

Stony Farm Reserve

Background Report



2017 – 2021

Tasmanian Land Conservancy (2015). Stony Farm Reserve Background Report 2017 – 2021. Tasmanian Land Conservancy, Tasmania Australia.

Copyright ©Tasmanian Land Conservancy

The views expressed in this report are those of the Tasmanian Land Conservancy. It may be reproduced for study, research or training purposes subject to an acknowledgment of the sources and no commercial usage or sale. Requests and enquires concerning reproduction and rights should be addressed to the Tasmanian Land Conservancy.

Front Image: Tasmanian devil captured on Stony Farm monitoring site.

Contact Address

Tasmanian Land Conservancy

PO Box 2112, Lower Sandy Bay,

827 Sandy Bay Road, Sandy Bay TAS 7005

| p: 03 6225 1399 | www.tasland.org.au

Table of Contents

Background	5
Introduction	6
Location and context.....	6
Access	6
Legal Status.....	8
Stakeholders	8
Physical Parameters	10
Natural values	10
Threatened and priority species.....	13
Vegetation	15
Pests, Weeds and Disease	17
Previous Cultural, Management and Scientific Information	17
Management Plan Overview	18
Appendix 1: Flora species list (Morgan, 2012)	20
Appendix 2: Fauna species list gathered from monitoring cameras 2015-2017.	I

Acknowledgements

The Stony Farm Reserve (the Reserve) was created in 2014 after a generous gift from David and Murray Schier and the Schier family, whose aim was to have this special area protected for its conservation values in perpetuity.

The TLC would also like to acknowledge the support given by the North East Tasmania Land Trust (NETLT), who has entered into a partnership with the TLC to undertake ongoing monitoring and management of the Reserve. In particular we would like to thank Andrew Lowry for collecting monitoring information from cameras on the Reserve and his useful feedback on reserve status and condition. The NETLT reviewed the management plan that accompanies this document, both are available on www.tasland.org.au.

The TLC acknowledges the data provided by Land Information System Tasmania (theList) and DPIPWE Natural Values Atlas which has been used to prepare boundary maps and maps of special values.

The TLC greatly appreciates the assistance of its many supporters and volunteers especially those in the northeast who continue to contribute time and labour towards protection and management of these special places.

BACKGROUND

The Tasmanian Land Conservancy

The Tasmanian Land Conservancy (TLC) is a non-profit, non-political, private organisation that works towards achieving sustainability and biodiversity conservation in Tasmania. This Background document and its associated Stony Farm Reserve Management Plan are in accord with the TLCs 2016-2020 Strategic Plan (both available on www.tasland.org.au).

TLC 2050 Mission

In partnership with other organisations, communities, individuals and governments, the TLC will:

- *Take a lead role in building a landscape scale approach to conservation including a world-class system of reserves.*
- *Demonstrate excellence in management for nature conservation.*
- *Contribute to Tasmania becoming a centre for knowledge in nature conservation and planning.*
- *Develop and implement innovative mechanisms for achieving nature conservation.*
- *Provide opportunities and mechanisms for communities and individuals to achieve nature conservation.*
- *Demonstrate organisational leadership through exceptional governance, a positive working environment and financial sustainability.*

This management plan and the implementation of the strategies and actions within it, including monitoring and reporting, contribute to the TLC achieving its mission.

INTRODUCTION

Stony Farm Reserve (the Reserve) was gifted to the TLC by Murray and David Schier and the Schier family in 2013 to ensure that its natural values were protected in perpetuity. This gift was formalised in 2014 when a protective covenant was adhered to title. The TLC has partnered with the North East Tasmania Land Trust (NETLT) to manage the property and under this formal partnership agreement the NETLT is responsible for monitoring the condition of the Reserve and any on-ground management works required to protect and maintain its natural values.

The Reserve is 22.26ha in size, rectangular in shape and north-facing. The lower half of the property is very steep while the remaining area is gently sloping. Elevation rises from an altitudinal low of 360m above sea level in the north-east corner to a high of approximately 470m above sea level in the south-west corner. Vegetation on the Reserve is comprised predominantly of mature eucalypt forest and contains three distinct vegetation communities. The endangered Tasmanian devil and vulnerable spotted tail quoll have been recorded on the Reserve, which also contains suitable habitat for a range of other threatened species.

A conservation covenant under the *Nature Conservation Act 2002* is registered over the whole of the Reserve (see CPR plan in Figure 2).

