

Introduction

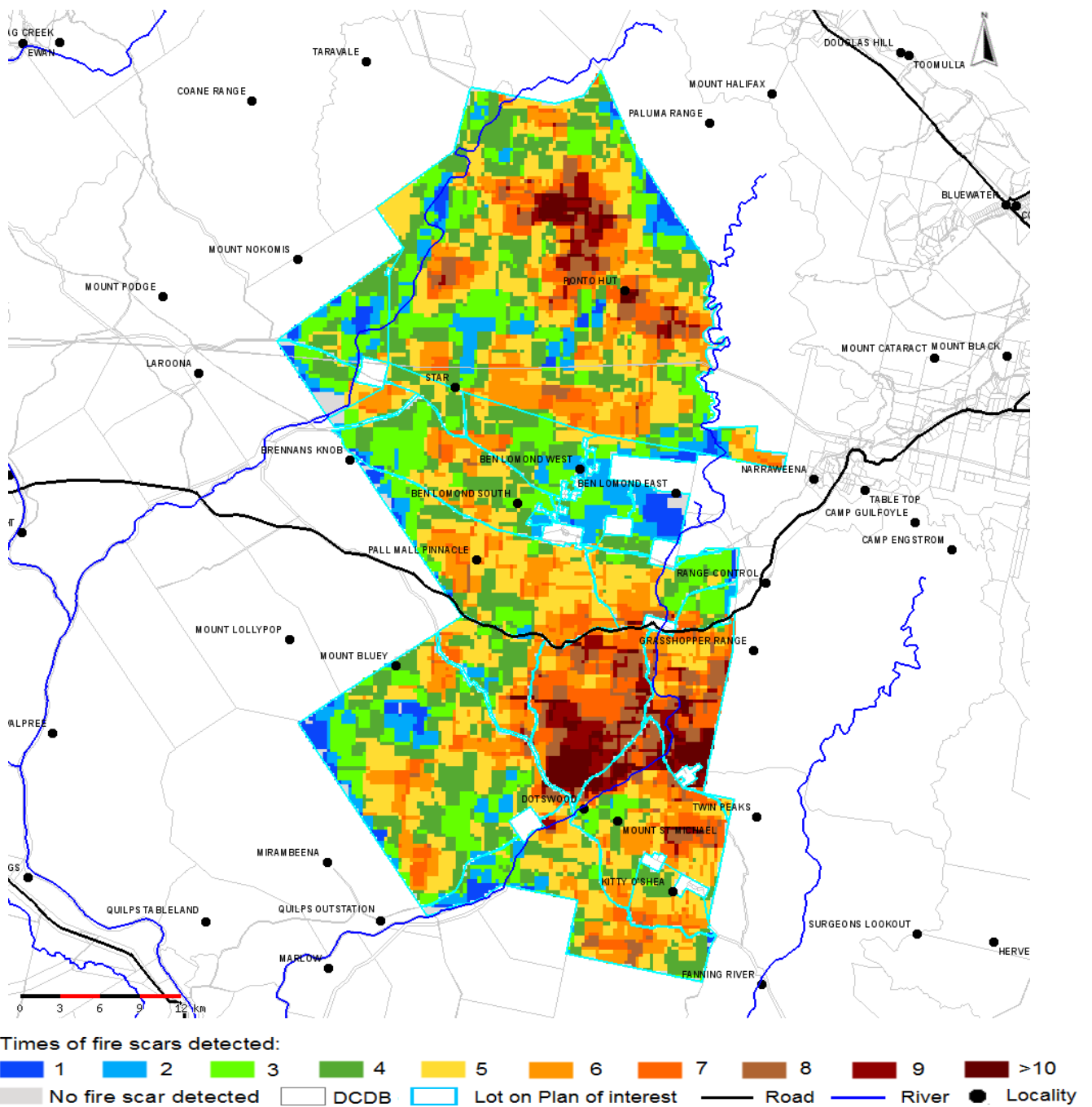
This report presents, for a Lot on Plan of interest, a range of fire scar maps and graphs describing fire scars detected in different years, fire scar seasonal distribution and fuel load information. The maps include: 1) a "Cumulative fire scar" map for the period from 1997 to current, showing how many times fire scars were detected for an area during that period; 2) a "Years since burnt" map showing how long ago the latest fire scar was detected for an area; and 3) a "Fire scars detected in each month of current year" map showing the fire scars detected in each month" of current year.

