LANDSCOPE EXPEDITIONS
Working at the Frontier of Discovery

Expedition briefing

The northern tip of Peron Peninsula, Francois Peron National Park, Shark Bay World Heritage Area (photo – Kevin Crane / DEC). Insets: (from left) *Egernia stokesii* (photo – David Pearson / DEC); photographing wildflowers; Peron Homestead and Keith Morris weighing a captive specimen (photos – DEC).

Protecting Eden – Biodiversity Conservation in Action

17–23 September 2006

Leaders:

Keith Morris	Leader, Fauna Conservation Program, DEC, Woodvale Research Centre
Colleen Sims	Manager, Project Eden, DEC Shark Bay District
Linda Reinhold	Ecologist, Project Eden, DEC Shark Bay District
Brent Johnson	Principal Technical Officer, DEC Woodvale Research Centre

This expedition is offered by LANDSCOPE, the Department of Environment and Conservation's (DEC's)* quarterly magazine devoted to wildlife, conservation and environmental issues in Western Australia. It is run in association with The University of Western Australia's UWA Extension program.

LANDSCOPE Expeditions - Working at the Frontier of Discovery

Department of Environment and Conservation *in association with* UWA Extension, The University of Western Australia.

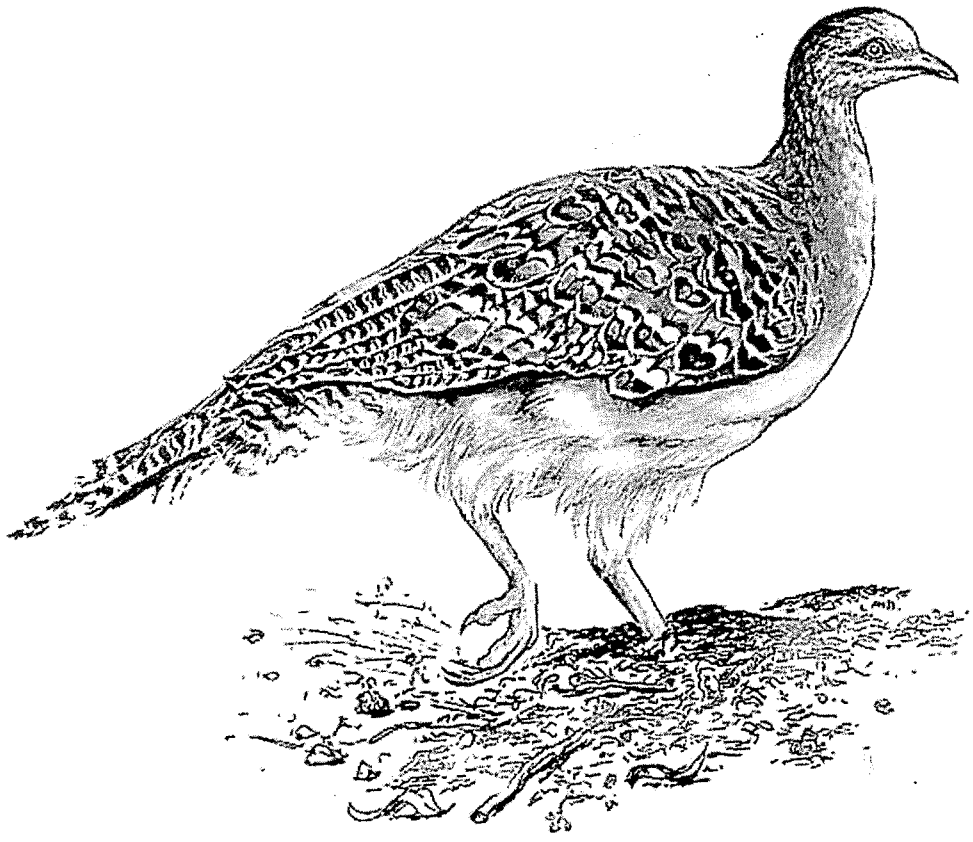
* The Department of Environment and Conservation (DEC) came into being on 1 July 2006 with the merge of the Department of Conservation and Land Management and the Department of Environment