Location and context

The Reserve is located on the slopes of North Sister in north-east Tasmania, approximately 7.5km north of St Marys (see Figure 1). The midpoint of the reserve is at GDA grid reference 55G 598032 N 5402906 E. The German Town Regional Reserve adjoins the property to the north, informal reserve on State Forest adjoins it to the south and east (*Future Potential Production Forest*) and forested private land adjoins the western boundary.

Access

The Reserve is very isolated, with the only track into the site being a disused and overgrown logging track which cuts across the south-west corner. Access to this track is via a more established logging track that comes off Semmens Road and passes within 150m of the south-east corner. This remote access is considered an advantage in helping protect the natural values of the Reserve by reducing unwanted access and subsequent disturbance.

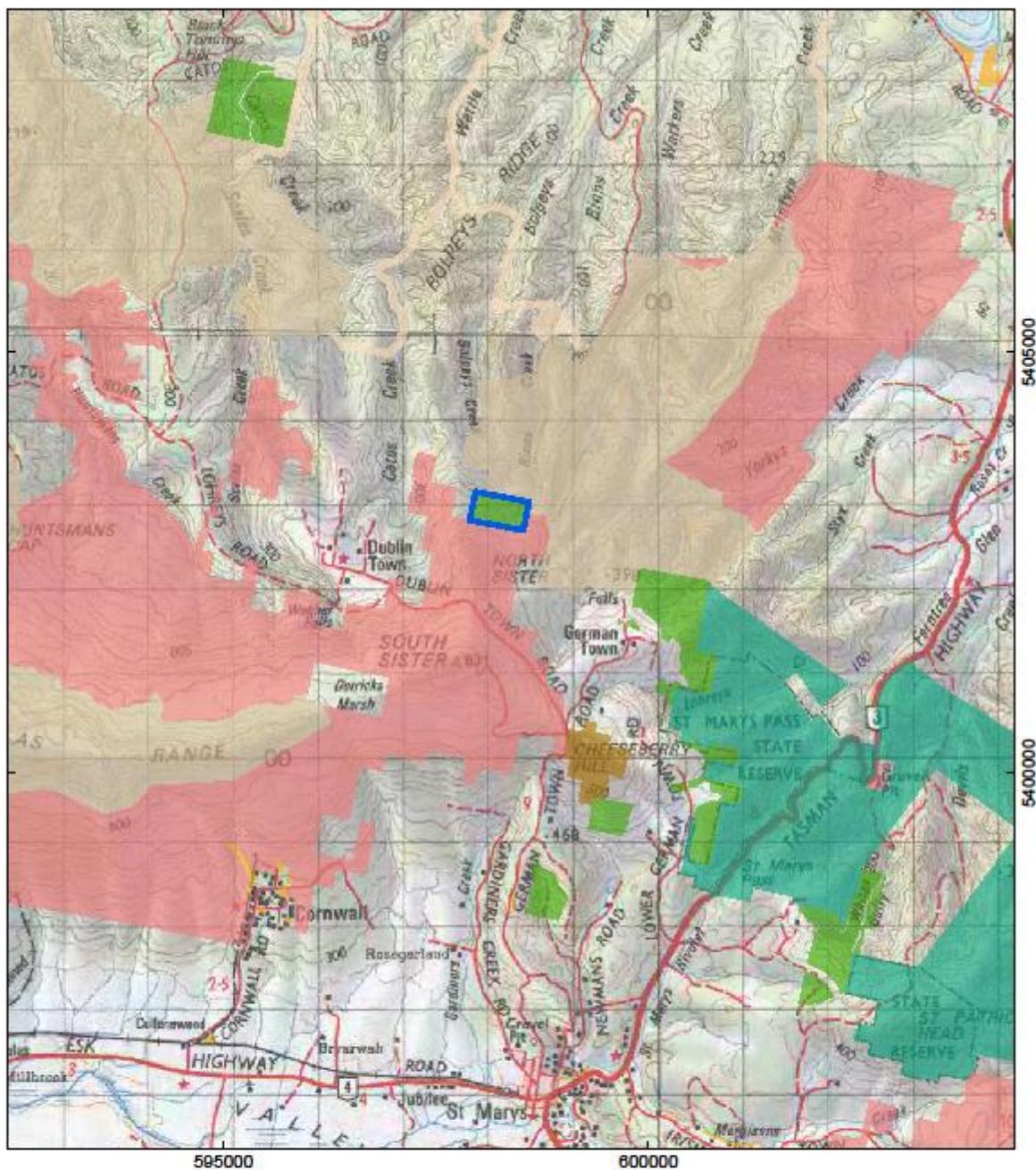


Figure 1 Location of the Stony Farm Reserve

Legal Status

The Stony Farm Reserve is private freehold land in one title (PID 6407004; Certificate of title Volume 205511, Folio 1). The Reserve meets the objectives of the International Union for Conservation of Nature (IUCN) Category IV – Habitat/species management area, the primary objective of which is to maintain, conserve and restore species and habitats.