The fire scar maps and bar graphs were generated using information obtained from NOAA satellite imagery, which were produced by Landgate, Government of Western Australia (landgate.wa.gov.au). NOAA satellite based imagery has broad scale resolution (approximately 1km x 1km), but provides daily revisits of a site. Some fire scars, however, may still be undetected by satellites due to: 1) spatial or temporal limitation; 2) "cool fires" under trees that don't affect tree leaves; and 3) cloud cover. "False fire scars" are also possible where land becomes dark due to cloud shadows or inundation of water. Therefore, all of the above factors need to be taken into consideration when interpreting the information presented in this report.

Location map



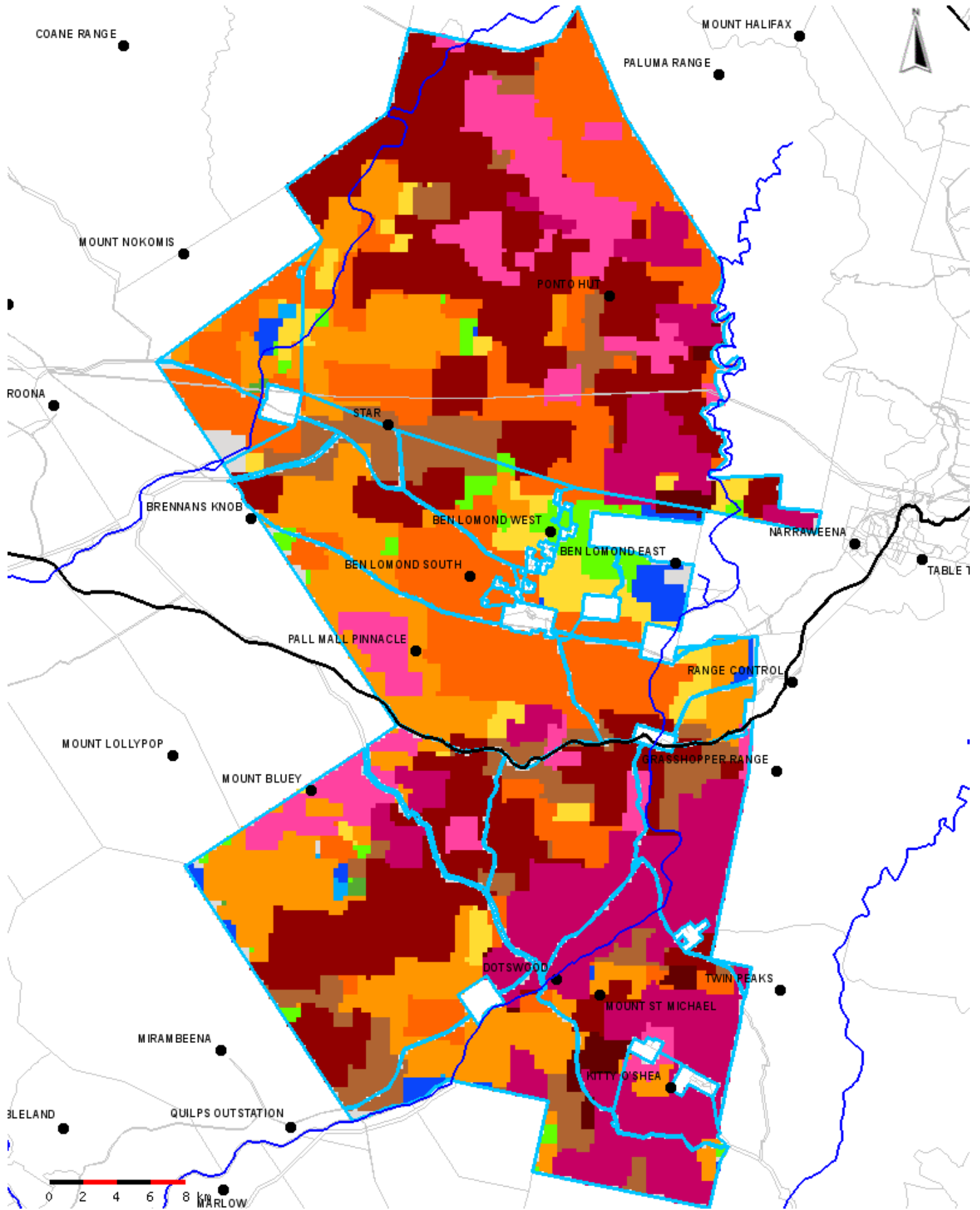
Cumulative fire scar map (1997 - current)