Protecting Eden – Biodiversity Conservation in Action

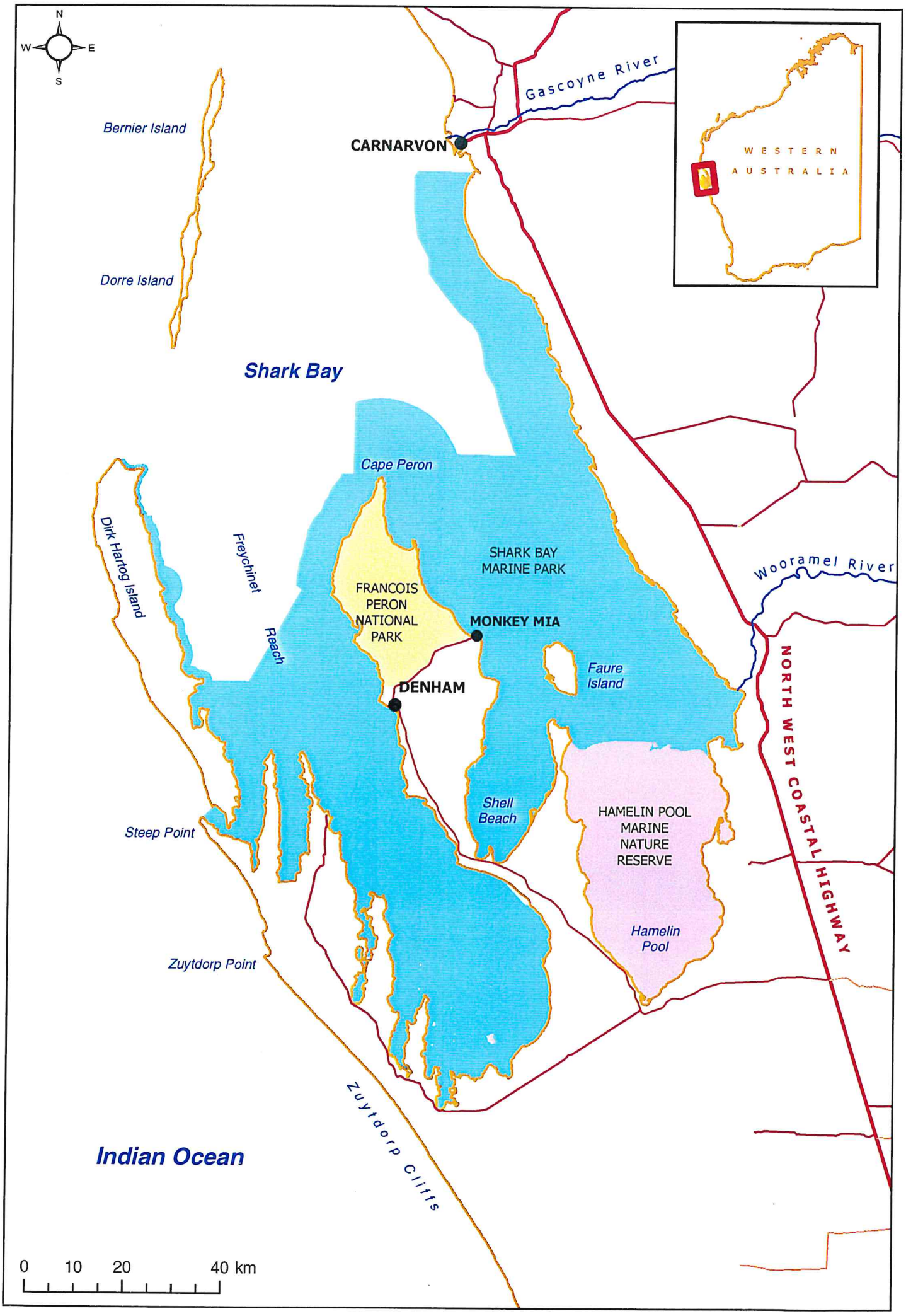
17–23 September 2006

TABLE OF CONTENTS

		Page Number
RESEARCH PROJECT		3
	Map of study area	4
	Research area	5
	Project background	5
	The project	6
	Volunteer assignments	6
	Field training	7
	Application of results	8
	Expedition leaders	8
	Expedition report and reunion	9
FIELD LOGISTICS		10
	Rendezvous	11
	Itinerary	11
	Daily schedule	12
	Team development	12
	Accommodation and logistics	12
	Food and drinks	13
	Physical condition	13
	Environmental conditions	13
	Safety and health	13
	Field communications	15
ADVANCE PREPARATION		16
	Field supplies	17
	Check list	17
	References	18
	Reference list	18
	Online resources and websites	19
	Notes	20
ATTACHMENTS	*LANDSCOPE* Expeditions background information	21



RESEARCH PROJECT


N
W
E
S
Bernier Island
Dorre Island
Gascoyne River
CARNARVON
WESTERN AUSTRALIA
Shark Bay
Cape Peron
Dirk Hartog Island
Freycinet Reach
SHARK BAY MARINE PARK
FRANCOIS PERON NATIONAL PARK
MONKEY MIA
DENHAM
Faure Island
Wooramel River
NORTH WEST COASTAL HIGHWAY
Shell Beach
HAMELIN POOL MARINE NATURE RESERVE
Hamelin Pool
Steep Point
Zuytdorp Point
Zuytdorp Cliffs
Indian Ocean
0 10 20 40 km

RESEARCH AREA

The study area is on the Peron Peninsula in the Shark Bay World Heritage Area, 800 kilometres north of Perth. The expedition will be based at the former Peron Station homestead, 10 kilometres from Denham. The township of Monkey Mia is located 20 kilometres to the east.

The Shark Bay World Heritage Area is an extremely important area for threatened animals. In 1990 the State Government purchased Peron Station and began to manage it as a national park (Francois Peron National Park was formally declared in January 1993).

Peron Peninsula offers the perfect site for DEC's Project Eden program because of its unusual shape. It is virtually a large island joined to the mainland by an extremely narrow neck or isthmus. Peron Peninsula is 1050 km^2 in area, of which approximately half is in the Francois Peron National Park. The whole area is noted for its natural beauty, and diversity of land and seascapes.

PROJECT BACKGROUND

The Department of Environment and Conservation's (DEC) *Project Eden* aims to remove virtually all feral cats, foxes, sheep and goats from the 1050 km^2 area of the Shark Bay World Heritage Area, and to reintroduce the original fauna that has disappeared from Peron Peninsula. If this project is successful, the Peninsula could become the largest area in Australia where significant numbers of threatened animals are able to roam freely.

Project Eden is part of a broader fauna recovery program – *Western Shield.* This programme aims to control feral predators over 3.5 million hectares of DEC's estate in the south-west of Western Australia, and then to reintroduce up to 23 species of mammal, bird and reptile into areas where they once lived.

Peron Peninsula is joined to the mainland by a narrow neck, enabling invasion by introduced animals to be controlled by fencing, trapping and baiting. The Department's research has shown that foxes and feral cats have been responsible for the disappearance and decline of several native species in WA, including 13 mammal species that were once found in the Shark Bay area. These include animals such as the banded hare-wallaby, boodie, western barred bandicoot, stick-nest rat, and the Shark Bay mouse, which are presently restricted to a few offshore islands. *Project Eden* will reintroduce these animals to the Peninsula. The woylie, bilby and malleefowl have already been reintroduced. Because of its size the Peninsula could support large populations of each of these species, and this will further contribute to the areas natural heritage conservation value.

Project Eden is being carried out in two phases. The first phase of the project, the erection of the feral animal-proof fence across the narrow neck of the peninsula, and the virtual eradication of foxes, was completed in 1995. Feral sheep and goats have also been controlled under a World Heritage funded plan. The number of feral cats has been reduced to varying degrees, and some reintroductions have commenced. Breeding programs are in place to provide stocks of native animals for release. In 1997/98 woylies and malleefowl were released into Francois Peron National Park and, in September 2000 as part of that year's *LANDSCOPE*

Expedition, bilbies were released for the first time. Subsequent monitoring has indicated that bilbies and malleefowl have become established, and populations are expanding. Woylies are persisting at low levels. Mala and banded hare-wallabies were released during 2001, however, an increase in feral cat abundance resulted in excessive predation, and these translocations were not successful. Some of the native species that have persisted on Peron Peninsula in the presence of the exotic herbivores and predators, such as the rodents, woma python and other reptiles have increased in abundance since the introduced species have been removed or controlled.

