

REPORT

NATURE CONSERVATION LEADERS' EXPEDITION

9-13 MAY 2005



Introduction and background

Over the past three years, there have been biannual meetings of Nature Conservation Output leaders from the divisions of Science, Regional Services and Nature Conservation to discuss various topical issues facing biodiversity conservation, undertake strategic planning and provide a forum to provide input into policy development, as well as identify Output priorities and objectives. In 2004, the half yearly meeting in June occurred at Lochada Station, one of the newly acquired pastoral properties for conservation under the Gascoyne-Murchison Strategy, in the Mid-West Region and focused largely on the need to adopt monitoring and evaluation to demonstrate effectiveness of management efforts.

The success of the Lochada trip led to a recommendation that a field-based meeting be held on the South Coast in 2005 with a view to visiting a range of Nature Conservation Output issues across a number of biogeographic regions. In preparation for this trip, the organisers were mindful that there was a need for regional Nature Conservation Output leaders and ecologists to attend in order to broaden their appreciation of the State's bioregions and increase their understanding of cross-regional issues.

Between Monday May 9 and Friday May 13 a group of 17 staff from Pilbara, Midwest, Swan, Southwest, Warren, South Coast and Goldfields Regions, Science Division and Nature Conservation Division travelled from Albany to Kalgoorlie (refer Appendix 1 for map of route). Another eight people – from Albany and Esperance Districts and the Goldfields Region - attended for parts of the trip providing operational input into issues as well as technical information and knowledge. The itinerary and list of attendees are included at Appendices 2 and 3.

This Report provides an overview of the trip, outlines issues discussed and presents a series of recommendations.

Aim and Objectives

Aims and specific objectives of the trip were:

- To provide an *in situ* cross-regional biogeographic overview and appreciation of generic conservation issues in the context of different regional environments;
- To share and transfer information and knowledge between participants;
- Examine specific issues and themes with a view to provide recommendations on research and management requirements; and
- Examine the delivery of the Nature Conservation Output and provide recommendations for improvements.

1. CROSS-REGIONAL BIOGEOGRAPHIC OVERVIEW

The expedition route traversed parts of seven IBRA subregions. (see Appendix 1 [map of route] and Appendix 2 [Itinerary]) Participants were able to gain an appreciation of the various ecosystems/ecological communities and landforms typical of these subregions as they travelled across the landscapes of the South Coast and Goldfields regions.

During the first day the group travelled from Albany to the Porongurups National Park in the Southern Jarrah Forest subregion, across the Kalgan River into the Fitzgerald subregion. From the Western Stirling Range the group drove through the Central Range to Bluff Knoll – still in the Fitzgerald subregion.

On day two a small area of the Western Mallee was sampled at Warperup NR and the group then returned to the Fitzgerald Subregion travelling through the Fitzgerald River NP to East Mt Barren at the far eastern end of the subregion.

On day three the group saw some of the Jerdacuttup wetlands in the Recherche subregion and the extensive mallee formations and woodlands of the Eastern Mallee en route to Peak Charles NP.

Day four was spent traversing the Honman Ridge in the Johnson Lakes area of the Southern Cross subregion.

On the final day of the trip the group continued through the Southern Cross subregion to Cave Hill then crossed into the Eastern Goldfields briefly on the way to Kalgoorlie.

2. APPRECIATION OF GENERIC CONSERVATION ISSUES IN THE CONTEXT OF DIFFERENT REGIONAL ENVIRONMENTS

Group members were exposed to a wide range of nature conservation management issues as they travelled, including fire management, weeds management, introduced animals control, disease infestation and control, threatened species recovery, biological surveys, natural resource management and impacts from mining and exploration were among the issues discussed.

