



Annual Report

Egg Islands Reserve 2018-19



www.tasland.org.au

Introduction

Egg Islands Reserve was acquired by the Tasmanian Land Conservancy (TLC) in 2007 to protect 136 hectares of black gum swamp forest, wetlands and saltmarsh in the Huon Estuary in southern Tasmania. The Reserve adjoins public land managed by the Parks and Wildlife Service. The management of the Reserve is guided by the *Joint Management Plan for the Egg Islands Reserve and Egg Islands Conservation Area 2009*. 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.

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

This report describes progress made towards delivery of the management plan in 2018-19, and comprises:

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

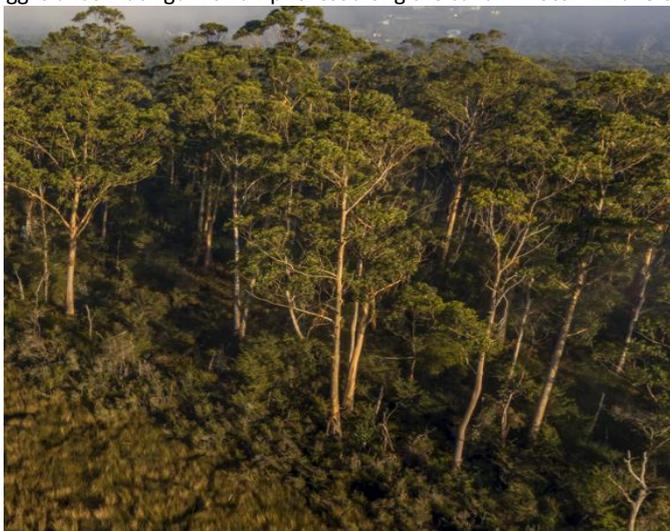
The recommendations made in this report are used to improve management of the Reserve, update the management plan, and revise work and monitoring plans for the coming year. This report is available on www.tasland.org.au and its findings are communicated to TLC Board, supporters and other stakeholders.

Egg Islands Reserve Scorecard 2018-19

Ecological Monitoring				
Target	Indicator	Status 2015-16	Status 2017-18	Trend
Black gum swamp forest	Floristic diversity	8.5 species / site	8.5 species / site	Baseline data collected in 2015/6 and repeated in 2017-18. Next monitoring scheduled for 2020
	Structural complexity	6.8 strata / site	6.8 strata / site	
	Canopy recruitment	1.2 cohorts / site	1.2 cohorts / site	
Terrestrial Mammals	Species richness	5 species, all native	9 species, 8 native and 1 introduced	
	Species diversity	Simpson's diversity index 0.34 Shannon-Wiener diversity index 0.64	Simpson's diversity index 0.63 Shannon-Wiener diversity index 1.23	
Wetlands and saltmarsh	Floristic diversity	6 species / site	6.8 species / site	
	Structural complexity	3 strata / site	3 strata / site	
Management Effectiveness				
Strategy	Indicator	Status 2016-17	Status 2017-18	Status 2018-19
Community engagement	# events	0 events	5 events	2 events - decrease
	# of vol activities	2 activities / 44 vol days	3 activities / 21 vol days	2 activities / 28 vol days - stable
	# of projects	3: 2 mg't, 1 education	3: 2 mg't, 1 education	2: 1 mg't, 1 education - stable
Weed management	Area of weeds	3 ha	< 3h	< 3h - improving
	Density of weeds	<1%	<1%	<1% - improving

Cover image: Aerial view Egg Islands July 2018 Credit: Rob Blakers

Monitoring Summary

Black gum swamp forest		Status: Very Good	
Goals: Maintain the condition of Black Gum Swamp Forest		Outcome: On Track	
<p>Target description: Black gum swamp forest is a threatened community that has been extensively cleared since white settlement. The Egg Island stands are the largest remaining remnants in south-east Tasmania. The stands are important as foraging and potentially nesting habitat for the endangered swift parrot. Some areas of the property were cleared historically for agriculture. These areas are regenerating and are mostly dominated by native species, although Spanish heath is present in some areas.</p>		<p>Egg Islands Black gum swamp forest along the canal. Photo: R Blakers</p> 	
Ecological indicator	Status 2015-16	Status 2017-18	2018-19 Trend
Floristic diversity	8.5 species / site	8.5 species / site	No Change – no new data
Structural complexity	6.8 strata / site	6.8 strata / site	No Change – no new data
Vegetation extent	56 hectares	Not re-measured	Due in 2025
Canopy recruitment	1.2 cohorts / site	1.2 cohorts / site	No Change – no new data
Terrestrial mammals			
Species richness	5 species, all native	11 species, including 10 native and 1 introduced	2017-18 = baseline data, remonitor in 2020
Species diversity	Simpson's diversity index 0.34 Shannon-Wiener diversity index 0.65	Simpson's diversity index 0.64 Shannon-Wiener diversity index 1.31	2017-18 = baseline data, remonitor in 2020
Findings 2018-19			
<ul style="list-style-type: none"> • No new veg data collected this year. Previous data shows the black gum forests are in excellent ecological condition. • Black gum forest is now listed as an Endangered veg community under the EPBC Act 1999. • No new fauna data collected this year. The Song Meter data has not been analysed as yet 			
Recommendations			
<ul style="list-style-type: none"> • Undertake fauna monitoring on a more regular basis to track small mammal status and verify cat-free status in case of very low detection rates. • Resurvey fauna in 2020. • Continue collaborating with UTAS and FT on automated software capable of developing recognisers for bittern and other bird species 			

