



Barna Mia wildlife home

Visitors who come to Dryandra Woodland to relax and enjoy the astonishing array of wildlife and wildflowers during the day, can mingle with mammals in this innovative ecotourism facility



by Tricia Sprigg

The Barna Mia animal viewing facility is in the centre of the Dryandra Woodland, just 26 kilometres north-west of Narrogin and less than a two-hour drive south-east of Perth. Nestled among stately marri (*Corymbia calophylla*) and powderbark (*Eucalyptus accedens*) trees, it provides visitors with a rare opportunity to observe seven of Western Australia's threatened species, up close and in a natural setting.

All seven of these threatened species were found at Dryandra before European settlement. Now, only the woylie remains in sustainable populations. Despite this, more than half of the native mammals that have been previously recorded within the Wheatbelt still remain there. It is this

and Dryandra's location—between the moist jarrah forests and the semi-arid Wheatbelt—that makes it important in conserving the biodiversity of the region and of WA.

Following extensive clearing for agriculture throughout the Wheatbelt—and the subsequent introduction of exotic animals—both the number of animals and the areas they occupy have

been greatly reduced. With 93 per cent of land cleared in the south-west Wheatbelt, Dryandra's 28,000 hectares of wandoo woodland, mallet plantation and kwongan is now an island of bush in a sea of farmland. Its isolation from other animal populations means that restoration of locally extinct species can only occur by translocating species from wild populations, or through releasing offspring from captive breeding programs at Dryandra.

Recreating nature

In 1998, after many years of planning and research, the Return to Dryandra captive-breeding facility was completed under the umbrella of the Department of Conservation and Land Management's (CALM's) *Western Shield* program (see 'Return to Dryandra', *LANDSCOPE*, Winter 2001).

Five of WA's threatened species—the dalgyte or bilby (*Macrotis lagotis*), wurrup or rufous hare-wallaby (*Lagorchestes hirsutus*), marl or western barred bandicoot (*Perameles bougainville*), boodie or burrowing bettong (*Bettongia lesueur*) and merrnine or banded hare-wallaby (*Lagostrophus fasciatus*)—from wild populations, Kanyana Rehabilitation Centre and the 'Mala Paddock' in the Tanami Desert were placed in a specially constructed predator-proof enclosure. The Return to Dryandra project aimed to breed the five species within the facility, then release the young into Dryandra and other areas to reestablish wild populations.

Stage two of the project was to develop a 'viewing facility' so visitors could see these rarely-seen species in a natural environment, and learn about



● Dryandra Barna Mia



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Main Grass trees inside the Barna Mia compound.

Insets from top A wurrup and a dalgyte at Barna Mia.

Above left Leadlights seen from the inside of the entrance to Barna Mia.

Left Barna Mia's entrance was designed to resemble the outside of a burrow.

Photos – Michael James/CALM



Above Pathway to Dryandra's Barna Mia.
Photo – Michael James/CALM

the *Western Shield* fauna recovery program, wildlife conservation and management strategies. Initially, the viewing facility was to be built alongside the breeding facility. Entry was to be through an interpretation station, where visitors could stand on a viewing platform and watch the animals through a window. However, to minimise disturbance to the breeding animals and enhance the visitor experience, a separate site was selected and the two facilities were built independent of one another.

Building a home

In 2001, the Regional Tourism Development Program contributed \$80,000 and CALM provided the balance for the \$300,000 development of Barna Mia. The object of the facility was to enhance community awareness and appreciation of the biological and physical diversity natural to WA, and generate social, cultural and economic benefits through a range of services valued by the community. CALM continues to work with the Dryandra Country Visitor Centre and Lions Club to promote Barna Mia tours and achieve these objectives.

By September 2002, the rendered straw bale building, designed by BSD Architects and built by local builder Michael Ranieri, was completed. It features a large arched entrance, resembling the opening of a burrow, and a doorway surrounded by spectacular stained glass panels, made by Narrogin artist Suzi Rowley, depicting threatened animals and plants. The external rendering, in salmon ochre tones, complements the surrounding powderbark and wandoo woodlands. The burrow theme continues, as you enter the building through a passageway with two large curved walls that narrow before opening out into the auditorium. Visitors meet here before venturing out into the enclosure.

