

education



DEPARTMENT OF
Conservation
AND LAND MANAGEMENT
Conserving the nature of WA

**Shark Bay World Heritage Area
Francois Peron National Park**
Be a Nature Conservation Officer for a Weekend

Saturday 13th August - Sunday 14th August 2005

REPORT



western
shield

Report *Western Shield* Shark Bay camp Be a Nature Conservation Officer for a Weekend

Professional Development for Teachers
13th-14th August 2005

This professional development camp for teachers is offered once a year in the Shark Bay World Heritage Area and is sponsored and facilitated through the EcoEducation's *Western Shield* Schools Program. It is based at the Peron Homestead.

The outcomes of the camp:

- participants were introduced to the Department of Conservation and Land Management's *Western Shield* Schools program;
- participants were introduced to *Project Eden* and *Western Shield* and their importance in restoring native fauna species to their natural habitats;
- participants had a hands-on experience of the Department's research and monitoring methods;
- participants met and questioned field staff, research scientists and managers working on recovery programs of threatened fauna and the management of national parks;
- participants had close encounters of seldom seen Australian native fauna;
- participants had the opportunity to explore the flora of the Shark Bay area and learn about the role of CALM's Herbarium
- participants were provided with curriculum resources about threatened species and ecosystems that they could use in school;
- participants found out about opportunities in the Shark Bay area for students; and
- participants enjoyed a weekend in Peron Peninsular.

Participants included 19 teachers from Independent and Government Schools and 3 university staff. Most of the teachers involved are responsible for the learning areas of Society & Environment and/or Science and Biology and the university staff are involved in the training of Pre-Service teachers.

Seventeen of the teachers were from the Perth area:

| Primary Schools | Senior High Schools | Colleges | Universities |
|------------------------|----------------------------|--------------------------|---------------------|
| Bibra Lake PS | John XX111 | Canning | Murdoch |
| Dwellingup PS | Hampton SHS | Methodist Ladies College | Edith Cowan |
| | Hamilton SHS | Santa Maria College | |
| | Fremantle SHS | All Saints College | |
| | Clarkson Community HS | | |

The other teachers came from the Midwest area – Bluff Point Primary School, Geraldton PS, Geraldton Grammar, Geraldton Senior College, PIA Wadjarri RCS, and St Josephs, Moora. Two participants were from non-teaching backgrounds. The two CALM staff members attending from Perth were Liz Moore and Rob Davis.

The program

A detailed program for the camp is attached. The aim was to provide a mix of information sessions (talks and PowerPoint/slide presentations), hands-on activities, opportunities for questioning and informal social interaction with scientists, Rangers, Parks and Visitor Services staff of the Shark Bay World Heritage Area as well as educational, curriculum linked resources for use in school. An informal BBQ on the Saturday evening gave participants a chance to meet CALM staff and local representatives involved in education and tourism.

The program was based on the 2004 camp with modifications on content in response to feedback from that camp. This year's program included an excellent introduction in the form of a 'Welcome to Country' by Elder, Rodney Drummond of the Yadgalah Corporation. Sessions introducing the Shark Bay World Heritage Area and *Project Eden* were both very well received by the group as were the reptile encounter and plant/herbarium study sessions.

Involvement of staff from CALM, World Heritage Area and the Dolphin Research Foundation

Dave Charles and Monica Dawson in conjunction with Liz Moore organised and planned the camp. Considerable staff time was committed to planning and executing the weekend's program. The following summarises this involvement:

- World Heritage Project Officer, *Cheryl Cowell*: Introduction to the World Heritage Area.
- Project Eden Manager, *Colleen Sims*: PowerPoint presentation and assistance with trapping sessions
- Fauna Re-Introduction Officer, *Kathy Himbeck*: Pitfall, cage and Elliott trapping sessions – setting and checking traps.
- Manager Peron Captive breeding Centre, *Nicole Noakes*: Overview of breeding program and tour of Breeding Centre.
- Senior Ranger, *Mark True*: Reptile encounter session.
- Monkey Mia Reserve Officer, *Ian Anderson*: Introduction to Monkey Mia Visitor Centre
- Technical Officer, CALM Herbarium, *Rob Davis*: *Introduction to Florabase*, identifying plants of the Shark Bay area and establishing a Regional Herbarium
- Senior EcoEducation Officer, *Liz Moore*: EcoEducation resources and opportunities