A conservation covenant under the *Nature Conservation Act 2002* is registered over the whole Reserve. The covenant requires the owner of the Reserve to manage the land for conservation and to prevent degradation of its natural values (see CPR plan at Figure 2).

The *Break O’Day Interim Planning Scheme 2013* is the local government planning instrument which prescribes permitted uses and any developments planned for the land may need to be approved by the Central Highlands Council. This Planning Scheme may soon be replaced by the State-wide Planning Scheme and therefore some prescribed uses and regulations may require review.

Several species and vegetation communities listed as threatened under Commonwealth and State legislation occur on the Reserve. Constraints may apply to activities which could adversely affect these species and communities. The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is the Australian Government’s key piece of legislation to protect threatened species and ecological communities. In Tasmania the *Threatened Species Protection Act 1995*, *Nature Conservation Act 2002*, and *Forest Practices Act 1985* provide protective mechanisms for threatened species and ecological communities.

Stakeholders

Key stakeholders with an interest in this Reserve are:

- The North East Tasmania Land Trust (NETLT), which has partnered with the TLC to monitor and manage the Reserve;
- Forestry Tasmania, which manages the adjoining German Town Regional Reserve to the north and informal reserve to the south;
- the Private Land Conservation Program (DPIPWE), which administers conservation covenants in Tasmania including stewardship and monitoring;
- Neighbouring landowners; and
- TLC supporters.