Five boodies and four marl from the Return to Dryandra breeding facility were the first animals to be relocated to Barna Mia on 22 October 2002. Shortly afterwards, four dalgytes, four wurrup and one merrnine—also from Return to Dryandra—made Barna Mia their new home. Little was known about how some of the species would react to their newfound fame. To help them settle in and become

used to their human visitors, staff from CALM's Narrogin office, and other interested community members, volunteered to travel out to Barna Mia each evening and simulate a tour.

With the animals settled in and all work completed, Barna Mia was officially opened on 14 December 2002. Twelve months later, Barna Mia became home to two more Wheatbelt species. Two woylies (*Bettongia penicillata*) and two quendas (*Isodon obesulus*) were added to the facility in November 2003. Numbers of both species had been critically low before the *Western Shield* fauna recovery program and subsequent fox baiting. Their removal from the threatened species list shows visitors, first hand, how effective the management strategies have been.

Meet the stars

Visitors arrive just after sunset. In a small theatre, a multimedia presentation provides an insight into the



history of Dryandra, the distribution and conservation status of some of Dryandra's wildlife, and the *Western Shield* program. Armed with knowledge of the methods and projects that are aiding the recovery of many of WA's threatened species, visitors then venture into the enclosure.

From the moment visitors step out into the starlit night and walk along the softly illuminated path, the gregarious boodies can be heard shunting their way through the bush as they search for insects, fungi and seeds. Led by a guide and using hand-held spotlights that project an animal-friendly red light, visitors scan the poison pea (*Gastrolobium* spp.), tea tree (*Leptospermum cubescens*) and one-sided bottlebrush (*Calothamnus quadrifidus*) heath for the charismatic marsupials. While the visitors are becoming accustomed to the particular characteristics of each species, the guides provide absorbing information about the intriguing and remarkable lives of these animals.

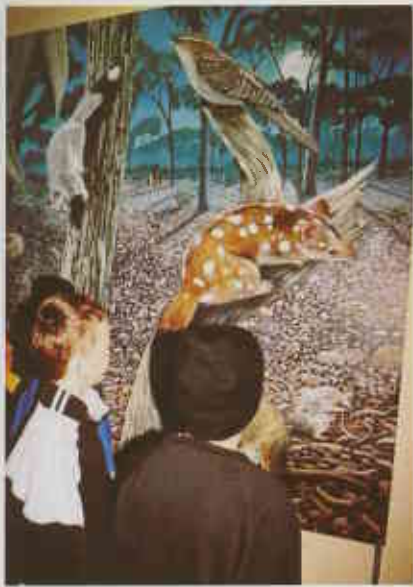
Next to the path, and spread throughout the walk, are four viewing stations where visitors can sit and watch the antics of the animals in their

Above A woylie.
Photo – Jiri Lochman

Top left A quenda.

Centre left A wurrup.

Left A merrin.
Photos – Marie Lochman



Above Schoolchildren admiring the mural at Barna Mia.
Photo – Tricia Sprigg

Above right Members of a tour group are greeted at the Barna Mia entrance.

Right CALM's Tricia Sprigg examines the window display of the straw bale construction of the Barna Mia building with visitors.

Far right Before venturing out into the compound, visitors are given an informative presentation.
Photos – Michael James/CALM



natural habitat. Visitors soon witness the individual personalities of the different species and of specific animals.

The rather shy wurrups, with their shaggy red fur and delicate features, wait patiently behind shrubs for just the right moment to quietly enter a viewing station for some light supper. Dalgytes zigzag their way through the vegetation; their long pink noses high in the air sniffing for scrumptious larvae, fruit or bulbs. While everyone's eyes are fixed on the baby boodie wiggling in its mother's pouch, the merrine, with her big brown eyes and camouflaging bands across her back and rump, slips silently into view. She is quite content moving around the viewing station, and only departs if disturbed by a sudden movement or the bickering of the boodies. Marl are occasionally seen flitting among the bushes or scampering across the path. Much smaller and shyer than their

counterparts, they usually wait until later in the evening to pass by. Wandering along the path, the tour groups occasionally stop to watch a woylie caching its food or maybe hop past carrying leaves and twigs in its tail.

After the tour, visitors are invited to share a warm drink, exchange stories of their daytime activities or browse the selection of merchandise depicting some of the species from within the enclosure.

