

## Burning for Biodiversity in Northern Australia

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## Tropical savannas and northern Australia

What makes northern Australia different?

- Fairly intact environment
- Sparse and low population
- Indigenous Australians



## Fire: essential element

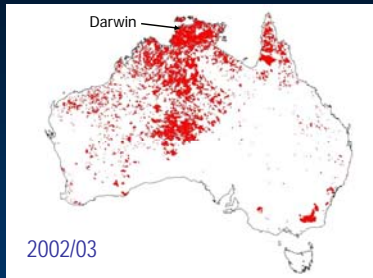
- Lightening – more than 80 lightning days/ year
- More than 50% of the Top End burns in any one year
- Most bushfires in Australia occur in the North



## Fires in south-east Australia

Summer 2002/03





### North – South divide

Tropical	Temperate
Surface fires	Crown fires
Fuel accumulates in short time	Fuel accumulation longer
Short fire return period	Long fire return period
	Protection of property & life



### Fire: essential element

Landscape management rather than protection of life and property

Fires lit by:

- conservation managers
- pastoralists
- traditional owners



### Disruption and change

- Massive and widespread disruption of Aboriginal burning regimes
- Linked to declines in animal and plant species both within and outside formal conservation areas



### Understanding fire in Northern Australia

- Effects on biodiversity – poorly understood
- Fire experiments help improve understanding
- Lack of public awareness and understanding – fire seen as a destructive force

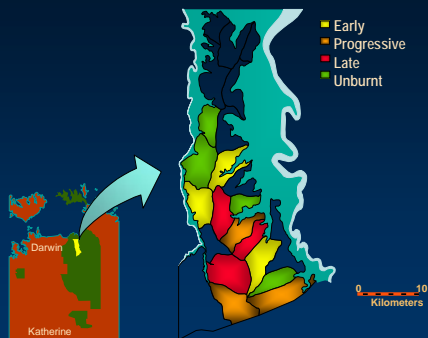


### Kapalga fire experiment: landscape scale

- Large-scale – watersheds
- Season of burn
- 5 year duration
- Importance of fire frequency rather than season
- Resilience of biota to burning



### Kapalga fire experiment: landscape scale



### Burning for Biodiversity project in Northern Australia

#### Research and Education

- Improve understanding of fire effects of biodiversity
- Raise public awareness and educate

Territory Wildlife Park –  
research and education

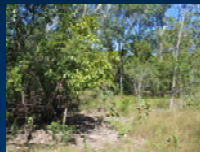
Boggy Plains Aboriginal  
burning project



## Territory Wildlife Park – research and education

### Research

- Fire frequency and time since-fire
- Single and repeated fire effects
- Mechanistic understanding



## Layout of experimental fire plots