Record of fauna/flora seen by teachers during the camp:

Fauna:

pitfall traps -18 pits and 24 Elliott traps

- 2 geckos male and female *Diplodactylus pulcher*
(female had 2 eggs inside her body)
- 2 spinifex hopping-mice
- spiders, many caterpillars
- wolf spider & (sotifugidae) -
- 1 domestic mouse

near Homestead - 24 cages & 24 Elliott traps

- 1 x male dunnart in Elliott trap
- 3 spinifex hopping mice
- 2 domestic mice

at breeding pens –

- mala (rufous hare-wallaby)
- banded hare-wallaby - 2 male and 2 female
- bilby - close encounter

Birds – a huge variety of birds including
falcon/brown goshawk capturing hopping-mouse
chiming wedge-bill
white-winged fairy-wren
crested pigeon

Reptile encounter– with Mark True

Tiliqua rugosa palarra – (bobtail skink) x 3
Morethia lineocellata – small brown skink x 1
Lerista lineopunctulata – fossorial skink (sand swimmer) x 2
Lerista macropisthopus – fossorial skink (sand swimmer) (blackhead) x 3
Lialis burtonis – snake lizard (legless) x 1
Lerista elegans – fossorial skink (4 legs) x 1
Menetia surda cresswelli – (small brown skink) x 2
Demansia calodera – (black napped whip snake) x 1
Varanus gouldii - (monitor or race horse goanna) x 1
Pogona minor (western bearded dragon) x 3
Ctenophorus inermis (sand dragon) x 3
Diplodactylus alboguttatus (orange spotted gecko) x 1
Diplodactylus vittatus (grey/black zig-zag gecko) x 1
Strophurus strophurus (grey spiny gecko – large) x 1
Heteronotia binoei (brown spiny gecko) x 1

Flora study – with Rob Davis

It has been a good year for wildflowers with the country looking very good – certainly a good time of year for the camp.

Rob led field studies and instructed the group about how to establish a Regional Herbarium. A native tobacco plant was collected for the Shark Bay Herbarium.

Feedback from teachers

Each session of the camp was evaluated by the participants. The attached summary of evaluations indicates strong endorsement for the program. The content was thought to be of considerable value to teaching programs and the activity ideas provided were thought to be extremely beneficial. Teachers were given a number of curriculum-linked resources, photographs, and CDs that could be shared with students.

Additions and improvements suggested by teachers (see attached Summary of Evaluation Forms) have been noted and will be included in Shark Bay camp planning for 2006.

Conclusion

The planned outcomes were achieved. Each teacher who participated in the camp has the potential, throughout their teaching career, to directly influence hundreds of students. These camps at Shark Bay are an effective way to raise awareness in school communities regarding the benefits of Project Eden, the value of the Shark Bay World Heritage Area, the importance of biodiversity conservation and the work of the Department of Conservation and Land Management.