Difficulties in controlling feral cat numbers at low levels has led to a review of the species which will be reintroduced to Peron Peninsula. Rather than selecting species that are known to be highly vulnerable to cat predation, such as boodies, Shark Bay mice and western barred bandicoots, more cat tolerant species such as quenda, red-tailed phascogale and chuditch will be released over the next five years. In the future, Project Eden will be complemented by an ambitious program to reconstruct the mammal fauna of Dirk Hartog Island which will shortly be returned to State Government control and be established as a national park.

THE PROJECT

This *LANDSCOPE* Expedition is part of a field research program designed to measure the success of animal populations that have either re-established themselves or been reintroduced to the Peron Peninsula as part of Project Eden. The project also aims to gather data to determine the effectiveness of strategies to control feral predators.

The specific aims of the project are:

- Carry out live trapping to determine distribution and abundance of small mammals and reptiles.
- Carry out live trapping and track searches to determine distribution and abundance of reintroduced woylies and bilbies.
- Undertake radio-tracking of threatened woma pythons.
- Record bird observations, particularly malleefowl.
- Search for evidence of feral predators.

This expedition will continue the vital task of monitoring the overall success of Project Eden, enabling scientists to continue to improve techniques and revise strategies to further enhance the rejuvenation of the Peron Peninsula.

VOLUNTEER ASSIGNMENTS

Conservation Volunteers

Being a volunteer allows you to discover first hand what DEC is doing. You will be part of a force of 3800 people involved in a wide range of activities that include tree planting, trail building, interpretation and assisting with scientific projects. If you wish to be involved with future Conservation Volunteer projects, please contact the DEC's Volunteer Coordinator, Margaret Buckland, on (08) 9334 0251 on your return. DEC relies very much on its volunteer

work force. In 2005 volunteers supplied 470 000 hours of effort. Volunteer assistance with remote area work, such as this expedition plans to carry out, is especially helpful.

LANDSCOPE expeditioners will be involved in fieldwork at the Peron Peninsula project site, however, they will also assist with general tasks around the homestead.

Field Work

Volunteers will assist with the following research activities in the field:

- Daily checking of the pit and Elliott traps for small mammals and reptiles.
- Identification and measurement of captured animals.
- Live trapping of woylies and bilbies using cage traps.
- Radio-tracking of woma pythons.
- Locating feral animal tracks.
- Daily bird surveys.

Lab Work

- Assist in compilation of data at the end of the day.
- Confirm identification of small vertebrates.
- Summarise trapping data sheets and enter into database.
- Write up notes.

Camp Work

- You may be asked to assist with general camp maintenance.
- You may be asked to assist with meal preparation and clean up.

Expedition Diary

An exercise book will be provided for volunteers to take turns recording each day's events. Anything goes! Each person takes a turn. This will be typed and a copy distributed to each expedition member as a memento of the trip. However, it also provides valuable information to be included in the official **Expedition Report**, which is produced after each trip. Please include highlights of each day, interesting data, and anything of interest to you. Much information can be gleaned at 'Show and Tell' and 'Meet the Scientist' each evening when the leaders summarise the day's activities and plan for the following day. So, if you have the diary for the day, take it to 'Show and Tell' and record the day's events.

FIELD TRAINING

On arrival at the Peron Homestead, there will be an orientation session outlining the site, the project (including research objectives), field techniques, camp procedures and safety protocols. There will also be information regarding the expedition schedule and daily timetables.

There will also be informal talks on *Project Eden*, feral animal control, reserve management, and local flora and fauna. There will be an opportunity to visit Monkey Mia and listen to talks by the researchers working with the dolphins. Visits will be made to the captive breeding facility. There will be opportunities to see some of the spectacular Shark Bay scenery. An interactive wildlife cruise on the *Aristocat 2* is also included on the final morning of the expedition. On board safety will be discussed by the crew of the vessel.

Live pit trapping is likely to trap a range of small mammals such as the spinifex hopping mouse, sandy inland mouse, and a variety of marsupial mice, as well as the ubiquitous house mouse. Reptiles found will probably include snakes, geckos, and skinks. When the larger cage, and Elliott traps are put out, they must be placed under bushes for shade, so that animals do not become distressed from heat while waiting to be checked. Checking of traps will be finished by lunch time. Trapping techniques and specific skills to identify animals and record data will be discussed and demonstrated by leaders prior to volunteers undertaking these tasks, ensuring that you are well versed in the procedures required for this type of research.

APPLICATION OF RESULTS

The results of the work associated with *Project Eden* are being reported in scientific journals, and contribute to the body of scientific knowledge on feral animal control, and arid land ecology and management. They have been incorporated into a recent review of Project Eden (available at http://science.calm.wa.gov.au/cswajournal/5-2/202-234.pdf). Results obtained from the project will assist land managers with information about the biodiversity of arid lands, the control of threatening processes (particularly feral cats and foxes) and techniques for successfully re-establishing populations of native animals.

Project Eden is involved with practical reserve management in relation to feral predator control. With phase one of the project well underway, the re-establishment of species that have become locally extinct is now proceeding. Various options for this are being examined. This *LANDSCOPE* Expedition will help in solving some of the practical problems associated with the second phase of the project, with volunteers providing valuable assistance in the field.

EXPEDITION LEADERS

The leaders of this expedition have extensive experience in ecological research and management of natural ecosystems. They are all closely involved with Project Eden having been instrumental in the ongoing management and operation of the project.

Keith Morris is the Leader, Fauna Conservation Program, DEC Science Division, based at Woodvale Research Centre in Perth, where he is responsible for the management of fauna conservation research projects. He has expertise with threatened fauna conservation, island fauna, introduced predator and rat control, marine turtles and forest fauna. He has worked in the Shark Bay area for more than 14 years, and has been involved in wildlife surveys of the islands as well as the reintroduction of the Shark Bay mouse and the greater stick-nest rat. Keith has led a number of *LANDSCOPE* Expeditions since 1995.