Formal and informal presentations were made on the following topics:

Nature conservation in the South Coast Region – Alan Danks
 Weed control and fire management in Porongurup NP – Charlie Salamon
 Threatened invertebrates – Sarah Comer
 Stirling Range NP threatened flora – Sarah Barrett
 South West Region nature conservation report (Whale rescues) – Kim Williams

Dieback management in the SRNP (phosphite) – Sarah Barrett
 Fire management in Stirling Range NP – Geoff Harnett
 Western Shield fauna monitoring Fitzgerald River National Park (FRNP) – Peter Collins
 Fire studies and ground parrot recovery in the FRNP – Sarah Comer
 Midwest Region nature conservation report – Anthony Desmond
 Ravensthorpe Range fire management and mining issues – Malcom Grant
 Waterbirds and Culham Inlet Ramsar site – Stuart Halse
 Introduction to Peak Charles National Park – Ian Hughes
 Esperance District CARRS analysis (a GIS project) – Mike Fitzgerald
 Nature conservation in Warren Region – Ian Wilson
 Impacts of wildfire on fauna in Coolgardie woodlands – Norm MacKenzie
 Pilbara Region nature conservation report – Steve White
 Fire and woodland flora surveys – Neil Gibson
 Swan Region nature conservation report – Dave Mitchell
 Lorna Glen biological survey – Mark Cowan
 Goldfields Region nature conservation report – Brad Barton
 Fire management principles – Neil Burrows
 Planning for biodiversity and natural resource management (NRM) – Keith Claymore.

3. INFORMATION TRANSFER BETWEEN REGIONS AND BETWEEN SCIENCE AND REGIONAL STAFF

State level issues as well as regional and district scale matters were addressed during the expedition.

In addition to the more formal presentations, impromptu discussions between Nature Conservation Leaders and Ecologists from different regions, between CALM Scientists and Regional and District staff occurred in vehicles, at roadside stops and workshops, in camp and at dinner. These discussions continued from one day to another and were important in extending knowledge of a variety of management and conservation issues.

4. SPECIFIC THEMES AND DISCUSSION TOPICS

As part of the pre-trip organisation the following issues were set up as topics for discussion during the course of the trip, often after dinner. Discussion groups were identified and on at least one day of the trip these groups travelled together in one vehicle. For the remainder of the trip these topics were open for general discussion.

4.1 Wild Dog Control

The control of wild dogs and dingoes is a developing management issue, particularly for areas of UCL adjacent to agriculture/pastoral lands. From a biodiversity perspective the sub specific difference between wild dogs and dingoes needs to be better understood, as does the impact of wild dogs and dingoes on both introduced and native fauna, and the public benefit of control. CALM has inherited a control program aimed at primarily protecting agricultural interests, which may be conflict with the purpose of maintaining ecosystems and biodiversity, and the outcome of the Nature Conservation Output.

There is a need to examine both the genetics and the ecological and conservation values of wild dogs and dingoes to gain an improved understanding of the nature conservation implications of baiting and shooting programs.

Recommendations

- 1. Science Division to prepare a position paper on wild dogs and dingoes (This should be prepared in consultation with relevant Nature Conservation and Regional Services officers, and needs to consider and provide statements on the ecological and biodiversity conservation values, public versus private benefits of control and a Departmental position on control and conservation). Time frame – draft to be completed by September 2005.**
- 2. Rangelands Policy Group to prepare a draft policy statement on management relating to CALM practices and wild dog and dingo control (taking into consideration the above paper) Time frame – December 2005.**

4.2 Fire management and fire ecology

Large scale, intense, unmanaged fires are becoming common in much of the rangelands and SW land Division, with recent examples from the Fitzgerald River National Park, Cape Arid NP, Dundas NR and areas of UCL in both South Coast and Goldfields Regions.

The group discussed both the consequences and possible mechanisms for managing and mitigation of these fires in order to achieve a more favourable regime for biodiversity. A great deal of concern was expressed about the impact of large-scale wildfires on biodiversity, with particular reference on the Goldfields woodlands. Habitat structure and post-fire seral stages are being simplified. However, it was determined there isn't good quantitative evidence of the consequences for native biota and ecosystems to demonstrate the problem.

There is need to document and determine quantitative impacts of fire on biodiversity outside the SW region, and to monitor changes and trends in biodiversity.

There is a need to obtain more information at a range of scales on the occurrence, frequencies and impacts of fires. Strategies are needed to break the current cycle of widespread, large scale landscape fires in the rangelands. This should be dealt with in an adaptive management framework, incorporating both Science and Regional Services staff.

Additional funding, or a redistribution of priorities, will be required to complete some of these actions.