Robyn Weir (EcoEducation Project Officer)
for Liz Moore
8th September 2005



**Shark Bay World Heritage Area
Francois Peron National Park**
Be a Nature Conservation Officer for a Weekend

Saturday 13th August 11am, to Sunday 14th August 6pm, 2005

Saturday 13th August

- 11am Arrive at Peron Homestead, welcome and refreshments
Introduction and orientation with *Liz Moore, Senior EcoEducation Officer* and *Mark True, Senior Ranger*.
Welcome to country and with *Elder, Rodney Drummond, Yadgalah Corporation*.
Setting the Scene - WA's only World Heritage Area, *Cheryl Cowell*.
Introduction to curriculum resources, with *Liz Moore*.
- 12.45pm **Lunch**
- 1.30pm Introduction to Project Eden with *Dr Colleen Sims, Manager, Project Eden*.
Travel to pitfall trap research area to set traps. Return to Homestead and set cage traps close to Homestead.
- 4.30pm **Afternoon tea**
EcoEducation and *Western Shield Schools* program, curriculum resources with *Liz Moore*.
'Discover the plants of Shark Bay' walk. How to establish a Regional Herbarium with *Rob Davis, botanist and Coordinator, Regional Herbaria*
Evaluation of PD to date.
- 6.00pm **Free time**
Options: browse through the Visitors Centre; explore Shark Bay's history; follow the walk trail discovering more recent history or relax in the Homestead's artesian fed 'hot tub'.
- 7.00pm BBQ dinner and meet the scientists driving Project Eden research and other District staff of this unique area.
- 8.30pm Night walk and spotlighting techniques *Mark True, Ranger in Charge, Francois Peron National Park* and *Liz Moore*.
- 9.00pm Relax in Homestead's artesian fed "hot tub".

Sunday 14th August

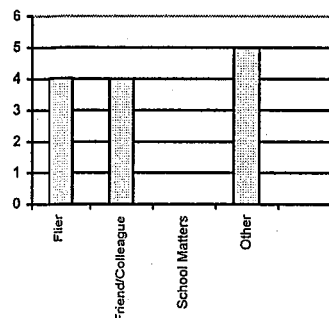
- 7.00am **Breakfast**
- 7.30am Inspection of traps, measurement and release of animals.
Treatment of field data with *Dr Colleen Sims and Project Eden Staff*.
Evaluation of PD to date.
- 9.30am **Travel to Monkey Mia**
- 10.00am Introduction to Monkey Mia Visitor Centre with *Ian Anderson*.
Refreshments. Free time to look around.
- 11.15am Marine life and research in the Shark Bay area with *Scientist from Dolphin Research Foundation - Richard Connor*.
Evaluation of PD to date.
- 12.15pm **Picnic lunch**
- 12.45pm. **Return to Homestead**
- 1.15 pm Hands-on session - collecting for a Regional Herbarium. FloraBase for teachers with *Rob Davis*.
- 3.00pm **Afternoon tea**
Shark Bay reptile encounter with *Mark True*.
- 4.15pm Visit breeding pens for the bilby, banded hare wallaby, rufous hare wallaby, western barred bandicoot with *Nicole Noakes, Manager Peron Captive Breeding Centre*.
- 5.30pm Final review of PD
- Optional program**
- 7.00pm Finger foods or place of your choice in Denham. Stay overnight at Homestead.
- Monday 6th Sept**
- 7.00am Depart for feeding of dolphins at Monkey Mia.

A total of 13 Evaluation forms were returned.

1. How did you find out about this camp?

Other:

- e-mail on Catalist
- STAWA x 2
- Invitation at PRISSEM by Liz M
- Invitation at CONSTAWA by Liz M



2. Was the professional Development relevant to your school program? Yes 11 No 2

3. Did the activities provide ideas for your school curriculum? Yes 13 No 0

- Great ideas for geography skills integrated into pre-existing competencies
- Ideas for sharing with Pre-Service teachers & more importantly make them aware of the area and the need to preserve it
- Became aware of the availability of many valuable resources eg A/V materials
- Regional herbarium
- Resources/information to use in the classroom
- Specifically looking at nature studies within the school
- Heritage criteria – importance of interdependence and interrelationship of the flora/fauna
- A wide range of activities and resources available
- Nature walk Herbarium
- WS Project and the species that are endangered being returned to the wild
- Will encourage kids (Yr 4s) to study/choose reptiles/dolphins as part of comparative stories next term

4. Did the PD help you to understand the roles that WS and Project Eden play in saving threatened species and ecosystems? Yes 13 No 0

- As a non-WA person I now understand what the Eden project is & specific threats/issues specific to the WA environment.
- A great deal of relevant worthwhile info provided
- Huge amount of information about what is currently happening in the area
- Obvious especially with the role vs other government agencies
- Huge job – thank goodness for dedicated people. Interested in the volunteer program
- Colleen who presented "Project Eden" outstanding
- Excellent ...good to see successes ...sad about the Western barred bandicoot
- Will discuss the 'metro' animals that are being introduced back to the wild –SW when planning the theme of Aust animals in Term 4