Summary of cumulative fire scar map

The available NOAA satellite data indicated that since 1997 there are 99 fire scars detected on the Lot on Plan of interest. The most recent fire scars were detected in Aug 2017, Sep 2017, Oct 2017, May 2018, Jun 2018, Jul 2018.

Years since burnt



Years since burnt

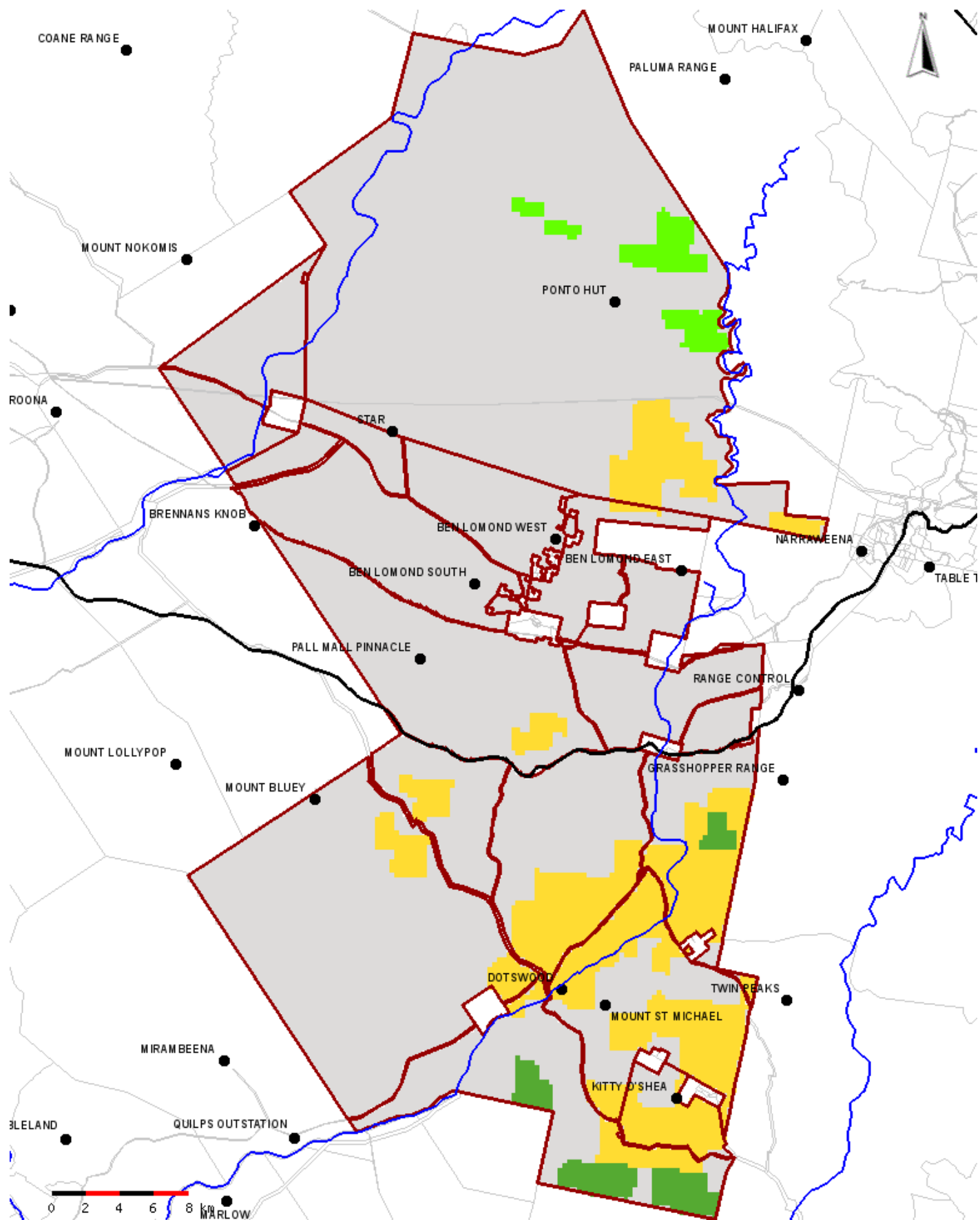


No fire scar detected
 DCDB
 Lot on Plan of interest
 Road
 River
 Locality

About years since burnt map

