that the woodland had very high conservation value, a fact highlighted in the Conservation Through Reserves (System 6) report for the Darling Range in 1981.

### Wildlife

As the sounds of the farming and timber industries faded into history, the woodlands which had been regenerated in their wake slowly but surely recovered. Early foresters and naturalists who worked at Julimar in the 1950s and 1960s noted the abundant wildlife, but a biological survey by the Forests Department in the 1980s failed to find any medium-sized mammals. Undoubtedly, a major factor was predation and competition from the introduced European fox, which began to flourish in the area in the mid to late 1960s as more of the surrounding land was cleared for agriculture. Feral cats were also present, and this predator is also believed to have played a role in the decline of many mammal species.

Prior to the implementation of widespread fox control under the Department of Conservation and Land Management's (CALM's) *Western Shield*



wildlife recovery program, Julimar was selected as a suitable site to reintroduce the threatened chuditch (*Dasyurus geoffroyi*). A recovery plan for this species had identified reintroduction to parts of its former range as a key strategy. The last record of these attractive marsupial carnivores from Julimar had been a roadkill in 1973. Fox baiting was commenced and individuals were selected for release from the breeding colony at Perth Zoo. The reintroduction began in spring 1992. Monitoring by CALM staff and numerous sightings by visitors and locals since then indicates that a relatively abundant population now exists.

Following the success of this program, woylies (*Bettongia penicillata*)

and tamar wallabies (*Macropus eugenii*) have also been reintroduced to the area. Displaced brushtail possums (*Trichosurus vulpecula*) and quenda (*Isodon obesulus*) from urban developments, such as new roads and subdivisions around Perth, have also been relocated to Julimar. Other species to benefit from fox control in Julimar include the western brush wallaby (*Macropus irma*), echidna (*Tachyglossus aculeatus*), goannas (*Varanus* spp.), carpet python (*Morchia spilota*) and smaller animals such as skinks and dunnarts.

Annual wildlife monitoring by CALM is conducted with the financial and logistical assistance of the Department of Defence. This monitoring includes parts of the



**Left** CALM carries out annual wildlife monitoring at Julimar Conservation Park.

**Below left** Carpet pythons have benefited from fox control at Julimar. This particular animal ate a radiocollared chuditch.

Photos – Brent Johnson

(*Dryandra polycephala*), pingle (*Dryandra squarrosa*) and many-headed smokebush (*Conospermum polycephalum*) grow throughout the reserve. There are smaller areas of banksia woodlands, granite outcrops, creeklines and swampy areas.

Because of this habitat diversity, and the fact that Julimar lies at the boundary of two major biogeographic regions, the reserve has a rich flora of more than 500 flowering plants. Particularly noticeable are the banksia family, with 43 species, and there are more than 30 orchids and 28 triggerplant species. This gives an amazingly colourful spring display. Two species of declared rare flora are known from Julimar. One is an aquatic species, Keighery's spikerush (*Eleocharis keigheryi*), which grows in a seasonally inundated claypan in the north-west corner of Julimar. This wetland of open mohan (*Melaleuca viminea*) scrub over open low sedges of black bristlerush (*Chorizandra enodis*) is an unusual vegetation community within Julimar and also contains a suite of priority species, including white-tip myriocephalus (*Myriocephalus appendiculatus*), aquatic pennywort (*Hydrocotyle lemnoides*), floating bog-rush (*Schoenus natans*) and jumping jacks (*Stylidium longitubum*).

The other species of rare flora at Julimar is Bindoon starbush (*Asterolasia nivea*), a small shrub up to 50 centimetres high with small white star-shaped flowers, inconspicuous sepals and aromatic leaves when crushed. The main populations of this species grow in Flat Rock Gully Nature Reserve, to the east of Julimar. However, one population occurs in Gallagher Forest Block, which is separated from the main block of Julimar by private property but proposed for inclusion in the conservation park.



northern 'army land', where a flourishing chuditch population has reestablished. The Department of Defence funds the fox baiting of much of the training area. This assists with native wildlife recovery and also provides a substantial buffer for the conservation park by preventing foxes from reinvading from the north. CALM has also recently completed a study at Julimar investigating the possible impact of an alternative fox bait on chuditch.

Birds and invertebrates are also

abundant, with many species attracted to the prolific dryandra, banksia and eucalypt flowers. More than 50 bird species have been recorded and many have breeding sites within Julimar.