5. Which activity provided the best learning opportunity for you and why?

- Reptiles and botany – good for integration into S&E
- They were all great
- The introduction PP presentation of the overview. Also reptiles because of the opportunity to handle animals.
- Mark True - reptile encounters
- Project Eden presentation – very good info. All hands on activities very interesting and useful.
- Reptile studies was definitely best - personal learning opportunity through *Florabase* also excellent
- The trapping, identification and tagging of local fauna. Herbarium collection process really interesting
- Talk by Colleen – clear, concise and a passionate delivery. Rob Davis great for the same reason
- Many of very high standard
- Field data and Herbarium
- Lizards!

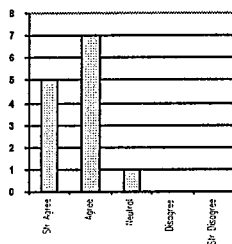
6. Will the resources provided help you to plan your school program?

Yes 11 No 0

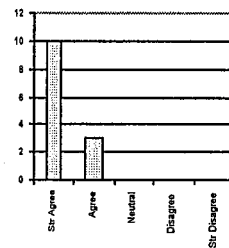
- Good ideas for S&E and Yr 10 adaptations
- I can encourage pre-service teachers to become volunteers
- Especially the PP presentations
- Will put more conservation into lower school courses
- A3 school program - Endangered species
- Role as science coordinator hopefully being able to engage others
- There are a number of resources presented but the websites will be a useful tool and point of info access
- Great variety, easy to use
- Nature walk Herbarium
- WS Project – will check in the school and develop activities from it and take ch/n to the Perth Zoo to view these animals

7. Please indicate the value to you of the following sessions based on the statement.....

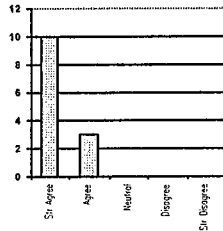
1. Welcome to country – Rodney Drummond



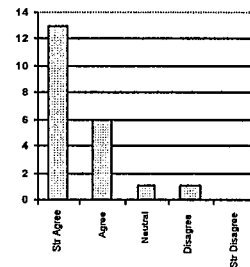
2. Introduction to CALM & WA's first Heritage Area – Cheryl Cowell



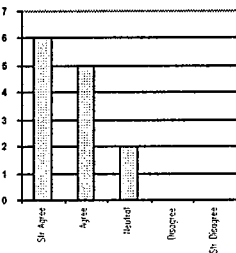
3. View project Eden slide presentation, visit research area, set traps – Dr Colleen Sims, Kathy Himbeck & Project Eden staff



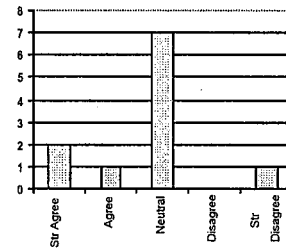
4. Workshop on curriculum resources and opportunities for teachers – Liz Moore



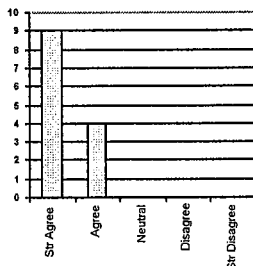
5. Discover plants of Shark Bay and establish a Regional Herbarium – Rob Davis



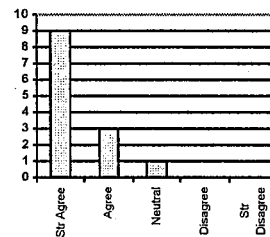
6. Night spotting for bilbies



7. Check traps and treatment of field data – Kathy Himbeck

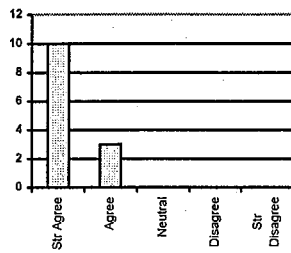


8. Introduction to Monkey Mia Visitor Centre- Ian Anderson

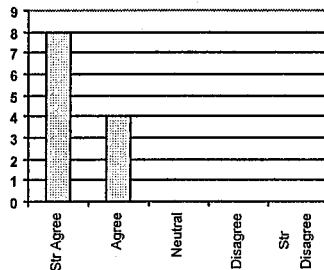


9. Marine life and research in the Shark Bay area
Session cancelled

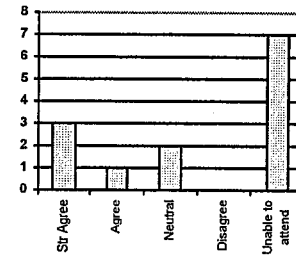
11. Shark Bay reptile encounter with Mark True,
Ranger in Charge, Francois Peron NP



