

## 2010 International Year of Biodiversity and EcoEducation's 250,000<sup>th</sup> Learner Shark Bay Special Edition

Hello colleagues,

### EcoEducation workshop 'An Evening with Kathryn Cameron' and International Year of Biodiversity launch

In partnership with the Science Teachers' Association of WA (STAWA) and Curtin University of Technology, DEC's EcoEducation program marked the 2010 International Year of Biodiversity with a workshop and launch on Friday 12 February.

EcoEducation secured Kathryn Cameron from the USA to lead a workshop about her team's work in shark and ecosystem research in Shark Bay and resources being developed for teachers about ecosystem processes in our World Heritage Area. More than 50 teachers attended the workshop. Most brought their computers in order to engage fully with the materials. Considering this was a Friday afternoon after work, this was a great effort by WA science, geography and primary school teachers and university educators. Kathryn thanked DEC's EcoEducation program for its support and for making the workshop possible.

At the launch of the International Year of Biodiversity, which followed the workshop, the teachers and university educators were joined by Curtin University of Technology staff. Aboriginal spokesperson for the metropolitan area and EcoEducation Leader Trevor Walley gave a traditional Aboriginal welcome to about 80 guests at the launch. WA Chief Scientist Professor Lyn Beazley and Curtin University's Deputy Vice Chancellor Professor Jane Den Hollander officially launched the International Year of Biodiversity together.



*EcoEducation Senior Project Officer Elaine Horne with researcher Kathryn Cameron.*

### Next event in the International Year of Biodiversity series – Professors Mucina and Majer

As part of an International Biodiversity Lecture series organised by EcoEducation and STAWA, the next event will be held in DEC's Kensington training rooms from 4pm–6pm on Friday 21 May. This event will feature Professors Laco Mucina (former Vice President and now Secretary-General and Treasurer of the International Association for Vegetation Science) and Jonathan Majer (ANZAAS Medal winner). There will be a cost for afternoon tea of \$15 for DEC staff and STAWA members and \$25 for others (DEC staff, please contact [elaine.horne@dec.wa.gov.au](mailto:elaine.horne@dec.wa.gov.au) to notify of attendance). A special dinner will be held afterwards at the Pagoda Restaurant and Bar for \$45 (bookings are essential). If you are a teacher, it's best to go through the [www.stawa.net](http://www.stawa.net) website.

### Aboriginal culture PL

EcoEducation's Aboriginal culture Professional Learning workshop for teachers and educators was a huge success. Trevor Walley welcomed everyone in the traditional Aboriginal way and he, Leonard Thorne and Gudathada (Zac) Walker led teachers through a smorgasbord of Aboriginal activities that EcoEducation offers schools (and universities if they would like). Anthea Dempster-East, who is training to be an Aboriginal Leader, contributes the women's traditional view to the program. The Aboriginal programs are a highlight of EcoEducation's programs and were developed over many years with the help of some current DEC Aboriginal Heritage Unit staff and other senior members of the Aboriginal community.

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*Kathryn Cameron, WA Chief Scientist Lyn Beazley, Deputy Vice Chancellor Jane Den Hollander and Trevor Walley at the launch of the International Year of Biodiversity.*

## News from the Perth Hills National Parks Centre

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**Kalgoorlie visit** (Great Western Woodlands and part of the South West Biodiversity Hotspot)

I was recently hosted by the very generous DEC Kalgoorlie office to look at opportunities for EcoEducation through a flexible education model. Goldfields Regional Manager Ian Kealley and other DEC staff, particularly Rebecca Hamilton and Louise O'Reilly, spent many hours talking to me about current education programs and facilities in Kalgoorlie and looking at possible partnerships. They took me to some interesting locations that could support a formal EcoEducation program. While in Kalgoorlie, I presented to students and teachers at a Science Awareness Festival. I was overshadowed by the very capable Louise and Rebecca, who had students' rapt attention. I am considering offering Kalgoorlie as next year's three-to-four-day 'exotic PL' for teachers and educators. Please contact me if you'd be interested.

### EcoEducation AWARD of the YEAR

EcoEducation's AWARD of the YEAR is a new initiative from the EcoEducation Leaders and staff at the Perth Hills National Parks Centre. At the end of last year, it was judged that Gloria Fletcher and her years K-7 students from Wattle Grove Primary School were the most worthy recipients of this annual award. Congratulations students and Gloria.

### New WA Bush Rangers coordinator

We have a new face in the Bush Ranger camp: Hannah Hampson, who was previously Project Officer for EcoEducation in the South West. She arrived just in time to facilitate the Bush Rangers WA Conference. Welcome to Hannah.

