

# Tamar Lake Concept Natural Values Desktop Assessment Report

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# **Tamar Lake Concept**

# Natural Values Desktop Assessment Report

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Title :	Tamar Lake Concept: Natural Values Desktop Assessment Report
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Synopsis :	This report identifies and characterises the natural values of the Tamar Estuary and provides a preliminary understanding of the likely effects of the Tamar Lake Concept to these values.

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# **1** INTRODUCTION

# 1.1 Background

*The Tamar Valley – A Strategic Plan and Vision for its Development* (Frith, 2011) outlines the Tamar lake Concept (the Concept). In summary, the Concept involves the construction of a barrage across the Tamar between Moriartys Reach and Long Reach (Figure 1-1).

Frith 2012 describes the benefits of the Concept to the Launceston and the Tamar valley community. These comprise:

- Management of silt
- A ready supply of freshwater
- Flood mitigation
- Tourist development opportunities
- Enhanced lifestyle

As part of an ongoing feasibility study of the Tamar lake Concept, the not-for-profit organisation "Tamar Lake Inc." commissioned BMT WBM to identify and characterise the ecological values of the Tamar Estuary and provide a preliminary understanding of the likely effects of the Concept to these values.

Under the Tasmanian regulatory environmental assessment and approval process, reports on the impact of proposed developments on 'natural values' may be required. In this context, natural values refer to biological and geodiversity values of conservation significance. In particular, those species, vegetation communities, sites or values that have significance or statutory protection under the *Nature Conservation Act* 2002, the *Threatened Species Protection Act* 1995 or their subordinate regulations, and the Commonwealth *Environment Protection and Biodiversity Conservation Act* 1999.

The natural values of the Tamar Estuary include the water itself sourced from the sea and freshwater river flows, the Estuary's geology, soils and the landscape they form; and the flora and fauna which depend on the variety of aquatic, wetland and foreshore habitats the Estuary provides. These natural values have intrinsic and ecological worth and also support a range of economic and social values. For this study, the natural values identified and described are restricted to the key biological and geodiversity values that may be affected by the implementation of the Concept.

Social, cultural and economic values (both positive and negative) are not considered in this report.

# 1.2 Study Tasks

Study tasks involved the sourcing, compilation and synthesis of publically available data and information to:

- Identify and characterise the biological and geodiversity values within the study area.
- Determine the existence of conservation significant or otherwise noteworthy species or communities.
- Identify the potential effects of the construction and operation of the Tamar Lake Concept on the adjoining and adjacent natural values which may represent benefits or constraints to the development of the concept.



• Provide a summary of the likely environmental assessment and information requirements to further progress the project.

Please note that determining the likelihood and consequence of effects (either for beneficial or detrimental impacts) and the extent to which they may be mitigated or managed is beyond the scope of this desktop study.

## 1.3 Report Structure

The information in this report is presented concisely in seven sections:

Section 2 Summarises the data sources used in the study

Section 3 Provides an overview of the regulatory management framework of the Tamar Estuary

Section 4 Describes the natural values identified

Section 5 Outlines the potential effects of the Concept to the natural values of the Tamar Estuary

Section 6 Summarises the key State and Commonwealth assessment and approval processes

Section 7 References

Supporting information is provided as appendices.





Figure 1-1 Location



1-3



# 2 DATA SOURCES

Key data sources relevant to this study are summarised below. A detailed bibliography of reports, literature and information cited is provided in Section 7.

# 2.1 On-line Databases

## 2.1.1 Land Information System Tasmania / Natural Values Atlas

The Land Information System Tasmania (LIST) is a web based repository of the State's comprehensive spatial data resources including property and land title information, satellite imagery, topographic maps, geological maps and natural values data. The LIST repository incorporates Tasmania's Natural Values Atlas (NVA).

The NVA is the most authoritative repository of information on natural values in Tasmania. A 'natural values report' was obtained on 26 March 2012 (Appendix A) for the area shown in Figure 2-1. A buffer of 100m was incorporated. The report comprised lists of<sup>1</sup>:

- Threatened flora
- Threatened fauna
- Raptor nests and sightings
- Non-threatened flora of conservation significance
- Non-threatened fauna of conservation significance
- Tas Management Act Weeds
- TASVEG communities
- Threatened communities
- Geoconservation sites
- Reserves

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<sup>&</sup>lt;sup>1</sup> Note, the NVA does not contain an exhaustive list of natural values with the potential to occur in a given area but will reflect the current level of knowledge of values and their distribution. Further investigations, including field assessments are generally required to confirm species distribution, abundance etc.



Figure 2-1 NVA Search Area Extent (DPWIE 2012)

## 2.1.2 Threatened Species Lists

The Department of Primary Industries, Parks, Water and Environment (DPIPWE) website contains links to biological and ecological information on many of the State's threatened species. This information is contained in note sheets for most threatened flora species and Listing Statements and Recovery Plans for selected threatened flora and fauna species. Search results are presented in Section 4 of this report and in Appendix A.

## 2.1.3 Fauna Value Database

The Forest Practices Authority (FPA) website contains links to the 'Fauna Value Database' which has biological and ecological note sheets on many of the State's threatened fauna species, as well as note sheets on threatened native vegetation communities. Search results are presented in Section 4 of this report.



## 2.1.4 Conservation of Freshwater Ecosystem Values Database

The Water Information System of Tasmania (WIST) website provides access to the Conservation of Freshwater Ecosystem Values Database which contains information on the conservation value of all the State's freshwater and estuarine systems. Search results are presented in Section 4.

## 2.1.5 EPBC Act Protected Matters Search Tool

Records of EPBC matters were searched using the EPBC Online Protected Matters Search Tool (maintained by SEWPaC) on 26 March 2012<sup>2</sup>. The search boundary is shown in Figure 2-2 and the report provided in Appendix B.



Figure 2-2 EPBC Protected Matters Search Boundary

<sup>&</sup>lt;sup>2</sup> Note that this online search was applied to EPBC Act 1999 listed species within the study area and a surrounding 1km buffer





## 2.2 Reports, Policy and Guidelines

#### State of the Tamar Estuary (1997)

The *State of the Tamar Estuary* (1997) report was compiled as a project of *RiverWorks* Tasmania (Pirzl and Coughanowr, 1997). This report provided a synthesis of existing information regarding the environmental quality of the Tamar Estuary compiled from reports and studies available at that time.

#### Estuary and Foreshore Management Plan

The Estuary and Foreshore Management Plan (TEFMP) (Watchorn, 2000) describes planning and jurisdictional issues relating to the Tamar Estuary foreshore and adjoining northern coastline.

#### NRM Strategy for Northern Tasmania

The NRM Strategy for Northern Tasmania (NRM North, 2005b) identifies a range actions and activities needed to maintain the Tamar Estuary.

#### Atlas of Wetlands for Potential Inclusion into the Directory of Important Wetlands in Australia

This report provides an extensive mapping series of the priority wetlands within Tasmania.

#### Tamar Estuary Management Plan

The Tamar Estuary Management Plan (2008) is a non statutory management plan which focuses on the natural values of the Estuary, specifically geodiversity, estuarine waters and biodiversity (SFM, 2008).

#### State of the Tamar Estuary (2008)

The State of the Tamar Estuary report (Aquenal, 2008) presents an update to the initial 1997 State of the Tamar Estuary report. The report reviews Tamar Estuary environmental quality data collected since 1997 and describes estuary health environmental trends.

#### Tamar Estuary & Esk Rivers Programme Reports

The Tamar Estuary & Esk Rivers (TEER) Programme regional initiative was established to improve the management of the Tamar Estuary and associated catchments. The TEER Programme reports (TEER 2010 and 2011) provide ecosystem health status data for the Tamar Estuary.

#### State of the Environment Report 2009

The State of the Environment Report 2009 presents information required under s29 of the State Policies and *Projects Act 1993* for the reporting period from 2003 to 2008 and considers changes since the 2003 State of the Environment Report (RPDC 2003).

#### The Tamar Valley - A Vision and Strategic Plan for its development (2011)

*The Tamar Valley - A Vision and Strategic Plan for its development* (2011) was compiled by Robin Frith. This document summarises the Concept, including potential positive and negative effects to the Tamar Estuary.

#### Tamar Lake Preliminary Technical Assessment 2011

The *Tamar Lake Preliminary Technical Assessment* (2011) was prepared by BMT WBM. The scope of the report was to qualitatively assess:

- The hydrodynamic regime, upstream and downstream of the proposed barrage.
- Changes to the Water Quality regime, including qualitative assessments of changes to the flushing regime, nutrient cycle and potential for algal blooms.
- Changes to siltation regime, including the potential for suspended sediment bypassing of the freshwater lake, likely zones of reduced/increased sediment deposition, and downstream effects and the influence of discharge timing on sedimentation.
- Changes to the flooding regime, including qualitative assessments of the flood mitigation potential of the scheme.

# **3** MANAGEMENT AND LEGISLATION

The management arrangements for the Estuary are complex with a wide range of legislative / policy documents and stakeholders. A summary of the key legislation, policy and agencies / bodies responsible for the management of the Estuary are provided in the following section.

Detail regarding the likely environmental assessment and approval process for the Concept is provided in Section 6 of this report.

# 3.1 State Legislation and Policy

## 3.1.1 Legislation

Relevant State legislation includes:

- Living Marine Resources Management Act 1995
- National Parks and Wildlife Act 1970
- Environmental Management and Pollution Control Act 1994
- Land Use Planning and Approvals Act 1993
- Water Management Act 1999

Threatened species in Tasmania are listed subject to the following national and state Acts:

• Tasmania - Threatened Species Protection Act 1995 (TSPA)

Under the Tasmanian legislation there are three categories of threat status recognised as follows:

- a) Endangered
- b) Vulnerable
- c) Rare

The occurrence of listed and or threatened flora and fauna are discussed in Section 4.

## 3.1.2 Policy

Several key policy documents exist that are used to guide the management of the Tamar Estuary including the *Tasmanian State Coastal Policy 2007*, *Tasmanian State Policy on Water Quality Management 1997* and the Tasmanian Reserves Code of Practice 2003. Added to this are a number of key documents such as Council planning schemes and local area action plans that describe guidelines for use and development on the Estuary foreshore and various pieces of legislation that regulate activities.

Regionally, the *Tasmanian State Coastal Policy* 2007 has a central objective of sustainable development of the coastal zone. All activities, uses and developments which may impact on the coast are required to meet the objectives of the *Tasmanian* State Coastal Policy. The three main guiding principles of the policy are:



- Protection of natural and cultural values of the coast
- Use and development of the coast in a sustainable manner
- Integrated management and protection of the coastal zone is a shared responsibility

The *State Water Quality Management Policy* is based primarily on the national policy framework, and requires progressive establishment of protected environmental values (PEVs) and associated indicators, numerical guidelines and water quality objectives (WQOs). Between 2000 and 2005, PEVs were set for the waterways located within the Tamar Estuary and North Esk Catchments (DPIW 2005a) and for the South Esk Catchment (DPIW 2005b).

## 3.2 Relevant Commonwealth Legislation and Policy

### 3.2.1 The Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (the *EPBC Act*) is the Australian Government's central piece of environmental legislation.

The EPBC Act provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places—defined in the *EPBC Act* as matters of national environmental significance.

The eight matters of national environmental significance to which the EPBC Act applies are:

- World heritage sites
- National heritage places
- Wetlands of international importance (often called 'Ramsar' wetlands after the international treaty under which such wetlands are listed)
- Nationally threatened species and ecological communities
- Migratory species
- Commonwealth marine areas
- The Great Barrier Reef Marine Park
- Nuclear actions

The *EPBC Act* aims to balance the protection of these crucial environmental and cultural values with our society's economic and social needs by creating a legal framework and decision-making process based on the guiding principles of ecologically sustainable development. Specifically, the *EPBC Act* aims to:

- Provide for the protection of the environment, especially matters of national environmental significance
- Conserve Australia's biodiversity

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- Protect biodiversity internationally by controlling the international movement of wildlife
- Provide a streamlined environmental assessment and approvals process where matters of national environmental significance are involved
- Protect our world and national heritage
- Promote ecologically sustainable development

#### **Species Protection**

The list of threatened species under the EPBC Act is divided into the following categories:

- a) Extinct
- b) Extinct in the wild
- c) Critically endangered
- d) Endangered
- e) Vulnerable
- f) Conservation dependant

The occurrence of listed and or threatened flora and fauna are discussed in Section 4.

## 3.3 Natural Resource Management

The management of Tasmanian estuaries is primarily the responsibility of the Department of Primary Industries, Water and Environment (DPIWE), which provides leadership in the sustainable development and conservation of Tasmania's resources by playing a central role in resource management, industry development, environment protection and conservation of natural and cultural heritage. Various agencies within the Department are responsible for the planning and management of the aquatic and terrestrial estuarine environment.

### 3.3.1 Tamar Estuary Management

A number of state and local government agencies have responsibility for planning, management and development in the Tamar Estuary. Three councils (Launceston, West Tamar and George Town) have municipal authority over the estuary. Natural Resource Management (NRM) North is responsible for natural resource management activities. State agencies also have a variety of legislative and policy responsibilities.

Adopting a 'catchment-to-coast' approach to estuary management at a landscape level, the Tamar Estuary and Esk Rivers Program (TEER) was established in 2008 under a regional partnership between NRM North, state and local governments, and the agencies with a statutory responsibility for managing waterways. The program aims to provide a coordinated approach and guide for solutions and investment to protect, maintain and enhance the waterways of the Tamar Estuary and Esk river systems from catchment to coast. Collective responsibility for the sustainable management of the estuary will be shared between the state government, local councils, industry, NRM groups and the wider community.

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The Tamar Estuary Management Plan was published in 2008 as a blueprint to guide future investment in the Tamar Estuary. The plan identifies the natural values of the estuary and management actions required to manage, protect and mitigate the threats to existing natural values.

# 4 NATURAL VALUES

The following section provides a summary of results from a review and synthesis of published literature, reports and databases undertaken to characterise the local and regional biological and geodiversity values of the Tamar Estuary.

# 4.1 Study Area

For the purposes of this report, the boundary of the study area has been constrained to the Tamar Estuary and the immediately adjoining and adjacent environs (i.e. the area bounded by the NVA and EPBC search reports – figures 2-1 and 2-2). However, data from outside the defined study area (the study region) were incorporated to provide regional setting and contextual information. Please note that this boundary is unlikely to comprehensively represent the area over which potential effects of the implementation of the Tamar Lake Concept may extend.

# 4.2 Setting

The Tamar Estuary is one of the major estuary systems of the southern Australian marine faunal region. The estuary extends along a south-east to north-west axis for approximately 70 km, following a meandering path from Launceston to Low Head on Tasmania's north coast, where it enters the Bass Strait. It is formed by the confluence of the South Esk and North Esk rivers at Launceston.

The Tamar Estuary is the only estuary of its type (mesotidal drowned river valley) in Tasmania. It was formed between 13 000 and 6500 years ago, when sea level rose about 60 m to near its current level. The upper section of the Tamar Estuary is generally narrow but, below the Batman Bridge, it opens out into several long embayments or 'arms', known as East Arm, Middle Arm and West Arm. The main channel is quite deep in the lower estuary, reaching 45 m near Bryants Bay (just off Deceitful Cove). However, above Swan Point (at Paper Beach), the estuary is subject to rapid infilling by sediments and becomes very shallow as it nears Launceston. Tidal mudflats border the main channel of the estuary throughout its length.

The Tamar and its tributaries drain a catchment area of approximately 10 000 km<sup>2</sup>. The South Esk basin (consisting of the Macquarie, Meander and South Esk sub-catchments) occupies the majority of this total area, while the North Esk basin is considerably smaller. Topography in the catchment varies from the low hills and rolling plains (characteristics of the agricultural regions in the Northern Midlands) to the high peaks and plateaus of the Western Tiers, Ben Lomond Range and Eastern Highlands.

The estuary is tidal for its whole length, with a 3.5 m tide occurring twice a day in Launceston. The general habitat structure of the estuary has been significantly altered since the first European settlement. This has been brought about by dredging, the construction of jetties, and the introduction of several weed and pest animal species such as rice grass and Pacific oysters.

The two main tributaries of the Tamar Estuary are the North Esk River and the South Esk River. The water in the Tamar River gradually becomes less saline with distance upstream of the estuary mouth. The South Esk River is the longest river in Tasmania (214 km) and is the main source of freshwater flows and sediments to the Tamar Estuary.



The Tamar has been divided into 5 discreet functional zones based on differences in critical habitats (e.g. seagrass, rocky reefs, wetlands), key processes (phytoplankton abundance; *Chl a*), human impacts (nutrient levels, e.g. total nitrogen [TN]; and metals, e.g. Zinc) and salinity within the estuary. These zones are shown in Figure 4-1.



Figure 4-1 Zones Tamar Estuary (NRM North 2011)

# 4.3 Conservation Areas

There are 21 gazetted conservation areas in the catchment of the Tamar Estuary as listed in Table 4-1, and illustrated in Figures 4-2 and 4-3. Twenty of these are land-based while the Tamar River Conservation Area is predominantly intertidal.



Name	Location	Area	Date	Comments
Narawntapu National Park	North Coast	(na) 4,349	07-Jul-76	Coastal heath land
Bradys Lookout state Reserve	West Tamar	0.86	29-Apr-64	scenic views
Holwell Gorge state Reserve	Central North	355.7	13-Jul-77	scenic gorge
Notley fern Gorge state Reserve	West Tamar	11.42	27-May-54	scenic fern gully
Native Point Nature Reserve	East Tamar	127.4	18-Aug-76	Relict forest
Briggs Regional Reserve	North Coast	2095	27-Dec-00	Representative forest
Bouchers Creek Conservation Area	East Tamar	127	25-Dec-96	Representative forest
Carr Villa Conservation Area	Launceston	61.1	17-oct-38	sclerophyll forest
Dans Hill Conservation Area	Beaconsfield	713.6	25-Jun-03	threatened plants
George town Conservation Area	George town	121	25-feb-87	Waterfowl
Long Reach Conservation Area	East Tamar	110.74	07-Dec-38	Riparian vegetation
Low Head Conservation Area	George town	14.4	08-Apr-83	Coastal
Punchbowl Conservation Area	Launceston	23	17-oct-38	scenic parkland with recreational values
Redbill Point Conservation Area	Beaconsfield	34.2	24-Apr-89	Coastal
tamar River Conservation Area	st Leonards to Batman Bridge	4633	20-Dec-78	Estuary, waterfowl
Kate Reed Nature Recreation Area	Launceston	122	27-May-83	threatened plants
trevallyn Nature Recreation Area	Launceston	440	3-Jul-80	Grassy forest, woodland, riparian and aquatic flora and fauna
Entally House Historic site	Hadspen	29.7	01-Dec-48	Historic home
Low Head Historic site	East Tamar	18.7	13-Dec-00	Historic light station
Mount Direction Historic site	East Tamar	180	18-Apr-84	semaphore station site
Yorktown Historic site	North Tamar	8.2	26-Nov-51	Early settlement site

#### Table 4-1 Conservation areas around the Tamar Estuary

The Tamar River Conservation Area is the largest reserve on the estuary (4,633 hectares) and occupies most of the wetlands and mudflats below the high water mark between St Leonard's and the Batman Bridge and is listed on the Register of National Estate (See Appendix A and B). The Tamar River Conservation Area is also a stronghold for coastal paperbark forest, Melaleuca ericifolia, a community considered to be threatened in Tasmania. The Narawntapu National Park on the north coast is a similar size (4,349 hectares) and encompasses coastal heathland and beach zones. Since 1997, the Low Head Pilot Station has been declared as the Low Head Historic Site (2000) and the Tamar River Conservation Area has been expanded (2003). The Tamar River Mouth Reserve has been incorporated into the Tamar River Conservation Area and the Four Mile Creek Wildlife Sanctuary (proclaimed in 1952) has had its status revoked, as it suffered a loss of values due to development (DPIWE 2000, AHC 2002).





Figure 4-2 Conservation areas around the upper Tamar Estuary (Aquanel 2008)





Figure 4-3 Conservation areas around the lower Tamar Estuary (Aquanel 2008)



## 4.4 Geodiversity

Geodiversity is a vital component of all ecosystems. Geodiversity is "the range (or diversity) of geological (bedrock), geomorphological (landform) and soil features, assemblages, systems and processes" (Sharples 2002). These features, assemblages, systems and processes are the foundation on which all other natural values, including hydrological and biological values of the Estuary, are based.

In the Tamar Estuary, geodiversity includes features such as the Estuary's physical form and structure, its sediments and soils, river banks, river bed, floodplains, mudflats, rocky outcrops and headlands, surrounding hills and embayments as well as the ongoing natural processes which create and maintain these features including stream flow, tidal action and sediment transport and deposition.

### 4.4.1 Geology

The geology of the Tamar Valley consists of tertiary and more recent deposits, with substantial areas of Jurassic dolerite. The estuary is located in the Tamar Graben (which physically defines the Tamar region between the Western Tiers and Eastern Highlands of Tasmania and from the Northern Midlands to Bass Strait). The northern end of the graben<sup>3</sup> is defined by ridges of Jurassic dolerite, which form West Head and Low Head at the mouth of the Tamar. Drainage patterns in the lowlands and the Tamar Valley tend to be rectangular, reflecting the major lines of faulting and jointing.

The geological diversity of the Tamar Estuary has evolved over hundreds of millions of years and is described below within the context of a geological time scale, beginning over 250 million years ago (m.y.a) with the oldest bedrock found in the Estuary and finishing with geological process that have occurred in the recent past and in some cases are continuing to occur.

#### Permian (~250-300 million years ago)

Bedrock dating back to the Permian period is found at the upper end of West Arm (Permian mudstone and fossiliferous siltstone) and at Middle Arm (Permian mudstone and sandstone) (Blake and Cannell 2000).

#### Triassic (~205-250 million years ago)

On the north shore of West Arm sandstone cliffs of the Triassic period are exposed (Blake and Cannell 2000).

#### Jurassic (~140-205 million years ago)

Approximately 150 million years ago the igneous rock, dolerite, intruded into Permian and Triassic sandstone forming dykes and massive internal sills. As overlying sediments were eroded during the Tertiary period, these dolerite sills were exposed in many areas in Tasmania. This dolerite is one of the dominant rock types in the area, and forms many of the hills and ridges bordering the Estuary as well as the headlands at West Head, Low Head, Anchor Point and Shag Head (Blake and Cannell 2000).



<sup>&</sup>lt;sup>3</sup> a graben is a depressed block of the Earth's crust that has been dropped between two parallel faults which then form surrounding mountain ranges.

#### Tertiary (~1.8-65 million years ago)

The Tamar graben was formed during the Tertiary when large-scale block faulting and fracturing of the dolerite sills occurred. The Tamar Estuary lies within this sunken block which is bordered by the Western Tiers and Eastern Highlands and stretches from the Northern Midlands to Bass Strait (Blake and Cannell 2000, Pirzl and Coughanowr 1997).