Recommendations

- 3. Science Division in conjunction with Fire Management Services to undertake a study by June 2006 to map both frequency and extent of wildfires for at least a 35 year period using aerial photography/satellite imaging in a number of suitably sized study areas focusing on UCL/conservation lands to determine changes in fire regimes and vegetation structure (Study to include landscapes both heavily affected by fire and those relatively still intact as a comparison).**
- 4. Science Division to resample eastern Goldfields biological survey sites that were established 24 years ago to determine changes in vegetation structure and biota composition by June 2009.**
- 5. Science Division in conjunction with Fire Management Services to identify and prioritise landscapes at a State level that are important for managing biodiversity and fire by December 2006, and where active fire management can be applied to effectively manage for biodiversity values (This should include examination of changes through remote sensing with intersection of systematic biological survey data to determine landscapes relatively intact, where impacts from fire can be effectively managed).**
- 6. Science Division in conjunction with Fire Management Services to develop a set of principles and guidelines for fire management in the savannah woodlands, hummock grasslands, Goldfields woodlands and rangelands shrublands by June 2006.**

4.3 Mining and ironstone community conservation

Banded ironstone formations occur in South Coast and Goldfields landscapes as well as the Gascoyne/Murchison and Pilbara and are increasingly the focus of mining interest. These sites however, often contain unusual, rare or endemic plant species and ecological communities, and hence mining and exploration activities have the potential to impact on the biodiversity values in these areas.

It was recognised that there were issues regarding the incorporation of information about the south coast, i.e. Bandalup Hill. This needs to be addressed. Ideally it

should be possible to integrate and involve regional staff in vegetation surveys aimed at banded ironstone ecological communities and flora, where appropriate and dependant on other priorities and available resources.

Recommendation

- 7. Continue with a CALM reference group, to provide advice to the Science Division setting priorities for the banded ironstone vegetation survey and integrate involvement with regional staff, and to determine statewide priorities for ironstone ecological community conservation (this group will include representatives from all relevant Regional Services regions and Science Division and Environmental Management Branch).**

4.4 NRM and biodiversity conservation

Involvement in community-based natural resource management (NRM) and regional NRM groups has become part of regular business for Nature Conservation Output leaders. Issues such as the level of involvement expected by regional groups and a degree of leadership in the process of implementing regional strategies were discussed.

NRM was discussed informally throughout the trip. The Department engages with NRM groups differently across the regions, to different degrees and effectiveness, due to different composition and histories of these groups. Generally however, assisting with the development of regional NRM strategies and investment plans has been very demanding and difficult task without additional resources, not always a positive experience with limited outcomes. There is a need for more consistent Departmental approach for engagement in NRM and better coordination across regions. One area that needs to be considered is how to engage CALM Science staff in NRM across the regional delivery models, better structure and provide a Departmental position.

Recommendation

- 8 Maintain the NRM Focus Group as a support group within CALM and a forum for discussion of topical issues and to provide up-date on relevant NRM information, and finalise development of a Departmental policy on engagement with regional NRM groups and Departmental communication and reporting structure – Nature Conservation Directorate to lead (paper to consider how CALM deals with potential increases through the regional model and Departmental capacity to deliver expected outcomes). Time frame: November 2005.**

4.5 Nature Conservation review and Departmental restructure

As an organisation we need to organise our capacity to maximise nature conservation outcomes with limited resources, and with often conflicting priorities. The group discussed how the Department could build effective linkages across regional and divisional boundaries, and increase levels of cooperation.

The group discussed the difficulties of maintaining a progressive and innovative Department with such a large number of staff, with fluid and dynamic issues relating to biodiversity conservation. The structure of the Department should reflect what is important with respect to the desired outcomes or mission of the agency and the respective Outputs – especially those relating to biodiversity conservation. The current structure makes this difficult for the Nature Conservation Output to deliver outcomes and meet targets, as the drivers are often influenced by priorities (often competing) from both Nature Conservation and Parks and Visitor Services through Regional Services, as well as external socio-political demands that are often seen as being reactionary and do not contribute directly to the outcome of biodiversity conservation. In addition, legislative requirements can prevent more strategic initiatives from occurring, particularly those at a landscape/ecosystem scale, as resources are diverted to these obligations.

