WORKSHOP 3

FIRE REGIMES AND MANAGEMENT OF SPINIFEX

FACILITATOR: GRAHAM GRIFFIN

REPORTER: PETER KENDRICK

A. Decided to begin by sorting out what we do and do not know regarding fire and management of spinifex, particularly with respect to patch burning.

1. What do we know?

Patch Burning

- Assumed that application on a broad scale is neither practicable or desirable. The empirical support for patchy mosaics is also not yet unambiguous. However, extensive areas of uniform aged spinifex are likely to be undesirable with respect to community diversity **and wildfire protection.**

- Management must be considered at two different geographic scales; broad -vs- local. The appropriate scale of application depends upon the specific management issue. High value localities may require specific fire management.

- Patch burning has a role in protecting ecosystems from wildfire, at both large scale (buffer zones or strips) and local scale (individual site protection).

2. What don't we know

- We lack detailed information on the responses of communities to small scale fire mosaics. We need case studies to produce generic theories.

- We need to get data on the responses of restricted, rare or endangered species to fire regime.

- How does fire regime affect soils and soil faunas, vegetation. Some people weren't too sure about this - how far does one go, when do you stop?

- We have a dearth of information on effects of fire regime on non-sandplain spinifex communities.

B. What should our management objectives be with fire and spinifex.

General	Specific
1. Maintain biological diversity.	1. Protecting currently endangered species.
2. Publicise knowledge and identify gaps in knowledge.	2. Maintain all successional

3. Maximise fire regime diversity by landform types.
4. Protection of conservation and other assets.
5. Pre-planning in implementation of fire.
6. Make management decisions at appropriate levels - whole landscape -vs- individual species.
7. Keep your options open - diversify management approaches as 'insurance'.
8. Implement concurrent management of feral fauna/flora.
9. Involve local or interested communities in fire management (Aboriginal people, pastoralists).

stages, particularly old and very old patches.
3. Manipulate habitats for requirements of specific species or communities.

- Fire is disturbance. Weeds may benefit and this should be considered in management.

C. What are our Research priorities.

General

1. How to identify 'key sites' as specific management issues.
2. Nutrient distribution and relationship to water and productivity.
3. Documentation of fire regime and monitoring of effects.
4. Effect of exotic species in different fire regime/community types.
5. Which species and at what scale should we be monitoring?
6. What of non-fire perturbations, and how do they interact with fire, e.g. grazing.
7. At what scale is application of patch burning appropriate?
8. Develop simple (or simplify existing) pre/past burn monitoring methods.

Fauna/Flora

1. Fire regime and influence on soil composition/ structure/stability/ productivity.
2. Responses of fire sensitive species to fire regime.
3. Database of species responses to fire regime.
4. Fine tuning for individual species.
5. Experimentation with different fire regimes.
6. Predictive models for fire behaviour and more accurate weather predictions.