Sedimentary rocks (sand, clays and gravels) of Tertiary age are common along the length of the Estuary. Outcrops of Tertiary basalt can be found on most foreshore promontories in the northern section of the Estuary, the result of lava flows during the Tertiary. Outcrops of basaltic dolerite (coarse grained basalt) occur in the middle section of the Estuary from Rowella to Windermere. In the past, some of these lava flows changed the course of the Tamar (Blake and Cannell 2000, Noble 1992).

#### Quaternary (present to ~1.8 million years ago)

During the Quaternary, debris, known as talus, was carved by glaciers out of the surrounding landscape of basalt and sedimentary rocks and deposited in the Estuary. Dunes and beach ridges at the mouth of the Estuary are formed from Quaternary sands. Quaternary alluviums (clay, sand and gravel) and marsh deposits overlie Tertiary sediments on the foreshore south of Legana and in small patches along the length of the Estuary (Blake and Cannell 2000).

### 4.4.2 Geomorphology

In comparison to the geology of the Tamar region, the Estuary itself is relatively young and was formed following the last extensive global glaciation. Between 6500 and 13000 years ago, sea levels rose around 60 metres flooding what was previously a river channel and forming the Tamar Estuary (Edgar et al. 1999 and Pirzl and Coughanowr 1997). Edgar et al.'s (1999) classification of Tasmanian estuaries rated the Tamar Estuary as of critical conservation significance, in part because it is the only mesotidal drowned river valley in Tasmania. Drowned river valleys are generally characterised by wide river mouths, rocky headlands and deep channels. Mesotidal refers to a moderate mean tidal range (e.g. between ~2m and 4m) (Edgar et al. 1999).

The Tamar Estuary currently extends in a northwest direction approximately 70km from the confluence of the North Esk and South Esk rivers at Launceston, to its mouth at Low Head where its waters enter Bass Strait (Figure 1.1). The Estuary follows a winding path from Launceston to the sea forming a number of C-shaped bends along its route and varying in width from less than 500m to approximately 3km. It reaches depths of approximately 45 metres in the lower reaches, but can be quite shallow in the upper reaches where sediments accumulate. In its lower reaches the Estuary branches out forming several long embayments known as East Arm, Middle Arm and West Arm (Pirzl and Coughanowr 1997).

Tidal mudflats and wetlands border the Estuary in some areas while other sections of the foreshore are characterised by steeper slopes and rocky headlands. The landscape surrounding the Estuary consists of rolling hills, which reach heights of 150-250m and recede towards the Estuary's mouth (Blake and Cannell 2000).

Over thousands of years the natural processes of sedimentation and erosion have continually modified the geomorphology of the Estuary. In more recent times human activities such as foreshore development, the introduction of rice grass, dredging and changes in catchment land use have resulted (directly and indirectly) in changes in the Estuary's geomorphology. For example, in some sections of the Estuary the introduction of Spartina anglica (Rice grass) has, as intended, stabilised and raised mudflats and constrained channel

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movements. Whilst some of these changes may be considered beneficial they may also have undesired effects on the Estuary's geomorphology and other natural values.

## 4.4.3 Soils

The range of soil types found in the Estuary largely reflects the underlying geology. Soils derived from Tertiary sands, clays and gravels generally form yellow podzolic soils (also known as podosols). Generally podzolic soils are relatively infertile, generally very acidic (pH<5) and have poor soil structure and low organic levels making them prone to wind and water erosion. Podzolic soils also occur on windblown sand deposits near the coast which have poor soil structure, low moisture holding capacity, low fertility and are highly susceptible to erosion (Blake and Cannell 2000, Gill and Blake 2002, Noble 1992).

The nature of the Estuary's bed differs from the lower to upper reaches. In the lower reaches the bed appears to consist of marine sands, shingle and rock. These marine sands do not appear to extend beyond Whirlpool Reach, from which point the bed tends to consist of fine mud and is high in organic material (Pirzl and Coughanowr 1997).

## 4.4.4 Acid Sulphate Soils

Acid sulfate soils is the common name given to soils and sediments containing iron sulfides, the most common being pyrite (DNRW 2008). Acid sulfate soils are formed when seawater or sulfate-rich water mixes with land sediments containing iron oxides and organic matter in waterlogged situations where oxygen is not present and anaerobic conditions prevail. Pyritic sediments that are formed under these conditions can produce sulphuric acid when exposed to oxidising conditions (i.e. exposed to air). These soils (and pyritic sediments) commonly occur in low-lying coastal areas, backswamps (e.g. saltmarshes and coastal lakes) and barrier estuaries as layers of marine muds and sands deposited in protected low-energy environments.

Figure 4-4 indicates a high probability that acid sulphates soils occur in the upper Tamar Estuary.

The disturbance and exposure of acid sulfate soils by earth moving practices and fluctuations in ground / surface water levels can facilitate the oxidation of pyrite. The oxidation process can result in the formation of sulphuric acid and the potential release of toxic quantities of iron, aluminium and other heavy metals (Gurung 2001). Acid drainage can cause these heavy metals can enter the receiving environment, causing serious damage to the aquatic ecosystem. Here, the likelihood of greater exposure of acid sulfate soils poses a serious pollution problem in receiving waters adjoining heavily drained areas. Key implications relate to both the direct impact of acid on the receiving environment and the indirect impact of acid in mobilising toxic metals. Key implications of acid sulfate soils include the following:

- An acid flush may pose a potential threat to the aquatic environment and coastal fauna.
- The acid can destroy soil structure and mobilise toxic metals liberated from acid-decomposition of clay minerals.
- Elevated levels of mobilised trace heavy metals in soil and water can be toxic to aquatic life if they are released into the drainage system during high flow events or as a result of a rise in the groundwater table. Fish kills in coastal rivers have been caused by acid flush during major flood events.
- Land areas impacted by exposed acid sulfate soils have poor fertility, high vegetation dieback and are prone to surface scalding and erosion.







Figure 4-4 Probability of Acid Sulphate Soils within the Tamar Estuary (DPWIE, 2009)

## 4.4.5 Sites of Geoconservation Significance

With the exception of karst<sup>4</sup> sites, there is very little data regarding the distribution and significance of geodiversity features and processes on private land. The geoconservation database (now incorporated into the Natural Values Atlas) that was compiled as part of the National Estate component of the Regional Forest Agreement mostly contains records from pre-existing inventories which were largely restricted to public land (Watchorn 2000).

A search of the Natural Values Atlas (DPIWE 2012) revealed 6 geoconservation features listed for the Tamar Estuary (Table 4-2).

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<sup>&</sup>lt;sup>4</sup> Karst is a landscape formed from the dissolution of soluble rocks including limestone, dolomite and gypsum. It is characterized by sinkholes, caves, and underground drainage systems.

Id	Name	Significance	Geographical significance	Status
2879	Browns Bluff Eocene Plant Fossil Site	Region	Listed	
3173	Cenozoic Plant Macrofossils of Tasmania	Tasmania contains a rich assemblage of Cenozoic plant macrofossils, many in an excellent state of preservation. Collectively, the fossil sites allow reconstruction of the character, evolution and palaeoenvironmental context of the southern hemisphere temperate palaeoflora of Tasmania across ca. 60 million years. The fossil record is crucial to our understanding of Tasmania's distinctive modern flora, especially conifers.	Global	Listed
3180	Craigburn basalt mass movement feature	The site demonstrates translational mass movement of large coherent volumes of basalt near the top of a slope. The basalt is inferred to overlie a sequence of Paleogene clayey sediments. Basalt is involved in slope failures elsewhere in the Tamar Valley as large translational slides, but this is the most obvious example. The well displayed columnar jointing is also of local significance.	Continent	Listed
3017	Middle Arm Fossil Site	Data not yet completed	Region	Listed
3022	Middle Arm Group Type Section	Data not yet completed	Sub-Region	Listed
3021	West Arm Group Type Section	Geological type section.	Sub-Region	Listed

#### **Table 4-2 Geoconservation Features**

# 4.5 Ecosystem Health

Ecosystem health is determined by the response of the environment to natural and human inputs and is defined as the degree to which the actual state of an ecosystem diverges from an ideal state as defined in management objectives. A healthy estuarine and marine ecosystem will have the following characteristics:

- Key processes operating to maintain stable and sustainable ecosystems
- Zones of human impacts that do not expand or deteriorate
- Aquatic ecosystems (critical habitats) which remain intact

As part of the TEER Program, the Ecosystem Health Assessment Program (EHAP) monitors water quality (nutrients, pH, chlorophyll a, metals), and recreational water quality (bacteriological counts) of the Tamar Estuary. Results for the 2011 EHAP are presented in Figure 4-5. In summary these results indicate:

- Water quality improves as you travel along the Tamar estuary towards the ocean. This is partially due to the well flushed nature of the lower estuary and the concentration of pollutants entering the system in the more urbanised upper estuary (Zone 1) area.
- The 2011 report card grades are comparable to the 10 year base line, suggesting that there has been no significant change in the health of the estuary.



- Wetter periods, occurring during winter months, generally correspond to poorer water quality as pollutant loads to the estuary increase during these times.
- Observations of recreational water quality were within guidelines in the lower estuary (Zones 3, 4 and 5), however exceeded guidelines on some occasions in the upper estuary (Zones 1 and 2).
- Elevated nutrient and bacteria levels are key drivers of poor grades in the upper estuary. These grades correspond to highly urbanised, high tributary input and poorly flushed areas of the estuary.
- Elevated copper and lead levels in Zone 1 and lead levels in Zone 4 are primarily due to historic mining and industrial activities, as well as urban runoff.



ZONE 5: Mouth       Calibration         Index       2011 data       % target         Mater quality       B       Image         Recreational       A+       Image       Image         Concertational       A+       Image       Image         Mater quality       A+       Image       Image         Mater quality       A+       Image       Image         Mater quality       B-       Image       Image       Image         Mater quality       B-       Image       Image <th></th> <th>_</th> <th>_</th> <th>0</th>		_	_	0				
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CONE 4: Mid-Lower Esture       Dete         har quality       B-       Image: Second	Recreational	A+		levels. System is generally well flushed and able to cope with pollutants delivered to the zone.				
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Figure 4-5 Tamar Estuary Ecosystem Health Report Card 2011 (NRM North 2011)



# 4.6 **Biological Values – Habitat and Species**

The Tamar Estuary has been heavily modified since European settlement and is considered to have a low level of 'naturalness' (Figure 4-6). Despite its modified state, the Estuary supports a number of significant habitats, diverse biological communities and a number of threatened and listed species. The Tamar is classified as a "Class A" estuary, the highest conservation category.

A wide variety of estuarine habitats are present, including rocky shores and reefs, sandy beaches, mud and sandflats, saltmarshes and creek entrances (Figure 4-7). These habitats vary in a number of physical parameters, such as firmness of attachment, particle size, degree of available shelter and nutrient availability (Smith 1995). Cumulatively, this mosaic of habitat types supports a wide range of species including a diversity of fish, birds and other animal life.



Figure 4-6 Tasmanian Estuarine Naturalness (DPWIE 2009)





Figure 4-7 Estuarine Habitats of the Tamar Estuary (DPWIE 2009)

## 4.6.1 Estuarine Wetlands

Wetlands provide valuable and often critical wildlife habitat, spawning grounds and nurseries and help to protect waterways by retaining floodwaters and providing erosion control and pollution abatement. Wetlands can also act as natural filters – removing and sequestering substances and contaminants that might otherwise find their way into drinking water, while others provide recreational opportunities such as fishing and boating. Hence wetlands are areas of high conservation significance (Pirzl and Coughanowr 1997, Blake and Cannell 2000).

A high proportion of Tasmania's estuarine wetland habitats are located in the Tamar. The most extensive wetlands occurring in the Tamar Estuary are the Tamar Island Wetlands which are included in the Tamar Conservation Area that extends from Launceston to the Batman Bridge (Figure 4-2 and 4-3). These wetlands

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are protected under the *National Parks and Reserves Management Act 2002* and considered a "Priority Wetland" by the Northern NRM (Figure 4-8) and of both State and National significance. However none are listed as Ramsar wetlands (The International Convention on Wetlands, signed in Ramsar, Iran, in 1971).

Wetland communities found in the Tamar include:

- Succulent saline herblands in northern sections of the Estuary, particularly around George Town, Low Head and parts of West Arm. These communities are generally dominated by succulent species such as *Sarcocornia quinqueflora* (beaded glasswort) (Blake and Cannell 2000).
- Areas dominated by grasses, sedges and rushes (known as graminoids) such as the common reed Phragmites australis and rushes such as Juncus kraussii and Elocharis acuta (spike rush). These communities occur in strips along the upper intertidal zone which range from less than 1 metre in width where the slope is steep to approximately 2 kilometres in width around Tamar Island (Harris and Kitchener 2005, Tasmanian Parks, Wildlife and Heritage 1991, Blake and Cannell 2000).
- The introduced species Spartina anglica (rice grass) also inhabits large areas of the intertidal zone of the Estuary, particularly on alluvial mudflats between the Batman Bridge and Freshwater Point, just south of Dilston (Blake and Cannell 2000) (see Section 4.6.2).

The Estuary's wetlands are host to a number of threatened species, including:

- Calystegia sepium (great bindweed) which can be found twining itself around the common reed Phragmites
  australis or the stems of Melaleuca ericifolia. Previously listed as endangered this species is now listed as
  rare under the Tasmanian TSP Act 1995. It is widespread throughout temperate Australia but in Tasmania
  its distribution is limited to riparian areas around the Tamar.
- *Lycopus australis* (native gypsywort), which also grows amongst *Phragmites australis* reed beds or Melaleuca ericifolia forest. This perennial herb is listed an endangered under the TSP Act 1995.
- *Rumex bidens* (mud dock), an aquatic perennial herb which floats on the surface of the water and is found in wetlands and drainage channels and is listed as rare under the *TSP Act 1995*
- Bolboschoenus caldwellii (sea club rush), a perennial sedge that inhabits shallow water and is listed as rare under the TSP Act 1995.
- Sporobolus virbinicus (salt couch) a perennial grass of saltmarshes and sand hills that is listed as rare under the TSP Act 1995.





Figure 4-8 Significant Wetland Sites in the Northern NRM Region (DPWIE 2009)

## 4.6.2 Rice Grass

*Spartina angelica* is a vigorous salt marsh plant that typically inhabits the upper intertidal zone of temperate estuaries. Rice grass was introduced to the Tamar Estuary in 1947 with the goal of stabilising mudflats, reclaiming intertidal lands and improving navigation. The plant spread rapidly throughout the estuary, and subsequently to other parts of the state. In 1997 *Spartina angelica* was estimated to cover 415 hectares within the Estuary, the largest infestation of rice grass in Australia (DPIWE 2002).

Spartina angelica's dense growth and root network act as a trap for sediment, significantly altering the natural rate, magnitude and location of sediment deposition and erosion (Whitehead 2008). These processes eventually elevate shorelines and river banks, creating rice grass terraces and marsh islands, which have significant impacts on estuarine hydrodynamics, ecology and amenities. Impacts on biodiversity and integrity of native wetland communities, migratory birds and fisheries are of particular concern. Furthermore, rice grass adversely affects recreational amenities (Hedge 1997).

Accordingly, *Spartina angelica* is listed as a Weed of National Significance and has been the target of a number of State wide reduction strategies.



## 4.6.3 Seagrass

Seagrasses are highly productive flowering plants adapted for life submerged in marine and estuarine environments. These plants are one of the major primary producers in coastal waters, often forming extensive meadows in shallow bays and estuaries where there is adequate light penetration. These meadows provide food, shelter and structural habitat for many species of flora and fauna and are found to support a significantly higher diversity and abundance of animals than unvegetated habitats (Edgar et al. 1999, Green and Coughanowr 2003).

A study in the early 1990s estimated that seagrass meadows in the Tamar Estuary region covered approximately 550 hectares (Rees 1994). Most seagrass occurs near the mouth of the estuary, extending upstream to waters off George Town; however *Heterozostera tasmanica* and *Zostera muelleri* have been recorded further upstream, in the vicinity of Bell Bay. Beds at the mouth of the estuary are dominated by *Posidonia australis* and *Amphibolis antarctica* with some small fringes of *Halophila australis* and *Heterozostera tasmanica* occurring on the inner margins of these beds (Gunns 2006b). In a state-wide study of estuaries, Low Head in the Tamar Estuary was the only site found to support Posidonia (Edgar et al. 1999), although this species has previously been recorded from other sites in northern Tasmania (Rees 1994). These seagrass meadows provide a rich habitat for animal communities, with those at the mouth of the Tamar hosting an exceptionally high diversity of both fish and invertebrate species (Edgar et al. 1999).

On the basis of historical aerial photographs, Rees (1994) estimated a decline in seagrass cover of 19% in the Tamar Estuary between 1950 and 1990. It is likely that factors such as environmental disturbance, cyclical change or natural causes have lead to this decline. However, further work is necessary to substantiate the past and present distribution of seagrasses in the estuary, as little information is currently available on their condition in the Tamar (Pirzl and Coughanowr 1997).

### 4.6.4 Rocky Reef and Algal habitat

Rocky reef/algal habitats are likely to be important for a variety of marine flora and fauna within the Tamar Estuary providing structural habitat, shelter and foraging grounds.

Several rocky reefs, consisting largely of dolerite, have been surveyed near Low Head. In the shallow water (0-15 m), these reefs are dominated by seaweeds, with sponges and other attached invertebrates dominating in the deeper water (>15 m). The most prominent seaweed is the string kelp *Macrocystis angustifolia*. *Macrocystis* grows extensively over shallow reefs (0-7 m) between Low Head and Middle Bank, particularly during periods of high nutrient load, although at other times its abundance is greatly reduced (Warman and Bryan 2004). This large kelp often forms extensive forests with individual stands reaching lengths of 30 m or more and provides habitat for many marine fish and invertebrates, including rock lobster, abalone, sea urchins, wrasse and trumpeter (Green and Coughanowr 2003).

Barrett and Wilcox (2001) considered the Low Head *Macrocystis* forests to be a feature worthy of conservation as this habitat type is rare on the north coast. In addition to the string kelp, a diversity of other seaweed species occupy the shallow reefs near Low Head and adjacent locations in the lower reaches of the estuary. Ritz et al. (1980) recorded species washed ashore in sections of Long Reach, including Ulva lactuca, *Enteromorpha intestinalis, Gigartina gigantea* and *Cystophora subfarcinata*. Biological surveys in Deceitful Cove, commissioned by the George Town Wastewater Treatment Plant, recorded Ulva at the low water mark (LWM) and the large brown algae *Ecklonia,* Sargassum and Cystophora between 0.5 m and 6 m below LWM. At greater depths, red algae were most common, although some filamentous species of brown algae were also


recorded (GHD 1991). Additional algae recorded through on-going monitoring at sites near the sewage outfall include filamentous red algae (e.g. *Delisea, Dasya, Polysiphonia* and *Ceramium*), foliose red algae (e.g. Jeannerettia), the large red alga *Thamnoclonium* and filamentous brown algae such as *Ectocarpales* (CEE

As a result of the Iron Baron oil spill in July 1995, Edgar and Barrett (2000) monitored subtidal reef plants and animals at Hebe Reef from August 1995 to July 1997, while they also compiled before-after spill data for three sites at the mouth of the Tamar and sites along adjacent sections of the north coast (West Head, Low Head and Barrel Rock). The physical damage caused to Hebe Reef as a result of the grounding caused the complete destruction of the subtidal reef community within a localised area surrounding the impact zone. However, analyses of before-after data and changes over time within the impact area, as well as comparisons with undisturbed sites, indicated no significant impacts on the diversity or abundance of animal and plant species. The release of large quantities of oil therefore did not appear to have substantially affected populations of subtidal reef organisms at the mouth of the Tamar.

1998 and 1999). Of the algae recorded, U. lactuca and the Polysiphonia and Ceramium species are

categorised as cryptogenic (i.e. species where it is unclear if they are native or introduced; Carlton 1996).

#### 4.6.5 Phytoplankton

Some information on phytoplankton in the Tamar Estuary is available through marine biological survey work for the George Town Wastewater Treatment Plant (CEE 1997 and 1999) and a research study of dinoflagellates belonging to the genus *Alexandrium* (Hallegraeff et al. 1991). CEE (1997 and 1999) collected plankton samples from Bell Bay and Low Head, as well as from sites in the upper Tamar Estuary. Typical phytoplankton taxa recorded were *Bidulphia, Nitzschia, Coccinodiscus, Euglena, Scenedesmus, Melosira* and *Skeletonema*, with none of the common species or other flagellates and diatom species collected known to be introduced. Hallegraeff et al. (1991) recorded two species of *Alexandrium* dinoflagellates in Bell Bay, *A. tamarense* and *A. affine. A. tamarense* is listed in Australia as a target introduced marine pest and may potentially produce paralytic shellfish poisoning (PSP) toxins. However, culturing experiments performed by Hallegraeff et al. (1991) indicated that the strain of *A. tamarense* collected from Bell Bay was non-toxic, while molecular analysis suggested that this strain may in fact be native (Scholin et al. 1995).

As part of a survey of exotic marine pests Aquenal (2001) performed a broader-scale sampling program for phytoplankton in the region extending from the estuary mouth through to the southern end of Long Reach. Using phytoplankton nets and dinoflagellate core samples a total of 60 species were recorded, with 28 dinoflagellates and 32 diatoms identified, including the 'introduced' *A. tamarense*.

#### 4.6.6 Foreshore vegetation

A study of foreshore vegetation was performed as part of the Tamar 2020 Strategy and included an evaluation of the nature conservation values of foreshore vegetation along the Tamar Estuary (Blake and Cannell 2000). This comprises the most comprehensive survey of foreshore vegetation in the Tamar Estuary to date, with the area from Low Head to central Launceston assessed from the river margin to approximately 100 m back from the river margin.

In accordance with the TASVEG Mapping System Blake and Cannell (2000) identified nine floristic communities within the foreshore zone. As part of the study, the condition of the vegetation was scored, ranging from Category 1 (least disturbed and highest conservation value) to Category 4 (few native species and lowest conservation value). The authors found that very little of the native vegetation along the estuaries foreshore remained in pristine condition. Most of the areas surveyed had been subject to some form of



degradation or fragmentation in the past, despite the fact that a large portion of the estuary foreshore is now reserved. In light of this, Blake and Cannell (2000) recommended that all areas of vegetation on the foreshore, even those in marginal condition, be protected from degradation to retain ecosystem function and continuity of habitat for native organisms.