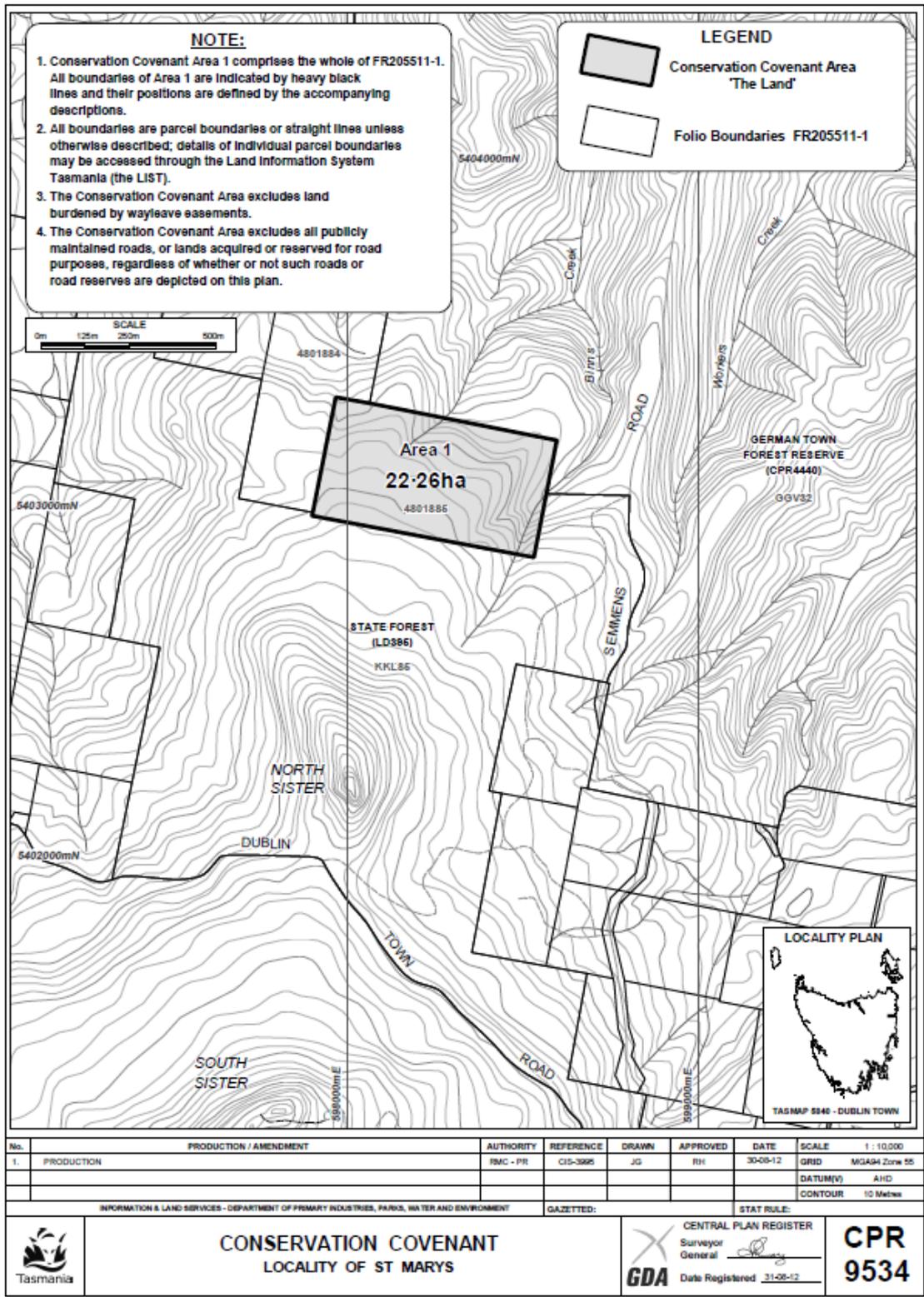


Figure 2 Conservation Covenant area

PHYSICAL PARAMETERS

The Reserve is situated on the mid-northern slopes of North Sister and slopes range from 1:8 to less than 1:3 in the steep gully near the eastern boundary. The bedrock geology of the Stony Farm Reserve varies with its topography. Substrate on the upper slopes is talus derived from undifferentiated quaternary sediments, the mid-slopes lie on alkali olivine basalt/hawaite of the Upper Parmeener supergroup from the Triassic period and the lower slopes lie on upper glacio-marine sequences of pebbly mudstone, pebbly sandstone and limestone of the Lower Parmeener supergroup from the Permian. The North and South Sister Dolerite Periglacial System and North-east Tasmania Dolerite Periglacial Systems are listed as features of regional geomorphological significance (www.thelist.tas.gov.au).

The Reserve drains to the north, primarily into Binns Creek, which feeds into Workers Creek and then the Scamander River. Run-off from the western edge of the Reserve drains via Bolpeys Creek directly to the Scamander River. The vegetation on the Reserve suggests good ground-water availability - the forest communities are wet facies of dry forest communities, there is a surprising representation of moisture loving species such as yellow bottlebrush (*Callistemon pallidus*) and native primrose (*Goodenia lanata*) on the drier upper slopes, and steep gullies are dominated by typical wet forest species.

NATURAL VALUES

Forest on the Reserve features a diversity of eucalypt species in the canopy, a highly diverse, shrubby understorey and suitable habitat for a range of threatened plant species. A list of plant species recorded by Helen Morgan in February 2012 are provided in Appendix A. A number of fauna species typical of dry forest are known to occur on the Reserve with more likely be recorded as surveys are expanded (see species list Appendix B).

The vegetation descriptions provided in this report are based on survey work conducted by Helen Morgan (*PAG Form, David and Murray Schier Property, Dublin Town*; Morgan, 2012), who notes:

“The 3 hour survey confirmed the type and likely distribution of vegetation communities, recorded plant species present and potential threatened species habitat. The gullies were not extensively surveyed (due to steepness and density of vegetation) and the survey covered 60% of the property on the higher slope. The area of Blue gum forest mapped is ground truthed. The ecotone between the Blue gum forest and the Stringy bark forest is estimated and the Blue gum forest may extend further downhill than is mapped. There was no ironbark forest, as mapped by TASVEG 2000.”

Dry blue gum (*Eucalyptus globulus*) forest (DGL)

Dry blue gum forest (DGL) is uncommon in the Ben Lomond Bioregion. A relatively wet facies of this community occurs across almost half of the Reserve and is in very good condition, with mature trees containing multiple tree hollows and a highly diverse, shrubby understorey. This forest provides excellent potential nesting and feeding habitat for the nationally endangered swift parrot on its migration path to and from the east coast.

Five eucalypt species are present in the canopy: blue gum, brown-topped stringy-bark (*E. obliqua*), black peppermint (*E. amygdalina*), Brookers gum (*E. brookeriana*) and white gum (*E. viminalis*).

