

# Annual Reserve Report

## Egg Islands Reserve 2015-16



## Introduction

Egg Islands Reserve was acquired by the TLC in 2007 and protects 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.

This report describes progress made towards delivery of the management plan in 2015-16, 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.

## Egg Islands Reserve Scorecard

<b>Monitoring</b>			
<b>Target</b>	<b>Indicator</b>	<b>Status 2015-16</b>	<b>Trend</b>
Black gum swamp forest	Floristic diversity	9 species / site	Unknown - baseline data was collected in 2016 and repeat data collection is scheduled for 2020
	Structural complexity	4.2 strata / site	
	Canopy recruitment	1.7 cohorts / site	
	Vertebrate fauna diversity	6.7 species per site 16 species in total	
Wetlands and saltmarsh	Floristic diversity	6 species / site	Flat
	Structural complexity	2.5 strata / site	
Community connection to landscape	# volunteer days on the Reserve	45	Flat
	# visitors to the Reserve	1	
<b>Management Effectiveness</b>			
<b>Strategy</b>	<b>Indicator</b>	<b>Status</b>	<b>Trend</b>
Community engagement	# events at the Reserve	0 events	Flat
	# of volunteer activities at the Reserve	6 volunteer activities	Flat
	# of research and education projects	1 research activity	Flat
Weed management	Area of weeds	3 ha	Flat
	Density of weeds	2%	Improving

Cover image: Egg Islands Reserve sign. Credit: TLC

## Monitoring Summary

<b>Black gum swamp forest</b>		<b>Status: Very Good</b>
<b>Goals:</b> Maintain the condition of Black Gum Swamp Forest		<b>Outcome: On Track</b>
<p><b>Target description:</b> 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>Black gum swamp forest as seen from the air. Photo: TLC</p>
<b>Ecological indicator</b>	<b>Current status</b>	<b>Trend</b>
Floristic diversity	9 species / site	Unknown
Structural complexity	4.2 species / site	Unknown
Vegetation extent	56 hectares	Flat
Canopy recruitment	1.7 cohorts / site	Unknown
Vertebrate fauna diversity	6.7 species per site 16 species in total	Unknown
<p><b>Key findings</b></p> <ul style="list-style-type: none"> <li>• Preliminary assessment of the black gum forests show that they are in excellent condition</li> <li>• A 'Song Meter' digital bird sound recorder was installed on the Reserve for 2 months to determine the presence or absence of Australasian bittern – no evidence of the species was detected.</li> <li>• There is an unusual and surprisingly diverse assemblage of fauna on Egg Islands. Monitoring detected 16 species, including long-nosed potoroo, eastern-barred bandicoot and southern brown bandicoot.</li> <li>• And excellent news – no cats were detected!</li> </ul>		
<p><b>Recommendations</b></p> <ul style="list-style-type: none"> <li>• Repeat monitoring survey in 2020.</li> <li>• Continue collaborate with NRM, UTAS and FT on automatic acoustic detection capability for bittern and other conservation significant bird species</li> </ul>		

<b>Wetlands and saltmarsh</b>		<b>Status: Good</b>
<b>Goals:</b> Maintain the condition of Wetlands and Saltmarsh		<b>Outcome: On Track</b>
<b>Target description:</b> 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 <i>Juncus</i> sp. Photo: TLC</p>
<b>Ecological indicator</b>	<b>Current status</b>	<b>Trend</b>
Floristic diversity	6 species / site	Unknown
Structural complexity	2.5 strata / site	Unknown
Extent	74 hectares	Flat
<b>Key findings</b>		
<ul style="list-style-type: none"> <li>• Preliminary assessment of the saltmarsh and wetlands show that they are in excellent condition</li> <li>• A 'Song Meter' digital bird sound recorder was installed on the Reserve for 2 months to determine the presence or absence of Australasian bittern – no evidence of the species was detected</li> </ul>		
<b>Recommendations</b>		
<ul style="list-style-type: none"> <li>• Repeat monitoring survey in 2020</li> <li>• Install fauna cameras in two of the internal wetlands where vegetation is clearer</li> <li>• Undertake detailed mapping of wetland extent using remote sensing (possibly LIDAR)</li> </ul>		