This map shows the latest time the fire scars are detected for an area.

Fire scars in 2018



Fire scars detected in different months:

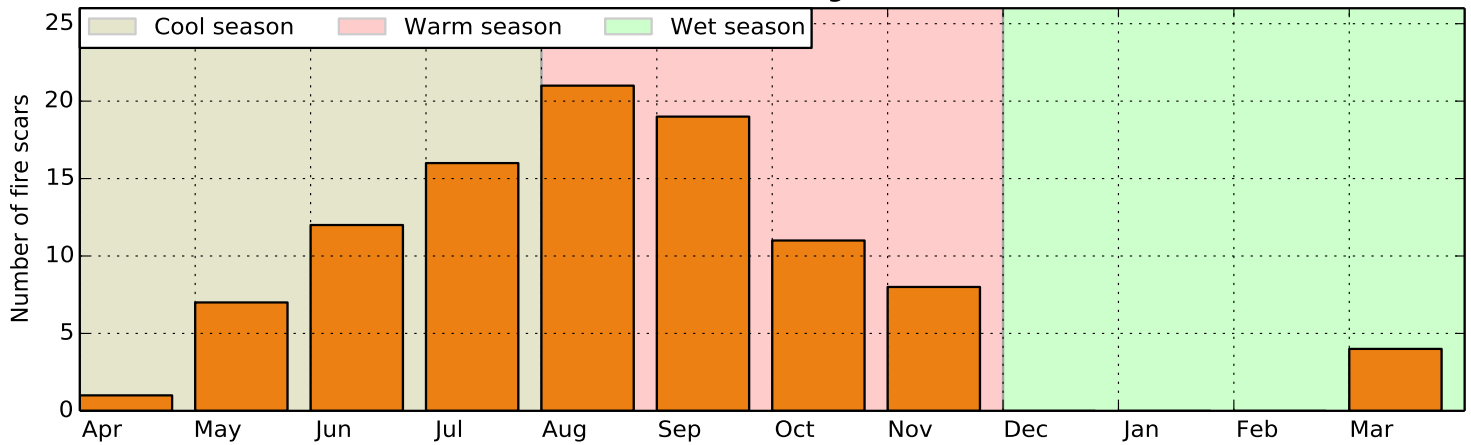
- Jan
- Feb
- Mar
- Apr
- May
- Jun
- Jul
- Aug
- Sep
- Oct
- Nov
- Dec
- No mapping undertaken
- No fire scar detected
- DCDB
- Lot on Plan of interest
- Road
- River
- Locality

About current year map

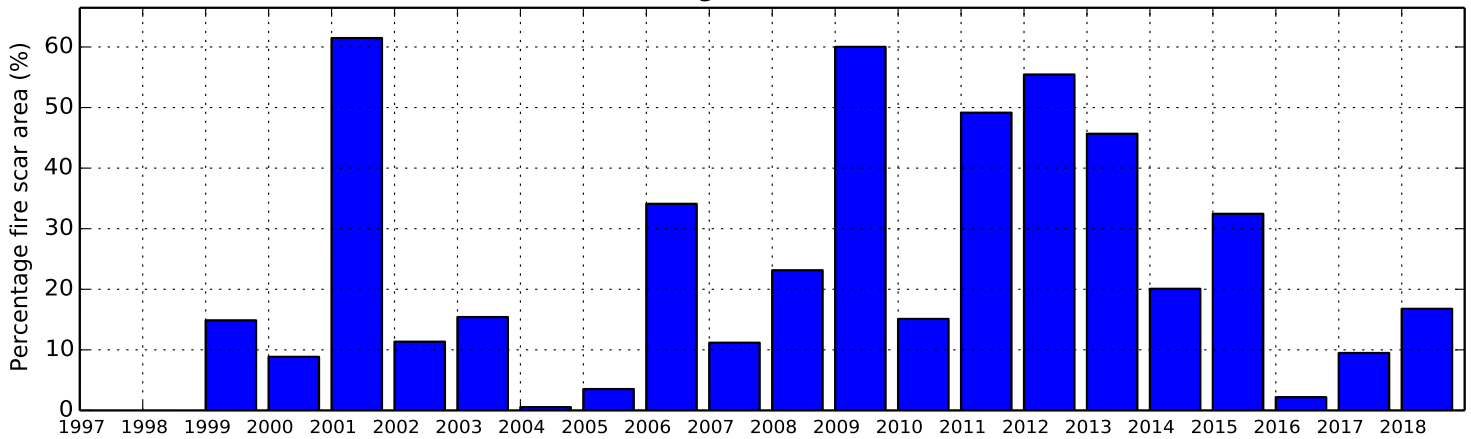
This map shows the fire scars detected in different months of current year.