Colleen Sims is the Manager of Project Eden, based in Shark Bay. Colleen obtained a Bachelor of Veterinary Medicine and Surgery and Bachelor of Science with Honours at

Murdoch University. She worked in private practice for two years and spent several years based in the UK working as a veterinary locum, mainly in RSPCA wildlife hospitals throughout England, treating all manner of British wildlife (hedgehogs, waterfowl, sea birds, foxes, badgers, seals, deer, raptors, otter etc.) and some exotics. Colleen also travelled in Africa, India, Nepal, Britain and Europe during this time. Colleen first came to Shark Bay to work on the Dolphin DNA project at Monkey Mia and was employed by what was then CALM in 1996 to set up and manage the captive breeding facility for Project Eden. She has been Manager since April 2001.

Brent Johnson, Principal Technical Officer within DEC's Biodiversity Conservation Group, is based at Woodvale in Perth. He has undertaken a broad range of wildlife research projects throughout Western Australia and has considerable experience with forest ecology, threatened species research, disturbance ecology and species translocations. Brent was involved in the earlier translocation and monitoring of threatened species to Peron. He has also investigated the sub-fossil fauna of Salutation and Three Bays islands within Shark Bay. Brent has been involved in *LANDSCOPE* Expeditions to Roebuck Bay and Cape Arid.

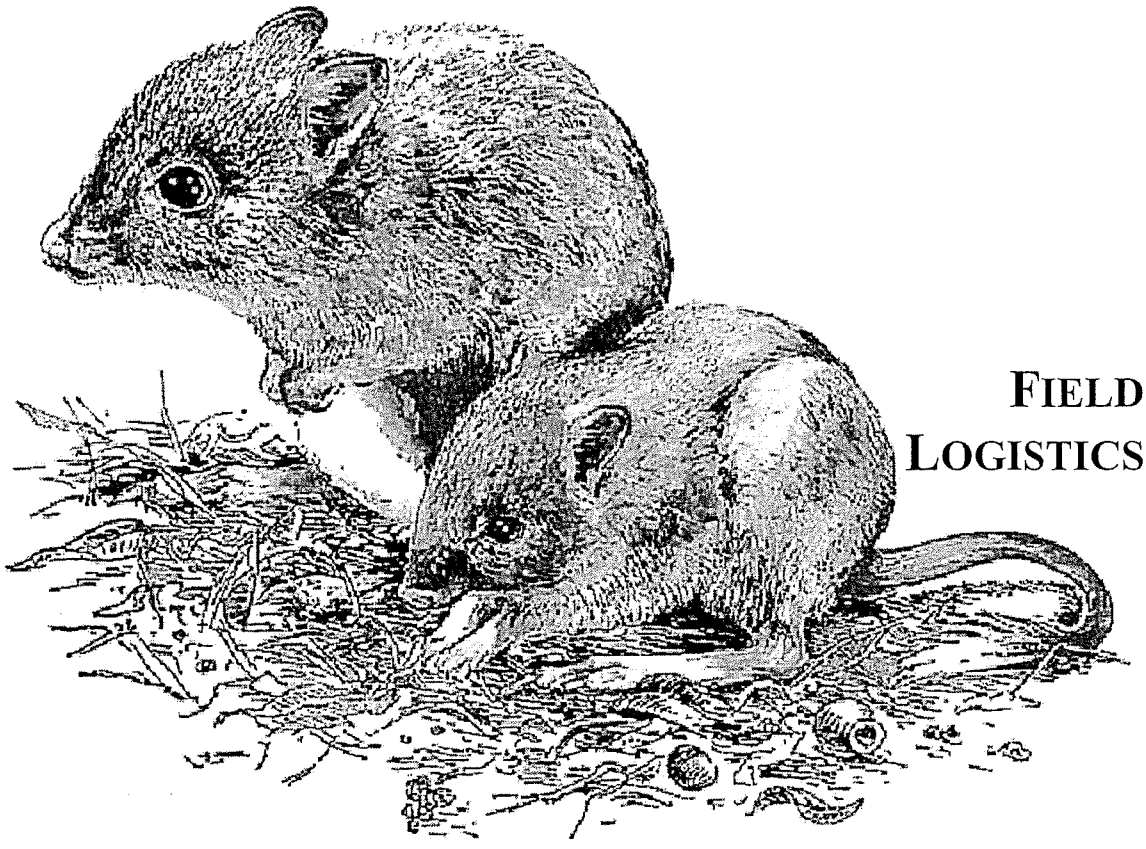
Linda Reinhold is the Project Eden Ecologist and is based at the DEC office in Denham. Her principal role is managing fauna reintroductions and the monitoring of species via trapping and radio-tracking. Linda came to Western Australia from the Queensland Parks and Wildlife Service where she was involved in research and conservation projects with bats and turtles. Linda has spent much of the past three years travelling and working with leatherback turtles in the Caribbean. She was formerly involved with the trapping, radio-tracking and some captive husbandry on the Gilbert's Potoroo program for what was then CALM in Albany. During this time she also conducted field work for the dibbler and numbat reintroduction programs. Linda's previous experience in the field will be of great value on this *LANDSCOPE* Expedition.

Steve Thomas is the Workcentre Coordinator at Dwellingup, where he is involved in recreation area management, maintenance, fox baiting and managing a team of 22 DEC staff. In addition Steve provides mobile catering support for bushfire teams working between Geraldton and Albany during the summer months. In winter, Steve is involved in writing training materials and facilitating training courses. Steve will be providing the catering and base camp management for this expedition.

EXPEDITION REPORT AND REUNION

A copy of the expedition diary will be provided soon after the conclusion of the expedition, and this will be followed in due course by the Expedition Report.

A reunion evening for all 2006 expeditions will be held on Saturday 9 December, 2006 in Perth. You will be reminded closer to the date and advised of venue and other arrangements. This will be a great opportunity to see other participants' photographs and review the results of the 2006 *LANDSCOPE* Expeditions program.



FIELD LOGISTICS

RENDEZVOUS

Volunteers and expedition staff will meet at **1430 hrs on Sunday 17 September 2006**, in the carpark outside The Department of Environment and Conservation office, 89 Knight Terrace, Denham. Equipment will be loaded into the expedition vehicles and volunteers transferred to Peron Homestead. **The expedition will depart from this location at 1500 hrs** Peron Homestead is accessible by 2WD vehicle and participants may leave vehicles there if they wish.

If you are delayed for any reason, please phone the expedition leaders on 0400 808 729.