The forests along the Tamar Estuary consist of open dry sclerophyll. Various configurations occur of three dominant eucalypts: *Eucalyptus amygdalina* (black peppermint), *E. viminalis* (white gum) and *E. ovata* (black gum), depending on soil strata, aspect and drainage (Blake and Cannell 2000). The most common foreshore forest configurations were identified as *Eucalyptus amygdalina* dry sclerophyll forest on dolerite and coastal *E. amygdalina* dry sclerophyll forest and woodland; the estuary is also considered a stronghold for *Allocasuarina verticillata* forest (Askey-Doran and Fry 1994, Blake and Cannell 2000). Similarly, surveys undertaken by the Tamar Regional Master Planning Authority (TRMPA 1990) revealed that pure stands of *E. amygdalina* with *E. ovata* were the major eucalypt association of the Tamar's lowland river flats. Forests slightly higher on the slopes of the estuary generally consist of the common association of *E. amygdalina*, *E. viminalis* and *E. ovata* on dolerite (TRMPA 1990).

*Melaleuca ericifolia* (swamp paperbark) forest, identified as rare/endangered in Tasmania (DPIW 2006c), also occurs along the shores of the Tamar. Studies have now revealed that the distribution of this vegetation community is fragmented to the point that, in 1997, no RFA (Regional Forest Agreement) polygons were identified as containing this community. This suggested that the Tamar valley may no longer be a stronghold for this species (Cadman 2000). Unmapped vegetation of regional priority likely to occur on the Tamar foreshore includes coastal *M. ericifolia* swamp paperbark forest, succulent saltmarsh, heath and damp sclerophyll complex with *E. ovata* (Blake and Cannell 2000).

### 4.6.7 Listed Flora and Vegetation Communities

A number of threatened plant species have been identified in the Tamar Estuary region. A search for threatened species on the LIST database (DPIWE 20012) revealed over 90 rare, vulnerable or endangered plant species recorded within 1000m of the estuary. However for the purpose of this report, only rare or threatened species occurring within the estuary, or within 100 m of the waters edge, were included. For these areas, the LIST search revealed 35 species of flora (Appendix A).

According to the EPBC Act Protected matters Search (DPIWE 2012), 14 plant species are listed as Threatened. Additionally, the critically endangered Lowland Native Grasslands of Tasmania Ecological Community is likely to occur within the Study Area (Appendix B).

Two vegetation communities identified along the Tamar Estuary are currently categorised as vulnerable, and *Melaleuca ericifolia* swamp forest, which is categorised as rare/endangered. The status of these communities as threatened is currently being formalised through a proposed bill amendment, the Nature Conservation Amendment (Threatened Native Vegetation Communities) Act 2006 (NCAA, DPIWE 20012). One region of particular importance is the Tamar Island Wetlands Reserve and the surrounding foreshore. This is the largest remaining area of wetlands in the Tamar and provides habitat for a diverse range of flora and fauna, including a number of threatened species. *Melaleuca ericifolia* swamp forest also occurs within this reserve, bordering the fringes of the wetland vegetation communities.

Another vegetation community that is considered by many authors to be of conservation significance in Tasmania is succulent saltmarsh, which occurs in the lower reaches of the estuary. This community is considered to be poorly reserved in Tasmania (Kirkpatrick and Harwood 1983).

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#### 4.6.8 Benthic invertebrate fauna

Benthic macroinvertebrates are organisms that live on the seabed or riverbed, residing in or on the sediments, and include crustaceans (e.g. crabs and amphipods), molluscs (e.g. gastropods and bivalves), polycheates (worms) and a range of other taxa. The abundance, diversity, biomass and species composition of macroinvertebrate communities are often used as indicators of changing environmental conditions, since most species are relatively immobile and hence unable to evade the impacts of pollutant inputs (Green and Coughanowr 2003).

The Tamar's sandy beaches, rocky shores, wetlands, riverbed and waters support a rich invertebrate fauna. The distribution of these invertebrates largely depends on their tolerance to salinity, although factors such as tidal range and immersion, plant biomass, sediment structure, runoff and exposure to pollutants also determine species ranges (Edgar et al. 1999).

A survey conducted by Edgar et al. (1999) recorded an exceptionally high diversity of macroinvertebrates in the lower reaches of the Estuary. Samples taken from Low Head contained a total of 116 species, a number surpassing that recorded in all other Tasmanian estuaries sampled, with the exception of North East Inlet on Flinders Island (120 species). Large portions of the species found are not recorded from any other sites (Edgar et al. 1999). Sites sampled further upstream at Paper Beach, just south of the Batman Bridge, recorded lower diversities, with approximately 30 species of macroinvertebrates recorded.

Crustaceans and polychaetes were the most abundant taxa, followed by bivalves and gastropods, as shown in Table 4-3 (Edgar et al. 1999). Similar to other estuaries, abundance and species richness declines significantly from the mouth to the head of the Tamar (Edgar et al. 1999, Green and Coughanowr 2003). Communities at the mouth of the estuary are predominantly marine in origin, while further south, as freshwater influences increase, they are more typical of estuarine environments (Smith 1995, Edgar et al. 1999).

Common invertebrate species in the estuary include the Pacific oyster *Crassostrea gigas*, the east Asian bivalve *Musculista senhousia*, the crab *Helograpsus haswellianis*, the gastropod *Bembicium auratum*, the barnacle *Elminius modestus* and the starfish *Patiriella exigua*. Other types of invertebrates found within the estuary include sea anemones (*Actinaria*), flatworms (*Polycladida*), earthworms (*Oligochaeta*), chitons (*Polyplacophora*), sea stars (*Asteroidea*), brittle stars (*Ophiuroidea*), sea squirts (*Ascidiacea*) and sponges (*Porifera*) (Smith 1995). Invertebrate species recorded that are protected under State legislation include limpets belonging to the superfamilies *Fissurellacea, Patellacea* and *Siphonariacea* (Aquenal 2005).

Aquenal (2001) performed a broader scale sampling program for benthic invertebrates in the region extending from the estuary mouth through to the southern end of Long Reach. In total, 408 native benthic invertebrates were recorded, dominated numerically by molluscs (95), followed by crustaceans (72) and polychaetes (68), reflecting a diverse natural assemblage of benthic invertebrates in the Port of Launceston. This survey utilised a variety of sampling methods and recorded both benthic infauna (species occurring within the sediments) and epi-fauna (species occurring on the surface of the sediment or firm substrata). Results on numbers and diversity of invertebrates are therefore not directly comparable to those recorded in other studies described above which were limited to assessments of infauna.



Site	Date	Total species	Crustacea (crabs, lobsters, shrimp, etc.)	Polychaeta (segmented marine worms)	Bivalvia (molluscs such as mussels, clams & oysters)	Gastropoda (molluscs including snails)	Other
Low	Dec	116	10	40	17	11	4
Head	1996	110	45	40	12	11	4
Paper	Dec	22	10	0	c	F	2
Beach	1996	52	10	9	0	5	Z
Paper	June	25	4	7	<b>F</b>	<b>F</b>	4
Beach	1997	25	4	/	5	5	4
Long Reach	2004	43	6	18	8	6	5

# Table 4-3 Total number of benthic infauna species recorded in the lower and middle reaches of the Tamar Estuary

### 4.6.9 Birds

The estuary's water, foreshore and wetland environments provide roosting, breeding and feeding grounds for a diversity of birds and are considered a 'hotspot' for coastal species (Bryant and Jackson 1999). Birds that occupy the region include waders, waterfowl, seabirds and raptors, with over sixty species recorded in the vicinity of the Tamar Island wetlands alone (Parks and Wildlife Service 2003). As an example, refer to Table 4-4 for a breakdown of species by type for Tamar Island. There are also numerous woodland/forest birds that are likely to rely to some extent on the estuarine system, although they are not discussed here. Of the estuarine dependant species, some are permanent residents whilst others are migratory or occasional visitors to the region when conditions in their usual place of residence are temporarily unsuitable. Areas of particular importance to these birds include shallow waters, tidal mudflats and wetlands; environments which are dispersed throughout the Tamar.

Species Habit	No. of Species
Waders and waterfowl	26
sea birds	7
Birds of prey	4
Vagrants and occasional visitors	11
Land birds	9
Introduced species	6

Table 4-4 Birds observed near Tamar Island in the upper Tamar Estuary

The Tamar's sheltered shores provide habitat for many species of waterfowl such as the Australian pelican, the hoary headed grebe, cormorants, black swan, grey teal, Pacific black duck, Eurasian coot and the rare great crested grebe.

Sea birds include both resident species (e.g. gulls) and several important migratory species such as the crested tern. Several species of raptors (eagles, falcons and hawks) are also frequently observed hunting over the estuaries' shallow waters, wetlands and tidal flats. These include the brown falcon, the endangered wedge-tailed eagle and the vulnerable white-bellied sea eagle, the latter being known to breed and forage in the Tamar Estuary and its immediate surroundings (Bryant and Jackson 1999).

Wading birds include resident species such as the white-faced heron, pied oystercatcher, red-capped plover and sandpipers that feed along the shoreline and intertidal flats. In addition to resident species, there are also a number of trans-equatorial migratory waders that visit the shores of the Tamar and are protected by



international treaties such as the Japan Australia Migratory Bird Agreement (JAMBA) and the China Australia Migratory Bird Agreement (CAMBA), which allow for their protected passage between countries. Some of the birds listed on these agreements that visit the Tamar include the cattle egret, crested tern, curlew sandpiper, greenshank, red-necked stint, and the eastern curlew. The latter species is listed as endangered in Tasmania. This migratory wading bird breeds in northeast Russia and Manchuria and migrates to Australia during the southern summer months and can be found at George Town. Regular surveys at George Town have revealed a decline in numbers for this species since 1981, potentially due to threats on migration routes and breeding grounds through habitat destruction, disturbance and hunting (Watts 1999, Reid and Park 2003).

A colony of fairy penguins exists at Low Head and comprises several thousand birds. The colony is scattered from the Pilot Station in the estuary itself around to East Beach on the north coast. Very little is known about fairy penguin populations, however Tasmanian population estimates range from 110,000 to 190,000 breeding pairs, of which less than 5% are found at mainland Tasmanian sites such as Low Head. The remaining, more abundant populations are found on Tasmania's offshore islands. Mainland populations are threatened with extinction due to pressures from introduced predators such as rats, cats and dogs and from human habitation (e.g. gill nets, plastic debris, development). In addition, the Low Head penguin population was severely affected by the Iron Barron oil spill in 1995 (Warman and Bryan 2004). Despite the relatively small amount of oil spill by the Iron Baron, the impact on wildlife was extensive, particularly for the local penguin colonies at Low Head, Ninth Island and at several sites to the west of the Tamar Estuary. Oiling resulted in the loss of thousands of birds and significantly reduced fledging and egg success of little penguins in the breeding season following the oil spill (Goldsworthy et al. 1998).

### 4.6.10 Marine Mammals

A variety of marine mammals has been recorded in the Tamar Estuary, including seals, dolphins and humpback, southern right and blue whales. Seals are frequently seen in the Tamar Estuary, with the most common visitor being the Australian fur seal. Occasionally, vagrants of other species have been recorded near the mouth of the estuary, including the Australian sea lion and the New Zealand fur seal. The Australian sea lion is listed as vulnerable under Commonwealth legislation and the New Zealand fur seal is listed as rare in Tasmania, whilst the Australian fur seal is not listed as threatened but is considered to be of high conservation significance. Both common and bottlenose dolphins are sighted frequently in the Tamar. Larger cetaceans including the humpback whale and southern right whale (both listed as endangered under State legislation and vulnerable and endangered under Commonwealth legislation respectively) regularly enter the lower reaches of the estuary. Both of these species are migratory, arriving in Tasmanian latitudes on their way to the Southern Ocean (Reen and Coughanowr 2003). Other cetaceans have been recorded in the Tamar; these species as well as the pinnipeds are listed in Table 4-5.



	Scientific Name	Common Name		
<b>C I</b> -	Arctocephalus forsteri	New Zealand fur seal		
Seals	Arctocephalus pusillus doriferus	Australian fur seal		
	Neophoca cinerea	Australian sea lion		
Dolphing	Delphinus delphis	Common dolphin		
Doiphins	tursiops truncates s.str.	Bottlenose dolphin		
	Balaenoptera musculus	Blue whale		
	Caperea marginate	Pygmy right whale		
	Eubalaena australis	southern right whale		
Whales	Globicephala mararhynchus	short finned pilot whale		
	Hyperoodom planifrons	southern bottlenose whale		
	Mesoplodon layardii	strap-toothed beaked whale		
	orcinus orca	Killer whale		

#### Table 4-5 Marine mammals that have been observed in the Tamar Estuary

#### 4.6.11 Amphibians and Reptiles

The estuarine wetlands provide habitat for a number of amphibians and reptiles, including several threatened species. While amphibians are freshwater dependant and cannot tolerate the brackish or saline conditions in the estuary, and reptiles are terrestrial, several important species occur within the Tamar's wetland habitats and are therefore described here.

#### Amphibians

Two threatened frog species have been recorded in the vicinity of the Tamar Island wetlands: the green and gold frog *Litoria raniformis* and the striped marsh frog *Limnodynastes peroni. L. raniformis* is listed as vulnerable under both State and Commonwealth legislation. The Tamar is considered a breeding 'hotspot' for this species (LEC 2003), with a large breeding population located within the Tamar Island Wetlands Reserve. This frog was formerly abundant in the Tamar Valley, but has declined by more than 50% since the 1970s (Bryant and Jackson 1999, Parks and Wildlife Service 2003). The total breeding population is now estimated to number less than 3000 individuals (Bryant and Jackson 1999). *L. peroni* is listed as rare under State legislation, and is confined to small isolated populations in the far north west and north east of the state, including the Tamar wetlands, and on King Island (Parks and Wildlife Service 2006). Definitive population estimates are difficult as records for this species are rare, however approximately 20 populations have been identified and from these populations less than 5000 individuals are estimated in total (FPA 2004).

The population decline of these species in the Tamar is most likely due to habitat loss and degradation which may be caused by weed invasion, drainage and land reclamation; damage to water bodies by stock; and pollution from fertilisers, pesticides or effluent. Local populations are also likely to be heavily influenced by predation on tadpoles and juveniles by cats and dogs and by the introduced mosquito fish *Gambusia holbrooki* (Bryant and Jackson 1999, FPA 2004). The introduction of the fungal disease chytridiomycosis into Tasmania, which has had a serious impact on mainland frog populations, could also present a major impact to these species (FPA 2004).

#### Reptiles

Few species of reptile are dependent on the Estuary for breeding or foraging habitat, although the copperhead snake and metallic skink can commonly be seen in the area, especially on warm days. A number of other



skinks have been recorded in the Tamar Island wetlands including the endemic Tasmanian tree skink (*Niveoscincus pretiosus*), and the rare glossy grass skink (*Pseudemoia rawlinsoni*). The latter species is a littleknown lizard that occurs in south eastern mainland Australia and Tasmania, at sites associated with wetlands and swampy habitats. At present this lizard is known from only four localities in Tasmania that contain an unknown number of individuals, highlighting the need for further knowledge of its current distribution, abundance and threats (Parks and Wildlife Service 2006f, FPA 2004).

#### 4.6.12 Fish

A previous state-wide study of Tasmania's estuaries revealed higher numbers of fish species in the Tamar than in nearly all other estuaries sampled. The critical conservation rating prescribed by Edgar et al. (1999) for the Tamar can therefore partially be attributed to the high diversity of fish species in the estuary. Compiled data for the broader Tamar Estuary has revealed the presence of at least 110 finfish species (Tasmania Parks, Wildlife and Heritage 1991). Distribution of these species depends on their salinity tolerances and on the availability of suitable habitat. The most common species known to inhabit the estuary include mullet (*Aldrichetta forsteri*), pufferfish (*Tetractenos glaber*), garfish (*Hemiramphus melanochir*), flounder (Family *Pleuronectidae*) and cod (Family *Moridae*) (SFM, 2008). Some of these species spend their entire life cycle within the estuary, while others enter the estuary as juveniles, such as sand flathead, Australian salmon, yellow-eye mullet and slimy cod (Neira and Lara-Lopez 2006). Whitebait, comprising a number of small schooling fish species, perform seasonal runs between marine and estuarine/fresh waters and represent an important estuarine community.

Surveys undertaken in 2001-2002 revealed that the Estuary provides spawning habitat for over 40 resident fish species. Sampling for these surveys yielded 80,837 larval fishes, with catches largely dominated by representatives of the families *Gobiidae* (gobbies) followed by *Engraulidae* (anchovies), *Blenniidae* (blennies), *Clinidae* (crested weedfishes) and *Scorpaenidae* (scorpionfishes) (Neira and Lara-Lopez 2006). Studies have also revealed a small number of species that are unique to the Tamar, or have restricted geographical ranges that include the Tamar Estuary. For example, Edgar et al. (1999) found that the distributions of the pug-nosed pipefish (*Pugnaso curtirostris*) and long-rayed rock whiting (*Siphonognathus radiatus*) were limited to Tamar samples and were generally associated with seagrass beds. School shark (*Galeorhinus galeus*) and gummy shark (Mustelus antarcticus) utilise the lower reaches of the Tamar Estuary as a breeding/refuge area (Gunns 2006).

To help conserve these commercially important species, the waters south of a line between West Head and Low Head have been declared a Shark Refuge Area under the *Living Marine Resources Management Act* 1995. It is therefore prohibited to take school or gummy shark from any part of the Tamar Estuary and, in accordance with other sections of the Act, impacts on the nursery habitats of these species must be minimised. The exotic eastern mosquito fish, *Gambusia holbrooki*, has also recently been recorded in the Tamar Estuary and is considered a significant threat to native estuarine species.

Several threatened and protected fish species have been documented in the Tamar Estuary. The Australian grayling (*Prototroctes maraena*) is listed as vulnerable under both State and Commonwealth legislation. This species spends its adult life in freshwater habitats but has a marine life stage and is likely to migrate through the estuary as larvae and juvenile fish. Key threats to *P. maraena* include habitat loss and disturbance, pollution of waterways, changes in flow patterns caused by dams and water extraction, and vegetation clearance and gravel removal. Protected fish species that are likely to occur in the Tamar include a number of shark species and members of the family *Syngnathidae* (pipefishes, seahorses, seadragons). All species in this family, including the common seadragon *Phyllopteryx taeniolatus*, are protected in accordance with both State



and Commonwealth legislation. *Syngnathid* species found to inhabit the estuary include the spotted pipefish (Stigmatopora argus), pug-nosed pipefish (*Pugnaso curtirostris*), wide-bodied pipefish (*Stigmatopora nigra*) and the Port Phillip pipefish (*Vanacampus phillipi*, Edgar et al. 1999). The short snouted seahorse (*Hippocampus breviceps*), eastern potbelly seahorse (*Hippocampus abdominalis*), weedy sea dragon (*Phyllopteryx taeniolatus*), and a number of other pipefish species are also likely to occur in the Tamar.

### 4.6.13 Threatened fauna

Threatened species in Tasmania are listed subject to the legislation outlined in Section 3. The NVR indicates that 11 bird species, 3 mammals and 1 Amphibian are listed with to occur within 100m of the Tamar Estuary (Appendix B).

The EPBC Protected Matters Search results are presented in Appendix A. These results indicate that threatened species that are known to visit or inhabit the Tamar Estuary include 23 species of bird, 3 species of crustacean, 1 fin-fish species, 1 shark species, 1 frog species and 6 species of mammals.

All of these species, to a certain extent, rely on the Tamar's waters, sheltered shores, sandy beaches and wetlands as breeding/foraging grounds. The Tamar's wetlands, particularly the Tamar Island Wetlands Reserve, provide habitat for all of the above threatened species, aside from the marine mammals that have been recorded primarily near the mouth of the estuary. Previous sections in this chapter provide information on threatened fauna species identified in the Tamar, however a compiled list of these species is presented in Appendix A and B.



## **5 POTENTIAL EFFECTS**

This section of the report identifies the potential effects of the construction and operation of the Tamar Lake Concept on the adjoining and adjacent natural values (detailed in Section 4), which may represent benefits or constraints to the development of the concept<sup>5</sup>. The potential social and economic benefits are discussed in Frith, 2012.

### 5.1 Effect Identification

Environmental effects may result from relatively direct cause and effect pathways, through more complex, indirect conduits, or in combination with other activities i.e. cumulatively. Figure 5-1 is a conceptual model illustrating the way in which changes to the natural processes of a system can affect habitat, biogeochemical and ecological processes<sup>6</sup> (i.e. cause and effect pathways).

In simplified terms, the installation of a barrage (the Concept) can be described as a pressure on the environment (cause), which will result in modifications to the geodiversity values (e.g. hydrodynamic regime). Because the systems hydrodynamics drive water quality, sedimentation and flow (BMT WBM, 2011) these modifications may induce habitat, biogeochemical and ecological processes responses. These modifications and responses can be considered the effects or impacts of the Concept on the existing natural values of the estuary.



Figure 5-1 Conceptual cause, effect and response model

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<sup>&</sup>lt;sup>5</sup> Please note that quantifying the nature, scale, likelihood and consequence of these effects, determining the extent to which potential effects may be mitigated or managed, and evaluating how potential effects may be balanced or offset by the likely social, cultural and economic benefits of the Proposal (identified by Frith 2012) is beyond the scope of this study.

<sup>&</sup>lt;sup>6</sup> Note that not all possible interactions are shown (e.g., ecological processes can affect habitats, water quality and biogeochemical processes)

### 5.2 Concept Overview

*The Tamar Valley – A Strategic Plan and Vision for its Development* (Frith, 2011) outlines the Tamar lake Concept. In summary the Tamar Lake concept principally involves construction of a barrage which would impede tidal movement upstream of Moriarty Reach and effectively convert the system (over time) from an estuary into a freshwater reservoir or lake (Figure 1-1 and Figure 5-2).



Figure 5-2 Proposed barrage between Moriartys Reach and Long Reach

### 5.3 Summary of Key Geodiversity and Ecological Values

For the purposes of understanding the broad effects of the Concept, the following section provides a summary of the key natural values of the Tamar Estuary and its 'condition' (detailed in Section 4).

- Since European settlement the system has been heavily modified from its natural state through land practice changes and the introduction of exotic species such as rice grass.
- Recent floristic survey data indicates that the foreshore vegetation is 'fragmented'.
- Parts of the estuary are regularly dredged and water quality (in Zone 1 especially) is sometimes described as poor due to inputs from urban stormwater, agricultural runoff and industrial point sources.
- The estuary is rapidly (geologically speaking) infilling with marine silts, which contain sulphides and are therefore considered to have a high acid sulphate generating capacity.
- The Tamar Estuary is one of the major estuary systems of the southern Australian faunal region and is the only example of a mesotidal drowned river valley in Tasmania.
- Six geoconservation features were identified within the study area, one of global significance.
- The estuary is divided into 5 discreet functional zones. All but zone 1 (the upper estuary) are reported to be in good ecosystem health.