There is scope to work towards better integration of programs with priorities and responsibilities clearly set for improved performance. Again, it is imperative that if the Department maintains the Output Purchaser-Provider (OPP) model that a clear vision is agreed and there is a common understanding as what is to be undertaken and the desired outcomes.

Frank discussions were held about lack of purpose and a level of frustration being felt by many staff throughout the Department, with some members of the group concerned that the Department is losing the commitment and enthusiasm of staff. It was pointed out that sustained frustration can lead to malaise and a level of dysfunctionality. The Department needs to re-enforce (or recognise) that its greatest asset is people and it needs to avoid becoming moribund by continual (institutional) self-examination and setting in place systems to continually improve CALM and its staff in order to maintain a healthy organisation.

The need and suggestions for positive structural change need to be effectively communicated from all levels of staff to Corporate Executive, and further explored by the Nature Conservation Output.

Recommendations

9. Finalise regional Nature Conservation Output three year plans to help integrate across Divisions and better focus Output activities and describe and measure outcomes expected (Outcomes are to be presented to Corporate Executive via a paper with recommendations). Nature Conservation Directorate to lead in conjunction with Science Division and Regional Services. Time line: completion by December 2005.
10. Continue to build effective communication structures, and foster leadership aimed at senior natural conservation staff through a range of awards and training initiatives.

4.6 Other issues discussed

- Link with adaptive management role of science division as team players in regions;
- Core business funded externally (NRM);
- Decline in work in reserve system due to other programs. No longer time or money to do core programs in some regions;
- Project specific – dieback/pc – health service to look at deaths on bluff knoll; and
- Climate change with respect to montane habitats, granite outcrops – areas most likely to be impacted by climate change. Links to pilot project (SCRIPT/CALM workshop).

Appendix 4 outlines comments from the debriefing session on Kalgoorlie.

5. FUTURE MEETINGS

All the participants agreed this trip was an effective way of improving communications between people from different regions and divisions, enhancing the development of a Nature Conservation leaders' 'team', and improving understanding and appreciation of nature conservation issues and how they are being tackled across the State.

It was agreed that future trips should be designed to ensure a systematic approach to developing broader understanding of statewide biogeography.

The suggestion was made that a three-year plan be developed for future meetings, to include one meeting like this and one in Perth. The annual November meeting (held in Perth) should be a more inclusive and larger group.

Some of the recommendations/actions from this trip could be taken to the November meeting to progress and further discuss if necessary.

Suggestions for other field based meetings:

2006 - issues of fragmentation and biodiversity in the Wheatbelt

2007 - Spinifex/deserts

2008 - Shark Bay/Ningaloo - marine-terrestrial interface

Several other potential topics were identified for future meetings:

- Biodiversity audit (2nd iteration) – what needs to be done and how will it be achieved?;
- CALM operations, IMGs and necessary ops;
- The corporate image – what is it, how do we improve it?;
- What kind of institutional changes are needed to make management more “adaptive”?;
- How can we measure our effectiveness as a conservation organisation?; and
- Improving the Comprehensiveness, Adequacy and Representativeness of the Reserve System.