ITINERARY

Day 1 17 Sep Sun **Denham to Peron Homestead**

1500 hrs: Depart Denham and travel to Peron Homestead in Francois Peron National Park. (ETA approximately 1530 hrs).

- Settle into accommodation at Peron Homestead.
- Introductory talk on the project.
- Allocation of tasks for the next day, and the whole trip.

Day 2 18 Sep Mon **Peron Homestead, Shark Bay**

- Activities start and will include:
  - Setting pit and Elliott traps for small vertebrates.
  - Setting traps for woylies and bilbies.

Day 3 19 Sep Tue **Peron Homestead, Shark Bay**

- Check traps for small vertebrates, woylies and bilbies.
- Commence bird surveys.
- Check roads for feral predator tracks.
- Data entry of day's records.
- Search for signs of animal activity.
- Monitor woma pythons via radio-tracking.
- Search for other reptiles.
- Visit captive breeding colony.

Day 4 20 Sep Wed **Peron Homestead, Shark Bay**

- As for previous day.

Day 5 21 Sep Thu **Peron Homestead, Shark Bay**

- As for previous day.

Day 6 22 Sep Fri **Peron Homestead, Shark Bay**

- As for previous day.
- Close and clean traps.
- Expedition dinner at Peron Homestead.

Day 7 23 Sep Sat **Peron Homestead, Monkey Mia and Denham**

- 0830 hrs Depart Peron Homestead for Monkey Mia. Dolphin Interaction and Wildlife Cruise on *Aristocat 2*.
- Lunch in Monkey Mia.
- Transfer to Denham. End of Expedition.

This itinerary is provisional and may be varied at the discretion of the Expedition leaders.

DAILY SCHEDULE

Research activities are listed under Volunteer Assignments. Expedition members will be placed into small groups to carry out the various research tasks required each day. During the expedition, groups will be rotated between tasks so that everyone gets a chance to experience the range of activities.

0600 hours	Breakfast and briefing on days activities.
0700 hours	Begin day's activities (as per itinerary).
1200 hours	Lunch.
1630 hours	End of day's activities. Showers and preparation of evening meal.
1800 hours	Dinner.
1900 hours	At the end of each days work there will be time set aside for compilation of data, and discussion of each day's activities ('Show and Tell').
1930-2300 hours	Talks, opportunity to search for nocturnal reptiles.

There will be some free time each day for people to follow personal interests. There will be plenty of photo opportunities throughout the day. The country is flat and the work will not be too taxing.

TEAM DEVELOPMENT

The shared experience of conducting important and interesting field studies will develop team spirit as will the sharing of information, meals and general expedition tasks. Living and working together at Peron Homestead will also add to the sense of community and team spirit. It is hoped that you will leave this expedition feeling satisfied that you have contributed to the vital task of monitoring the success of Project Eden and that you have made new and lasting friendships with other expeditioners and leaders.

ACCOMMODATION AND LOGISTICS

We will be staying at the former Peron Station homestead, which is 'rustic' in its nature, so please don't expect 'The Ritz'. The old homestead is a fairly sparse building that had a facelift a few years ago. There are showers, toilets and a laundry facility (with washing machine) so heaps of clothes won't be necessary. More importantly, there is the famous 'hot tub' (an artesian bore) at the homestead. This will be appreciated especially after a hard day in the field. Bunk beds and mattresses will be provided. You can sleep out in the open on the verandah if you wish, but if you do, a mosquito net will be essential – you will need to bring one with you.

You should have four items of luggage – your *LANDSCOPE* Expeditions duffel bag, sleeping bag (lightweight, compact but warm), daypack, and pillow. Bag labels are provided, however, as all the bags look the same, you may wish to mark your bag with a coloured ribbon, or something else that helps you spot your bag quickly. You may also wish to bring a large plastic garden bag with ties to protect your bag from damp, dust, or rain.

FOOD AND DRINKS

Food will be provided. Please advise Cheryl Tonts by 28 August if you have special dietary requirements (Work 08 9334 0319; or by email: cheryl.tonts@dec.wa.gov.au). Before you meet at the DEC offices on day one of the expedition, please ensure that you have adequate supplies of your favourite items. There is a bottle shop in Denham if you wish to have 'something extra' to enjoy with your evening meal. Whilst there may be other limited opportunities for you to restock your personal supplies, we recommend you bring all you need with you at the start of the trip. You may also wish to bring a small stash of lollies, snacks or 'trail mix' to your liking. The expedition will supply some cask wine.

PHYSICAL CONDITION

The expedition will not demand an elite level of fitness. However, some level of physical fitness is required to service the traps each day and you will maximise your enjoyment of the activities by ensuring a reasonable level of fitness in the weeks leading up to commencement of the expedition. You should be prepared to cope with mild to hot days and mild to cool nights. There will be as much walking, exploring and searching as you want, so ensure that you have comfortable, solid boots.

ENVIRONMENTAL CONDITIONS

Climate: Average daily temperatures at the time of year of the expedition are 24°C but can range from low 20s to the mid 30s. Nights can be cool with the average minimum temperature being 14°C, but you could expect temperatures as low as 10°C. Rainfall is uncommon at this time of year, but has occurred previously.

Terrain: Walking through the scrub and along bush tracks will be an essential part of checking traps, radio-tracking reptiles, looking for feral predator tracks or searching for signs of animals. The area is not very hilly and the ground is generally sandy underfoot.

SAFETY AND HEALTH

Your safety, health and comfort are of paramount importance.

Sunburn: This is possibly the greatest medical problem that may arise. You must guard against it. Loose-fitting, long-sleeved shirts, full-brimmed hats, sunglasses, sunscreen lotion and lip-block are all essential, especially in the field, as you will be in the sun a lot.

Dehydration: This can be a significant issue in high temperatures. To guard against dehydration, it is vital to always carry an adequate supply of drinking water with you in your daypack. Drinking water will be available at the homestead, and you must fill your bottle regularly. Remember to drink plenty of water during the day, fortified with Staminade (or similar product) if you are susceptible to negative effects of heat.

Safety mates: To improve volunteer safety in the field, expeditioners will be assigned a 'safety mate' for the duration of the expedition. You should know where your 'safety mate' is at all times and if you cannot locate them and are concerned as to their whereabouts, please advise a leader. This system is designed to improve safety in the field. Leaders will explain the 'safety mates' protocol on Day 1 and you will be advised who your "safety mate" is.