Prominent understorey shrubs include native box (*Bursaria spinosa*), prickly moses (*Acacia verticillata*), native daphne (*Pultenaea daphnoides*), hazel pomaderris (*Pomaderris aspera*), guitar plant (*Lomatia tinctoria*), yellow bottlebrush (*Callistemon pallidus*) and native primrose (*Goodenia lanata*) and creeping bossiaea (*Bossiaea prostrata*). The sedges red-fruit saw-sedge (*Gahnia sieberiana*) and sagg (*Lomandra longifolia*) are common in the ground cover, along with occasional bracken (*Pteridium esculentum*), native grasses and herbs, including Australian bluebell (*Wahlenbergia gracilis*) and button everlasting (*Helichrysum scorpioides*).



Figure 3 Blue gum forest with mature hollow-bearing trees (Helen Morgan)



Figure 4 Blue gum forest with shrubby understorey (Helen Morgan)

Excellent fauna habitat is provided by ground debris and tree hollows.



Figure 5 Burnt trunks and regenerating understorey, Blue gum dry forest (Helen Morgan)

A bushfire in December 2006 burned the understorey of the DGL forest, but not the canopy. The understorey is recovering well, with eucalypt seedling regeneration as well as a diverse shrub representation. The forest is weed free; there are no tracks, or evidence of wood hooking (wood-cutting for firewood).

Dry brown-topped stringy-bark (*Eucalyptus obliqua*) forest (DOB)

A relatively wet facies of dry brown-topped stringy-bark forest (DOB) occurs in the south eastern and northern parts of the property. Brown-topped stringy-bark dominates the canopy, but blue gum, Brookers gum and black peppermint are also present and co-dominant in places. The understorey is very similar to the blue gum forest, with a higher representation of typical wet forest species in the gullies and more typical dry forest species on the open slopes. It is likely that the gullies contain greater diversity of ferns and other wet species than were recorded on this survey. This forest appears also to have been mildly burnt in 2006 and has regenerated well since the fire. The gullies are likely to provide habitat for the rare giant velvet worm (*Tasmanipatus barretti*). Giant velvet worms have been recorded in the eastern gully on either side of the property (see map) and there are several gullies within this forest community that provide potential habitat for this species.

Broad leafed shrubs (SBR)

This community was not sighted during the survey by Helen Morgan in February 2012, but local advice endorsed its likely existence in the gully on the eastern side of the Reserve as mapped by TASVEG (Todd Dudley pers. comm.). Likely species in this community include blackwood (*Acacia melanoxylon*), dogwood (*Pomaderris apetala*), native musk (*Olearia argophylla*) and snowy daisy bush (*Olearia lirata*), blanket bush (*Bedfordia salicina*) and native currant (*Coprosma quadrifida*), as well as a range of ferns in the base of the gully. Giant velvet worm has been recorded in this gully on either side of the property, so the section of gully on the Reserve is highly likely to support the species.

Threatened and priority species

The most extensive survey work conducted on the Reserve to date has been by Helen Morgan in 2012, using the Random Meander Technique, following animal pads or no tracks at all. Two gullies and the higher more level ground were traversed, but only about 60% of the property was walked due to steepness, density of vegetation and time constraints.

Subsequent work with fauna monitoring cameras has identified two threatened animals on the Reserve (Table 2) including in 2017 Tasmanian devils showing signs of facial tumour disease.

Table 1 Threatened species recorded at the Stony Farm Reserve

Species	Common name	Conservation Status (NCA/EPBC)#	Status/significance at the Reserve
<i>Dasyurus maculatus</i>	Spotted tail quoll	r/VU	Recorded on monitoring camera
<i>Sarcophilus harrisii</i>	Tasmanian devil	e/EN	Recorded on monitoring camera Devil Facial Tumour Disease present

listed on Tasmania's *Nature Conservation Act 2002* (NCA) and/or the Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999* (EPBCA).

A number of species which are listed as threatened or of conservation significance have been recorded on or within 5km of the Stony Farm Reserve and suitable habitat occurs on the Reserve (see Table 3, Figure 6).