- The Tasmanian Government has gazetted 21 Conservation Areas along the estuary reaches with a bulk of these conservation areas located above the proposed barrage.
- Despite its modified state, the estuary supports a range of significant habitats, diverse biological communities and a number of threatened and listed species. The Tasmanian Government has classified the Tamar as a "Class A" estuary.
- The Tamar contains a high proportion of Tasmania's estuarine wetlands e.g. Tamar Island Wetland which is included in the Tamar Conservation Area and protected under the NP&R Act 2002. These wetlands provide roosting, breeding and feeding grounds for a diversity of birds (some threatened) and are considered a 'hot spot' for coastal species.
- The results of the EPBC listed matters search indicates that threatened species that are known to visit or inhabit the Tamar Estuary include 23 species of bird, 3 species of crustacean, 1 fin-fish species, 1 shark species, 1 frog species and 6 species of mammals.
- The estuary is visited by a number of trans-equatorial bird species, which are protected internationally under JAMBA or CAMBA treaties.
- A survey of fish species indicates that the Tamar estuary provides habitat and refuge for over 110 fin-fish species (including several threated species).
- The lower reaches of the estuary contain an "exceptionally high diversity of invertebrates" which provide a significant food source to birds and fish.
- A search of the LIST database indicates that there are 35 rare, vulnerable or endangered plant species recorded with 100 m of the estuary, 14 of these are listed as threatened.

### 5.4 Potential Effects to Geodiversity Values

A preliminary assessment of potential beneficial and detrimental effects to the Tamar Estuaries hydrodynamic, siltation, water quality and flooding regimes associated with the proposed Tamar Lake concept was undertaken by BMT WBM in 2011. BMT WBM's preliminary assessment indicated that the Tamar Lake concept represents a substantial change to a number of geodiversity values (hydrodynamics, water quality, siltation and flood response) of the Tamar River system.

In summary, the Concept will:

- Reduce the size of the estuary by approximately 2/3rds (by area).
- Modify the tidal regime of the estuary.
- Impound freshwater behind the barrage resulting in the conversion of estuarine and brackish water environs to a lacustarine system (this includes surface water and groundwater).
- Reduce freshwater flows into the estuary.
- Increase the salinity of the estuary downstream of the barrage.
- Alter estuarine water chemistry such as salinity, dissolved oxygen, turbidity, and nutrients above the barrage.
- Modify the sediment transport regime up and downstream of the barrage.

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• Potentially result in a decline in water quality upstream of the barrage.

These modifications are likely to result in a range of effects (some may be considered positive, other negative) to the ecological values of the estuary.

### 5.5 Potential Ecological Effects

Changes or modifications to physical processes may in turn induce a range of biological and ecological responses. These responses may potentially equate to system wide effects (extent of existing estuary), or be geographically restricted above or below the proposed barrage. The physical extent of these effects will vary as will the period of time over which they persist or become evident (in the case of the shift from an estuarine to freshwater system)<sup>7</sup>.

#### Potential System Wide Effects

System wide effects of installing a barrage may include:

- Development of a biogeochemical (salinity) and physical impediment to fish species dependent on the upper reaches for lifecycle purposes. For example, most estuarine biota have specific salinity requirements which may vary depending on the stage that they are at in their life cycle.
- Redistribution of, and changes to the diversity and abundance of existing estuarine aquatic biota and assemblages, including listed and or protected fish and bird species.

#### Potential Effects - Above the Barrage

Above the barrage, the system will (over-time) develop into a low energy, freshwater lake environment. This broad system change may result in:

- Replacement of the estuarine species and habitats with freshwater lacustarine habitat and assemblages. The period over which this change occurs, or the likely environmental value of the resultant changes is difficult to estimate. However, the modified system may:
  - Provide habitat and refuge for seasonal and permanent freshwater wetland species (e.g. birds some of which may be listed and or protected).
  - Result in the elimination of invasive rice grass from the above barrage section.
  - Promote the expansion of freshwater habitat and species formally restricted by brackish or saline water.
- Modification or loss of habitats formed by the tidal forces of the estuary or habitats that rely on tidal action to maintain functionality. These include the brackish water column, sand bars, mudflats, bare rocky substrate, silts and sandy bed forms.
- Potential loss or displacement of flora and fauna dependent on estuarine habitats (for refuge or food), including phytoplankton, benthic fauna, numerous of fish species, birds and foreshore flora and vegetation communities some of which are listed and of conservation significance.

<sup>&</sup>lt;sup>7</sup> Please note that the following list of effects may not be exhaustive.





- Potential aerial exposure and leaching of acid sulphate soils during periods of low inflow/increased evaporation. Changes in the pH of these sediments may also result from a reduction in the buffering capacity offered by the existing system due to the absence of seawater and after time, estuarine macro fauna (e.g. molluscs) which contain calcium carbonate which acts as a natural 'buffer'.
- Changes in microbial activity.
- Increased potential for stratification and algal blooms leading to water quality management issues.

#### Potential Effects - Below the Barrage

Below the barrage, truncation of the estuary will potentially result in:

- Redistribution of tidal and shallow water habitats e.g. salt marshes, seagrass and intertidal flats.
- Removal of any saline to brackish transitional zone and the loss of species adapted to this zone.
- Displacement of flora and fauna dependent on the existing estuarine habitats.

### 5.6 Summary

In summary, the construction of a barrage is likely to modify the existing natural values identified in Section 4 of this report. Some of these effects may be considered beneficial, some negative. However, determining the net environmental benefits (i.e. the balance between the positives and the negatives) of a project such as the Tamar Lake Concept will require additional investigation and research.

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# 6 **REGULATORY ASSESSMENT FRAMEWORK**

This section summarises the likely State and Commonwealth assessment process and information requirements for the Tamar Lake Concept.

### 6.1 Tasmania Assessment Process

The Tasmanian environmental approval/assessment process is summarised in Figure 6-1. Key requirements are described below.

#### Preliminary Discussions and Notice of Intent

As implied, the Tasmanian EPA recommends that proponents seek preliminary discussions with the relevant approval agencies to obtain advice regarding the likely approval and assessment level.

BMT WBM recommend Tamar Lake Inc meet with representatives of NRM North, DPIWE, local councils and the EPA to discuss the Concept.

Subsequently, Tamar Lake Inc would need to develop a Notice of Intent (NOI). The information contained in a NOI enables a determination to be made on whether or not the project will require assessment by the EPA Board and the class of assessment. It also provides a basis for the Board to provide guidance to the proponent for preparing the case for assessment.

The NOI must contain certain information as specified in the *Guide for Preparing a Notice of Intent* available at <a href="http://www.epa.tas.gov.au/assessment\_information.html#2">www.epa.tas.gov.au/assessment\_information.html#2</a>.

Please note that the NOI represents the commencement of the formal regulatory assessment process.

#### Level of Assessment

Following submission of the NOI, the EPA Board will determine the class of assessment – that is, whether the project will be assessed as a class 2A, 2B or 2C assessment under the *EMPC Act* and will advise the proponent (and the Council where relevant) of its determination.

Noting the likely nature and scale of the Tamar Lake Concept, the proposal is likely to be designated Class 2C.

Class 2C assessments are projects which are likely to generate a very high level of public interest or which are likely to require Commonwealth approval under the *Environment Protection and Biodiversity Conservation Act* 1999. The EPA Board may also designate as Class 2C those activities which exhibit more than one of the following characteristics:

- Very large in scale or having potential to cause environmental impacts across a wide area.
- Likely to generate a high level of public interest.
- Potential to significantly increase pressures on a species that is threatened at the State level.

 The subject to unusual or complex factors (such as the first of its kind, non-ideal site according to State or national guidelines, exhibits complex technical issues, or involves multiple co-located activities, or multiple municipalities).

For 2C assessments, a Development Proposal and Environmental Management Plan (DPEMP) will be required. The DPEMP provides details of the project, describes the existing environment in the vicinity of the project site, identifies all significant environmental, social and economic effects associated with the project and details the proposed measures to avoid or reduce potential adverse effects. A DPEMP will generally be prepared by an environmental consultant.

The EPA Board has prepared General Guidelines for the preparation of a DPEMP (available on the internet at <u>www.epa.tas.gov.au/assess\_dpemp\_guidelines.html</u>).



Figure 6-1 Tasmanian Assessment Process for a Level 2C Project

#### **Public Consultation**

The EPA Board requires the DPEMP be made available for public inspection, and public submissions, with notice of the availability of the documents and how to make submissions is published in relevant newspapers and on the EPA web site.

The specified public consultation period is 42 days for class 2C assessments.

#### Supplementary Information

Once public submissions have been received and considered, the proponent may be asked to provide a response to all relevant public submissions and issues raised by government agencies.

#### Assessment

Based on previous projects, it is anticipated that the EPA Board will undertake a comprehensive assessment of the following issues:

- Effects on biodiversity and conservation values
- Effects of liquid waste emissions
- Effects on groundwater
- Effects on marine and coastal matters
- Effects of noise emissions
- Effects on local and regional air environment
- Solid and controlled waste management issues
- Dangerous goods management issues
- Environmental effects associated with hazard events
- Environmental effects of infrastructure and off-site ancillary facilities, including the environmental effects of traffic movements (ie noise, dust, vibration) directly related to the activity
- Physical aspects of cultural heritage (aboriginal and European)

It should be noted that indirect effects caused by the project, including those that might arise from activities of persons other than the proponent, should be considered in the assessment. This follows the 30 July 2004 Federal Court ruling on the Commonwealth Environment Protection and Biodiversity Conservation Act 1994 (Nathan Dam Case). The level of assessment of such indirect effects, however, should be appropriate to the degree of significance of the activity to the environment and the likely public interest in the activity (section 74(2) of the EMPC Act).



### 6.2 Commonwealth Assessment Process

In addition to Tasmanian requirements, the Commonwealth Government may also have a role in the environmental assessment and approval of the proposal.

Under the Commonwealth *Environment Protection and Biodiversity Conservation Act* 1999 (EPBC Act), Commonwealth approval is required for an action which has, will have, or is likely to have, a significant impact on a matter of national environmental significance or on Commonwealth land. The matters of national environmental significance are World Heritage Properties, National Heritage Places, wetlands of international importance (Ramsar wetlands), nationally listed threatened species and communities, nationally listed migratory species, Commonwealth marine areas, and nuclear actions.

The Significant Impact Guidelines 1.1 provides guidance to developers regarding the need to refer a project for consideration under the Environment Protection and Biodiversity Conservation Act 1999. The Significant Impact Guidelines 1.1 defines a 'significant impact' as:

.."an impact which is important, notable, or of consequence, having regard to its context or intensity. Whether or not an action is likely to have a significant impact depends upon the sensitivity, value, and quality of the environment which is impacted, and upon the intensity, duration, magnitude and geographic extent of the impacts."

#### Requirement for Assessment

To determine the requirement for an assessment and permit under the EPBC Act, Tamar Lake Inc will be required to develop and submit an EPBC Act referral.

Noting the likely nature and scale of the potential impacts of Tamar Lake Concept and that the Estuary contains a matter of NES and provides substantial habitat and refuge to a number of threatened and migratory species, the proposal is likely to trigger the EPBC Act. Accordingly, the Concept will require a permit from the Minister for the Environment prior to the commencement of project.

The Commonwealth and Tasmanian Governments have signed a bilateral agreement relating to impact assessment under section 45 of the EPBC Act which effectively accredits the State assessment process. Where the proposal has been determined to be a controlled action under the EPBC Act and is being assessed in accordance with the bilateral agreement, the DPEMP should specifically describe the implications of the proposal for the relevant EPBC Act controlling provisions.

If the proposal is being assessed under the bilateral agreement, then the DPEMP should contain a summary table showing that it addresses the matters specified in Schedule 4 of the Commonwealth *Environment Protection and Biodiversity Conservation* Regulations 2000.

### 6.3 Recommendations

This report has identified a number of potential effects of the Concept to the natural values of the Tamar. Some of these may be considered positive, while others may represent constraints that require further consideration and study (e.g. impacts to State Gazetted conservation areas). BMT WBM therefore recommends that Tamar Lake Inc. discuss the Concept and the results of this report with relevant government agencies (identified above) to ascertain the consistency of the Concept with any regulatory instruments or policies and the likely assessment requirements.

# 7 **REFERENCES**

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# **APPENDIX A: NATURAL VALUES SEARCH REPORTS**

# Natural Values Atlas Report

Report number: 47005 Reference: **Requested For:** Timestamp: 12:07:01 PM Monday 26 March 2012 Raptors: buffers 100m and 100m Threatened Flora: buffers 100m and 100m Threatened Fauna: buffers 100m and 100m Conservation Significance Flora: buffers 100m and 100m Conservation Significance Fauna: buffers 100m and 100m Weeds: buffers 100m and 100m TasVeg: buffer 100m Threatened Communities: buffer 100m Geoconservation: buffer 100m Tasmanian Reserve Estate: buffer 100m



The centroid for this query GDA94 492596,5438192 falls within: 1:25000 Map: 4843 BEACONSFIELD



Department of Primary Industries, Parks, Water and Environment



E: 510700 N: 5455270



E: 475525 N: 5414579 E: 510700 N: 5414579



Department of Primary Industries, Parks, Water and Environment



Verified Rec	ords		_					
ld	Species	Common name	Ss	Ns	Observers	Date	Obs type	Position (gda94)
947441	Anogramma leptophylla	annual fern	v		A North (2500)	01-Jan-1874	sight	Point (495612,5437683) +/- 2000m.
227011	Anogramma leptophylla	annual fern	v		M. Garrett (5018)	05-Sep-1996	sight	Point (495812,5437783) +/- 100m.
952442	Aphelia pumilio	dwarf fanwort	r		Timothy J. Wills (2342),Danielle Farmery (6750)	21-Sep-2005	sight	Point (492615,5444369) +/- 10m.
952443	Aphelia pumilio	dwarf fanwort	r		Timothy J. Wills (2342),Danielle Farmery (6750)	21-Sep-2005	sight	Point (493016,5443990) +/- 10m.
952340	Aphelia pumilio	dwarf fanwort	r		Timothy J. Wills (2342),Anahita L. Jungalwalla (6688)	03-Mar-2005	sight	Point (493096,5443984) +/- 10m.
952441	Aphelia pumilio	dwarf fanwort	r		Timothy J. Wills (2342),Danielle Farmery (6750)	21-Sep-2005	sight	Point (492615,5444395) +/- 10m.
952440	Aphelia pumilio	dwarf fanwort	r		Timothy J. Wills (2342),Danielle Farmery (6750)	21-Sep-2005	sight	Point (492575,5444469) +/- 10m.
1089394	Arthropodium strictum	chocolate lily	r		Brian French (6551),James Hill (6623)	28-Oct-2009	sight	Point (506805,5423862) +/- 5m.
1089393	Arthropodium strictum	chocolate lily	r		Brian French (6551),James Hill (6623)	28-Oct-2009	sight	Point (506797,5423851) +/- 5m.
1089392	Arthropodium strictum	chocolate lily	r		Brian French (6551),James Hill (6623)	28-Oct-2009	sight	Point (506475,5424167) +/- 5m.
227802	Arthropodium strictum	chocolate lily	r		A.M. Buchanan (3758)	26-Nov-1997	sight	Point (498112,5434283) +/- 100m.
952397	Bolboschoenus caldwellii	sea clubsedge	r		J.B. Davies (4699)	26-Sep-2005	sight	Point (509585,5417132) +/- 10m.
227443	Bolboschoenus caldwellii	sea clubsedge	r		M.J. Brown (5088)	Oct-1976	sight	Point (509712,5416583) +/- 500m.
953002	Bolboschoenus caldwellii	sea clubsedge	r		Anna Povey (3310)	24-Aug-2006	sight	Point (507269,5422451) +/- 10m.
1021388	Bolboschoenus caldwellii	sea clubsedge	r		Micah Visoiu (5870)	08-Mar-2003	sight	Point (506512,5418683) +/- 300m.
227872	Bolboschoenus caldwellii	sea clubsedge	r		- Unknown (21598)	10-Mar-1961	sight	Point (503412,5425883) +/- 2500m.
930770	Brunonia australis	blue pincushion	r		Craig Hawkins (3520)	28-Nov-2000	sight	Point (504012,5422883) +/- 100m.
299976	Brunonia australis	blue pincushion	r		Craig Hawkins (3520)	28-Nov-2000	sight	Point (504039,5422881) +/- 100m.
947378	Brunonia australis	blue pincushion	r		Anna Povey (3310)	17-Oct-2005	sight	Point (480371,5444273) +/- 10m.
567842	Caladenia caudata	tailed spider-orchid	V	VU	Mary Cameron (3061)	27-Sep-1982?	sight	Point (484112,5446183) +/- 500m.
552260	Caladenia congesta	blacktongue finger-orchid	е		Robert Brown (5415)	01-Jan-1804?	sight	Point (485612,5445683) +/- 5000m.
552169	Caladenia patersonii	patersons spider-orchid	V		Neil Burrows (1792)	01-Oct-1943?	sight	Point (478312,5452083) +/- 100m.
343907	Calystegia sepium	swamp bindweed	r		Richard Schahinger (2944)	07-Feb-2002	sight	Point (506512,5418703) +/- 5m.
928654	Calystegia sepium	swamp bindweed	r		Denis IMorris (6606),M L Baker (9318)	12-Feb-2003	sight	Point (507002,5419183) +/- 700m.
952399	Calystegia sepium	swamp bindweed	r		J.B. Davies (4699)	26-Sep-2005	sight	Point (509570,5417140) +/- 10m.
928655	Calystegia sepium	swamp bindweed	r		Denis IMorris (6606),M L Baker (9318)	12-Feb-2003	sight	Point (507002,5419183) +/- 700m.
1048280	Calystegia sepium	swamp bindweed	r		Mark Wapstra (1621)	18-Jan-2009	sight	Point (509781,5415317) +/- 5m.
1021367	Calystegia sepium	swamp bindweed	r		Micah Visoiu (5870)	15-Feb-2003	sight	Point (506512,5418683) +/- 300m.
1048281	Calystegia sepium	swamp bindweed	r		Mark Wapstra (1621)	18-Jan-2009	sight	Point (509825,5415230) +/- 5m.



ld	Species	Common name	Ss	Ns	Observers	Date	Obs type	Position (gda94)
1048267	Calystegia sepium	swamp bindweed	r		Mark Wapstra (1621)	18-Jan-2009	sight	Point (509839,5415238) +/- 5m.
227794	Calystegia sepium	swamp bindweed	r		S.G. Hannaford (5570)	Feb-1864	sight	Point (497612,5433183) +/- 25000m.
1048277	Calystegia sepium	swamp bindweed	r		Mark Wapstra (1621)	18-Jan-2009	sight	Point (509691,5415283) +/- 5m.
1048279	Calystegia sepium	swamp bindweed	r		Mark Wapstra (1621)	18-Jan-2009	sight	Point (509742,5415312) +/- 5m.
1048278	Calystegia sepium	swamp bindweed	r		Mark Wapstra (1621)	18-Jan-2009	sight	Point (509719,5415297) +/- 5m.
227176	Carex gunniana	mountain sedge	r		B. Robinson (3850)	24-Dec-1981	sight	Point (501112,5430183) +/- 1500m.
930631	Chorizandra enodis	black bristlesedge	е		A North (2500)	28-Jun-2001	sight	Point (484312,5451483) +/- 100m.
930632	Chorizandra enodis	black bristlesedge	е		A North (2500)	28-Jun-2001	sight	Point (484612,5451183) +/- 100m.
300361	Chorizandra enodis	black bristlesedge	е		A North (2500)	02-Sep-2001	sight	Point (484212,5451833) +/- 100m.
300362	Chorizandra enodis	black bristlesedge	е		A North (2500)	02-Sep-2001	sight	Point (484312,5451533) +/- 100m.
929774	Cynoglossum australe	coast houndstongue	r		Anna Povey (3310)	07-Apr-2004	sight	Point (483612,5452933) +/- 50m.
939313	Epacris exserta	south esk heath	е	PEN	R Brown (2096)	01-Jan-1804	sight	Point (486130,5442895) +/- 11500m.
502709	Glycine microphylla	small-leaf glycine	v		Mike Askey- Doran (1624)	1990	sight	Point (484612,5445993) +/- 100m.
1201876	Glycine microphylla	small-leaf glycine	v		Anna Povey (3310)	14-Dec-2010	sight	Point (492168,5437440) +/- 10m.
226728	Glycine microphylla	small-leaf glycine	v		F. Coates (4246)	18-Nov-1992	sight	Point (484612,5446083) +/- 100m.
227009	Hibbertia virgata	twiggy guineaflower	r		P. Tracy (5326)	12-Nov-1962	sight	Point (495412,5432983) +/- 500m.
999005	Hypoxis vaginata	sheathing yellowstar	r		J Davies (18053)	20-Sep-2007	sight	Point (486426,5446284) +/- 15m.
999000	Hypoxis vaginata	sheathing yellowstar	r		J Davies (18053)	18-Sep-2007	sight	Point (495544,5441835) +/- 15m.
999004	Hypoxis vaginata	sheathing yellowstar	r		J Davies (18053)	20-Sep-2007	sight	Point (486460,5446297) +/- 15m.
1021533	Hypoxis vaginata	sheathing yellowstar	r		Kirsten Leggett (6985),F Schiefelbein (18375)	22-Aug-2007	sight	Point (486191,5446332) +/- 10m.
998997	Hypoxis vaginata	sheathing yellowstar	r		J Davies (18053)	18-Sep-2007	sight	Point (486073,5446396) +/- 15m.
999003	Hypoxis vaginata	sheathing yellowstar	r		J Davies (18053)	20-Sep-2007	sight	Point (486352,5446449) +/- 15m.
999006	Hypoxis vaginata	sheathing yellowstar	r		J Davies (18053)	20-Sep-2007	sight	Point (486390,5446267) +/- 15m.
1021532	Hypoxis vaginata	sheathing yellowstar	r		Kirsten Leggett (6985),F Schiefelbein (18375)	22-Aug-2007	sight	Point (486164,5446319) +/- 10m.
952221	Hypoxis vaginata var. brevistigmata	sheathing yellowstar	pr		Timothy J. Wills (2342),Anahita L. Jungalwalla (6688)	03-Mar-2005	sight	Point (492929,5444012) +/- 10m.
980691	Hypoxis vaginata var. brevistigmata	sheathing yellowstar	pr		Mark Wapstra (1621)	11-Oct-2007	sight	Point (494659,5442611) +/- 5m.
980688	Hypoxis vaginata var. brevistigmata	sheathing yellowstar	pr		Mark Wapstra (1621)	11-Oct-2007	sight	Point (494621,5442566) +/- 5m.
980696	Hypoxis vaginata var. brevistigmata	sheathing yellowstar	pr		Mark Wapstra (1621)	11-Oct-2007	sight	Point (494615,5442744) +/- 5m.
952333	Hypoxis vaginata var. brevistigmata	sheathing yellowstar	pr		Timothy J. Wills (2342),Anahita L. Jungalwalla (6688)	04-Mar-2005	sight	Point (492574,5444452) +/- 10m.
952332	Hypoxis vaginata var. brevistigmata	sheathing yellowstar	pr		Timothy J. Wills (2342),Anahita L. Jungalwalla (6688)	04-Mar-2005	sight	Point (492575,5444464) +/- 10m.