### Elaine Horne, Senior EcoEducation Officer, DEC



*Kalbarri Bush Rangers unit waiting to help the Environment Minister with the release of tamar wallabies.*

### Indonesian Masters students + EcoEd = great environmental learning opportunities

During Terms 1 and 2 EcoEducation will be working with six groups of Indonesian Teachers undertaking a Masters course at Curtin University of Technology. Students will visit several different environmental education establishments to see what they do and how they do business. During the three groups hosted so far, effort has focused on threatened animal species and DEC's *Western Shield* project. The Language, Science and Maths Learning Areas are highlighted throughout the day, not only in what we do, but how the skills could be applied back in a village in Indonesia using the natural environment as a living classroom.



*Curtin University students and staff with Stephen Crane.*

### Biology Unit 3 EcoEducation excursion trials

Unit 3 Biology has now arrived. As teachers are deciphering the curriculum documents, EcoEducation, in conjunction with several schools, has been trialling excursions suited to the new units of study. EcoEducation has developed two excursions that suit the course. All excursions have been developed in close cooperation with practicing teachers.

Both excursion trials had teachers praising the excursions and the depth at which materials were covered. Ask about the new Biology options when booking a Biology excursion.

### DEC officers to the rescue!

When you book an excursion with EcoEducation you can be sure we have several safety systems in place. These systems were put to the test when Melville Senior High School visited during Term 1. While they were taking part in a fire excursion, the school minibus became bogged. DEC's District Office was called and a fire truck with crew saved the day. The students enjoyed a unique learning event in addition to the planned activities!

# ecoeducation news

## Shark Bay Ecosystem Research Project Adventure

Kym Phillips

When I attended the biology teacher Professional Learning day with DEC EcoEducation toward the end of the 2009, I never imagined that it would lead to the experience of a lifetime.

EcoEducation, along with Florida International University, offered teachers the opportunity to participate in their research project being conducted out of Shark Bay, Monkey Mia. I was lucky enough to be chosen to participate in the program and headed to Shark Bay for two weeks starting on 1 March 2010.

Katy Cameron and her team were very welcoming and went out of their way to provide me with a wide range of experiences including conducting shore bird surveys alongside the Birds Australia team and with local DEC rangers. We dove on hooker to clean and repair dugong exclusion cages over the seagrass beds, tracked big tiger sharks with radio tracking equipment, camped out in remote locations and performed transects in the boat surveying for prey species. The majority of time on my experience was spent fishing for tiger sharks.



*Loggerhead turtle captured after 'turtling'*

When one was caught the shark needed to be measured, tagged, tissue and blood samples were taken and sometimes a radio tracker attached.

Another amazing experience was 'turtling'. This involved using the boat to come up behind loggerhead turtles. Two people would spot, one drive and one DIVE! Yep, to catch the turtles someone would have to dive

off the boat onto the turtle, bring it over to the boat, tag it and take measurements. Far out was it fun!

Thank you so much to Elaine and Katy and their respective organisations for providing Western Australian teachers with such a unique opportunity. SBERP resources are located on the website, [www.sberp.org](http://www.sberp.org) and are well worthwhile integrating into programs for students.

### **A yearning for learning** Francis X. McTernan

Sometimes you just have to love being a teacher. I am a Biology teacher at John Septimus Roe Anglican Community School in Mirrabooka. Last year, I was on a Professional Learning day up in the Perth Hills of Mundaring learning about all the wonderful experiences the EcoEducation team of DEC has put together for our kids. At the end of which was an opportunity to go into a draw for a 'Teacher Research Assistant' at Monkey Mia helping to do research on tiger sharks. To my great fortune I was selected.

I'd like to thank Elaine for making it possible and the Shark Bay Ecological Research Project (SBERP) for taking me in and showing me what they do, and being so supportive of education. Finally, thank you to my principal Matthew Hughes for supporting this endeavour.

Reflecting on the two weeks I spent with the SBERP (Kirk, Kerrey and Gina) I am finding it very difficult to put down

in words how much I valued working with Kirk and his team.

Here is my summary.