Table 3 Threatened and high priority species recorded nearby and suitable habitat occurs at the Reserve

Species	Common name	Conservation Status (NCA/EPBC)	Comment
FLORA			
<i>Euphrasia collina subsp. deflexifolia</i>	eastern eyebright	r/-	
<i>Glycine microphylla</i>	small-leaf glycine	v/-	
<i>Hierochloe rariflora</i>	cane holygrass	r/-	
<i>Hovea corricketiae</i>	glossy purplepea	r/-	Recorded within 500m
<i>Hovea tasmanica</i>	rockfield purplepea	r/-	
<i>Pimelea curviflora var gracilis</i>	slender curved riceflower	r/-	
<i>Plantago debilis</i>	shade plantain	r/-	Recorded within 500m
<i>Prostanthera rotundifolia</i>	roundleaf mintbush	v/-	Recorded within 500m
<i>Solanum opacum</i>	greenberry nightshade	e/-	Potential habitat in wet gullies
<i>Teucrium corymbosum</i>	forest germander	r/-	
<i>Veronica plebeia</i>	trailing speedwell	r/-	
FAUNA			
<i>Accipiter novae-hollandiae</i>	grey goshawk	e/-	Potential nesting sites in gully (blackwoods)

<i>Aquila audax subsp. fleayi</i>	wedge-tailed eagle	e/EN	Potential nesting sites
<i>Tasmanipatus barretti</i>	giant velvet worm	r/-	Highly likely to occur in wet gullies
<i>Lathamus discolor</i>	swift parrot	e/EN	Highly likely, suitable nesting and feeding habitat
<i>Tyto novae-hollandiae</i>	masked owl	e/VU	Highly likely, suitable tree hollows for nesting

Vegetation

Three vegetation communities (TASVEG 3.0) occur on the Reserve (see table 4 and figure 3):

- Dry blue gum (*E. globulus*) forest (DGL);
- Dry brown-topped stringybark forest (DOB); and
- Broad-leafed shrubs (SBR).

Table 4. Vegetation communities mapped at the Stony Farm Reserve (TASVEG 3.0)

Vegetation community	TASVEG code	Approx. Area (ha)	Conservation status (NCA 2002)
<i>Eucalyptus globulus</i> dry forest	DGL	9	Vulnerable
<i>Eucalyptus obliqua</i> dry forest	DOB	11	Not threatened
Broadleaf scrub	SBR	2	Not threatened