### Wildflowers

Julimar consists of lateritic uplands and dissected lateritic slopes supporting open jarrah and marri forest, with moderately incised valleys clothed in open wandoo woodland, with some jarrah and powderbark. Extensive stands of many-headed dryandra

**Right** Mixed woodland is typical of Julimar Conservation Park.  
Photo – Brent Johnson

## Recreation

As most management effort has been aimed at protecting and restoring the nature conservation values, especially the wildlife, there are no camping areas, picnic sites or toilets at Julimar. However, due to the decades of logging and other commercial activities, a network of tracks weave through the conservation park. These can be used by bushwalkers and four-wheel-drive enthusiasts for camping, birdwatching and nature appreciation activities. The low level of visitation, compared to better known parks and reserves closer to Perth, provides a unique experience, with minimal disturbance away from the hustle and bustle of the city.

## Management

Because of its proximity to the metropolitan area and other large towns such as Toodyay, illegal firewood collecting has been a management problem at Julimar. However, increased public awareness and enforcement has reduced this activity over the last few years. Random patrols are undertaken by CALM wildlife officers and there is a heavy penalty for illegal firewood collection. Hollow logs and standing dead trees are particularly important in Julimar as refuge sites for wildlife.

Commercial beekeeping is still undertaken at Julimar, although commercial wildflower pickers no longer harvest many-headed dryandra (*Dryandra polycephala*) for dried floral arrangements following the proposal for this land to become a conservation park.

Trail biking and off-road driving are not allowed at Julimar, as this activity is inconsistent with its purpose as a conservation park. So far, Julimar has managed to avoid excessive impact from these activities, with trail bike and off-road users opting for more hilly terrain closer to Perth. Similarly, horse-riding is discouraged at Julimar, particularly as horses can potentially introduce weeds in their dung.



CALM's Perth Hills District recently completed an overhaul of the tracks throughout Julimar. Strategic boundary and internal tracks required for management operations were cleared to their original width and graded to an appropriate standard, while old minor logging tracks were left ungraded and will be allowed to overgrow. *Phytophthora cinnamomi*, the plant pathogen that causes the disease known as dieback, occurs in isolated pockets of jarrah forest at Julimar. Consequently, management operations are only undertaken in dry soil conditions and recreational four-wheel-drives should always remain on designated tracks to avoid spreading *Phytophthora*.

The various woodland blocks that make up Julimar are burnt under prescribed conditions every 10 to 15 years, depending on the amount of plant litter. The resulting mosaic of fuel ages throughout the entire forest enables an optimal range of biodiversity values to be maintained and also prevents a large wildfire from consuming the whole park. One section of Julimar has been designated as a 'no-burn' area and fire has been excluded by burning off from around its edge. This area is used as the release site for woylies, tammar wallabies, possums and quenda, providing a dense understorey in which the animals can shelter before their initial foray to explore their new home.

The Julimar Conservation Park stands today as an excellent example of a mixed age, multi-species woodland. It has survived the many battles waged for its attributes and uses. It now offers nature lovers a relaxing and interesting forest experience, yet is relatively close to the Perth metropolitan area. With a diversity of habitats, interesting wildflowers and abundant refuges, the native animals that were once so common have returned to inhabit this unique 'island'.

Brent Johnson is a Principal Technical Officer with CALM's Science Division based at Woodvale. He can be contacted on (08) 9405 5100 or by email ([brentj@calm.wa.gov.au](mailto:brentj@calm.wa.gov.au)).

Alice Reaveley is a Nature Conservation Officer with CALM's Perth Hills District. She can be contacted on (08) 9295 1955 or by email ([alicer@calm.wa.gov.au](mailto:alicer@calm.wa.gov.au)).

Keith Morris is a Senior Principal Research Scientist with CALM's Science Division based at Woodvale. He can be contacted on (08) 9405 5100 or by email ([keithm@calm.wa.gov.au](mailto:keithm@calm.wa.gov.au)).

The authors thank Roger Underwood, Kevin Pollock, Greg Keighery and Lisa Wright for their valuable assistance with this article.

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### Publishing credits

**Executive editor** Caris Bailey.  
**Editors** Carolyn Thomson-Dans, Rhianna King.  
**Scientific/technical advice** Tony Start, Paul Jones, Chris Simpson, Keith Morris.  
**Design and production** Tiffany Taylor, Maria Duthie, Natalie Jolakoski, Gooitzen van der Meer.  
**Illustration** Gooitzen van der Meer.  
**Cartography** Promaco Geodraft.  
**Marketing** Estelle de San Miguel  
*Phone (08) 9334 0296 Fax (08) 9334 0432.*  
**Subscription enquiries**  
*Phone (08) 9334 0481 or (08) 9334 0437.*  
**Prepress and Printing** Advance Press, Western Australia.

© ISSN 0815-4465

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Published by the Department of Conservation and Land Management, 17 Dick Perry Avenue, Kensington, Western Australia.