Insect pests: Insect repellent and fly nets for your hats will make it more pleasant as flies can be a nuisance during the day. Mosquitoes can also be a problem during the night if you wish to sleep outside on the Peron Homestead verandah. Sandflies occur in coastal regions, especially if there has been recent rain. Repellents are effective, and antihistamine tablets and creams are advised if you are particularly susceptible to insect bites. Ticks may be encountered.

Please familiarise yourself with the enclosed brochures from the Health Department of Western Australia.

Medications: Check that you have any required prescriptions filled beforehand, and bring a spare supply. If you think you may need antihistamines for possible allergic reactions, see your doctor and obtain appropriate medication.

Snakes: The presence of the highly venomous mulga, or king brown snake on Peron Peninsula, make it essential to use caution when approaching any snakes. Wear appropriate footwear and leggings at all times (no thongs or sandals). Carry your pressure bandages in your day pack at all times as a first aid treatment for snakebite. At night time, always wear suitable footwear and use a torch as snakes can still be active. For safety reasons volunteers are not to handle snakes.

Clothing and footwear: Long pants and boots that protect your ankles are recommended. If you prefer wearing shorts, bring some goretex gaiters or leggings; shorts leave your legs susceptible to sunburn, insect bites, scratches, and spinifex. Spinifex spines often break off under the skin, leading to small but painful infections. The spines are very hard and sharp, and can penetrate all but the strongest materials. The open fabric of many running shoes is no barrier to spinifex spines, and leather boots with ankle protection (well worn in to avoid blisters) suitable for walking around in desert conditions are recommended. –You will need comfortable light shoes to wear in camp and in the evenings and a pair of thongs for showertime will be useful. Bring your bathers for the spa! A warm jacket for the evenings will be necessary. Canvas garden gloves may be used to protect the hands when in the field. Although rainfall is unlikely, it is advisable to bring some form of rain protection. A plastic poncho, available from camping and outdoor stores is a cheap, lightweight alternative to a bulky raincoat or jacket.

Safety at night: A good head torch and a spare, small back-up torch are essential. If you get up at night, use a torch to illuminate the ground, and put your boots on (not thongs or open sandals) to minimise the risk of bites, as reptiles, etc can be active at night. Keep boots inside a bag at night so nothing crawls into them.

Camp hygiene: In camp, wear **disposable gloves** if helping with food preparation. These will be supplied. Separate bowls will be supplied for washing up, and the rinse bowl should contain some Milton preparation. A separate bowl will be supplied for washing hands, together with a plunger pack of antibacterial hand-washing liquid.

Personal hygiene: For washing bodies and clothing, Peter G's liquid soap is good to use in hard water. Medicated soaps such as gamophen, or sandalwood, which is natural to the bush, are also good choices. Don't use highly scented soaps, or perfumed toiletries, as these are irresistible to flies. Away from camp, moisturised wipes can be used for cleaning hands, and can be disposed of later. Some pegs for your washing may be useful.

Wilderness survival: *Please familiarise yourself with the enclosed Wilderness survival card, and carry it in your daypack when in the field.* It is easy to become disoriented when walking away from tracks or vehicles. Take careful note of landscape features to guide you back to the vehicle or study area if you move away. Carry a water bottle, matches, a whistle and a compass at all times when away from habitation. If lost, only light a fire as a last resort making sure to clear an area to prevent a wildfire.

Most importantly, never leave the group without telling one of the leaders or your safety mate where you are going, and preferably you should be accompanied by at least one other person.

First aid: The expedition will carry a comprehensive first aid kit.

Avian Influenza: Wild birds in Australia pose a negligible avian influenza risk to humans at the present time, however, all birds, particularly water fowl (ducks, geese, swans) are potential carriers of the disease. As there maybe some contact with water fowl on expeditions, volunteers are advised that they are not permitted to handle birds, especially those that appear to be sick or injured. For further information please refer to the following website on Avian Influenza.

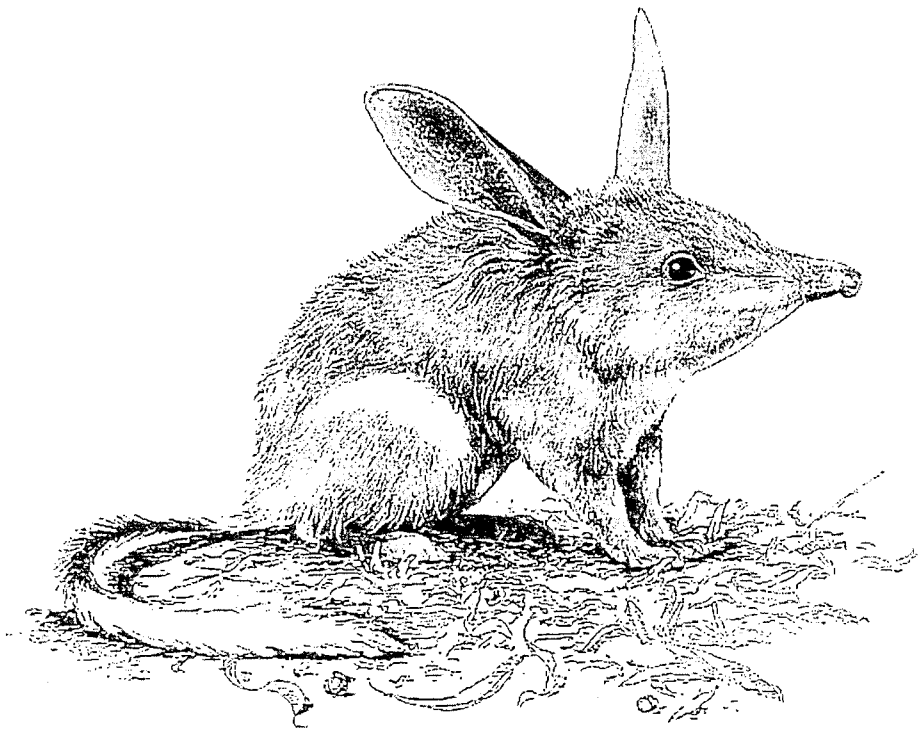
http://www.health.gov.au/internet/wcms/publishing.nsf/content/health-avian_influenza-index.htm

FIELD COMMUNICATIONS

There is a telephone at the homestead for emergencies. However, most of our communications will be through DEC's office at Denham (08) 9948 1208 as we will be in the field for most of the day. DEC's vehicles are in constant radio contact with the Denham office and some vehicles also have RFDS radios.