Wetlands and saltmarsh		Status: Good	
Goals: Maintain the condition of Wetlands and Saltmarsh		Outcome: On Track	
Target description: Wetlands and saltmarsh are highly productive environments that support a diverse range of fauna and provide habitat for large numbers of water birds. Wetlands also perform the key ecological function of maintaining good water quality in the Huon River by acting as a sink for nutrients and sediments Sea-level rise associated with climate change poses a significant threat to these low-lying wetlands.		 <p>Wetland dominated by sea grasses. Photo: A Townsend</p>	
Ecological indicator	Status 2015-16	Status 2017-18	2018-19 Trend
Floristic diversity	6 species / site	6.8 species / site	No change – no new data till 2020
Structural complexity	3 strata / site	3 strata / site	No change – no new data till 2020
Extent	74 hectares	Not re-measured	Unknown – re-measure in 2020
Progress in 2018-19			
<ul style="list-style-type: none"> • No new ecological data has been collected on wetlands and saltmarsh. This is scheduled for 2020. It is anticipated that the wetlands and saltmarsh remain in excellent condition. • Data from acoustic monitoring has yet to be analysed to enable detection of Australian bittern 			
Recommendations			
<ul style="list-style-type: none"> • Repeat monitoring survey in 2020 • Undertake detailed mapping of wetland extent using remote sensing (possibly LIDAR) • Continue collaborate with NRM, UTAS and FT on automatic acoustic detection capability for bittern and other conservation significant bird species 			

Management Effectiveness Summary

Weed management		
Key objective(s) Spanish heath, gorse and blackberry are functionally eradicated from the Reserve by 2017 A plan for controlling New Zealand flax will be implemented by 2018		Status 2018-19 On-track
Strategy description The aim of this strategy is to eradicate existing infestations of weeds on the Reserve. Spanish heath occurs in areas that were previously cleared for agriculture, and New Zealand flax occurs along the banks of the Huon River. Weed mapping and control is continuing. Although weeds are not extensive or widespread, their eradication should be undertaken in a timely and effective manner to limit their spread.	 <p style="text-align: center;">Denna briefing the weeding crew in 2018 Pic: R Blakers</p>	
Indicator	Status 2017-18	2018-19 Trend
Area of weeds	< 3 ha	Improving
Density of weeds	<1%	Improving
Progress in 2018-19 <ul style="list-style-type: none"> • Yet again Denna Kingdom (while pregnant) completed her 9th consecutive year of weed work on Egg Islands, well done Denna. • 19 volunteers contributed 27 days of effort in July and August 2018 with the entire 5 ha area of weeds methodically searched twice. The average height of plants found was <5cm tall. • Weed control is progressing as planned and ongoing monitoring and control of gorse and blackberries will be necessary long-term. • Weed area remains approximately 3 ha but weed density has been reduced by 99% since 2007. • New Zealand Flax is now also a target species 		
Recommendations <ul style="list-style-type: none"> • Update the 2018 data and review the weed management strategy after 10 yrs implementation. • Continue the weed control program until the seed bank is exhausted. • Continue the control plan for New Zealand flax, with particular focus on treating plants growing on the river bank. 		

Community engagement

Key objective(s)

TLC provides opportunities for the community to benefit from the Reserve visit for recreation, education or volunteering

Status 2018-19

On-track

Strategy description

The TLC provides opportunities for the community and individuals to achieve conservation. The local community, volunteers, the indigenous community and other stakeholders are encouraged to participate in planning and land management activities. TLC Reserves provide excellent opportunities for education and scientific research. Sustainable economic development may be supported at some reserves where appropriate.



Volunteer weeders with Peter Venning at the helm : Pic Rob Blakers

Indicator	Status 2017-18	2018-19 Trend
# events at the Reserve	5 events	2 events - decrease
# of volunteer activities	3 activities / 21 vol days	2 activities / 28 vol days - stable
# of projects	3: 2 management, 1 education	2: 1 management, 1 education - stable

Progress in 2018-19

- Wilderness photographer Rob Blakers gained new aerial imagery of Egg Islands – 1 day
- Two – one day volunteer trips to the Islands to control weeds – 19 volunteers/ 27 days of contributed effort in total
- TLC maintained its good relationship with the Living Boat Trust.
- History and weeding article TLC Newsletter article Spring 2018 NL 55

Recommendations

- Continue to provide opportunities for people to connect with Egg Islands.
- Continue to maintain relationships with neighbours including PWS and the Living Boat Trust.
- Thank Peter Venning for his logistical support and other volunteers on the 10 yr journey