





by Joanna Moore

Classroom in the forest

The future of the environment rests in the hands of our children. So hands-on EcoEducation programs offered through the Wellington Discovery Centre, in Wellington National Park 200 kilometres south-east of Perth, have been designed to raise environmental awareness within the generations who will become the custodians of our forests and many other natural resources.

Photos – Michael James

The resource room at the Wellington Discovery Centre is an 'Aladdin's Cave' of fascinating props for learning in the forest. Western grey kangaroo pelts hang next to rows of sample jars, stacks of tree identification samples, leaf litter gauges and all manner of nets, buckets, Petri dishes, torches and animal traps. These tools and samples are just a hint at the many interesting excursion programs that run from the centre.

The Wellington Discovery Forest, home to the Wellington Discovery Centre, is surrounded by some 17,000 hectares of unique eucalypt forest of jarrah, marri and yarri (blackbutt) that makes up the recently-extended Wellington National Park. The 650-hectare Discovery Forest Reserve is used as a 'teaching forest', and is purpose-managed for education and interpretation. Since it opened in May 2000, a large number of primary and



secondary students and teachers, as well as local sightseers and tourists have visited the centre.

Forest-based learning

The programs at the Wellington Discovery Centre near Collie benefit from the success of those at The Hills Forest Discovery Centre, set in jarrah forest near the Mundaring Weir. Since its opening in 1993, when it was the first of its kind in Western Australia, 150,000 students have engaged in the interactive learning experience offered there. Liz Moore, the Department of

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Main Students from St Michael's Catholic Primary School, Brunswick Junction, with treasure perspex cubes containing examples of life found along the walktrails of the Wellington Discovery Forest.

Inset Early morning bush scene in Wellington National Park.

Below left CALM EcoEducation Project Officer Janet Date teaching in the exhibition room of the Wellington Discovery Centre.

Conservation and Land Management's (CALM's) Senior Project Officer for EcoEducation, developed the Wellington centre's programs in 1999 and 2000 with the goal of creating an EcoEducation opportunity that enabled students and teachers to learn about the ecosystems, values and management of WA's jarrah forest. The pilot program, launched in 2000, was an immediate success, and new activities were added in 2001. A rammed-earth building was added to the former forestry cottage turned classroom in 2000. The variety of courses and the number of student visitors is still rising.

In some of the excursions, students simulate the real work of CALM field staff and scientists. They role-play using a wide range of equipment, such as animal traps, nets, flipcharts of animal classification, leaf litter gauges, torches and magnifying lenses. For example, in 'Back from the Brink' students find out about CALM's *Western Shield* threatened species recovery program. They get involved in research methods, set their own traps and even 'catch' and measure (toy) animals. A walk down the one-kilometre Jarrah Trail shows students how the jarrah forest thrives on infertile soils and supports a great diversity of plants, some of which are found nowhere else. Night-time spotlighting is another exciting way students can become involved in conservation techniques.

Field-based learning

The purpose of the Wellington Discovery Centre is to enable its





Above Collie River, which meanders through Wellington National Park.

Right Wellington Discovery Centre.

visitors, primarily students, to explore the natural processes of the forest. It's about education, appreciation, inspiration and raising awareness. The hands-on activities focus on gaining knowledge of the forest environment and ecosystems, the impacts people have on the jarrah forest ecosystem and how these impacts can best be managed. Along with enjoyment, the goal is to create a generation of children with conservation values, who make lifestyle choices that reflect these values.

'Ecosystem Explorers', 'Busy in the Forest', 'Djildjit the Nyoongar Way' and 'Sense-ational Nightlife' are the names of just a few of the 13 programs that draw students of all learning levels from throughout the south-west, as well as from metropolitan schools, to the Wellington Discovery Forest. What you see when you look around the resource room is that learning can and should



be interactive and fun. This is the vision of the EcoEducation centre—to provide school communities with an awareness and understanding of, and active involvement in, biodiversity conservation. The popularity of the centre is an indication that this kind of learning works.

Inspiring experiences

Janet Date, CALM EcoEducation Project Officer, says that providing her young visitors with worthwhile experiences at the centre helps to engender a love for the natural

environment. She feels that today's young people have less opportunity to see and experience the natural environment: "the Discovery Centre provides a positive hands-on experience—they fossick, look, search, listen and investigate in an ideal setting with a supportive environment".

It is hoped that the experiences children and young adults have at the centre will lead to their greater understanding of land management issues. They see the impact their actions—such as leisure activities—have on the environment, and how resource



use can damage fragile ecosystems. The programs offered to schools at Wellington Discovery Forest have been designed to address the Curriculum Framework cluster of core values of Environmental Responsibility and Social and Civic Responsibility, through all learning areas, but especially Society and Environment, Science, English, and Technology and Enterprise.