Digital mobile phones do not work at Peron Homestead, but do operate within the Denham townsite. CDMA mobile phones do operate occasionally from Peron Homestead.

If you need to be contacted urgently while you are away, communication can be established through the *LANDSCOPE* Expeditions office: 08 9334 0561 or 08 9334 0319 or 0407 986 227.



ADVANCE PREPARATION

FIELD SUPPLIES

Check each item carefully. Bathing costumes for the "hot tub", and shorts for when we go to Monkey Mia to see the dolphins, and a warm jacket for the evenings will be necessary. Small plastic bags have a range of uses. You may wish to bring a large, sturdy plastic garden bag with ties to protect your bag from dust during transport.

Check List
❑ sturdy, comfortable, worn-in walking boots or shoes with good tread
❑ light shoes for around camp
❑ thick walking socks
❑ underwear
❑ long trousers, loose and tough
❑ shorts for Monkey Mia
❑ bathers for the hot tub
❑ long-sleeved, loose-fitting shirts
❑ casual clothes for travelling and around camp
❑ t-shirts
❑ jumper, warm jacket, or 'polarfleece'
❑ warm beanie or cap to wear at night
❑ cord or scarf to anchor hat (if not using your volunteer's hat)
❑ lightweight rain jacket or plastic poncho
❑ sunglasses
❑ fly net (essential - drops over hat)
❑ gaiters (optional) (useful protection if you like wearing shorts)
❑ canvas garden gloves
❑ sleeping bag
❑ sleeping bag sheet (protects the bag and adds warmth)
❑ mosquito net and plastic ground sheet if you plan on sleeping outside
❑ pillow
❑ 1-litre water bottle, leak-proof
❑ personal toiletries, including tissues
❑ towel
❑ moisturised wipes
❑ insect repellent and sunscreen
❑ personal first aid, prescription medicine and spectacles
❑ matches or lighter
❑ small robust torch plus spare batteries and spare globe. (A head torch is preferable as it leaves both hands free)
❑ small daypack to carry camera, film, water bottle, snacks, etc
❑ camera and film
❑ binoculars (field glasses), and field guides if you have an interest in the local bird life
❑ hand lens if you have an interest in botany
❑ notebook and pen
❑ compass and whistle
❑ small clothesline and a few pegs
❑ pocket knife
❑ lots of enthusiasm and smiles

LANDSCOPE Expeditions will supply a canvas bag for your gear, a luggage tag, a wide brimmed volunteer's hat, a stubby holder and a thermal mug.

REFERENCES

Useful, pocket-sized guides to the region and local wildlife are those produced by DEC (formerly CALM) including *Discovering Shark Bay Marine Park and Monkey Mia*, in the Discovering series, and *Animals of Shark Bay*, from the Bush Book series. These are included in your briefing package. Another useful Bush Book is *Wildflowers of Shark Bay*.

REFERENCE LIST

Anderson, P. The Sea Pigs of Shark Bay, *LANDSCOPE*, Summer 1991/92.

Bush Telegraph, Foxes on the Run, *LANDSCOPE*, Winter 1995.

Burrows, N. and Thompson, C. Desert Dreaming, *LANDSCOPE*, Autumn 1990.

Burrows, N. and Christensen, P. Hunting the Hunter, *LANDSCOPE*, Summer 1994/95.

Burne, R.V. Lilliputs Castles, *LANDSCOPE*, Summer 1991/92.

Christensen, P. and Thompson, C. Back in the Outback, *LANDSCOPE*, Summer 1992/93.

Keighery, G. and Trudgeon, M. The Hidden Treasures of Shark Bay, *LANDSCOPE*, Summer 1991/92.

Kinnear, J. Masterly Marauders, *LANDSCOPE* , Summer 1992/93.

Kinnear, J. and King, D. 1080: The Toxic Paradox, *LANDSCOPE*, Winter 1991.

Kinnear, J. Vexing the Vixens, *LANDSCOPE*, Winter 1992.

Morris, K., Alford, J. and Shepherd, R. Islands of Contrast, *LANDSCOPE*, Summer 1991/92.

Morris, K., Sims, C., Himbeck, K., Christensen, P., Sercombe, N., Ward B. and Noakes, N. (2004). Project Eden – fauna recovery on Peron Peninsula, Shark Bay. Western Shield Review – February 2003. *Conservation Science Western Australia* 5(2): 202-234.

Shepherd, R. Managing For Diversity, *LANDSCOPE*, Summer 1991/92.

Thompson, C. Desert Coast, *LANDSCOPE*, Summer 1991/92.

Thompson, C. and Shepherd, R. Return To Eden, *LANDSCOPE*, Autumn 1995.

Wilson, B. Peron the Explorer, *LANDSCOPE*, Summer 1991/92.

The expedition will carry a reference library. Please bring your own field guides if you wish.

WEBSITES

Online Resources and websites

www.naturebase.net/national_parks/previous_parks_month/peron.html
www.naturebase.net
www.sharkbay.org/
www.sharkbay.org/terrestial_enviroment/page_06.htm
www.naturebase.net/national_parks/previous_parks_month/monkeymia_reserve.html
www.naturebase.net/national_parks/previous_parks_month/shark_bay_marine_park.html

NOTES

ATTACHMENTS

LANDSCOPE EXPEDITIONS

Lend your body to research

Lend your body to research...

LANDSCOPE Expeditions are non-profit, self-supported study and research projects. Since their inception in 1992, the expeditions have been offered by the Department of Environment and Conservation (DEC) publication *LANDSCOPE*, a quarterly magazine devoted to wildlife, conservation and environmental issues in Western Australia. The expeditions are offered in association with UWA Extension, a department of The University of Western Australia.

DEC is responsible for the management and sustainable use of more than 25 million hectares of lands and waters around Western Australia, including national parks, conservation parks, marine parks, State forests and timber reserves, nature reserves and marine nature reserves. It is also responsible for conserving the State's rich diversity of plants and animals.