Id	Species	Common name	Ss	Ns	Observers	Date	Obs type	Position (gda94)
952334	Hypoxis vaginata var. brevistigmata	sheathing yellowstar	pr		Timothy J. Wills (2342),Anahita L. Jungalwalla (6688)	04-Mar-2005	sight	Point (492601,5444393) +/- 10m.
952335	Hypoxis vaginata var. brevistigmata	sheathing yellowstar	pr		Timothy J. Wills (2342),Anahita L. Jungalwalla (6688)	04-Mar-2005	sight	Point (492725,5444441) +/- 10m.
952338	Hypoxis vaginata var. brevistigmata	sheathing yellowstar	pr		Timothy J. Wills (2342),Anahita L. Jungalwalla (6688)	04-Mar-2005	sight	Point (492987,5443973) +/- 10m.
952339	Hypoxis vaginata var. brevistigmata	sheathing yellowstar	pr		Timothy J. Wills (2342),Anahita L. Jungalwalla (6688)	03-Mar-2005	sight	Point (493096,5443984) +/- 10m.
952341	Hypoxis vaginata var. brevistigmata	sheathing yellowstar	pr		Timothy J. Wills (2342),Anahita L. Jungalwalla (6688)	03-Mar-2005	sight	Point (493197,5443703) +/- 10m.
952343	Hypoxis vaginata var. brevistigmata	sheathing yellowstar	pr		Timothy J. Wills (2342),Anahita L. Jungalwalla (6688)	03-Mar-2005	sight	Point (493286,5443664) +/- 10m.
952601	Hypoxis vaginata var. brevistigmata	sheathing yellowstar	pr		Timothy J. Wills (2342)	28-Sep-2005	sight	Point (493400,5443720) +/- 10m.
952602	Hypoxis vaginata var. brevistigmata	sheathing yellowstar	pr		Timothy J. Wills (2342)	28-Sep-2005	sight	Point (493480,5443790) +/- 10m.
980686	Hypoxis vaginata var. brevistigmata	sheathing yellowstar	pr		Mark Wapstra (1621)	11-Oct-2007	sight	Point (494552,5442586) +/- 5m.
980697	Hypoxis vaginata var. brevistigmata	sheathing yellowstar	pr		Mark Wapstra (1621)	11-Oct-2007	sight	Point (494576,5442708) +/- 5m.
939550	Hypoxis vaginata var. vaginata	sheathing yellowstar	pr		R.C. Gunn (5474)	16-Sep-1837	sight	Point (494052,5441423) +/- 1000m.
952096	Hypoxis vaginata var. vaginata	sheathing yellowstar	pr		J.B. Davies (4699),W Farmer (10863)	21-Sep-2006	sight	Point (484750,5446070) +/- 15m.
952097	Hypoxis vaginata var. vaginata	sheathing yellowstar	pr		J.B. Davies (4699),W Farmer (10863)	21-Sep-2006	sight	Point (486460,5446288) +/- 15m.
952098	Hypoxis vaginata var. vaginata	sheathing yellowstar	pr		J.B. Davies (4699),W Farmer (10863)	21-Sep-2006	sight	Point (484772,5446089) +/- 15m.
952395	Juncus amabilis	gentle rush	r		J.B. Davies (4699)	26-Sep-2005	sight	Point (509619,5415360) +/- 10m.
952633	Juncus amabilis	gentle rush	r		J.B. Davies (4699)	21-Sep-2005	sight	Point (509560,5416140) +/- 10m.
952632	Juncus amabilis	gentle rush	r		Timothy J. Wills (2342)	27-Sep-2005	sight	Point (509550,5416270) +/- 10m.
952398	Juncus amabilis	gentle rush	r		J.B. Davies (4699)	26-Sep-2005	sight	Point (509570,5417140) +/- 10m.
227804	Lepidium pseudotasmanicum	shade peppercress	r		R. Verbeeten (6491)	20-Nov-2000	sight	Point (498212,5430883) +/- 100m.
341440	Limonium australe	yellow sea-lavender	r		Allison Woolley (3222)	25-Sep-2000	sight	Point (489412,5444183) +/- 100m.
227062	Limonium australe	yellow sea-lavender	r		- Unknown (21598)	10-Nov-1975	sight	Point (496812,5439883) +/- 300m.
940226	Limonium australe	yellow sea-lavender	r		R Schahinger (6868)	17-Feb-2004	sight	Point (500007,5429616) +/- 5m.
940229	Limonium australe	yellow sea-lavender	r		R Schahinger (6868)	17-Feb-2004	sight	Point (497824,5433171) +/- 5m.
925952	Limonium australe	yellow sea-lavender	r		Richard Schahinger (2944)	17-Feb-2004	sight	Point (497824,5433171) +/- 5m.
344634	Limonium australe	yellow sea-lavender	r		- Unknown (21598)	29-Apr-2000	sight	Point (498012,5430883) +/- 50m.
972430	Limonium australe	yellow sea-lavender	r		Micah Visoiu (5870)	08-Jun-2007	sight	Point (499994,5429604) +/- 100m.
925953	Limonium australe	yellow sea-lavender	r		Richard Schahinger (2944)	17-Feb-2004	sight	Point (500007,5429616) +/- 5m.
227824	Limonium australe	yellow sea-lavender	r		A.M. Buchanan (3758)	02-Jun-1995	sight	Point (499412,5429183) +/- 100m.



ld	Species	Common name	Ss	Ns	Observers	Date	Obs type	Position (gda94)
227073	Limonium australe	yellow sea-lavender	r		T.E. Burns (5652)	18-Feb-1961	sight	Point (497812,5433083) +/- 300m.
227532	Lotus australis	australian trefoil	r		Robert Brown (5415)	Jan-1804	sight	Point (484112,5446683) +/- 8000m.
1021371	Lycopus australis	australian gypsywort	е		Micah Visoiu (5870)	19-Feb-2003	sight	Point (506512,5418683) +/- 300m.
343908	Lycopus australis	australian gypsywort	e		Richard Schahinger (2944)	07-Feb-2002	sight	Point (506512,5418703) +/- 5m.
552544	Orthoceras strictum	horned orchid	r		- Unknown (21598)	01-Jan-1942?	sight	Point (497812,5430383) +/- 100m.
980687	Pimelea flava subsp. flava	yellow riceflower	r		Mark Wapstra (1621)	11-Oct-2007	sight	Point (494612,5442581) +/- 5m.
952094	Pimelea flava subsp. flava	yellow riceflower	r		J.B. Davies (4699),W Farmer (10863)	06-Dec-2006	sight	Point (495574,5441981) +/- 15m.
980692	Pimelea flava subsp. flava	yellow riceflower	r		Mark Wapstra (1621)	11-Oct-2007	sight	Point (494808,5442613) +/- 5m.
226904	Pimelea flava subsp. flava	yellow riceflower	r		- Unknown (21598)	01-Jan-1600?	sight	Point (491012,5445083) +/- 100m.
980682	Pimelea flava subsp. flava	yellow riceflower	r		Mark Wapstra (1621)	11-Oct-2007	sight	Point (494537,5442652) +/- 5m.
980684	Pimelea flava subsp. flava	yellow riceflower	r		Mark Wapstra (1621)	11-Oct-2007	sight	Point (494542,5442606) +/- 5m.
980685	Pimelea flava subsp. flava	yellow riceflower	r		Mark Wapstra (1621)	11-Oct-2007	sight	Point (494552,5442586) +/- 5m.
980689	Pimelea flava subsp. flava	yellow riceflower	r		Mark Wapstra (1621)	11-Oct-2007	sight	Point (494631,5442567) +/- 5m.
980690	Pimelea flava subsp. flava	yellow riceflower	r		Mark Wapstra (1621)	11-Oct-2007	sight	Point (494659,5442611) +/- 5m.
1201878	Poa mollis	soft tussockgrass	r		Anna Povey (3310)	14-Dec-2010	sight	Point (492201,5437443) +/- 10m.
227236	Prostanthera rotundifolia	roundleaf mintbush	v		A.M. Buchanan (3758)	18-Dec-1982	sight	Point (505612,5424583) +/- 500m.
227584	Pultenaea mollis	soft bushpea	v		R.C. Gunn (5474)	21-Oct-1842	sight	Point (486112,5446183) +/- 600m.
999043	Ranunculus sessiliflorus var. sessiliflorus	rockplate buttercup	r		J Davies (18053)	19-Sep-2007	sight	Point (495856,5441811) +/- 10m.
980683	Ranunculus sessiliflorus var. sessiliflorus	rockplate buttercup	r		Mark Wapstra (1621)	11-Oct-2007	sight	Point (494537,5442652) +/- 5m.
1048261	Rumex bidens	mud dock	r		Mark Wapstra (1621)	18-Jan-2009	sight	Point (509781,5415230) +/- 5m.
951856	Rumex bidens	mud dock	r		M Wapstra (1613)	13-Apr-2006	sight	Point (506476,5418674) +/- 10m.
1021377	Rumex bidens	mud dock	r		Micah Visoiu (5870)	25-Feb-2003	sight	Point (506512,5418683) +/- 300m.
300441	Rumex bidens	mud dock	r		Micah Visoiu (5870)	12-Jan-2004	sight	Point (506522,5418703) +/- 20m.
939464	Ruppia megacarpa	largefruit seatassel	r		R.C. Gunn (5474)	19-Jan-1843	sight	Point (500400,5425570) +/- 1000m.
777488	Scutellaria humilis	dwarf skullcap	r		Alexander McGregor Buchanan (1467)	11-Oct-1993?	sight	Point (484562,5446683) +/- 162m.
777430	Scutellaria humilis	dwarf skullcap	r		Alexander McGregor Buchanan (1467)	11-Oct-1993?	sight	Point (483362,5445958) +/- 517m.
226724	Scutellaria humilis	dwarf skullcap	r		A.M. Buchanan (3758)	28-Sep-1993	sight	Point (484312,5445683) +/- 100m.
785638	Scutellaria humilis	dwarf skullcap	r		- Unknown (21598)	11-Oct-1993?	sight	Point (484512,5446583) +/- 50m.
226767	Scutellaria humilis	dwarf skullcap	r		A.M. Buchanan (3758)	28-Sep-1993	sight	Point (485512,5446783) +/- 100m.
939357	Solanum opacum	greenberry nightshade	е		R.C. Gunn (5474)	05-Jul-1843	sight	Point (486123,5446595) +/- 700m.
300867	Solanum opacum	greenberry nightshade	е		R. Gunn (5434)	01-Jan-1600?	sight	Point (486123,5446595) +/- 1000m.
925757	Solanum opacum	greenberry nightshade	е		R Gunn (2130)	01-Jan-1600	sight	Point (486123,5446595) +/- 1000m.
952609	Stylidium despectum	small triggerplant	r		Timothy J. Wills (2342)	24-Oct-2005	sight	Point (492960,5443990) +/- 10m.



ld	Species	Common name	Ss	Ns	Observers	Date	Obs type	Position (gda94)
952222	Stylidium despectum	small triggerplant	r		Timothy J. Wills (2342),Anahita L. Jungalwalla (6688)	03-Mar-2005	sight	Point (492929,5444012) +/- 10m.
999044	Teucrium corymbosum	forest germander	r		J Davies (18053)	19-Sep-2007	sight	Point (495671,5441734) +/- 10m.
1068682	Thelymitra bracteata	leafy sun-orchid	е		R. Bates (5413)	1987	sight	Point (485476,5449464) +/- 10000m.
952220	Tricoryne elatior	yellow rushlily	v		Timothy J. Wills (2342),Anahita L. Jungalwalla (6688)	03-Mar-2005	sight	Point (492929,5444012) +/- 10m.
1159837	Veronica plebeia	trailing speedwell	r		Anna Povey (3310)	04-Sep-2009	sight	Point (480563,5443388) +/- 10m.
980727	Veronica plebeia	trailing speedwell	r		Mark Wapstra (1621)	12-Oct-2007	sight	Point (492398,5444665) +/- 5m.
980699	Veronica plebeia	trailing speedwell	r		Mark Wapstra (1621)	11-Oct-2007	sight	Point (494521,5442834) +/- 5m.
980698	Veronica plebeia	trailing speedwell	r		Mark Wapstra (1621)	11-Oct-2007	sight	Point (494545,5442816) +/- 5m.
1201877	Veronica plebeia	trailing speedwell	r		Anna Povey (3310)	14-Dec-2010	sight	Point (492168,5437440) +/- 10m.
980681	Veronica plebeia	trailing speedwell	r		Mark Wapstra (1621)	11-Oct-2007	sight	Point (494043,5442960) +/- 5m.
980680	Veronica plebeia	trailing speedwell	r		Mark Wapstra (1621)	11-Oct-2007	sight	Point (493989,5442979) +/- 5m.
1098359	Veronica plebeia	trailing speedwell	r		Evi Kroggel (21181),Natalie Sullivan (21182)	07-Sep-2009	sight	Point (493407,5436025) +/- 20m.
980700	Veronica plebeia	trailing speedwell	r		Mark Wapstra (1621)	11-Oct-2007	sight	Point (494511,5442833) +/- 5m.
300842	Xanthorrhoea aff. bracteata	shiny grasstree	pv	PEN	- Unknown (21598)	2003	sight	Point (481968,5444138) +/- 1000m.
948643	Xanthorrhoea bracteata	shiny grasstree	V	EN	Anna Povey (3310)	17-Oct-2005	sight	Point (480432,5444362) +/- 10m.

**Unverified Records** 

For more information about threatened species, please contact the Manager, Threatened Species Section.

Telephone: (03) 6233 8759

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Address: GPO Box 44, Hobart, Tasmania, Australia, 7000





E: 510700 N: 5455270





E: 510700 N: 5414579



Department of Primary Industries, Parks, Water and Environment





Department of Primary Industries, Parks, Water and Environment

Verified Rec	ords	Common namo	Sc.	Nic	Obsorvors	Dato	Ohs typo	Position (ada04)
949349	Accipiter	grev goshawk	e	1112	David lames	01-lan-2005	nest	Point (497792.5429933) +/-
	novaehollandiae		0		(3249)		11051	Om.
718684	Botaurus poiciloptilus	australasian bittern		EN	- Unknown (21598)	31-Aug-1979?	sight	Point (479113,5452129) +/- 18500m.
723865	Botaurus poiciloptilus	australasian bittern		EN	- Unknown (21598)	31-Aug-1980?	sight	Point (479113,5452129) +/- 18500m.
524881	Dasyurus maculatus	spotted-tailed quoll	r	VU	Craig Hawkins (3520)	04-Jul-1998	sight	Point (480512,5443983) +/- 200m.
856060	Dasyurus maculatus subsp. maculatus	spotted-tailed quoll	r	VU	- Unknown (21598)	06-Feb-1989?	sight	Point (495612,5441683) +/- 500m.
895697	Dasyurus maculatus subsp. maculatus	spotted-tailed quoll	r	VU	R Baxter (2006)	18-Oct-1975?	sight	Point (495918,5441056) +/- 3000m.
358924	Dasyurus maculatus subsp. maculatus	spotted-tailed quoll	r	VU	Menna Jones (8901)	01-Jan-1996?	sight	Point (500312,5426183) +/- 100m.
882988	Dasyurus maculatus subsp. maculatus	spotted-tailed quoll	r	VU	Nick Mooney (16443)	01-Apr-1988?	sight	Point (484512,5450883) +/- 100m.
882989	Dasyurus maculatus subsp. maculatus	spotted-tailed quoll	r	VU	Nick Mooney (16443)	01-Aug-1991?	sight	Point (485412,5449483) +/- 100m.
664018	Diomedea cauta subsp. cauta	shy albatross	pv	PVU	- Unknown (21598)	31-Aug-1977?	sight	Point (479113,5452129) +/- 18500m.
709083	Haliaeetus leucogaster	white-bellied sea-eagle	v		- Unknown (21598)	31-May-1980?	sight	Point (479113,5452129) +/- 18500m.
696818	Haliaeetus leucogaster	white-bellied sea-eagle	v		- Unknown (21598)	31-May-1979?	sight	Point (479113,5452129) +/- 18500m.
664140	Haliaeetus leucogaster	white-bellied sea-eagle	v		- Unknown (21598)	31-Dec-1976?	sight	Point (479113,5452129) +/- 18500m.
723652	Haliaeetus leucogaster	white-bellied sea-eagle	v		- Unknown (21598)	31-Aug-1980?	sight	Point (479113,5452129) +/- 18500m.
534307	Haliaeetus leucogaster	white-bellied sea-eagle	v		- Unknown (21598)	01-Jan-1600?	sight	Point (486812,5445883) +/- 100m.
949262	Haliaeetus leucogaster	white-bellied sea-eagle	v		Nick Mooney (16443)	1980s	nest	Point (486863,5445934) +/- 0m.
524664	Haliaeetus leucogaster	white-bellied sea-eagle	v		- Unknown (21598)	01-Jan-1600?	sight	Point (486312,5443183) +/- 100m.
998699	Haliaeetus leucogaster	white-bellied sea-eagle	v		V Nermut (11932)	08-Apr-1996	sight	Point (483000,5446000) +/- 1000m.
534579	Haliaeetus leucogaster	white-bellied sea-eagle	v		Craig Hawkins (3520)	28-Jul-1997	sight	Point (493612,5443183) +/- 200m.
524657	Haliaeetus leucogaster	white-bellied sea-eagle	v		- Unknown (21598)	01-Jan-1600?	sight	Point (486812,5439983) +/- 100m.
949261	Haliaeetus leucogaster	white-bellied sea-eagle	v		Nick Mooney (16443)	1980s	nest	Point (486965,5440238) +/- 0m.
1073183	Haliaeetus leucogaster	white-bellied sea-eagle	v		Anna Povey (3310)	09-Jun-2004	nest	Point (486695,5442620) +/- 0m.
534301	Haliaeetus leucogaster	white-bellied sea-eagle	v		- Unknown (21598)	01-Jan-1600?	sight	Point (500612,5430683) +/- 100m.
603733	Haliaeetus leucogaster	white-bellied sea-eagle	v		Ralph Cooper (2107)	10-May-1997	sight	Point (498612,5427383) +/- 800m.
534256	Haliaeetus leucogaster	white-bellied sea-eagle	v		- Unknown (21598)	01-Jan-1600?	sight	Point (498412,5427483) +/- 100m.
949358	Haliaeetus leucogaster	white-bellied sea-eagle	v		Nick Mooney (16443)	1980s	nest	Point (498450,5427268) +/- 0m.
949360	Haliaeetus leucogaster	white-bellied sea-eagle	v		Nick Mooney (16443)	1980s	nest	Point (498535,5427548) +/- 0m.
949362	Haliaeetus leucogaster	white-bellied sea-eagle	v		Nick Mooney (16443)	1980s	nest	Point (498586,5427554) +/- 0m.
613081	Haliaeetus leucogaster	white-bellied sea-eagle	v		Ralph Cooper (2107)	07-May-1997	sight	Point (498612,5427383) +/- 800m.
534257	Haliaeetus leucogaster	white-bellied sea-eagle	v		- Unknown (21598)	01-Jan-1600?	sight	Point (498712,5427383) +/- 100m.
998701	Haliaeetus leucogaster	white-bellied sea-eagle	V		V Nermut (11932)	20-Aug-1995	sight	Point (498000,5427000) +/- 1000m.
949320	Haliaeetus leucogaster	white-bellied sea-eagle	V		Nick Mooney (16443)	1980s	nest	Point (494213,5437484) +/- 0m.
534304	Haliaeetus leucogaster	white-bellied sea-eagle	V		- Unknown (21598)	01-Jan-1600?	sight	Point (494512,5437483) +/- 100m.
949325	Haliaeetus leucogaster	white-bellied sea-eagle	v		Nick Mooney (16443)	1980s	nest	Point (494550,5437470) +/- 0m.



ld	Species	Common name	Ss	Ns	Observers	Date	Obs type	Position (gda94)
534305	Haliaeetus leucogaster	white-bellied sea-eagle	v		- Unknown (21598)	01-Jan-1600?	sight	Point (494412,5437183) +/- 100m.
998700	Haliaeetus leucogaster	white-bellied sea-eagle	v		V Nermut (11932)	24-Jul-1994	sight	Point (495000,5437000) +/- 1000m.
524658	Haliaeetus leucogaster	white-bellied sea-eagle	v		- Unknown (21598)	01-Jan-1600?	sight	Point (494212,5437483) +/- 100m.
321955	Haliaeetus leucogaster	white-bellied sea-eagle	v		Peter Duckworth (1926)	09-Jul-1996	sight	Point (509112,5417183) +/- 100m.
598265	Haliaeetus leucogaster	white-bellied sea-eagle	v		Peter Duckworth (1926)	09-Jul-1996	sight	Point (509112,5417183) +/- 400m.
998652	Haliaeetus leucogaster	white-bellied sea-eagle	v		Ralph Cooper (2107)	23-Sep-1993	sight	Point (504812,5423683) +/- 100m.
998648	Haliaeetus leucogaster	white-bellied sea-eagle	v		Ralph Cooper (2107)	29-Sep-1993	sight	Point (504812,5423683) +/- 100m.
998649	Haliaeetus leucogaster	white-bellied sea-eagle	v		Ralph Cooper (2107)	11-Sep-1993	sight	Point (504812,5423683) +/- 100m.
998639	Haliaeetus leucogaster	white-bellied sea-eagle	v		Ralph Cooper (2107)	07-Jun-1992	sight	Point (504812,5423683) +/- 100m.
998646	Haliaeetus leucogaster	white-bellied sea-eagle	v		Ralph Cooper (2107)	17-Sep-1993	sight	Point (504812,5423683) +/- 100m.
998650	Haliaeetus leucogaster	white-bellied sea-eagle	v		Ralph Cooper (2107)	14-Sep-1993	sight	Point (504812,5423683) +/- 100m.
998651	Haliaeetus leucogaster	white-bellied sea-eagle	v		Ralph Cooper (2107)	22-Sep-1993	sight	Point (504812,5423683) +/- 100m.
1045938	Haliaeetus leucogaster	white-bellied sea-eagle	v		Ralph Cooper (2107)	18-Nov-1989	sight	Point (504700,5423500) +/- 100m.
998643	Haliaeetus leucogaster	white-bellied sea-eagle	v		Ralph Cooper (2107)	28-Sep-1992	sight	Point (504812,5423683) +/- 100m.
998644	Haliaeetus leucogaster	white-bellied sea-eagle	v		Ralph Cooper (2107)	08-Jun-1993	sight	Point (504812,5423683) +/- 100m.
710160	Lathamus discolor	swift parrot	е	EN	- Unknown (21598)	31-Aug-1979?	sight	Point (479113,5452129) +/- 18500m.
877100	Lathamus discolor	swift parrot	е	EN	Ralph Cooper (2107)	29-Oct-1995?	sight	Point (503012,5422883) +/- 300m.
899020	Lathamus discolor	swift parrot	е	EN	N Broth (1775)	07-May-1978?	sight	Point (491720,5444753) +/- 1850m.
873850	Lathamus discolor	swift parrot	е	EN	Ralph Cooper (2107)	30-Apr-1991?	sight	Point (503812,5422783) +/- 50m.
873847	Lathamus discolor	swift parrot	е	EN	Ralph Cooper (2107)	06-May-1991?	sight	Point (503812,5422783) +/- 50m.
873849	Lathamus discolor	swift parrot	е	EN	Ralph Cooper (2107)	18-Apr-1991?	sight	Point (503812,5422783) +/- 50m.
873852	Lathamus discolor	swift parrot	е	EN	Ralph Cooper (2107)	24-Sep-1994?	sight	Point (504012,5422683) +/- 50m.
873856	Lathamus discolor	swift parrot	е	EN	Ralph Cooper (2107)	20-Sep-1994?	sight	Point (504012,5422683) +/- 50m.
877098	Lathamus discolor	swift parrot	е	EN	Ralph Cooper (2107)	31-Oct-1995?	sight	Point (504012,5422883) +/- 300m.
877956	Lathamus discolor	swift parrot	е	EN	Ralph Cooper (2107)	19-Sep-1994?	sight	Point (504012,5422883) +/- 50m.
877925	Lathamus discolor	swift parrot	е	EN	Ralph Cooper (2107)	28-Sep-1992?	sight	Point (504012,5422683) +/- 50m.
873858	Lathamus discolor	swift parrot	е	EN	Ralph Cooper (2107)	21-Dec-1994?	sight	Point (504012,5422683) +/- 50m.
873859	Lathamus discolor	swift parrot	е	EN	Ralph Cooper (2107)	29-Dec-1994?	sight	Point (504012,5422683) +/- 50m.
877934	Lathamus discolor	swift parrot	е	EN	Ralph Cooper (2107)	05-Dec-1994?	sight	Point (504012,5422683) +/- 50m.
877097	Lathamus discolor	swift parrot	е	EN	Ralph Cooper (2107)	18-Oct-1995?	sight	Point (504012,5422883) +/- 300m.
1092073	Litoria raniformis	green and golden frog	v	VU	A Ferguson (21006)	19-Feb-2010	sight	Point (503881,5422492) +/- 30m.
1091128	Litoria raniformis	green and golden frog	v	VU	Lisa Clarkson (11442)	29-Oct-2009	audio	Point (505312,5423383) +/- 100m.
1091116	Litoria raniformis	green and golden frog	v	VU	Lisa Clarkson (11442)	11-Dec-2008	sight	Point (500212,5426283) +/- 100m.
1066193	Litoria raniformis	green and golden frog	v	VU	Lisa Clarkson (11442)	24-May-2008	sight	Point (500173,5426273) +/- 10m.