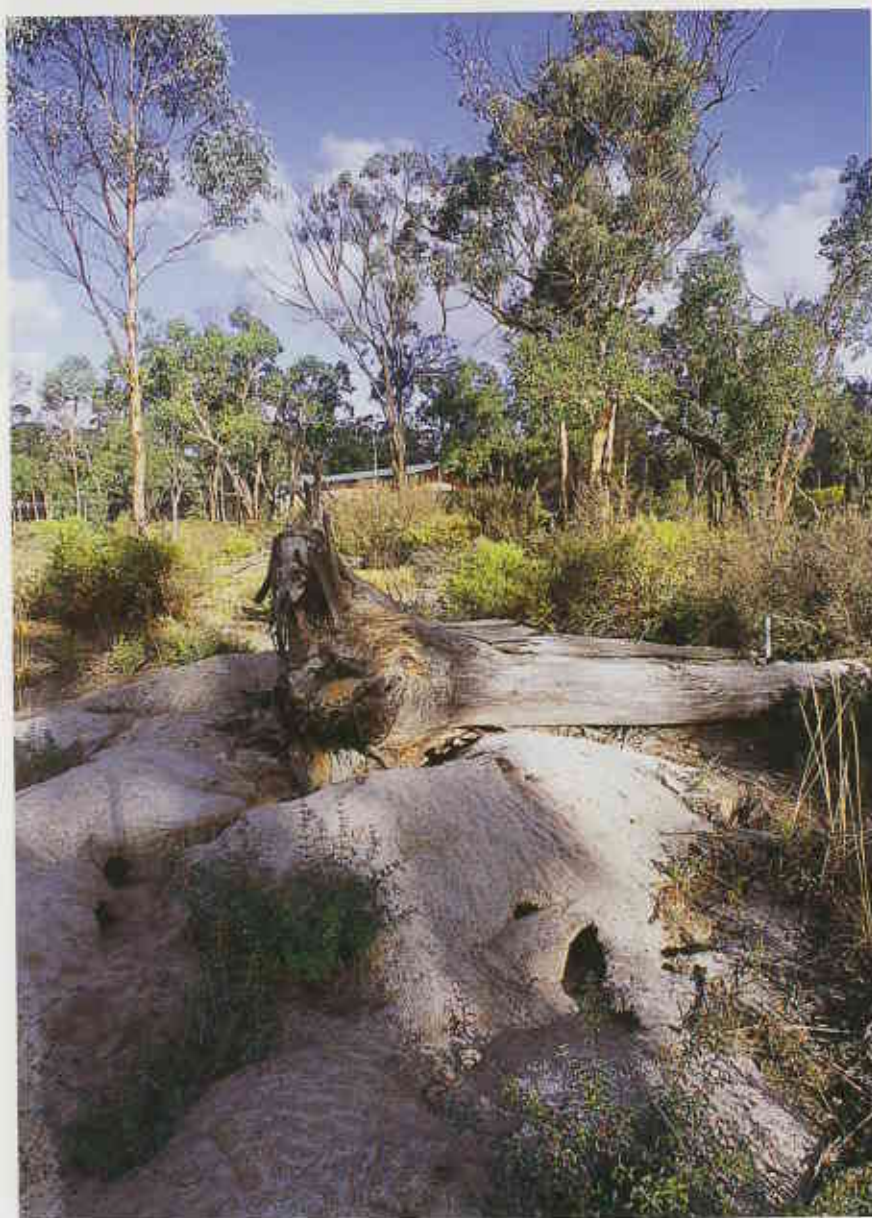
The well-being of the animals is of principal concern. Their response to the presence of visitors and the impact of the lights is closely monitored, with their behaviour and interactions recorded after each tour. Access to Barna Mia is restricted to tour nights only, so the animals can sleep during the day. Visitor numbers are also kept relatively low, between 15 and 20 people per walk, so as to maximise the visitor experience and to reduce the impact of tours on the animals. The

physical health of the animals is checked every three months when they are trapped, weighed and measured.

Classroom in the bush

Although Barna Mia does act as a surrogate breeding enclosure, with juveniles being removed to Return to Dryandra, its primary role is one of education.

CALM's Narrogin office offers a range of educational activities that are both hands-on and informative. Interactive activities such as 'Walk, Talk and Gawk' (a trapping session), 'Woodland Hide and Seek' (radio tracking) and 'Secrets of the Seeds' (plant discovery) are complemented by the facility at Barna Mia. They provide students with a greater understanding of the natural environment and its management. By working alongside a CALM officer, students begin to appreciate the ethical considerations when trapping, and understand the



value of ecosystems and the principles of maintaining natural biodiversity.