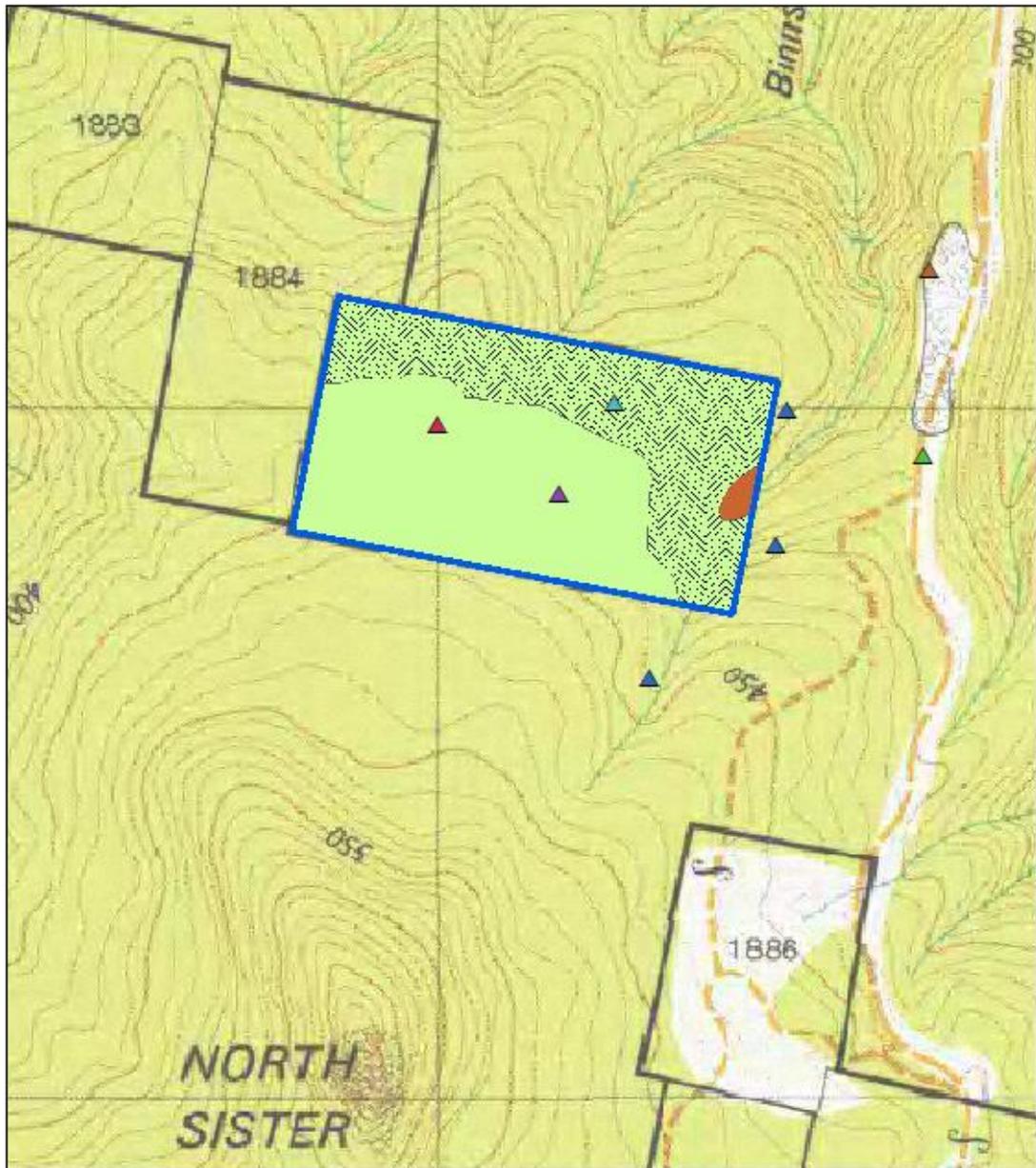


Figure 6 Vegetation and threatened species records, Stony Farm Reserve.

Pests, Weeds and Disease

Native ecosystems in many areas are under threat from weeds and pathogens, including *Phytophthora cinnamomi* (PC). Weeds and pathogens are spread to new areas when contaminated water, mud, gravel, soil and plant material or infected animals are moved between sites. Contaminated materials are commonly transported on boots, equipment and vehicles. The infection status of an area is never fully known and distribution will change over time, so it is crucial that strict hygiene practices are implemented at all sites. Once a weed or pathogen is present in an area it is usually impossible to eradicate.

Left uncontrolled, environmental weeds have the potential to displace native species, modify habitat and disrupt 'natural' ecological interactions.

Weeds

No weeds have been found on the Reserve and given the difficulty in accessing the property there is low risk of weeds invasion. However, adjoining properties to the south and west have recently been subject to selective logging to the Reserve boundary (Tim Devereux pers. comm.) and this disturbance could provide an entry point for weeds.

Previous Cultural, Management and Scientific Information

Due to its remoteness there is little information available at present on cultural values of the Reserve or any prior scientific work that may have occurred there. Stony Farm Reserve was subject to a fire in 2006. The vegetation is regenerating well, resulting in a dense understorey that is nearly impenetrable in places.

Ecological monitoring was been installed on 5/7/2016 and photographs of vegetation collected at three sites according to TLCs monitoring program with follow up surveys due in three years.

It is hoped that this section may be expanded as information is gathered in the future.

MANAGEMENT PLAN OVERVIEW

A summary of the management plan vision and conservation objectives developed for Stony Farm Reserve is outlined below. This information is discussed in detail in the Stony Farm Reserve Management Plan 2017-2021 which is available on the TLC web site <www.tasland.org.au>.

VISION	The Stony Farm Reserve is managed effectively for its dry forest values.
---------------	--

CONSERVATION TARGET	GOAL
Dry forest ecosystem	Maintain or improve the 2016 condition of the forest
SOCIAL TARGET	GOAL
NETLT connection to the landscape	The NETLT community remain engaged with the Reserve and region
STRATEGIES	OBJECTIVES
Improve knowledge of natural values	By 2020 threatened species and other natural values on the Reserve are better known and being managed effectively
Access control	No illegal access into the Reserve by recreational vehicles
NETLT Partnership	Maintain effective communications and partnership with NETLT
Annual Reserve assessment	No new threats emerge from 2016

Acronyms and abbreviations

DPIPWE Environment	Tasmanian Government Department of Primary Industries, Parks, Water and Environment
EPBC Act	Australian <i>Environment Protection and Biodiversity Conservation Act 1999</i>
IUCN	International Union for Conservation of Nature
NC Act	Tasmanian <i>Nature Conservation Act 2002</i>
NVA	Natural Values Atlas database (DPIPWE)
PWS	Tasmania Parks and Wildlife Service
TASVEG 2009)	Tasmanian Vegetation Monitoring and Mapping Program (TASVEG 2.0, 19 February 2009)
TFS	Tasmania Fire Service
TLC	Tasmanian Land Conservancy
TSP Act	Tasmanian <i>Threatened Species Protection Act 1995</i>
UTAS	University of Tasmania