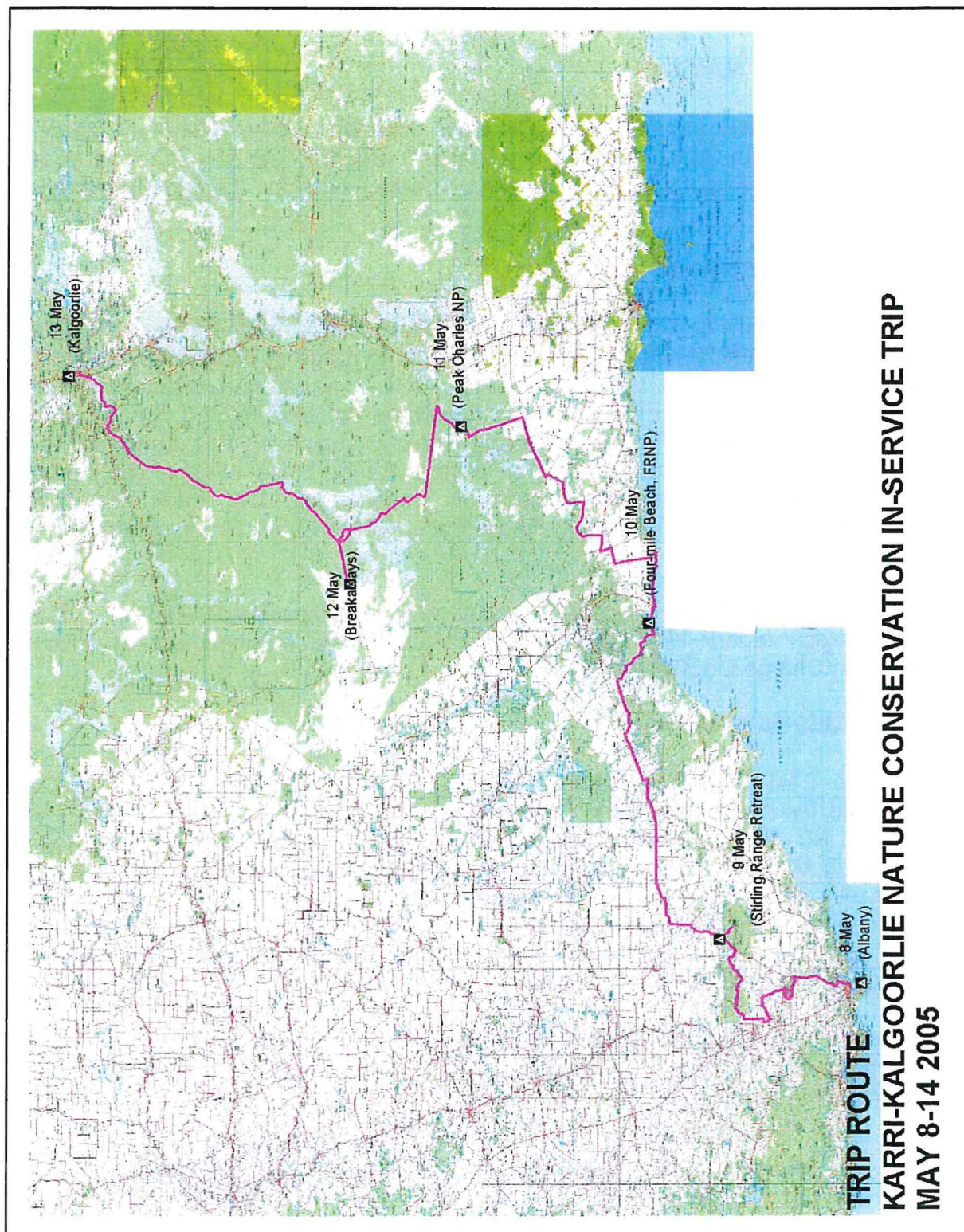
Recommendation

11. Paper to be developed with recommendations regarding future field trips and presented to A/Director Nature Conservation and Director of Regional Services for consideration. Keith Claymore lead. Time line: November 2005.

THANKS

To Keith Claymore for his support from the concept to the actuality; Neil Burrows for coming on the trip and bringing his wealth of knowledge and enthusiasm; the CALM Scientists for their willingness to share their knowledge and understanding; District staff from Albany, Esperance and Goldfields for sharing their operational experience and knowledge; Alan Danks, Sarah Comer and Kim Kershaw for organising and planning the logistics of the trip; to Kim Kershaw, Steve Thomas and Nat Hull for working so hard to support us all with great meals and camping facilities; all participants for their enthusiastic engagement with the expedition.

Appendix 1 Map of route



Appendix 2

EXPEDITION ITINERARY

DAY 1 SUNDAY MAY 8

Participants travel to Albany. Accommodation at Dolphin Lodge, Middleton Beach. Welcome to South Coast Region (John Watson), South Coast Region report (Alan Danks), trip briefing, travel and camping arrangements for the trip (Esplanade Hotel).