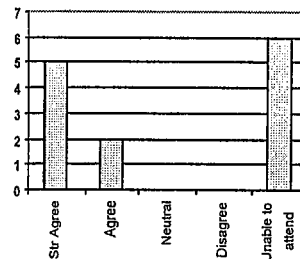
13. The organisation of the PD was excellent.



10. Collecting for a Regional Herbarium-Florabase –Rob
Davis



12. Visit breeding pens with Nicole Noakes



How could the PD be improved?

- Well done- some things were of more use than others
- More flexibility at Monkey Mia
- Perhaps a little bit more focus on the issues and management relating to competing interests
- Better info needed regarding timetable if events and the need for staying + days and number/name of tour operators/flights so that other things can be done whilst up there.
- Transport to/from Perth
- Possibly availability of material eg timetables before arrival and don't have finger foods as main meal – sandwiches would be suitable
- Leave 'snorers' behind or 'pen' them somewhere away from the Homestead
- Ocean Park

9. What did you enjoy most about the Professional Development?

- The openness and helpfulness of the presenters
- Meeting people with similar interests
- A great deal of info which is great. I'm not convinced you need to sell it however as the group were very committed & knowledgeable – perhaps highlight grey areas/aspects
- The wealth of first hand information from people in the field
- Lizards with Mark and networking - meeting the gang at Shark Bay
- Being a would-be scientist for 2 days in a lovely natural place
- All hands-on activities – Mark True, Colleen, trapping etc!
- Interesting information provided and hands-on in the field
- Between Saturday 11:00am and Monday 7:30am
- Visit to Monkey Mia – field work with Kathy and Colleen
- Colleen, Mark, Rob –all incredible resources
- Being in the wonderful natural environment and hearing people talking about it – that are totally committed to it
- Hands-on practical engagement – highly relevant info

10. Do you plan to bring a group of students to the Shark Bay World Heritage area?

Yes 3 No 7

Comments 'No' -

- *Year 4 – too young at present*
- *Would love to but probably not due to the nature of my position*
- *Probably not – a group of teachers may be more likely*
- *Probably not – I'll promote it to student teachers re volunteer work and other CALM activities/resources*
- *Would love to - distance possibly an issue though!*
- *Too young for such a long distance – would love to come again*

Other Comments:

- *It would be lovely to have this joining onto school holidays so I could spend a few extra days here absorbing the tranquillity and beauty. Even a long weekend would be great -one extra day would be bliss! Liz runs outstanding sessions – fast moving, brilliant speakers, variety of activities and she keeps us on the move and on schedule (the Dept of Educ and Training could learn a lot from her!!) – she's extremely motivating and inspiring and passionate about what she's doing*
 - *Great – especially the enthusiasm of the various presenters*
 - *Night spotting – wool shed tour rather than actual walk through bushland spotting*
 - *Thank you Liz and team for a wonderful PD weekend. While I appreciate the focus on schools, teachers and students also I would also like to see similar weekends organised for a number of local and state government as well as other professional bodies who are in a position to influence public opinion towards such community education and conservation issues*
 - *This weekend has been very informative, full-on and a lot of fun. Thank you for all your hard work organising it. The price is cheap, within everyone's budget. Wish more could participate in it. I have made some valuable contacts that I will promote both with pre-service teachers and through STAWA. I intend to put an article in SCIOS with Rowena's help! Would be great to have some of the presenters at PRISSEM. Will see what we can organise. Thanks again. Well done.*
 - *Thank you ALL. A well-worthwhile event.*
-