ld	Species	Common name	Ss	Ns	Observers	Date	Obs type	Position (gda94)
1066194	Litoria raniformis	green and golden frog	v	VU	Lisa Clarkson (11442)	24-May-2008	sight	Point (500187,5429594) +/- 100m.
1091115	Litoria raniformis	green and golden frog	v	VU	Lisa Clarkson (11442)	11-Nov-2008	sight	Point (502912,5426283) +/- 100m.
1091114	Litoria raniformis	green and golden frog	v	VU	Lisa Clarkson (11442)	11-Nov-2008	sight	Point (502912,5426183) +/- 100m.
1066192	Litoria raniformis	green and golden frog	v	VU	Lisa Clarkson (11442)	24-May-2008	sight	Point (502900,5426180) +/- 10m.
700094	Macronectes giganteus	southern giant-petrel	v	EN	- Unknown (21598)	29-Sep-1979?	sight	Point (479113,5452129) +/- 18500m.
700035	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	11-Oct-1979?	sight	Point (479113,5452129) +/- 18500m.
323051	Numenius madagascariensis	eastern curlew	е		Peter Duckworth (1926)	16-Apr-1995	sight	Point (484112,5450183) +/- 100m.
695390	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	31-Aug-1979?	sight	Point (479113,5452129) +/- 18500m.
732297	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	31-Aug-1980?	sight	Point (479113,5452129) +/- 18500m.
624294	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	07-Dec-1981?	sight	Point (479113,5452129) +/- 18500m.
633020	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	11-Sep-1981?	sight	Point (479113,5452129) +/- 18500m.
708730	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	11-Sep-1979?	sight	Point (479113,5452129) +/- 18500m.
731399	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	28-Feb-1981?	sight	Point (479113,5452129) +/- 18500m.
669380	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	06-Apr-1979?	sight	Point (479113,5452129) +/- 18500m.
717647	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	31-May-1980?	sight	Point (479113,5452129) +/- 18500m.
710453	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	29-Feb-1980?	sight	Point (479113,5452129) +/- 18500m.
639180	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	28-Feb-1978?	sight	Point (479113,5452129) +/- 18500m.
700346	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	09-Jan-1980?	sight	Point (479113,5452129) +/- 18500m.
687901	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	02-Jun-1979?	sight	Point (479113,5452129) +/- 18500m.
998812	Numenius madagascariensis	eastern curlew	е		Ralph Cooper (2107)	26-Apr-1996	sight	Point (483900,5452000) +/- 1000m.
649463	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	19-Mar-1977?	sight	Point (479113,5452129) +/- 18500m.
700547	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	28-Dec-1980?	sight	Point (479113,5452129) +/- 18500m.
708712	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	29-Sep-1979?	sight	Point (479113,5452129) +/- 18500m.
658205	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	13-Jan-1977?	sight	Point (479113,5452129) +/- 18500m.
669024	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	31-Aug-1978?	sight	Point (479113,5452129) +/- 18500m.
709104	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	05-Apr-1980?	sight	Point (479113,5452129) +/- 18500m.
709155	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	07-Dec-1979?	sight	Point (479113,5452129) +/- 18500m.
627667	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	08-Sep-1977?	sight	Point (479113,5452129) +/- 18500m.
615312	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	31-May-1981?	sight	Point (479113,5452129) +/- 18500m.
709024	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	22-Dec-1979?	sight	Point (479113,5452129) +/- 18500m.
670223	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	30-Nov-1978?	sight	Point (479113,5452129) +/- 18500m.
687962	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	08-Jun-1979?	sight	Point (479113,5452129) +/- 18500m.
655896	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	31-May-1978?	sight	Point (479113,5452129) +/- 18500m.
722834	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	26-Dec-1980?	sight	Point (479113,5452129) +/- 18500m.
679335	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	28-Feb-1979?	sight	Point (479113,5452129) +/- 18500m.



ld	Species	Common name	Ss	Ns	Observers	Date	Obs type	Position (gda94)
687162	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	31-May-1979?	sight	Point (479113,5452129) +/- 18500m.
623146	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	27-Jan-1981?	sight	Point (479113,5452129) +/- 18500m.
322138	Numenius madagascariensis	eastern curlew	е		Peter Duckworth (1926)	15-Dec-1985	sight	Point (484112,5450183) +/- 100m.
322137	Numenius madagascariensis	eastern curlew	е		Peter Duckworth (1926)	05-Mar-1995	sight	Point (484112,5450183) +/- 100m.
607406	Numenius madagascariensis	eastern curlew	e		Peter Duckworth (1926)	16-Apr-1995	sight	Point (484112,5450183) +/- 1000m.
604445	Numenius madagascariensis	eastern curlew	е		Peter Duckworth (1926)	09-Sep-2001	sight	Point (484112,5450183) +/- 1000m.
598150	Numenius madagascariensis	eastern curlew	е		Peter Duckworth (1926)	15-Dec-1985	sight	Point (484112,5450183) +/- 1000m.
607405	Numenius madagascariensis	eastern curlew	е		Peter Duckworth (1926)	05-Mar-1995	sight	Point (484112,5450183) +/- 1000m.
732544	Numenius madagascariensis	eastern curlew	е		- Unknown (21598)	31-Dec-1980?	sight	Point (479113,5452129) +/- 18500m.
664451	Pachyptila turtur subsp. subantarctica	fairy prion southern sub- species	е	VU	- Unknown (21598)	15-Jul-1978?	sight	Point (479113,5452129) +/- 18500m.
700004	Pachyptila turtur subsp. subantarctica	fairy prion southern sub- species	е	VU	- Unknown (21598)	14-Sep-1979?	sight	Point (479113,5452129) +/- 18500m.
664042	Pachyptila turtur subsp. subantarctica	fairy prion southern sub- species	е	VU	- Unknown (21598)	31-Aug-1977?	sight	Point (479113,5452129) +/- 18500m.
655267	Pachyptila turtur subsp. subantarctica	fairy prion southern sub- species	е	VU	- Unknown (21598)	27-Aug-1978?	sight	Point (479113,5452129) +/- 18500m.
687910	Pachyptila turtur subsp. subantarctica	fairy prion southern sub- species	е	VU	- Unknown (21598)	12-Jul-1979?	sight	Point (479113,5452129) +/- 18500m.
669799	Pachyptila turtur subsp. subantarctica	fairy prion southern sub- species	е	VU	- Unknown (21598)	26-Aug-1978?	sight	Point (479113,5452129) +/- 18500m.
1238843	Perameles gunnii	eastern barred bandicoot		VU	Dean Heinze (22683)	26-May-2009	sight	Point (497770,5426421) +/- 10m.
895083	Perameles gunnii	eastern barred bandicoot		VU	C Lose (5440)	02-Dec-1974?	sight	Point (480532,5444732) +/- 1850m.
892800	Perameles gunnii	eastern barred bandicoot		VU	J Hemsle (1147)	16-Feb-1968?	sight	Point (486130,5442894) +/- 18500m.
1238830	Perameles gunnii	eastern barred bandicoot		VU	Dean Heinze (22683)	08-May-2009	sight	Point (497839,5429451) +/- 10m.
742807	Perameles gunnii	eastern barred bandicoot		VU	Greg Hocking (7572)	05-Jan-1993	sight	Point (502829,5421729) +/- 1183m.
895165	Perameles gunnii	eastern barred bandicoot		VU	K Little (1403)	03-Dec-1977?	sight	Point (505690,5424403) +/- 1850m.
1238882	Perameles gunnii	eastern barred bandicoot		VU	Shannon Troy (12201)	01-Apr-2008	sight	Point (495122,5433118) +/- 10m.
532179	Podiceps cristatus	great crested grebe	v		- Unknown (21598)	01-Jan-1600?	sight	Point (506612,5423683) +/- 100m.
607460	Podiceps cristatus	great crested grebe	v		Peter Duckworth (1926)	01-Jan-1983	sight	Point (502112,5423183) +/- 200m.
532264	Podiceps cristatus	great crested grebe	v		- Unknown (21598)	01-Jan-1600?	sight	Point (497912,5427583) +/- 100m.
322039	Poliocephalus cristatus subsp. australis	great crested grebe	pv		Peter Duckworth (1926)	01-Jan-1983	sight	Point (502112,5423183) +/- 100m.
1092436	Sarcophilus harrisii	tasmanian devil	е	EN	Tim ? (21108)	02-Jan-2010	sight	Point (502515,5421573) +/- 200m.
864690	Sarcophilus harrisii	tasmanian devil	е	EN	- Unknown (21598)	06-Feb-1989?	sight	Point (495612,5441683) +/- 500m.
1075716	Sarcophilus harrisii	tasmanian devil	е	EN	Peter Knight (20593)	24-Mar-2009	sight	Point (494509,5435177) +/- 2000m.
1224277	Sarcophilus harrisii	tasmanian devil	е	EN	Sharyn Wingrave (22265)	12-Mar-2011	sight	Point (498342,5434226) +/- 1000m.
896282	Sarcophilus harrisii	tasmanian devil	е	EN	R Baxter (2006)	14-Dec-1976?	sight	Point (500112,5426256) +/- 1850m.
1204662	Sarcophilus harrisii	tasmanian devil	е	EN	David Lane (3556)	10-Jan-2011	sight	Point (497435,5426766) +/- 50m.


#### Threatened fauna within 100 metres

ld	Species	Common name	Ss	Ns	Observers	Date	Obs type	Position (gda94)
883190	Sarcophilus harrisii	tasmanian devil	е	EN	Nick Mooney (16443)	01-Dec-1995?	sight	Point (498612,5426983) +/- 200m.
1154345	Sarcophilus harrisii	tasmanian devil	е	EN	Heather Donaldson (21469)	05-Jan-2010	sight	Point (509689,5416986) +/- 1000m.
1066411	Sarcophilus harrisii	tasmanian devil	е	EN	Colette Harmsen (18606)	12-Jun-2007	sight	Point (502079,5422759) +/- 1000m.
1042441	Sarcophilus harrisii	tasmanian devil	е	EN	- Unknown (21598)	18-Feb-2005	sight	Point (477145,5452610) +/- 7m.
1066492	Sarcophilus harrisii	tasmanian devil	е	EN	Lyndell Whyte (19821)	29-Jan-2009	sight	Point (477231,5452569) +/- 4000m.
1066407	Sarcophilus harrisii	tasmanian devil	е	EN	- Unknown (21598)	22-May-2007	sight	Point (485712,5449037) +/- 1000m.
1163585	Sarcophilus harrisii	tasmanian devil	е	EN	Robyn Carter (21128)	11-Oct-2010	sight	Point (502318,5422540) +/- 300m.
1224276	Sarcophilus harrisii	tasmanian devil	е	EN	- Anonymous (16453)	23-Mar-2011	sight	Point (477891,5452577) +/- 300m.
1092448	Sarcophilus harrisii	tasmanian devil	е	EN	Sabrina Smith (21103)	06-Jan-2010	sight	Point (502515,5421573) +/- 200m.
1202406	Sarcophilus harrisii	tasmanian devil	е	EN	Melissa Clark (21959)	05-Dec-2010	sight	Point (483664,5444788) +/- 2000m.
1202405	Sarcophilus harrisii	tasmanian devil	е	EN	Melissa Clark (21959)	05-Dec-2010	sight	Point (483664,5444788) +/- 2000m.
1066462	Sarcophilus harrisii	tasmanian devil	е	EN	- Unknown (21598)	01-May-2008	sight	Point (494421,5435291) +/- 1000m.
323052	Sterna nereis subsp. nereis	fairy tern	pv	PVU	Peter Duckworth (1926)	16-Jun-1996	sight	Point (484112,5450183) +/- 100m.
700155	Sterna nereis subsp. nereis	fairy tern	pv	PVU	- Unknown (21598)	11-Sep-1979?	sight	Point (479113,5452129) +/- 18500m.
636432	Sterna nereis subsp. nereis	fairy tern	pv	PVU	- Unknown (21598)	08-Sep-1977?	sight	Point (479113,5452129) +/- 18500m.
615315	Sterna nereis subsp. nereis	fairy tern	pv	PVU	- Unknown (21598)	31-May-1981?	sight	Point (479113,5452129) +/- 18500m.
624297	Sterna nereis subsp. nereis	fairy tern	pv	PVU	- Unknown (21598)	07-Dec-1981?	sight	Point (479113,5452129) +/- 18500m.
700039	Sterna nereis subsp. nereis	fairy tern	pv	PVU	- Unknown (21598)	11-Oct-1979?	sight	Point (479113,5452129) +/- 18500m.
695396	Sterna nereis subsp. nereis	fairy tern	pv	PVU	- Unknown (21598)	31-Aug-1979?	sight	Point (479113,5452129) +/- 18500m.
696572	Sterna nereis subsp. nereis	fairy tern	pv	PVU	- Unknown (21598)	02-Jun-1979?	sight	Point (479113,5452129) +/- 18500m.
598151	Sternula nereis subsp. nereis	fairy tern	v	VU	Peter Duckworth (1926)	16-Jun-1996	sight	Point (484112,5450183) +/- 1000m.
998836	Sternula nereis subsp. nereis	fairy tern	v	VU	Ralph Cooper (2107)	27-May-1996	sight	Point (483900,5452000) +/- 1000m.
896890	Thylacinus cynocephalus	thylacine	х	EX	A Ddison (1719)	01-Jan-1972?	sight	Point (486130,5442894) +/- 18500m.
352238	Tyto novaehollandiae	masked owl	pe	PVU	Phil Bell (1915)	30-Jun-1996?	sight	Point (507112,5422883) +/- 500m.
352267	Tyto novaehollandiae	masked owl	pe	PVU	Phil Bell (1915)	07-Jul-1996?	sight	Point (507012,5418433) +/- 100m.
949359	Tyto novaehollandiae	masked owl	pe	PVU	Jason Mark Wiersma (3571)	1980s	nest	Point (498423,5427504) +/- 0m.
358398	Tyto novaehollandiae	masked owl	ре	PVU	D Henderson (7330)	04-Jan-1981?	sight	Point (498437,5425995) +/- 1000m.

**Unverified Records** 

# Threatened fauna within 100 metres (based on Habitat Mapping)

Species	Common name	Ss	Ns	Potential	Known	Core
Pseudemoia rawlinsoni	glossy grass skink	r		1	0	0
Aquila audax	wedge-tailed eagle	ре	PEN	2	0	0
Perameles gunnii	eastern barred bandicoot		VU	2	0	0



#### Threatened fauna within 100 metres

Species	Common name	Ss	Ns	Potential	Known	Core	
Pasmaditta jungermanniae	snail (cataract gorge)	V		1	0	0	
Lathamus discolor	swift parrot	е	EN	2	0	0	
Engaeus granulatus	Central North burrowing crayfish	е	EN	1	0	0	
Galaxiella pusilla	eastern dwarf galaxias	V	VU	2	2	0	
Pseudomys novaehollandiae	new holland mouse	е	VU	4	0	0	
Tyto novaehollandiae	masked owl	ре	PVU	2	0	2	
Litoria raniformis	green and golden frog	V	VU	2	0	0	
Prototroctes maraena	australian grayling	V	VU	2	0	0	
Accipiter novaehollandiae	grey goshawk	е		2	0	3	
Haliaeetus leucogaster	white-bellied sea-eagle	V		2	0	0	

For more information about threatened species, please contact the Manager, Threatened Species Section.

Telephone: (03) 6233 8759

Email: ThreatenedSpecies.Enquiries@dpipwe.tas.gov.au

Address: GPO Box 44, Hobart, Tasmania, Australia, 7000



E: 475525 N: 5455270 E: 510700 N: 5455270



E: 475525 N: 5414579 E: 510700 N: 5414579



Department of Primary Industries, Parks, Water and Environment





Verified Record	ds							
Nest id/location foreign id	Species name	Observer	Obs date	Obs type	Position (gda94)	Season	Nest productivity	Nest occupancy
	Haliaeetus leucogaster	Peter Duckworth (1926)	09-Jul-1996	sight	Point (509112,5417183) +/- 100m.			
	Tyto novaehollandiae	Phil Bell (1915)	30-Jun-1996?	sight	Point (507112,5422883) +/- 500m.			
	Tyto novaehollandiae	Phil Bell (1915)	07-Jul-1996?	sight	Point (507012,5418433) +/- 100m.			
	Tyto novaehollandiae	D Henderson (7330)	04-Jan-1981?	sight	Point (498437,5425995) +/- 1000m.			
	Haliaeetus leucogaster	- Unknown (21598)	01-Jan-1600?	sight	Point (486812,5439983) +/- 100m.			
	Haliaeetus leucogaster	- Unknown (21598)	01-Jan-1600?	sight	Point (494212,5437483) +/- 100m.			
	Haliaeetus leucogaster	- Unknown (21598)	01-Jan-1600?	sight	Point (486312,5443183) +/- 100m.			
	Haliaeetus leucogaster	- Unknown (21598)	01-Jan-1600?	sight	Point (498412,5427483) +/- 100m.			
	Haliaeetus leucogaster	- Unknown (21598)	01-Jan-1600?	sight	Point (498712,5427383) +/- 100m.			
	Haliaeetus leucogaster	- Unknown (21598)	01-Jan-1600?	sight	Point (500612,5430683) +/- 100m.			
	Haliaeetus leucogaster	- Unknown (21598)	01-Jan-1600?	sight	Point (494512,5437483) +/- 100m.			
	Haliaeetus leucogaster	- Unknown (21598)	01-Jan-1600?	sight	Point (494412,5437183) +/- 100m.			
	Haliaeetus leucogaster	- Unknown (21598)	01-Jan-1600?	sight	Point (486812,5445883) +/- 100m.			
	Haliaeetus leucogaster	Craig Hawkins (3520)	28-Jul-1997	sight	Point (493612,5443183) +/- 200m.			
	Haliaeetus leucogaster	Peter Duckworth (1926)	09-Jul-1996	sight	Point (509112,5417183) +/- 400m.			
	Haliaeetus leucogaster	Ralph Cooper (2107)	10-May-1997	sight	Point (498612,5427383) +/- 800m.			
	Haliaeetus leucogaster	Ralph Cooper (2107)	07-May-1997	sight	Point (498612,5427383) +/- 800m.			
	Aquila audax subsp. fleayi	- Unknown (21598)	05-Aug-1978?	sight	Point (479113,5452129) +/- 18500m.			
	Haliaeetus leucogaster	- Unknown (21598)	31-Dec-1976?	sight	Point (479113,5452129) +/- 18500m.			
	Aquila audax subsp. fleayi	- Unknown (21598)	31-Aug-1977?	sight	Point (479113,5452129) +/- 18500m.			
	Falco longipennis	- Unknown (21598)	31-Dec-1976?	sight	Point (479113,5452129) +/- 18500m.			
	Haliaeetus leucogaster	- Unknown (21598)	31-May-1979?	sight	Point (479113,5452129) +/- 18500m.			
	Haliaeetus leucogaster	- Unknown (21598)	31-May-1980?	sight	Point (479113,5452129) +/- 18500m.			
	Aquila audax subsp. fleayi	- Unknown (21598)	31-Aug-1979?	sight	Point (479113,5452129) +/- 18500m.			
	Aquila audax subsp. fleayi	- Unknown (21598)	29-Feb-1980?	sight	Point (479113,5452129) +/- 18500m.			
	Haliaeetus leucogaster	- Unknown (21598)	31-Aug-1980?	sight	Point (479113,5452129) +/- 18500m.			
	Haliaeetus leucogaster	Nick Mooney (16443)	1980s	nest	Point (486965,5440238) +/- 0m.			
	Haliaeetus leucogaster	Nick Mooney (16443)	1980s	nest	Point (486863,5445934) +/- 0m.			
	Haliaeetus leucogaster	Nick Mooney (16443)	1980s	nest	Point (494213,5437484) +/- 0m.			
	Haliaeetus leucogaster	Nick Mooney (16443)	1980s	nest	Point (494550,5437470) +/- 0m.			
	Falco peregrinus	Nick Mooney (16443)	1980s	nest	Point (496115,5437123) +/- 0m.			
	Accipiter novaehollandiae	David James (3249)	01-Jan-2005	nest	Point (497792,5429933) +/- 0m.			
	Haliaeetus leucogaster	Nick Mooney (16443)	1980s	nest	Point (498450,5427268) +/- 0m.			