DAY 2 MONDAY MAY 9

Travel from Albany to Porongurup National Park in the Southern Jarrah Forest IBRA subregion (JF2). Visit the "South side" of the range at Waddie's Hut among mixed karri, marri forest. Welcome by Ranger in Charge Charlie Salamon. Talk and discussion on threatened species and weeds. Continue to Red Gum Pass in Stirling Range National Park in Fitzgerald IBRA subregion (ESP1). Lunch at Red Gum Springs in SRNP. Drive east on Stirling Range Drive through the central Stirling Range. Stop at Stirling Lookout. Continue to Bluff Knoll car park. Threatened flora, centre of plant richness/endemism, dieback. Accommodation at Stirling Range Retreat.

Presentations on Stirling Range threatened flora program (Sarah Barrett), South West Region report (Kim Williams), short talk on fire management by SRNP Ranger in Charge Geoff Harnett.

DAY 3 TUESDAY MAY 10

Travel to East Warperup Nature Reserve. Continue via Jerramungup to the Fitzgerald River National Park. Granite rock beside Hammersley River on Old Ongerup Rd. Visit Western Shield monitoring site at Moir Track. Talk on fauna monitoring by Peter Collins. View recently captured Dibbler. Prescribed burning under way to the north east (Mal Grant). Lunch at Sepalcralis Hill. Continue on Hammersley Drive to East Mt Barren. Species rich flora. Climb to the summit of East Mt Barren. Set up camp at Four Mile Campsite (East Mt Barren). Travel into Hopetoun for dinner at Hopetoun Hotel.

Presentations by Anthony Desmond (Mid-west Regional Report), Mal Grant (fire management, Bell Track Phytophthora infestation, mining activities in the Ravensthorpe area).

DAY 4 WEDNESDAY MAY 11

Depart from East Mt Barren to Culham Inlet. Talk on waterbirds at Culham Inlet (Stuart Halse). Travel east along the coast to Jerdacuttup Lakes (Sarah Comer) and Mason Bay in Recherche sub-region (ESP2). Continue via Bandalup Hill, Cheadnup NR and Rollands Rd (fuel reduction buffers adjoining UCL) to Fields Rd in the Eastern Mallee subregion (MAL1). Meet with Mike Fitzgerald and Ryan Butler from Esperance. Continue north to Peak Charles NP. Climb to summit of Peak Charles. Overnight in camp at base of Peak Charles.

Evening Presentations: Warren Region Report (Ian Wilson), Swan Region report (Dave Mitchell).

DAY 5 THURSDAY MAY 12

Travel north out of Peak Charles National Park to the Lake King – Norseman Rd and west to the Johnson Lakes Track. Travel through the Bremer Range and along the Honman Ridge to Johnston Lakes area (Coolgardie 2 subregion). Lunch on the Honman Ridge Track. Pilbara report (Stephen White). Continue to Hyden-Norseman Road and Breakaways campsite. Joined by Mark Cowan and Julie Patten from Kalgoorlie.

Evening presentations: Esperance District CAR analysis (Mike Fitzgerald).

DAY 6 FRIDAY MAY 13

Travel east on Hyden–Norseman Rd from Breakaways to Victoria Rock road then to Cave Hill NR. Lunch at Cave Hill and climb to top of granite rock. (Coolgardie 2 woodlands). Continue on to Kalgoorlie.

At Goldfields Region Office welcome by Regional Manager Ian Kealley, Goldfields Region report (Brad Barton) and presentation on Lorna Glen biological surveys (Mark Cowan). Workshop/debrief and drafting of trip report.

Accommodation and dinner at Hospitality Inn, Kalgoorlie

DAY 7 SATURDAY MAY 14

Travel home

Appendix 3

LIST OF ATTENDEES

SOUTH COAST REGION

Alan Danks, South Coast Regional Leader NC
Sarah Comer, Ecologist, Albany
John Watson, Regional Manager
Mal Grant, Conservation Officer, Ravensthorpe
Peter Collins, Fauna Conservation Officer, Albany
Charlie Salamon, RIC
Geoff Harnett, RIC
Sarah Barrett, Albany Flora Officer
Mike Fitzgerald, Esperance District NC Coordinator
Ryan Butler, Esperance Flora Officer
Ian Hughes, RIC Stokes NP
Kim Kershaw, Albany District NC Coordinator
Nat Hull, Admin Officer, Albany