Teamwork with teachers

Teachers are provided with in-class resources to use before and after EcoEducation excursions at the Wellington Discovery Centre. These educational materials mean that students get the most out of their excursions and that lessons they learn in the field can be reinforced once students return to the classroom. Another important part of the collaboration between schools and CALM is the professional development programs that inform teachers about the courses and facilities that are available at Wellington Discovery Forest.

These continually-developing partnerships between schools and CALM are central to fostering the community involvement that is so important to biodiversity conservation outcomes. The Wellington area is a high priority community region and the discovery forest is part of this investment.

The programs offered in Wellington Discovery Forest Reserve are practical and highly interactive. There's very little sitting and just listening. Students are quickly out doing things, learning things, getting their hands dirty and engaging their minds. Field-based learning is a powerful way to initiate changes in children's world views and attitudes, particularly towards the natural environment.



Above left Janet Date with students from St Michael's Catholic Primary School.

Left Searching for sap-sucking insects using a magnifying glass.

A forest 'classroom'

On the day I visited the Wellington Discovery Centre, Janet was running one of her new courses, 'Marvellous Macro-invertebrates', with a group of 21 Year 11 students from Bunbury Senior High School. In this program, which is conducted in partnership with Ribbons of Blue/Waterwatch WA, students take a close look at the aquatic invertebrates of the nearby spring-fed stream.

After a quick briefing and discussion in the centre's classroom, converted from an old forestry cottage, with its fantastic forest-scene mural, the students broke into groups and made their way down to the stream. Janet took a water sample, while students started their site surveys and got ready to find and observe the macro-invertebrates. Groups of students squatted around basins of stream water, keenly scooping out animals to magnify and identify. Maybe some teams were more team-like than others, but observations were made, many questions asked, and some answers found. They used a flip chart of physical characteristics to work out what they were looking at.



Left A bird orchid (*Pterostylis barbata*) found in Wellington National Park.
Photo – Tom Chvojka

Borrowing the forests from our children

CALM is a custodian department—one that cares and plans for the future environment that will sustain future generations. EcoEducation programs can play a major role in raising awareness and changing behaviour within the generations who will take over the custodianship of our beautiful forests and many other natural resources. It is these children's values that will determine the conservation decisions made in the future, and therefore the fate of our environment.

The excursions and camps that are run at the Wellington Discovery

Below left Students wear blindfolds to identify plant species by touch as part of the 'Sense-ational Trail'.

Below Students read interpretive signage at Wellington Discovery Forest as part of the 'Busy in the Forest' activity.

Forest, and other centres like it, play an important role in fostering the younger generation's feelings of responsibility for the natural environment. Janet, her leaders and other CALM staff hope that this investment will lead to responsible environmental custodianship. The programs are also a great source of inspiration, practical experience and advice on the many career options that exist for budding environmentalists. One of the many encouraging aspects of her job, Janet says, is the number of students who ask about career opportunities working within the natural environment.

Students come from local schools,





but also from Perth, Mandurah and from as far afield as Hyden and Albany. Affordable accommodation is available nearby for school groups who are a long way from home, and for longer camps. The 17,000-hectare Wellington National Park surrounding the Wellington Discovery Forest also contains locations and facilities that are suitable for a huge range of recreational activities often in demand during school camps, such as canoeing, abseiling, hiking and orienteering. But, even on its own, the structured forest-based learning offered through the Wellington Discovery Centre is an invaluable education resource.

What lessons do students always remember best and most positively? Usually they are the ones that weren't

in a classroom—their field trips and excursions. Student feedback is important to CALM's EcoEducation staff, who monitor the effectiveness of these programs. A survey is being carried out in schools, including those who haven't yet participated in the Wellington Discovery Forest programs. This will indicate how CALM's EcoEducation programs affect the knowledge and attitudes of students. Teachers visiting Wellington Discovery Forest also critique each program, helping CALM staff to continually improve these educational offerings.

The Wellington Discovery Forest Centre receives lots of repeat trade. In fact, three schools in the local area have become partnership schools of the Wellington Discovery Forest, making a

commitment to bring students from all years, and even taking on the responsibility of their own plots of forest to research and manage. They have recognised that the EcoEducation experience is a worthwhile one for all students. Such strong relationships between schools and CALM benefit all concerned: the students, their teachers, the department, the wider community and, of course, the natural environment at the centre of it all.

Above left Janet Date teaching with the hand-painted forest-scene mural as a backdrop.

Above Western grey kangaroos forage outside Wellington Forest Cottages that were built in the 1930s for the original foresters.

Left Students from St Michael's Catholic Primary School, at the main signage at the forest.



Joanna Moore is a final-year Professional Writing and Presentation student at Curtin University of Technology. She really enjoyed her work placement experience at *LANDSCOPE*, where she could creatively bring together her love of writing with her appreciation and concern for the preservation of the natural environment. Joanna can be contacted on 0401 523 184 or by email (josophine@hotmail.com).

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