

# Annual Reserve Report

## Brown Mountain Reserve 2017-18



## Introduction

The Tasmanian Land Conservancy (TLC) protects important natural areas as permanent reserves and aims to demonstrate excellence in reserve management for biodiversity conservation. The TLC has adopted an adaptive management framework – the Open Standards for the Practice of Conservation which comprises 5 key steps – planning, implementing, monitoring, reporting, review/adaptation and communication.

Brown Mountain Reserve was acquired by the TLC in 2007 and protects 86 hectares of wet eucalypt forest on the slopes of Mount Field in southern Tasmania. The Reserve is surrounded by state forest and private land managed for forestry. The management of the Reserve is guided by the Brown Mountain Reserve Management Plan. The plan is implemented by TLC staff through an Annual Work Plan and Monitoring Plan. Details of ecological monitoring methods can be found in TLC’s Ecological Monitoring Procedures Manual on [www.tasland.org.au](http://www.tasland.org.au).

This report describes progress made towards delivery of the management plan in 2017-18, and is divided into three sections:

1. Reserve Scorecard – a table summarising the results of management effectiveness and ecological monitoring to date;
2. Management Effectiveness Summary – providing details of the implementation of key management strategies and making recommendations for plan improvement;
3. Ecological Monitoring Summary – providing details of the status of conservation targets and trends of key ecological indicators.


The recommendations made in this report are used to adapt and improve management of the Reserve, update the management plan, and revise work and monitoring plans for the coming year. Key findings of this report are communicated to TLC Board, supporters and other stakeholders.

## Brown Mountain Reserve Scorecard 2017-18


<b>Monitoring</b>			
<b>Target</b>	<b>Indicator</b>	<b>Status 2017-18</b>	<b>Trend</b>
Wet eucalypt forest	Floristic diversity	6.75 species/site	Trend data due to be collected in 2019
	Structural complexity	3.4 strata/site	
	Recruitment	1.25 cohorts/site	
	Vertebrate fauna diversity	6 species 96% native	
<b>Management Effectiveness</b>			
<b>Strategy</b>	<b>Indicator</b>	<b>Status</b>	<b>Trend</b>
Community engagement and connection to the landscape	# volunteer days on the Reserve	0 event – 0 vol days	Flat
	# visitors to the Reserve	Unknown suspect low	No change
	# research and education projects	2 (inverts / lyrebirds)	No change
Fire management	# of unplanned fires	0	Flat

Cover image: Jane Kebble-William next to Brown Mountain Reserve entry sign: photo S Bryant

## Monitoring Summary

<b>Wet Eucalypt Forest</b>		<b>Status: Good</b>
<b>Goal:</b> The condition of the target is maintained or improved		<b>Outcome: Trend data due 2019</b>
<p><b>Target Description:</b> The vegetation of Brown Mountain Reserve is wet eucalypt forest dominated by mature <i>Eucalyptus regnans</i> – the world’s tallest flowering plant. The understorey is dominated by broadleaved shrubs and rainforest species such myrtle, sassafras and tree ferns. The forest is regenerating following selective logging in the 1980s. Lyrebirds have recently been observed and pose a potential threat to the Reserve’s values.</p>		 <p>M Taylor inspecting lyrebird damage: photo TLC</p>
<b>Ecological indicator</b>	<b>Current status</b>	<b>Trend</b>
Floristic diversity	6.25 species/site 16 species total	Unknown, monitoring established in Dec 2016 and trend data due in 2019
Structural complexity	3.4 strata/site	
Canopy recruitment	1.25 cohorts/site	
Vertebrate fauna diversity	6 species - 96% native	
<p><b>Key findings</b></p> <ul style="list-style-type: none"> <li>• Four vegetation and fauna monitoring sites were established in Dec 2016</li> <li>• Four invertebrate samples were collected from each of the monitoring sites using pitfall traps</li> <li>• Six mammal native mammal species were detected including two threatened carnivore species – Tasmanian devil and spotted-tailed quoll.</li> <li>• A single cat was detected at one site</li> <li>• An UTAS Hons student Damian Ashlin studying lyrebirds was taken on-site in April 2018 to measure disturbance</li> <li>• Vegetation is assessed as being in good condition and regenerating well following historic logging activity.</li> </ul>		
<p><b>Recommendations</b></p> <ul style="list-style-type: none"> <li>• Repeat long-term monitoring in 2019 including invertebrate sampling at each site</li> <li>• Encourage a student research project on lyrebird management</li> </ul>		

## Management Effectiveness Summary

Community engagement and connection to the landscape		
<p><b>Key objective(s)</b></p> <ul style="list-style-type: none"> <li>TLC provides opportunities for the community to experience or benefit from the Reserve through education, recreation, research and volunteering</li> </ul>	<p><b>Status 2017-18</b> <b>No change</b></p>	
<p><b>Strategy description</b></p> <p>Brown Mountain Reserve provides the community with a range of recreational, educational, research and volunteering opportunities. The local community, volunteers, the indigenous community and other stakeholders are encouraged to participate in planning and land management activities and for education and scientific research.</p>	 <p>Sally Bryant and Jane Keble-Williams collecting invertebrate traps: Photo TLC.</p>	
Indicator	Current status	Trend
# of volunteer activities at the Reserve	0 event - 0 vol days	Flat
# research and education projects	2 (invertebrates / lyrebird research)	No change
# visitors to the Reserve	Unknow – suspect low	No change
<p><b>Progress in 2017-18</b></p> <ul style="list-style-type: none"> <li>New Management Plan in place and being implemented</li> <li>Access to the Reserve was maintained, no visitor numbers recorded but suspected as low.</li> <li>M Taylor and R Hamer assisted UTAS Hon student with site assessment for lyrebird research proposal.</li> <li>Bushwalkers continue to occasionally access the Reserve on route to Manny’s Marsh.</li> </ul>		
<p><b>Key recommendations for future management</b></p> <ul style="list-style-type: none"> <li>Maintain access to the Reserve and continue to pursue right of way with Norske Skog.</li> <li>Ask the local bushwalkers to let us know when they are going there, so that TLC can monitor visitation.</li> <li>Continue to encourage community connections to the reserve by providing research, education, recreation or volunteering opportunities</li> <li>Maintain relationship with the local bushwalking community</li> </ul>		

**Fire management****Key objective(s)**

- No unauthorised fires occur on the reserve (ongoing)

**Status 2017-18****On Track****Strategy description**

An inappropriate fire regime will reduce the condition of the natural values at Brown Mountain Reserve. The impact of fire on local communities also needs to be considered.

The vegetation at Brown Mountain Reserve and the surrounding area is wet eucalypt forest, which has an optimum fire interval of >100 years, and is negatively impacted by more frequent fires.

A fire risk assessment has determined that the Reserve presents a low risk to local communities due to the distance from nearby communities.



P. Wilson in tall wet eucalypt forest. Credit: TLC.

**Indicator****Current status****Trend**

No. of unplanned fires

0 unplanned fires

Flat

**Progress in 2017-18**

- There were no unauthorised fires on the Reserve in 2017-18.
- A fire risk assessment was completed for all TLC reserves.
- A fire management policy for all TLC Reserves is being implemented.
- A fuel stove only policy is also being implemented.
- A whole-of-TLC fire management strategy is being developed to ensure all TLC properties are effectively managed from threats relating to fire, and that fire is used appropriately as a tool to manage the values of TLC properties.

**Key recommendations for future management**

- Maintain vehicle access to the nearest track junction.
- Continue to implement a fuel stove only policy for the Reserve.
- Continue to develop the whole-of-TLC fire management strategy.