<b>Community connection with the landscape</b>		<b>Status: Good</b>
<b>Goal:</b> People visit the Reserve every year for recreation, education or volunteering		<b>Outcome: On Track</b>
<p><b>Target description:</b> Egg Islands Reserve provides the community with a range of recreational, educational, research and volunteering opportunities. The proximity of the Reserve to the township of Franklin with its wooden boat school and living boat trust make it a popular location for recreational boating. Relatively few people land upon the islands because of the swampy vegetation and a reputation for snakes.</p>		 <p>Volunteers from the Franklin Living Boat Trust. Photo: TLC</p>
<b>Community indicator</b>	<b>Current status</b>	<b>Trend</b>
# volunteer days on the Reserve	45	Flat
# visitors to the Reserve	1	Flat
<p><b>Key findings</b></p> <ul style="list-style-type: none"> <li>• A team of 22 volunteers assisted TLC staff for 5 days, controlling an infestation of Spanish heath.</li> <li>• Volunteers placed and collected sound recorders at the islands to detect Australasian bittern calls; another volunteer listened to the recordings (no bittern calls were detected).</li> <li>• The Living Boat Trust is exploring options for boat-based tourism focussing on the Egg Islands.</li> <li>• Undergraduate students from UTAS have used Egg Islands as a case study for an assignment, based on information obtained from the Egg Islands Management Plan and supporting information provided by TLC.</li> </ul>		
<p><b>Recommendations</b></p> <ul style="list-style-type: none"> <li>• Continue to encourage community connections to the reserve by providing research, education, recreation or volunteering opportunities.</li> <li>• Consider removing this indicator from individual reserve management plans and reporting all relevant TLC activities across Tasmania in a separate report. This approach will be easier to report, more reflective of changes over time, and is a goal of TLC's Strategic Plan.</li> </ul>		

## Management Effectiveness Summary

<b>Weed management</b>		
<b>Key objective(s)</b> 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		<b>Status 2015-16</b> <b>On-track</b>
<b>Strategy description</b> 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>Volunteers trialling New Zealand flax control. Photo: Maria Riedl.</p>
<b>Indicator</b>	<b>Current status</b>	<b>Trend</b>
Area of weeds	3 ha	Flat
Density of weeds	2%	Improving
<b>Progress in 2015-16</b> <ul style="list-style-type: none"> <li>Volunteers spent five days in August undertaking weeding at the Reserve, including trialling methods for cut-and-paint of New Zealand flax. The entire Spanish heath infestation was surveyed twice, with the majority of plants found being immature. Immature gorse plants were also cut-and-painted near the old caravan site.</li> <li>Weed control is progressing as planned and will likely be ongoing for at least five more years to completely eradicate Spanish heath. Ongoing monitoring and control of gorse and blackberries will be necessary.</li> <li>Weed area remains approximately 3 ha but weed density has been reduced by 97.5% since 2007.</li> </ul>		
<b>Key recommendations for future management</b> <ul style="list-style-type: none"> <li>Continue the successful weed control program.</li> <li>Continue the trial of control methods for New Zealand flax and develop a control plan.</li> </ul>		

<b>Community engagement</b>		
<b>Key objective(s)</b> TLC provides opportunities for the community to experience or benefit from the Reserve		<b>Status 2015-16</b> <b>On-track</b>
<b>Strategy description</b> 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.		TLC interpretive signs at the Franklin waterfront. Photo: TLC. 
<b>Indicator</b>	<b>Current status</b>	<b>Trend</b>
# events at the Reserve	0 events	<b>Flat</b>
# of volunteer activities at the Reserve	5 volunteer activities	Flat
# of research and education projects	1 research activity	Flat
<b>Progress in 2015-16</b>		
<ul style="list-style-type: none"> <li>• TLC hosted five volunteer trips to the Islands to control weeds and establish ecological monitoring sites.</li> <li>• Volunteers placed and collected sound recorders on the islands to detect Australasian bittern; another volunteer listened to the sound recordings.</li> <li>• TLC maintained its good relationship with the Living Boat Trust, which provided support by transporting volunteers to and from the islands.</li> </ul>		
<b>Key recommendations for future management</b>		
<ul style="list-style-type: none"> <li>• Continue to provide opportunities for people to connect with the Reserve.</li> <li>• Continue to maintain relationships with neighbours including PWS and the Living Boat Trust.</li> <li>• Consider removing this strategy from individual reserve management plans and reporting all relevant TLC activities across Tasmania in a separate report. This approach will be easier to report, be more reflective of changes over time, and is a goal of TLC's Strategic Plan.</li> </ul>		