Appendix 1: Flora species list (Morgan, 2012)

Family	Species Name	Common Name	Comment
DICOTYLIDINAE			
ASTERACEAE	<i>Cassinia aculeata</i>	dollybush	
	<i>Helichrysum scorpioides</i>	curling everlasting	
	<i>Olearia lirata</i>	forest daisybush	
	<i>Olearia ramulosa</i>	twiggy daisybush	
	<i>Olearia viscosa</i>	viscid daisybush	
	<i>Ozothamnus ferrugineus</i>	tree everlastingbush	
	<i>Senecio spp</i>	fireweed	
CAMPANULACEAE	<i>Wahlenbergia gracilis</i>	sprawling bluebell	
CONVOLVULACEAE	<i>Dichondra repens</i>	kidneyweed	
EPACRIDACEAE	<i>Epacris impressa</i>	common heath	
FABACEAE	<i>Bossiaea prostrata</i>	creeping bossia	
	<i>Daviesia ulicifolia</i>	yellow spiky bitterpea	
	<i>Indigofera australis</i>	native indigo	
	<i>Pultenaea daphnoides</i>	heartleaf bushpea	
	<i>Pultenaea juniperina</i>	prickly beauty	
GOODENIACEAE	<i>Goodenia lanata</i>	native-primrose	
HALORAGACEAE	<i>Gonocarpus tetragynus</i>	common raspwort	
MIMOSACEAE	<i>Acacia dealbata</i>	silver wattle	
	<i>Acacia melanoxylon</i>	blackwood	
	<i>Acacia myrtifolia</i>	redstem wattle	
	<i>Acacia verniciflua</i>	varnish wattle	
	<i>Acacia verticillata</i>	prickly moses	
MYRTACEAE	<i>Callistemon pallidus</i>	yellow bottlebrush	
	<i>Eucalyptus amygdalina</i>	black peppermint	endemic
	<i>Eucalyptus brookeriana</i>	brookers gum	
	<i>Eucalyptus globulus</i>	tasmanian blue gum	
	<i>Eucalyptus obliqua</i>	stringybark	
	<i>Eucalyptus viminalis</i>	white gum	
PITTOSPORACEAE	<i>Bursaria spinosa</i>	prickly box	
PROTEACEAE	<i>Banksia marginata</i>	silver banksia	
	<i>Lomatia tinctoria</i>	guitarplant	endemic
RHAMNACEAE	<i>Pomaderris aspera</i>	hazel dogwood	

RUBIACEAE	<i>Coprosma hirtella</i>	coffeeberry	
	<i>Coprosma quadrifida</i>	native currant	
STYLIDIACEAE	<i>Stylidium graminifolium</i>	narrowleaf triggerplant	
DICOTYLIDINAE			
CYPERACEAE	<i>Gahnia sieberiana</i>	redfruit sawsedge	
POACEAE	<i>Austrodanthonia sp.</i>	wallaby grass	
	<i>Poa labillardierei</i>	silver tussockgrass	
XANTHORRHOEACEAE	<i>Lomandra longifolia</i>	sagg	
PTERIDOPHYTA			
DENNSTAEDTIACEAE	<i>Pteridium esculentum</i>	bracken	

Appendix 2: Fauna species list gathered from monitoring cameras 2015-2017.

Taxa	Scientific name (e = endemic)	Common name	Status ¹
MAMMALS			
DASYURIDAE	<i>Dasyurus maculatus</i>	spotted-tail quoll	r/VU
	<i>Dasyurus viverrinus</i>	eastern quoll	
	<i>Sarcophilus harrisi</i> (e)	Tasmanian devil	e/EN
MACROPODIDAE	<i>Macropus rufogriseus</i>	Bennett's wallaby	
	<i>Thylogale billardieri</i>	pademelon	
	<i>Potorous tridactylus</i>	potoroo	
PHALANGERIDAE	<i>Trichosurus vulpecula fuliginosus</i>	brush-tailed possum	
TACHYGLOSSUS	<i>Tachyglossus aculeatus</i>	short-beaked echidna	
VOMBATIDAE	<i>Vombatus ursinus</i>	common wombat	
BIRDS			
CRACTICIDAE	<i>Strepera fuliginosa</i> (e)	black currawong	
PODARGIDAE	<i>Podargus strigoides</i>	tawny frog mouth	
INTRODUCED SPECIES			
FELIDAE	<i>Felis catus</i>	cat	