Graphs

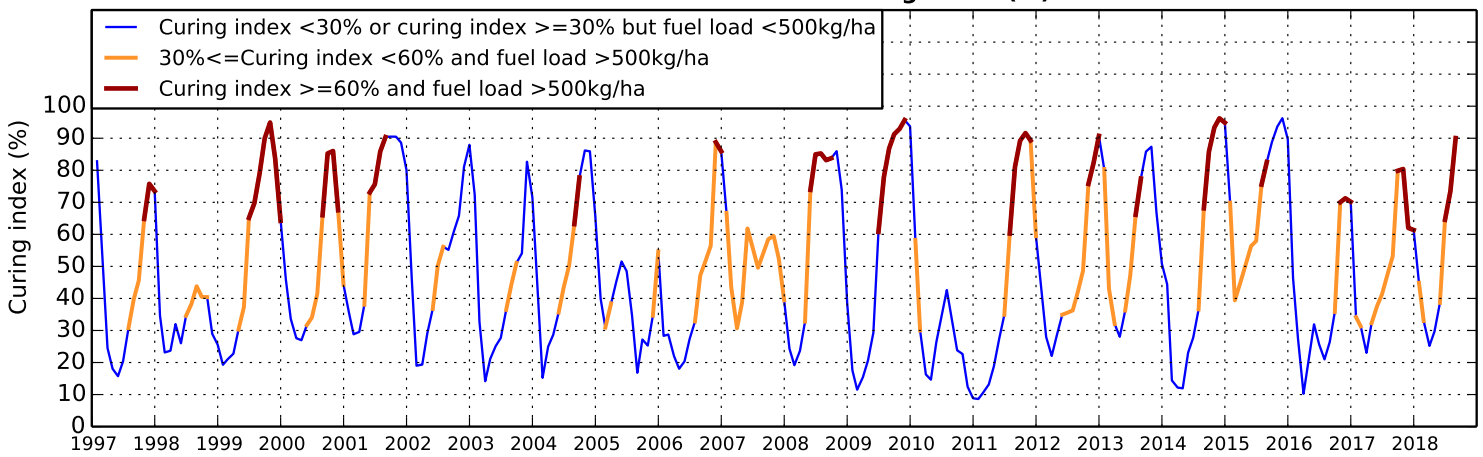
Fire scar distribution among different months



Percentage fire scar area (%)



Modelled time series of curing Index (%)



Graphs interpretation

The graph on the top indicates the number of fire scars that occurred in different months in the past. The months are allocated into three groups: cool season (Apr, May, Jun and Jul), warm season (Aug, Sep, Oct and Nov) and wet season (Dec, Jan, Feb and Mar). Burning during the cool season may restrict damage to woody plants and help reduce greenhouse gas emissions. Fires in the hot season are generally more effective and are often used to control woody plants. The graph in the middle indicates the cumulative percentage fire scar area out of the total area for each year the firescars detected. The graph on the bottom indicates the historical time series of curing index and fuel load for the property. The curing index is the percentage of modelled dead pasture out of the total modelled pasture biomass. Both curing index and fuel load data were sourced from the AussieGRASS model outputs.

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