While the department's Irabina Study Centre, located in the centre of Dryandra and only a short drive from Barna Mia, provides a base for students' theoretical activities, the adjacent Lions Dryandra Village offers a variety of accommodation options ideally suited to schools and special interest groups. The renovated self-contained cottages, which once housed forestry workers and their families, can accommodate up to 12 people. With modern conveniences, open wood fires, verandahs overlooking the woodland and a historic character, the cottages are a popular choice for school classes and families. Larger groups may stay in the Currawong Complex. The Nissen huts, which now contain a commercial kitchen and dormitory-style sleeping quarters, were once located at Point Walter, but were transported to Dryandra in 1978. They provide ideal accommodation for large groups or classes.

Above A tour group on the Barna Mia circuit pathway.

Left Active dalgyte tunnels within the Barna Mia compound.

Photos – Michael James/CALM

The education programs at Dryandra aim to promote the principle that the maintenance of natural biodiversity is essential to sustain our quality of life. If we conserve and respect the richness, integrity and stability of our biological and physical environment, ecosystems will remain healthy and sustain the activities of human and other life.

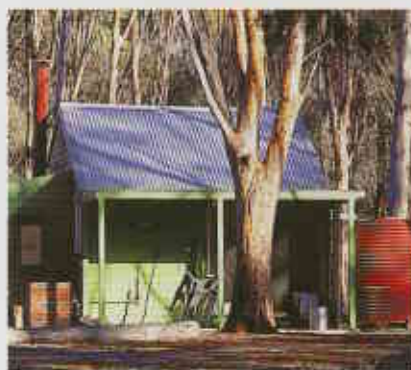
As students walk through the sheoak thickets or wandoo woodland with CALM staff, they can appreciate the importance of mature trees that provide shelter for phascogales, or how leaving logs on the ground is the first step to preparing a feast for a numbat. During the activities, students are able to help prepare the universal bait and, in doing so, gain a greater understanding of the work and research that goes into conserving our native animals. The combination of theory and practice enables the students to make a connection between what they have learnt and what nature needs.

Leonie Wilson, a Biology teacher from the Schools of Isolated and Distance Education (SIDE), has been taking Year 12 Biology students to Dryandra for many years. Leonie said:

“In the last two years, with the opening of Barna Mia, we have felt especially privileged. This sanctuary enables students to observe, up close, threatened native marsupials in a natural setting. Prior to our excursions, most students had never even heard of a bilby and, if they had, it was usually the chocolate variety that appears on the supermarket shelves at Easter time.

“Barna Mia is such an uplifting experience, that enables students to reflect on their place in the ecosystem. Instead of focusing on the negative influences of humans on ecosystems such as land clearing, salinity and introduced species, the students can focus on the positive steps humans have taken to ensure that threatened native marsupials such as the bilby, western barred bandicoot, rufous hare-wallaby, banded hare-wallaby and burrowing bettong will be around for future generations to see.

“The role played by CALM in the education of young biologists will add relevance and meaning to their studies, and the fieldwork allows them to make the necessary connections to enhance



Top Containment fence at Barna Mia.

Above One of the accommodation cottages available at Dryandra.
Photos – Michael James/CALM

Right A marl.
Photo – Michael & Irene Morcombe



understanding. At the end of this camp, many students resolve to pursue a career in Biology. For these reasons I will continue to bring my SIDE Biology students to Dryandra for many years to come. Thank you for your valuable contribution, it does make a difference.”

For many students and visitors, seeing dalgytes, boodies and wurrups up so close in their natural habitat is a once-in-a-lifetime experience. With many people keen to conserve these intriguing and captivating marsupials, and the other recent releases into Dryandra, this experience is set to be repeated over and over.



Tricia Sprigg is the Acting Visitor Services Officer at CALM's Narrogin District. She is responsible for providing guided tours of the Barna Mia facility and can be contacted on (08) 9881 9200 or by email (tricias@calm.wa.gov.au).

For more information about accommodation at Dryandra, contact Lions Dryandra Village on (08) 9884 5231 or visit their website (www.dryandravillage.org.au).

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