UWA Extension has been operating as a public outreach arm of UWA since 1913. It is a Centre for Continuing Education and promotes community awareness in a variety of ways, including educational travel. Scientists and regional staff identify the research projects and lead the expeditions. DEC and UWA administer the expeditions. The private sector and local communities are contracted to provide logistical support.

LANDSCOPE Expeditions answer the need for research to protect the environment, while they respond to the demand for first class interpretation by scientists and specialists. They provide paying volunteers with an opportunity to work alongside scientists and promote wider cooperation in addressing conservation and land management challenges in Western Australia. Anyone can be involved subject to fitness. You must be 13 years of age or over to be registered as a conservation volunteer.

You can visit and gain an understanding of remote places and natural ecosystems. You can take part in important wildlife recovery programs. You can have the satisfaction of knowing you have contributed to our knowledge of threatened environments and endangered species. Unique photo opportunities and close encounters with unusual animals are a bonus.

Participants are not the only beneficiaries. The community also profits from the enriched lives of its members, and from the benefits that flow on from research findings and outcomes. Future generations benefit from the natural and cultural resources that volunteers help to identify and conserve. And, on a global scale, *LANDSCOPE* Expeditions help to perpetuate cultural and biological diversity.

Expedition members collecting plant samples, Doolgunna Station. Photo - Bill Muir

LANDSCOPE EXPEDITIONS

Lend your body to research

LANDSCOPE Expeditions - You can make a difference

When you travel with *LANDSCOPE* Expeditions, you help in a variety of ways:

FUNDING

You and your financial contribution make the research possible. This alone is a significant factor in making the expedition a success.

SCIENTIFIC DISCOVERY

You can help by collecting key information. Although some interpretations will be made in the field, much of the synthesis takes place back in the laboratory, where final identifications and analyses are made and results prepared for publication. You will discover that fieldwork can be repetitive and time consuming as it has to be done in a systematic way. Outcomes are not always obvious at first—but there's always the chance of that surprise discovery.

Extra pairs of hands and eyes are of great benefit in helping to achieve goals, as fieldwork is very intensive. Leaders will maximise time spent on fieldwork, but will provide instruction in techniques as time permits.

You may be asked to collect plant specimens and make animal sightings to increase our knowledge of the distribution of species. However, with plants, only representative specimens will be kept. Do not be disappointed if some are discarded, as redundancy is often part of the scientific process. With bird observations, it is the collective experience that confirms the sighting and produces advances in our knowledge.

YOU DON'T NEED TO BE A SCIENTIST

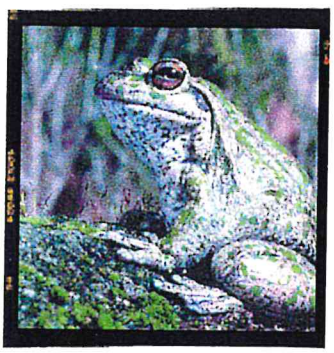
Anyone can be of help—be assured that your assistance will make a contribution to nature conservation in Western Australia. Remember scientists and leaders have spent many years developing their level of expertise—they welcome your questions and are there to guide you.

Your point of view or personal expertise may help in unexpected ways. Please feel free to share your ideas.

Expect to return home with a broader understanding of the natural world, the role of scientific methods, the value of nature conservation and the rewards of knowing you have contributed to pioneering studies in remote areas. *LANDSCOPE* Expeditions aims to whet your appetite for nature, give you a taste of scientific discovery, and provide an experience that may not otherwise be a part of your life.

IT'S NOT ALL SCIENCE

Many elements combine to make an expedition successful, not just the scientific activities. An affinity for team work, a flexible approach and a willingness to help in whatever way you can, help to create the best results for nature conservation.



LANDSCOPE EXPEDITIONS

Lend your body to research

Distant places, close encounters... of the scientific kind

Expedition members in a sea of daisies.
Photo - Bill Muir

Western Australia covers almost a third of the Australian continent, stretching from the tropical Kimberley to temperate areas of the south coast. Of Australia's 80 recognised natural biogeographic regions, no fewer than 26 occur in Western Australia–more than in any other State. These biogeographic regions are defined principally by landform, soils and vegetation types. They range from the monsoon forests (rainforests) and savannas of the northern Kimberley through the diverse desert regions and the mulgas and mallees of arid inland Western Australia to the tall karri forests of the south-west. Coastlines cover a similar diversity of environments from the extensive coral reefs, mudflats and mangroves of the tropical Kimberley through the shallow sandy embayments of the west coast to the granite promontories and islands in the ocean off Albany and Esperance to the south.

These extensive land and seascapes provide a magnificent natural setting for a vast array of plant and animal species. However, such a diverse and extensive State poses a formidable hurdle for scientists in determining the first among many questions that are essential to effective research and conservation–what occurs where? A major emphasis of the scientific research undertaken by *LANDSCOPE* Expeditions is directed toward answering this intriguing and pivotal question.

In the sparsely populated western third of the continent, the distribution of most plant and animal species is very poorly known and many *LANDSCOPE* Expeditions are focused on trying to improve scientists' understanding of species' distributional patterns. Detailed records and prudent collections are made of many species, using the most scientifically acceptable methods and techniques, so that biologists from many institutions can carry out more detailed studies. Such documentation and collection has the dual purpose of helping to define the distribution of many botanical and zoological species as well as facilitating research by State herbaria and museums on the level of variation within species. Studies of specimens and records of species from a wide geographic area are often the precursors to the description of species new to science.

Western Australia's conservation reserve system plays a pivotal role in conserving the State's rich biodiversity, but this reserve system is not comprehensive, adequate or representative. Many land surface types and their associated wildlife are not represented in reserves, or are very poorly represented. This pattern was documented in the 1995 Interim Biogeographic Regionalisation for Australia (IBRA) Report, which demonstrated that many of Australia's major bioregions are poorly served by the existing conservation reserve system. Bioregions provide a framework for identifying gaps in the reserve system. Conservation reserves should protect representative samples of each bioregion. *LANDSCOPE* Expeditions help identify which areas should be included to protect and enhance the State's biodiversity.

LANDSCOPE Expeditions encourage the public to travel with us to distant places for close encounters of the scientific kind. You are a vital partner. Join us and be part of a scientific team–record observations, collect, prepare and help identify specimens. Many conservation goals are difficult to achieve by scientists working alone–your support can make the difference.