Nest id/location foreign id	Species name	Observer	Obs date	Obs type	Position (gda94)	Season	Nest productivity	Nest occupancy
	Tyto novaehollandiae	Jason Mark Wiersma (3571)	1980s	nest	Point (498423,5427504) +/- 0m.			
	Haliaeetus leucogaster	Nick Mooney (16443)	1980s	nest	Point (498535,5427548) +/- 0m.			
	Haliaeetus leucogaster	Nick Mooney (16443)	1980s	nest	Point (498586,5427554) +/- 0m.			
	Haliaeetus leucogaster	Ralph Cooper (2107)	07-Jun-1992	sight	Point (504812,5423683) +/- 100m.			
	Haliaeetus leucogaster	Ralph Cooper (2107)	28-Sep-1992	sight	Point (504812,5423683) +/- 100m.			
	Haliaeetus leucogaster	Ralph Cooper (2107)	08-Jun-1993	sight	Point (504812,5423683) +/- 100m.			
	Haliaeetus leucogaster	Ralph Cooper (2107)	17-Sep-1993	sight	Point (504812,5423683) +/- 100m.			
	Haliaeetus leucogaster	Ralph Cooper (2107)	29-Sep-1993	sight	Point (504812,5423683) +/- 100m.			
	Haliaeetus leucogaster	Ralph Cooper (2107)	11-Sep-1993	sight	Point (504812,5423683) +/- 100m.			
	Haliaeetus leucogaster	Ralph Cooper (2107)	14-Sep-1993	sight	Point (504812,5423683) +/- 100m.			
	Haliaeetus leucogaster	Ralph Cooper (2107)	22-Sep-1993	sight	Point (504812,5423683) +/- 100m.			
	Haliaeetus leucogaster	Ralph Cooper (2107)	23-Sep-1993	sight	Point (504812,5423683) +/- 100m.			
	Haliaeetus leucogaster	V Nermut (11932)	08-Apr-1996	sight	Point (483000,5446000) +/- 1000m.			
	Haliaeetus leucogaster	V Nermut (11932)	24-Jul-1994	sight	Point (495000,5437000) +/- 1000m.			
	Haliaeetus leucogaster	V Nermut (11932)	20-Aug-1995	sight	Point (498000,5427000) +/- 1000m.			
	Falco peregrinus	Ralph Cooper (2107)	04-Jan-1994	sight	Point (504812,5423683) +/- 100m.			
	Aquila audax subsp. fleayi	Ralph Cooper (2107)	27-Apr-1996	sight	Point (502800,5421800) +/- 100m.			
	Haliaeetus leucogaster	Ralph Cooper (2107)	18-Nov-1989	sight	Point (504700,5423500) +/- 100m.			
	Haliaeetus leucogaster	Anna Povey (3310)	09-Jun-2004	nest	Point (486695,5442620) +/- 0m.			

#### **Unverified Records**



E: 475525 N: 5455270 E: 510700 N: 5455270





E: 510700 N: 5414579



Department of Primary Industries, Parks, Water and Environment





Verified	Records														
ld	Species	Common name	Observers	Date	Location	Bio	Sci	Rfa	Nat	Int	Res	Pri	Unc	Sen	Cul
385758	Acacia longifolia subsp. sophorae	coast wattle	Stephen Harris (2289)	1992	Point (480012,5452533) +/- 100m.						За				
387161	Acacia longifolia subsp. sophorae	coast wattle	Stephen Harris (2289)	1992	Point (479612,5452283) +/- 100m.						За				
387184	Acacia longifolia subsp. sophorae	coast wattle	Stephen Harris (2289)	1992	Point (479312,5451883) +/- 100m.						За				
51589	Acacia mearnsii	black wattle	Fred Duncan (7477)	22-Nov-1980?	Point (501312,5430383) +/- 200m.						За				
506788	Acacia mearnsii	black wattle	Mike Askey- Doran (1624)	1990	Point (491512,5436983) +/- 100m.						За				
496140	Acacia mearnsii	black wattle	Mike Askey- Doran (1624)	1990	Point (491942,5437383) +/- 100m.						За				
590270	Acacia mearnsii	black wattle	A North (2500)	20-Mar-2002	Point (492112,5436983) +/- 1000m.						За				
285672	Acacia mearnsii	black wattle	A.M. Buchanan (3758)	26-Nov-1997	Point (495912,5435783) +/- 100m.						За				
51058	Acacia mearnsii	black wattle	Fred Duncan (7477)	29-Jul-1981?	Point (499012,5425483) +/- 200m.						За				
776647	Acacia mearnsii	black wattle	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (497412,5428433) +/- 100m.						3a				
776589	Acacia mearnsii	black wattle	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (498612,5428483) +/- 50m.						3a				
502679	Acacia mearnsii	black wattle	Mike Askey- Doran (1624)	1990	Point (484612,5445993) +/- 100m.						За				
786625	Acacia mearnsii	black wattle	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (484562,5446683) +/- 162m.						3a				
785603	Acacia mearnsii	black wattle	- Unknown (21598)	11-Oct-1993?	Point (484512,5446583) +/- 50m.						За				
777395	Acacia mearnsii	black wattle	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (483362,5445958) +/- 517m.						3a				
855950	Acacia mearnsii	black wattle	- Unknown (21598)	01-Feb-1989?	Point (495612,5441683) +/- 1000m.						За				
864602	Acacia mearnsii	black wattle	- Unknown (21598)	01-Feb-1989?	Point (493812,5443383) +/- 100m.						За				
48492	Acacia mearnsii	black wattle	Fred Duncan (7477)	22-Nov-1980?	Point (495612,5436483) +/- 200m.						За				
48458	Acacia mearnsii	black wattle	Fred Duncan (7477)	22-Nov-1980?	Point (500812,5429783) +/- 200m.						За				
785211	Acacia mearnsii	black wattle	- Unknown (21598)	11-Oct-1993?	Point (497412,5428483) +/- 50m.						За				
776621	Acacia mearnsii	black wattle	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (497562,5428583) +/- 100m.						За				
226731	Acacia mucronata subsp. mucronata	erect caterpillar wattle	J. Somerville (4676)	Nov-1932	Point (485112,5444483) +/- 1000m.	e									



ld	Species	Common name	Observers	Date	Location	Bio	Sci	Rfa	Nat	Int	Res	Pri	Unc	Sen	Cul
598194	Acacia myrtifolia	redstem wattle	A North (2500)	20-Mar-2002	Point (492112,5436983) +/- 1000m.						3a				
286261	Acacia stricta	hop wattle	T.E. Burns (5652)	12-Sep-1959	Point (498412,5433583) +/- 2000m.						3a				
785643	Acacia stricta	hop wattle	- Unknown (21598)	11-Oct-1993?	Point (484512,5447383) +/- 50m.						3a				
786721	Acacia stricta	hop wattle	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (484512,5447433) +/- 100m.						3a				
283641	Acacia stricta	hop wattle	- Unknown (21598)	09-Jan-1843	Point (485812,5446883) +/- 2000m.						3a				
282664	Acaena pallida	dune buzzy	A.M. Buchanan (3758)	26-Nov-1997	Point (481612,5454683) +/- 100m.						3a				
287391	Acianthus caudatus	mayfly orchid	T.E. Burns (5652)	12-Sep-1959	Point (498412,5433583) +/- 2000m.						3a				
491832	Adiantum aethiopicum	common maidenhair	Mike Askey- Doran (1624)	1990	Point (484612,5445993) +/- 100m.									n	
786629	Adiantum aethiopicum	common maidenhair	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (484562,5446683) +/- 162m.									n	
785605	Adiantum aethiopicum	common maidenhair	- Unknown (21598)	11-Oct-1993?	Point (484512,5446583) +/- 50m.									n	
777399	Adiantum aethiopicum	common maidenhair	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (483362,5445958) +/- 517m.									n	
496384	Adiantum aethiopicum	common maidenhair	Mike Askey- Doran (1624)	1990	Point (483102,5445863) +/- 100m.									n	
864565	Adiantum aethiopicum	common maidenhair	- Unknown (21598)	01-Feb-1989?	Point (495612,5441683) +/- 1000m.									n	
855993	Adiantum aethiopicum	common maidenhair	- Unknown (21598)	01-Feb-1989?	Point (493812,5443383) +/- 100m.									n	
257720	Adiantum aethiopicum	common maidenhair	A.M. Buchanan (3758)	26-Nov-1997	Point (496312,5435483) +/- 100m.									n	
864566	Allocasuarina verticillata	drooping sheoak	- Unknown (21598)	01-Feb-1989?	Point (495612,5441683) +/- 1000m.						3a				
777401	Allocasuarina verticillata	drooping sheoak	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (483362,5445958) +/- 517m.						3a				
855994	Allocasuarina verticillata	drooping sheoak	- Unknown (21598)	01-Feb-1989?	Point (493812,5443383) +/- 100m.						3a				
494779	Allocasuarina verticillata	drooping sheoak	Mike Askey- Doran (1624)	1990	Point (484012,5445083) +/- 100m.						3a				
110152	Allocasuarina verticillata	drooping sheoak	Kristen Williams (1451)	14-Oct-1988?	Point (495712,5437083) +/- 100m.						3a				
48494	Allocasuarina verticillata	drooping sheoak	Fred Duncan (7477)	22-Nov-1980?	Point (495612,5436483) +/- 200m.						3a				
939391	Angianthus preissianus	salt cupflower	R.C. Gunn (5474)	21-Nov-1842	Point (486018,5442728) +/- 2000m.						3a				
284251	Apium prostratum subsp. prostratum var. prostratum	creeping sea- celery	P.S. Short (5343)	05-Feb-1983	Point (484112,5450283) +/- 2000m.						3a		n	n	n



ld	Species	Common name	Observers	Date	Location	Bio	Sci	Rfa	Nat	Int	Res	Pri	Unc	Sen	Cul
284618	Apium prostratum subsp. prostratum var. prostratum	creeping sea- celery	R.C. Gunn (5474)	18-Nov-1841	Point (485812,5443583) +/- 2000m.						3a		n	n	n
287780	Apodasmia brownii	coarse twinerush	J. Somerville (4676)	10-Mar-1961	Point (502612,5424683) +/- 2000m.						3a				
939576	Asperula pusilla	alpine woodruff	R.C. Gunn (5474)	20-Oct-1842	Point (486011,5446428) +/- 2000m.						3b				
110169	Asplenium flabellifolium	necklace fern	Kristen Williams (1451)	14-Oct-1988?	Point (495712,5437083) +/- 100m.									n	
855995	Asplenium flabellifolium	necklace fern	- Unknown (21598)	01-Feb-1989?	Point (493812,5443383) +/- 100m.									n	
855953	Asplenium flabellifolium	necklace fern	- Unknown (21598)	01-Feb-1989?	Point (495612,5441683) +/- 1000m.									n	
257103	Atriplex billardierei	glistening saltbush	A. Simson (3720)	Dec-1890	Point (483212,5453583) +/- 1000m.	t									
1021403	Austrodanthoni a caespitosa	common wallabygrass	Micah Visoiu (5870)	23-Mar-2003	Point (506512,5418683) +/- 300m.						3a				
590274	Austrodanthoni a laevis	smooth wallabygrass	A North (2500)	20-Mar-2002	Point (492112,5436983) +/- 1000m.						3a				
598282	Austrodanthoni a pilosa	velvet wallabygrass	A North (2500)	19-Mar-2002	Point (496912,5440083) +/- 200m.						3a				
496161	Austrodanthoni a tenuior	purplish wallabygrass	Mike Askey- Doran (1624)	1990	Point (491942,5437383) +/- 100m.						3a				
598283	Austrodanthoni a tenuior	purplish wallabygrass	A North (2500)	19-Mar-2002	Point (496912,5440083) +/- 200m.						3a				
385818	Austrostipa flavescens	yellow speargrass	Stephen Harris (2289)	1992	Point (479312,5451883) +/- 100m.						3a				
385751	Austrostipa flavescens	yellow speargrass	Stephen Harris (2289)	1992	Point (480012,5452483) +/- 100m.						3a				
387163	Austrostipa flavescens	yellow speargrass	Stephen Harris (2289)	1992	Point (479612,5452283) +/- 100m.						3a				
387160	Austrostipa flavescens	yellow speargrass	Stephen Harris (2289)	1992	Point (480012,5452533) +/- 100m.						3a				
598197	Austrostipa pubinodis	tall speargrass	A North (2500)	20-Mar-2002	Point (492112,5436983) +/- 1000m.						3a				
283648	Austrostipa pubinodis	tall speargrass	T.E. Burns (5652)	25-Nov-1970	Point (485812,5449183) +/- 2000m.						3a				
786562	Austrostipa stipoides	coast speargrass	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (483512,5445883) +/- 50m.						3a				
777452	Austrostipa stipoides	coast speargrass	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (483812,5445983) +/- 50m.						3a				
786624	Austrostipa stipoides	coast speargrass	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (484412,5446583) +/- 50m.						3a				
590275	Baloskion tetraphyllum subsp. tetraphyllum	tassel cordrush	A North (2500)	20-Mar-2002	Point (492112,5436983) +/- 1000m.						3a				
506820	Banksia marginata	silver banksia	Mike Askey- Doran (1624)	1990	Point (483102,5445863) +/- 100m.							у			



ld	Species	Common name	Observers	Date	Location	Bio	Sci	Rfa	Nat	Int	Res	Pri	Unc	Sen	Cul
598198	Banksia marginata	silver banksia	A North (2500)	20-Mar-2002	Point (492112,5436983) +/- 1000m.							у			
496322	Banksia marginata	silver banksia	Mike Askey- Doran (1624)	1990	Point (491572,5436793) +/- 100m.							у			
785645	Banksia marginata	silver banksia	- Unknown (21598)	11-Oct-1993?	Point (484512,5447383) +/- 50m.							у			
786722	Banksia marginata	silver banksia	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (484512,5447433) +/- 100m.							у			
786567	Bedfordia salicina	tasmanian blanketleaf	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (483362,5445958) +/- 517m.	e					3a				
494780	Billardiera Iongiflora	purple appleberry	Mike Askey- Doran (1624)	1990	Point (484012,5445083) +/- 100m.	e									
502683	Billardiera mutabilis	green appleberry	Mike Askey- Doran (1624)	1990	Point (484612,5445993) +/- 100m.						3a				
255980	Billardiera mutabilis	green appleberry	T.E. Burns (5652)	02-Oct-1966	Point (484912,5447983) +/- 1000m.						За				
506789	Billardiera mutabilis	green appleberry	Mike Askey- Doran (1624)	1990	Point (491512,5436983) +/- 100m.						За				
598199	Billardiera mutabilis	green appleberry	A North (2500)	20-Mar-2002	Point (492112,5436983) +/- 1000m.						За				
110250	Billardiera mutabilis	green appleberry	Kristen Williams (1451)	14-Oct-1988?	Point (495712,5437083) +/- 100m.						За				
496385	Billardiera mutabilis	green appleberry	Mike Askey- Doran (1624)	1990	Point (483102,5445863) +/- 100m.						За				
284999	Boronia nana var. hyssopifolia	simple-leaf dwarf boronia	J. Somerville (4676)	Nov-1951	Point (491712,5438083) +/- 2000m.						За				
282926	Boronia nana var. hyssopifolia	simple-leaf dwarf boronia	D.I. Morris (4111)	19-Nov-1986	Point (479012,5452483) +/- 100m.						3a				
855955	Bulbine glauca	bluish bulbinelily	- Unknown (21598)	01-Feb-1989?	Point (495612,5441683) +/- 1000m.						За				
256564	Burchardia umbellata	milkmaids	A.M. Buchanan (3758)	26-Nov-1997	Point (498112,5434283) +/- 100m.						За				
940926	Burchardia umbellata	milkmaids	T.E. Burns (5652)	19-Nov-1970	Point (484616,5444575) +/- 2000m.						За				
939514	Burchardia umbellata	milkmaids	R.C. Gunn (5474)	01-Dec-1841	Point (484605,5450126) +/- 2000m.						За				
940745	Burchardia umbellata	milkmaids	Stephen Harris (2289)	24-Nov-1983	Point (480421,5444565) +/- 2000m.						За				
281972	Burchardia umbellata	milkmaids	D.I. Morris (4111)	19-Nov-1986	Point (479012,5452483) +/- 100m.						За				
563373	Caladenia clavigera	clubbed spider- orchid	- Unknown (21598)	01-Nov-1941?	Point (496312,5432383) +/- 100m.						За				
255756	Caladenia dilatata	greencomb spider-orchid	R.C. Gunn (5474)	Jan-1845	Point (480812,5444683) +/- 1000m.						За				
255885	Caladenia dilatata	greencomb spider-orchid	F. Perrin (4258)	Dec-1927	Point (483212,5453583) +/- 1000m.						За				
563060	Caladenia dilatata	greencomb spider-orchid	- Unknown (21598)	01-Jan-1804?	Point (485612,5445683) +/- 5000m.						За				



ld	Species	Common name	Observers	Date	Location	Bio	Sci	Rfa	Nat	Int	Res	Pri	Unc	Sen	Cul
257107	Caladenia gracilis	musky finger- orchid	F. Perrin (4258)	Nov-1926	Point (483212,5453583) +/- 1000m.						За				
552261	Caladenia gracilis	musky finger- orchid	- Unknown (21598)	01-Jan-1804?	Point (485612,5445683) +/- 5000m.						За				
590278	Calorophus elongatus	long roperush	A North (2500)	20-Mar-2002	Point (492112,5436983) +/- 1000m.						За				
387136	Carpobrotus rossii	native pigface	Stephen Harris (2289)	1992	Point (480012,5452533) +/- 100m.						За				
281973	Cassytha glabella	slender dodderlaurel	D.I. Morris (4111)	19-Nov-1986	Point (479012,5452483) +/- 100m.						3a				
590279	Centipeda elatinoides	spreading sneezeweed	A North (2500)	20-Mar-2002	Point (492112,5436983) +/- 1000m.						3a				
491839	Centrolepis aristata	pointed bristlewort	Mike Askey- Doran (1624)	1990	Point (484612,5445993) +/- 100m.						3a				
939409	Centrolepis fascicularis	tufted bristlewort	R.C. Gunn (5474)	25-Jan-1844	Point (486018,5442728) +/- 2000m.						3a				
502687	Centrolepis strigosa subsp. strigosa	hairy bristlewort	Mike Askey- Doran (1624)	1990	Point (484612,5445993) +/- 100m.						За				
942555	Chamaescilla corymbosa var. corymbosa	blue stars	J Milligan (2860)	12-Oct-1841	Point (502789,5424238) +/- 10000m.						За				
942556	Chamaescilla corymbosa var. corymbosa	blue stars	J Milligan (2860)	12-Oct-1841	Point (502789,5424238) +/- 10000m.						За				
110171	Cheilanthes austrotenuifolia	green rockfern	Kristen Williams (1451)	14-Oct-1988?	Point (495712,5437083) +/- 100m.						За				
255899	Cheilanthes austrotenuifolia	green rockfern	A. Simson (3720)	23-Nov-1890	Point (483212,5453583) +/- 1000m.						За				
506792	Cheilanthes austrotenuifolia	green rockfern	Mike Askey- Doran (1624)	1990	Point (491512,5436983) +/- 100m.						За				
491840	Cheilanthes austrotenuifolia	green rockfern	Mike Askey- Doran (1624)	1990	Point (484612,5445993) +/- 100m.						За				
552255	Chiloglottis cornuta	green bird- orchid	Jeff Campbell (1185)	17-Nov-1992?	Point (485112,5445183) +/- 5000m.						За				
284619	Chrysocephalu m semipapposum	clustered everlasting	- Unknown (21598)	15-Feb-1948	Point (485812,5443583) +/- 2000m.						За				
257109	Colobanthus apetalus var. apetalus	coast cupflower	A. Simson (3720)	Dec-1890	Point (483212,5453583) +/- 1000m.						3a-8				
257273	Comesperma calymega	bluespike milkwort	W.M. Curtis (5737)	20-Dec-1955	Point (485812,5442483) +/- 1000m.						За				
491841	Convolvulus angustissimus subsp. angustissimus	blushing bindweed	Mike Askey- Doran (1624)	1990	Point (484612,5445993) +/- 100m.						3a				
563368	Corunastylis archeri	elfin midge- orchid	Greg Hocking (7572)	08-Feb-1974?	Point (495612,5435683) +/- 100m.						За				
567854	Corybas diemenicus	stately helmet- orchid	F Perrin (7471)	24-Jul-1928?	Point (485112,5449183) +/- 5000m.						За				
552170	Corybas fimbriatus	fringed helmet- orchid	- Unknown (21598)	01-Jun-1970?	Point (478312,5452083) +/- 100m.						За				
1021369	Crassula helmsii	swamp stonecrop	Micah Visoiu (5870)	17-Feb-2003	Point (506512,5418683) +/- 300m.						За				



ld	Species	Common name	Observers	Date	Location	Bio	Sci	Rfa	Nat	Int	Res	Pri	Unc	Sen	Cul
855957	Crassula helmsii	swamp stonecrop	- Unknown (21598)	01-Feb-1989?	Point (495612,5441683) +/- 1000m.						За				
552521	Cryptostylis subulata	large tongue- orchid	- Unknown (21598)	01-Dec-1935?	Point (497212,5432883) +/- 100m.						За				
255900	Cryptostylis subulata	large tongue- orchid	- Unknown (21598)	1929	Point (483212,5453583) +/- 1000m.						За				
257111	Cryptostylis subulata	large tongue- orchid	- Unknown (21598)	01-Jan-1600?	Point (483212,5453583) +/- 1000m.						За				
776376	Cymbonotus preissianus	southern bears-ears	- Unknown (21598)	11-Oct-1993?	Point (484512,5446583) +/- 50m.						За				
786650	Cymbonotus preissianus	southern bears-ears	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (484562,5446683) +/- 162m.						3a				
502703	Cynoglossum suaveolens	sweet houndstongue	Mike Askey- Doran (1624)	1990	Point (484612,5445993) +/- 100m.						За				
283645	Dichelachne crinita	longhair plumegrass	T.E. Burns (5652)	25-Dec-1970	Point (485812,5449183) +/- 2000m.						За				
856015	Dicksonia antarctica	soft treefern	- Unknown (21598)	01-Feb-1989?	Point (493812,5443383) +/- 100m.							у			
864587	Dicksonia antarctica	soft treefern	- Unknown (21598)	01-Feb-1989?	Point (495612,5441683) +/- 1000m.							у			
785832	Distichlis distichophylla	australian saltgrass	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (497912,5428683) +/- 50m.						3a				
777391	Distichlis distichophylla	australian saltgrass	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (483512,5445883) +/- 50m.						3a				
777447	Distichlis distichophylla	australian saltgrass	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (483812,5445983) +/- 50m.						3a				
944154	Distichlis distichophylla	australian saltgrass	B K Simon (9225),D Sharp (9235)	15-Jan-2001	Point (497905,5434322) +/- 100m.						За				
562993	Diuris chryseopsis	common golden moths	Jeff Campbell (1185)	19-Oct-1992?	Point (480412,5444483) +/- 500m.						3a				
567852	Diuris sulphurea	tiger orchid	- Unknown (21598)	03-Dec-1841?	Point (485112,5445183) +/- 5000m.						За				
856017	Doodia australis	common raspfern	- Unknown (21598)	01-Feb-1989?	Point (493812,5443383) +/- 100m.								у		
864589	Doodia australis	common raspfern	- Unknown (21598)	01-Feb-1989?	Point (495612,5441683) +/- 1000m.								у		
1021392	Eleocharis pusilla	small spikesedge	Micah Visoiu (5870)	12-Mar-2003	Point (506512,5418683) +/- 300m.						3a				
590356	Eragrostis brownii	common lovegrass	A North (2500)	19-Mar-2002	Point (496912,5440083) +/- 200m.						За				
944162	Eragrostis brownii	common lovegrass	B K Simon (9225),D Sharp (9235)	14-Jan-2001	Point (497905,5434322) +/- 100m.						За				
284621	Eryngium vesiculosum	prickfoot	- Unknown (21598)	10-Jan-1843	Point (485812,5443583) +/- 2000m.						За				
786655	Eucalyptus amygdalina	black peppermint	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (484562,5446683) +/- 162m.	e									