TRIP/SECTION

Albany -Kalgoorlie
Albany –Kalgoorlie
Albany – Stirling Range NP
East Mt Barren
East Mt Barren
Porongurup NP
Stirling Range NP
Albany – East Mt Barren
Peak Charles - Kalgoorlie
Peak Charles – Kalgoorlie
Peak Charles NP
Albany - Kalgoorlie
Albany - Kalgoorlie

GOLDFIELDS

Brad Barton, Goldfields Regional Leader NC
Mark Cowan, Regional Ecologist
Julie Patten, Reserves Officer

Albany - Kalgoorlie
Breakaways - Kalgoorlie
Breakaways - Kalgoorlie

SWAN

David Mitchell Regional Leader NC
Steve Thomas, Hills District

Albany - Kalgoorlie
Albany - Kalgoorlie

WARREN

Ian Wilson, Donnelly District NC Coordinator

Albany - Kalgoorlie

SOUTH WEST

Kim Williams Regional Leader NC

Albany - Kalgoorlie

MIDWEST

Anthony Desmond Regional Leader NC

Albany - Kalgoorlie

PILBARA

Stephen White, Regional Leader NC

Albany - Kalgoorlie

SCIENCE DIVISION

Neil Burrows, Director
Norm McKenzie, Principal Research Scientist
Greg Keighery, Principal Research Scientist
Stuart Halse, Principal Research Scientist
Neil Gibson, Senior Research Scientist

Albany - Kalgoorlie
Albany - Kalgoorlie
Albany - Kalgoorlie
Albany - Kalgoorlie
Albany - Kalgoorlie

NATURE CONSERVATION DIVISION

Keith Claymore, A/A Director

Albany – Kalgoorlie

Appendix 4

DEBRIEFING

The following comments were made during a quick round table discussion in the final workshop session at the Kalgoorlie CALM Office at the close of the expedition.

Trip Highlights

- The extent of Phytophthora across South Coast Region was a surprise. The trip highlighted the impacts of this disease as well as some of the work being done to control it;
- Seeing a dibbler for the first time (Moir Track Western Shield fauna monitoring trapline);
- South Coast staff were seen to be much more involved in nature conservation work at all levels;
- Mark Cowan's presentation of the Lorna Glen biological survey data & analysis;
- The opportunity to walk each afternoon was greatly appreciated. The trip was not just talking and travelling but there was some physical activity involved;
- Seeing different ways of doing things was inspiring;
- Becoming more aware of the opportunities for science and the regions to work together was a highlight;
- Appreciated the opportunity to spend time, talk and interact with other Nature Conservation Leaders and Science staff;
- The woodlands of Honman Ridge area and the insight provided by Norm on seeing the area again after 25 years – an appreciation of changes that had occurred;
- Meeting the wide range of regional and district staff;
- The Western Shield trapping in Fitzgerald River National Park and Peter Collins' work with the Ravensthorpe School kids;
- Travelling across a number of bioregions – getting a feel for the different plant communities and appreciating changes that have occurred over time;
- Hearing the commentary from people with an incredible depth of knowledge – Neil, Greg and Sarah Barrett on plants, Norm on fauna;
- Mal's smoke plumes seen from Moir Track and East Mt Barren indicating our staff were out there doing fire management;

- Advertising achievements;
- Climbing East Mt Barren and noting the management changes in FRNP since the last time which was 20 years ago;
- The information exchange – you can't beat spending time with people;
- Having one of the Directors (Neil Burrows) with us was greatly appreciated;
- Trip was safe – no injuries or mishaps;
- Seeing how much Ryan has grown!;
- The opportunity to find out how much information is held by this group and the exposure to what is going on throughout department;
- Decent beer provided during the trip!;
- The growth in the capacity of this group of people over the last few years;
- Seeing a variety of quite spectacular landscapes;
- Gaining an insight into how regions are grappling with their nature conservation problems – realising the value of investing effort in supporting regional staff; and
- The dedicated cook and support crew were essential – allowed us to get through the program without having to worry about logistics. Thanks to Steve, Kim and Nat.

The things that didn't work

- Willow's tyres!;
- Nature Conservation Leaders' regional reports should probably focus on one or a small number of issues and maybe describe actual experiences to catch attention; and
- There was a need for a scribe(s) to record our discussions during each day. Will need to nominate someone to take notes so that the task doesn't get neglected.