*Did transects looking for prey. Saw dugongs, sea snakes, shags, dolphins, mackerel, cuttlefish, cobia and many other animals on the surface of the water. Raced down loggerhead and green turtles to dive into the water and catch them by their shells. Swam turtles back to the boat for measuring, tagging, and blood work. Dislodged a loggerhead that had taken hold of our boat by biting it. Baited 10-centimetre hooks with 20 centimetres of dead snapper heads (or any other long-dead combination of foul fish heads). Hauled lines. Cast lines. Caught sharks. Held sharks. Dragged sharks next to the boat. Measured, tagged, and took blood from sharks. Released sharks. Watched released shark attack the same hook it was just freed from. Made some wire-mesh sea grass cages.*

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# ecoeducation news

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*Dove for three hours off of a Hookah. Dislodged a sea snake from my regulator hose. Moved a stonefish out of a sea grass cage. Repaired some seagrass cages. Replaced some seagrass cages. Cleaned many seagrass cages. Stood on 'Shark Watch' while Kerrey and Gina dove. Chased away a hammerhead that had a keen interest in Kerrey and Gina. Visited a pearl farm. Met the next 'Farmer wants a wife', who was a pearl farmer. Played with some dolphins. Found out I'm not supposed to play with dolphins. Met Puck, a pregnant dolphin. Met the marine biologist studying Puck. Met Puck's new baby. Met the BBC film crew filming the dolphins. Chased away an angry emu. Watched the same angry emu stomp on a pitbull. Was taken in like family by Monkey Mia staff. Ate amazing seafood. Washed the boat many times. Went four-wheel driving in the national park. Swam in natural hot water springs. Lounged around by the pool. Flew a kite. Carved a sign. Caught more sharks. Caught more turtles. Did more diving. Slept like a Log. Lost weight and got a tan. Repeat.*

Now a new challenge presents itself. As a biology teacher how do I translate these experiences into high impact, effective lessons for my students? Shark Bay can easily be a medium in which to teach across multiple learning areas. Its environment is exciting and beautiful. Its history is a significant part of WA's heritage. And it is a massive conservation area of ecological importance. Dr Mike Heithaus has put together a great educational package with Katy Cameron that which is accessible from the SBERP website. The study being done on seagrass ecology uses classic biological methodology and we'll be doing reef transects and sea grass quadrats modelled after what I did up in Monkey Mia with SBERP.

To sum up, this trip refuelled my passion, provided me with an exciting, real and relevant medium in which to teach my students, and provided me with classroom resources to use across all of my year groups.

Thank you to District Manager Brett Fitzgerald and his team at Shark Bay for their support of the enormously successful SBERP-EcoEducation collaboration.

## Upcoming Professional Learning for teachers and educators

Friday night and Saturday **14 and 15 May** - A Night with Nature (Perth Hills) or Be a Nature Conservation Officer for the Night (Bunbury). Join us for a sample of our programs, trapping and night walk.

**Friday 21 May** - Join us at Teachers of The Arts PL to see how we can provide for your students in the natural environment.

4-6pm **Friday evening 21 May** - Training Centre Kensington. An Evening with Professors Mucina and Majer. Join EcoEducation in celebrating International Year of Biodiversity with our International Biodiversity lecture series with STAWA.

Exotic PL in Kununurra accompanied by WA Chief Scientist Professor Lyn Beazley, **July 10-14** - See the fossilised Devonian Reef, experience unique high-biodiversity springs and learn about fire in the Kimberley.

Sponsors of the Western Shield schools program:



WESTERN AREAS NL



## Statewide

Elaine Horne, Senior EcoEducation Officer (ph 9334 0387, mobile 0407 196 626, fax 9334 0498 email [elaine.horne@dec.wa.gov.au](mailto:elaine.horne@dec.wa.gov.au)).

Hannah Hampson, Bush Rangers Coordinator (ph 9334 0137, fax 9334 0498, email [Hannah.hampson@dec.wa.gov.au](mailto:Hannah.hampson@dec.wa.gov.au)).

**Perth Hills National Parks Centre and Henderson Environmental Centre** contact the Customer Services Officer (ph 9295 6149 or 6300, fax 9295 3247, email [ecoeducation@dec.wa.gov.au](mailto:ecoeducation@dec.wa.gov.au)).

### EcoEducation in the South West Region

For enquiries, bookings for excursions or PLs contact DEC Bunbury District Office (ph 9725 5900) and ask for EcoEducation or contact the EcoEducation Project Officer (ph 9725n5944, email [wdf@dec.wa.gov.au](mailto:wdf@dec.wa.gov.au)).

Visit DEC's website at [www.dec.wa.gov.au](http://www.dec.wa.gov.au)

## Florabase Plant of the Month

Desmond mallee  
*Eucalyptus desmondensis*

See what's flowering each month:

[www.dec.wa.gov.au/florabase](http://www.dec.wa.gov.au/florabase)