ld	Species	Common name	Observers	Date	Location	Bio	Sci	Rfa	Nat	Int	Res	Pri	Unc	Sen	Cul
785611	Eucalyptus amygdalina	black peppermint	- Unknown (21598)	11-Oct-1993?	Point (484512,5446583) +/- 50m.	e									
494786	Eucalyptus amygdalina	black peppermint	Mike Askey- Doran (1624)	1990	Point (484012,5445083) +/- 100m.	е									
777413	Eucalyptus amygdalina	black peppermint	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (483362,5445958) +/- 517m.	e									
506822	Eucalyptus amygdalina	black peppermint	Mike Askey- Doran (1624)	1990	Point (483102,5445863) +/- 100m.	е									
797321	Eucalyptus amygdalina	black peppermint	- Unknown (21598)	05-Sep-1989?	Point (481912,5443783) +/- 100m.	е									
864590	Eucalyptus amygdalina	black peppermint	- Unknown (21598)	01-Feb-1989?	Point (495612,5441683) +/- 1000m.	е									
590357	Eucalyptus amygdalina	black peppermint	A North (2500)	19-Mar-2002	Point (496912,5440083) +/- 200m.	е									
286160	Eucalyptus amygdalina	black peppermint	W.D. Jackson (5722)	01-Jan-1600?	Point (492512,5443583) +/- 20000m.	е									
1247081	Eucalyptus amygdalina	black peppermint	W.D. Jackson (5722)	27-Jan-1961	Point (494407,5442739) +/- 10000m.	е									
856018	Eucalyptus amygdalina	black peppermint	- Unknown (21598)	01-Feb-1989?	Point (493812,5443383) +/- 100m.	е									
1246712	Eucalyptus amygdalina	black peppermint	J Somerville (2865)	01-Jan-1600?	Point (480421,5444565) +/- 1000m.	е									
51591	Eucalyptus amygdalina	black peppermint	Fred Duncan (7477)	22-Nov-1980?	Point (501312,5430383) +/- 200m.	е									
51262	Eucalyptus amygdalina	black peppermint	Fred Duncan (7477)	22-Nov-1980?	Point (500812,5429783) +/- 200m.	е									
776593	Eucalyptus amygdalina	black peppermint	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (498612,5428483) +/- 50m.	e									
48263	Eucalyptus amygdalina	black peppermint	Fred Duncan (7477)	29-Jul-1981?	Point (499012,5425483) +/- 200m.	е									
496373	Eucalyptus amygdalina	black peppermint	Mike Askey- Doran (1624)	1990	Point (491512,5436983) +/- 100m.	е									
368782	Eucalyptus amygdalina	black peppermint	Allison Woolley (3222)	1998	Point (495112,5438183) +/- 100m.	е									
496164	Eucalyptus amygdalina	black peppermint	Mike Askey- Doran (1624)	1990	Point (491942,5437383) +/- 100m.	e									
110146	Eucalyptus amygdalina	black peppermint	Kristen Williams (1451)	14-Oct-1988?	Point (495812,5437283) +/- 100m.	e									
496344	Eucalyptus amygdalina	black peppermint	Mike Askey- Doran (1624)	1990	Point (491572,5436793) +/- 100m.	e									
1098067	Eucalyptus amygdalina	black peppermint	Evi Kroggel (21181),Natalie Sullivan (21182)	07-Sep-2009	Point (493407,5436025) +/- 20m.	e									
51296	Eucalyptus amygdalina	black peppermint	Fred Duncan (7477)	22-Nov-1980?	Point (495612,5436483) +/- 200m.	e									
776414	Eucalyptus amygdalina	black peppermint	- Unknown (21598)	11-Oct-1993?	Point (484512,5447383) +/- 50m.	е									



ld	Species	Common name	Observers	Date	Location	Bio	Sci	Rfa	Nat	Int	Res	Pri	Unc	Sen	Cul
786723	Eucalyptus amygdalina	black peppermint	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (484512,5447433) +/- 100m.	e									
491845	Eucalyptus amygdalina	black peppermint	Mike Askey- Doran (1624)	1990	Point (484612,5445993) +/- 100m.	е									
877099	Eucalyptus amygdalina	black peppermint	Ralph Cooper (2107)	29-Oct-1995?	Point (503012,5422883) +/- 300m.	е									
1247080	Eucalyptus amygdalina	black peppermint	W.D. Jackson (5722)	27-Jan-1961	Point (490208,5446435) +/- 1000m.	e									
877096	Eucalyptus amygdalina	black peppermint	Ralph Cooper (2107)	18-Oct-1995?	Point (504012,5422883) +/- 300m.	e									
872641	Eucalyptus amygdalina	black peppermint	Ralph Cooper (2107)	31-Oct-1995?	Point (504012,5422883) +/- 300m.	e									
284667	Euryomyrtus parviflora	creeping heathmyrtle	W.M. Curtis (5737)	Jan-1948	Point (485812,5449183) +/- 2000m.						За				
257126	Ficinia nodosa	knobby clubsedge	W.M. Curtis (5737)	07-Dec-1955	Point (483212,5453583) +/- 1000m.						За				
286620	Ficinia nodosa	knobby clubsedge	- Unknown (21598)	23-Jan-1982	Point (500012,5430283) +/- 2000m.						За				
385812	Ficinia nodosa	knobby clubsedge	Stephen Harris (2289)	1992	Point (479312,5451883) +/- 100m.						За				
786620	Gahnia filum	chaffy sawsedge	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (484412,5446583) +/- 50m.						3a				
786559	Gahnia filum	chaffy sawsedge	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (483512,5445883) +/- 50m.						3a				
786601	Gahnia filum	chaffy sawsedge	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (483812,5445983) +/- 50m.						3a				
283235	Gahnia filum	chaffy sawsedge	A.M. Buchanan (3758)	28-Sep-1993	Point (484112,5446883) +/- 100m.						За				
939467	Galium ciliare	hairy bedstraw	R.C. Gunn (5474)	03-Dec-1841	Point (486011,5446428) +/- 2000m.						За				
942071	Geranium retrorsum	grassland cranesbill	W.M. Curtis (5737)	01-Dec-1955	Point (488809,5446433) +/- 2000m.						3a- 8-12				
590302	Gleichenia dicarpa	pouched coralfern	A North (2500)	20-Mar-2002	Point (492112,5436983) +/- 1000m.							у			
777460	Glycine clandestina	twining glycine	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (484562,5446683) +/- 162m.						3a				
284648	Glycine clandestina	twining glycine	A.M. Buchanan (3758)	28-Sep-1993	Point (485812,5446883) +/- 100m.						3a				
776380	Glycine clandestina	twining glycine	- Unknown (21598)	11-Oct-1993?	Point (484512,5446583) +/- 50m.						3a				
506825	Glycine clandestina	twining glycine	Mike Askey- Doran (1624)	1990	Point (483102,5445863) +/- 100m.						3a				
491848	Glycine clandestina	twining glycine	Mike Askey- Doran (1624)	1990	Point (484612,5445993) +/- 100m.						3a				
598205	Gonocarpus humilis	shade raspwort	A North (2500)	20-Mar-2002	Point (492112,5436983) +/- 1000m.						За				



ld	Species	Common name	Observers	Date	Location	Bio	Sci	Rfa	Nat	Int	Res	Pri	Unc	Sen	Cul
907062	Goodenia humilis	swamp native- primrose	- Unknown (21598)	28-Feb-1957?	Point (482912,5453983) +/- 18500m.						За				
777417	Goodia lotifolia		Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (483362,5445958) +/- 517m.						3a				
785614	Goodia lotifolia		- Unknown (21598)	11-Oct-1993?	Point (484512,5446583) +/- 50m.						За				
777477	Goodia lotifolia		Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (484562,5446683) +/- 162m.						3a				
284645	Gratiola peruviana	southern brooklime	C.E. Lord (3979)	Dec-1928	Point (485812,5443583) +/- 20000m.						За				
255902	Hemichroa pentandra	trailing saltstar	W.M. Curtis (5737)	Dec-1955	Point (483212,5453583) +/- 1000m.						За				
777448	Hemichroa pentandra	trailing saltstar	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (483812,5445983) +/- 50m.						За				
932886	Hemichroa pentandra	trailing saltstar	A.M. Buchanan (3758)	04-Feb-1980	Point (491615,5439036) +/- 2000m.						3a				
255982	Hemichroa pentandra	trailing saltstar	T.E. Burns (5652)	25-Dec-1968	Point (484912,5447983) +/- 1000m.						За				
598307	Hibbertia hirsuta	hairy guineaflower	A North (2500)	19-Mar-2002	Point (496912,5440083) +/- 200m.	е									
502711	Hibbertia hirsuta	hairy guineaflower	Mike Askey- Doran (1624)	1990	Point (484612,5445993) +/- 100m.	е									
256838	Hibbertia hirticalyx	bassian guineaflower	S. Casey (5547)	25-Feb-2000	Point (479112,5452483) +/- 1000m.						За				
1021407	Histiopteris incisa	batswing fern	Micah Visoiu (5870)	27-Mar-2003	Point (506512,5418683) +/- 300m.							у			
855960	Hymenophyllu m cupressiforme	common filmyfern	- Unknown (21598)	01-Feb-1989?	Point (495612,5441683) +/- 1000m.							у			
864624	Hymenophyllu m cupressiforme	common filmyfern	- Unknown (21598)	01-Feb-1989?	Point (493812,5443383) +/- 100m.							у			
284649	Indigofera australis	native indigo	A.M. Buchanan (3758)	28-Sep-1993	Point (485812,5446883) +/- 100m.						3a				
777480	Indigofera australis	native indigo	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (484562,5446683) +/- 162m.						3a				
776383	Indigofera australis	native indigo	- Unknown (21598)	11-Oct-1993?	Point (484512,5446583) +/- 50m.						3a				
777418	Indigofera australis	native indigo	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (483362,5445958) +/- 517m.						3a				
255995	Isolepis marginata	little clubsedge	T.E. Burns (5652)	25-Dec-1965	Point (484912,5447983) +/- 1000m.						За				
255905	lsolepis platycarpa	flatfruit clubsedge	W.M. Curtis (5737)	Dec-1955	Point (483212,5453583) +/- 1000m.						3a				
257127	lsolepis platycarpa	flatfruit clubsedge	W.M. Curtis (5737)	07-Dec-1955	Point (483212,5453583) +/- 1000m.						3a				
287611	Juncus caespiticius	grassy rush	- Unknown (21598)	24-Dec-1981	Point (500012,5430283) +/- 2000m.						За				



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286635	Juncus caespiticius	grassy rush	- Unknown (21598)	23-Jan-1982	Point (500012,5430283) +/- 2000m.						За				
972214	Juncus gregiflorus	green rush	Micah Visoiu (5870)	06-Jan-2006	Point (507149,5418831) +/- 100m.						За				
777392	Juncus kraussii subsp. australiensis	sea rush	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (483512,5445883) +/- 50m.						3a				
776279	Juncus kraussii subsp. australiensis	sea rush	- Unknown (21598)	11-Oct-1993?	Point (483512,5445883) +/- 50m.						За				
777449	Juncus kraussii subsp. australiensis	sea rush	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (483812,5445983) +/- 50m.						3a				
1153927	Juncus kraussii subsp. australiensis	sea rush	Micah Visoiu (5870)	08-Jun-2007	Point (499994,5429604) +/- 100m.						За				
286636	Juncus kraussii subsp. australiensis	sea rush	- Unknown (21598)	23-Jan-1982	Point (500012,5430283) +/- 2000m.						3a				
776345	Juncus kraussii subsp. australiensis	sea rush	- Unknown (21598)	11-Oct-1993?	Point (483812,5445983) +/- 50m.						3a				
287872	Juncus kraussii subsp. australiensis	sea rush	J. Somerville (4676)	10-Mar-1961	Point (504212,5424683) +/- 2000m.						За				
776350	Juncus kraussii subsp. australiensis	sea rush	- Unknown (21598)	11-Oct-1993?	Point (484412,5446583) +/- 50m.						За				
786621	Juncus kraussii subsp. australiensis	sea rush	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (484412,5446583) +/- 50m.						3a				
785863	Juncus kraussii subsp. australiensis	sea rush	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (497412,5428433) +/- 100m.						3a				
776596	Juncus kraussii subsp. australiensis	sea rush	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (498612,5428483) +/- 50m.						3a				
785214	Juncus kraussii subsp. australiensis	sea rush	- Unknown (21598)	11-Oct-1993?	Point (497412,5428483) +/- 50m.						3a				
775733	Juncus kraussii subsp. australiensis	sea rush	- Unknown (21598)	11-Oct-1993?	Point (497912,5428683) +/- 50m.						3a				
776616	Juncus kraussii subsp. australiensis	sea rush	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (497912,5428683) +/- 50m.						3a				
287615	Juncus sarophorus	broom rush	B. Robinson (3850)	23-Jan-1982	Point (500012,5430283) +/- 2000m.						3a				
1021399	Juncus sarophorus	broom rush	Micah Visoiu (5870)	19-Mar-2003	Point (506512,5418683) +/- 300m.						3a				
785828	Juncus sarophorus	broom rush	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (498612,5428483) +/- 50m.						3a				
287616	Juncus sarophorus	broom rush	- Unknown (21598)	24-Dec-1981	Point (500012,5430283) +/- 2000m.						3a				
786659	Kennedia prostrata	running postman	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (484562,5446683) +/- 162m.						3a				
590308	Kennedia prostrata	running postman	A North (2500)	20-Mar-2002	Point (492112,5436983) +/- 1000m.						За				



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776400	Kennedia prostrata	running postman	- Unknown (21598)	11-Oct-1993?	Point (484512,5446583) +/- 50m.						3a				
590361	Lachnagrostis aemula	tumbling blowngrass	A North (2500)	19-Mar-2002	Point (496912,5440083) +/- 200m.						3a				
930210	Lachnagrostis aemula	tumbling blowngrass	A North (2500)	20-Mar-2002	Point (492410,5436724) +/- 100m.						3a				
227553	Lachnagrostis aemula	tumbling blowngrass	T.E. Burns (5652)	29-Nov-1970	Point (485212,5447833) +/- 300m.						3a				
227801	Lachnagrostis aemula	tumbling blowngrass	A.M. Buchanan (3758)	26-Nov-1997	Point (498112,5434283) +/- 100m.						3a				
387157	Lepidosperma gladiatum	coast swordsedge	Stephen Harris (2289)	1992	Point (480012,5452533) +/- 100m.						За				
283699	Lepidosperma gladiatum	coast swordsedge	A.M. Buchanan (3758)	13-Feb-1980	Point (481612,5454683) +/- 2000m.						За				
505156	Lepidosperma inops	fan sedge	Mike Askey- Doran (1624)	1990	Point (484012,5445083) +/- 100m.	e									
776402	Lepidosperma inops	fan sedge	- Unknown (21598)	11-Oct-1993?	Point (484512,5446583) +/- 50m.	e									
786661	Lepidosperma inops	fan sedge	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (484562,5446683) +/- 162m.	е									
491851	Lepidosperma inops	fan sedge	Mike Askey- Doran (1624)	1990	Point (484612,5445993) +/- 100m.	е									
496167	Lepidosperma inops	fan sedge	Mike Askey- Doran (1624)	1990	Point (491942,5437383) +/- 100m.	е									
496347	Lepidosperma inops	fan sedge	Mike Askey- Doran (1624)	1990	Point (491572,5436793) +/- 100m.	е									
506814	Lepidosperma inops	fan sedge	Mike Askey- Doran (1624)	1990	Point (491512,5436983) +/- 100m.	е									
785215	Leptinella longipes	coast buttons	- Unknown (21598)	11-Oct-1993?	Point (497412,5428483) +/- 50m.						3a				
785865	Leptinella longipes	coast buttons	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (497412,5428433) +/- 100m.						3a				
776617	Leptinella longipes	coast buttons	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (497912,5428683) +/- 50m.						3a				
1021363	Leptinella longipes	coast buttons	Micah Visoiu (5870)	11-Feb-2003	Point (506512,5418683) +/- 300m.						3a				
282938	Leptocarpus tenax	slender twinerush	M. Thompson (5058)	02-Dec-1975	Point (483312,5450283) +/- 2000m.						3a				
590310	Leptocarpus tenax	slender twinerush	A North (2500)	20-Mar-2002	Point (492112,5436983) +/- 1000m.						3a				
257128	Leptoceras menziesii	hares ears	F. Perrin (4258)	01-Jan-1600?	Point (483212,5453583) +/- 1000m.						За				
284248	Lobelia anceps	angled lobelia	T.E. Burns (5652)	27-Dec-1970	Point (484112,5449083) +/- 2000m.						3a- 6-7- 8-12				
940928	Lomandra nana	dwarf mat-rush	T.E. Burns (5652)	24-Oct-1950	Point (504184,5424238) +/- 2000m.						За				
286949	Lomatia tinctoria	guitarplant	- Unknown (21598)	05-Nov-1959	Point (496712,5433583) +/- 2000m.	е						у			



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506766	Lomatia tinctoria	guitarplant	Mike Askey- Doran (1624)	1990	Point (491572,5436793) +/- 100m.	е						у			
283624	Lycopodium deuterodensum	conifer clubmoss	R.C. Gunn (5474)	19-Feb-1842	Point (485812,5443583) +/- 20000m.							у			
590311	Lythrum hyssopifolia	small loosestrife	A North (2500)	20-Mar-2002	Point (492112,5436983) +/- 1000m.						За				
1006318	Melaleuca armillaris subsp. armillaris	giant honeymyrtle	Mark Wapstra (1621)	11-Oct-2007	Point (493931,5443013) +/- 10m.						3a- 6-7		у		
786726	Melaleuca squarrosa	scented paperbark	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (484512,5447433) +/- 100m.						3a				
776431	Melaleuca squarrosa	scented paperbark	- Unknown (21598)	11-Oct-1993?	Point (484512,5447383) +/- 50m.						За				
940313	Melaleuca squarrosa	scented paperbark	S.G. Hannaford (5570)	01-Oct-1864	Point (484605,5450126) +/- 2000m.						За				
590312	Melaleuca squarrosa	scented paperbark	A North (2500)	20-Mar-2002	Point (492112,5436983) +/- 1000m.						За				
931972	Melicytus dentatus	spiky velvetbush	A.M. Buchanan (3758)	25-Dec-1983	Point (505578,5424237) +/- 2000m.						За				
855983	Microsorum pustulatum subsp. pustulatum	kangaroo fern	- Unknown (21598)	01-Feb-1989?	Point (495612,5441683) +/- 1000m.							у			
856025	Microsorum pustulatum subsp. pustulatum	kangaroo fern	- Unknown (21598)	01-Feb-1989?	Point (493812,5443383) +/- 100m.							у			
110180	Microsorum pustulatum subsp. pustulatum	kangaroo fern	Kristen Williams (1451)	14-Oct-1988?	Point (495712,5437083) +/- 100m.							у			
257277	Microtis oblonga	sweet onion- orchid	W.M. Curtis (5737)	15-Dec-1955	Point (485812,5442483) +/- 1000m.						За				
255907	Microtis parviflora	slender onion- orchid	F. Perrin (4258)	1930	Point (483212,5453583) +/- 1000m.						За				
558000	Microtis parviflora	slender onion- orchid	Mary Cameron (3061)	15-Nov-1985?	Point (480412,5444483) +/- 100m.						За				
777422	Monotoca elliptica	tree broomheath	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (483362,5445958) +/- 517m.						3a				
385749	Muehlenbeckia adpressa	climbing lignum	Stephen Harris (2289)	1992	Point (480012,5452483) +/- 100m.						За				
387158	Muehlenbeckia adpressa	climbing lignum	Stephen Harris (2289)	1992	Point (480012,5452533) +/- 100m.						За				
287618	Olearia glandulosa	swamp daisybush	A.M. Buchanan (3758)	01-Jun-1995	Point (500012,5432483) +/- 100m.						За				
855962	Olearia stellulata	sawleaf daisybush	- Unknown (21598)	01-Feb-1989?	Point (495612,5441683) +/- 1000m.						За				
856023	Olearia stellulata	sawleaf daisybush	- Unknown (21598)	01-Feb-1989?	Point (493812,5443383) +/- 100m.						За				
1098208	Olearia stellulata	sawleaf daisybush	Evi Kroggel (21181),Natalie Sullivan (21182)	07-Sep-2009	Point (493407,5436025) +/- 20m.						3a				
496348	Opercularia ovata	broadleaf stinkweed	Mike Askey- Doran (1624)	1990	Point (491572,5436793) +/- 100m.						За				



ld	Species	Common name	Observers	Date	Location	Bio	Sci	Rfa	Nat	Int	Res	Pri	Unc	Sen	Cul
502715	Opercularia ovata	broadleaf stinkweed	Mike Askey- Doran (1624)	1990	Point (484612,5445993) +/- 100m.						За				
598225	Opercularia ovata	broadleaf stinkweed	A North (2500)	20-Mar-2002	Point (492112,5436983) +/- 1000m.						За				
941730	Opercularia varia	variable stinkweed	W.M. Curtis (5737)	01-Dec-1955	Point (488809,5446433) +/- 2000m.						За				
941637	Opercularia varia	variable stinkweed	W.M. Curtis (5737)	15-Dec-1955	Point (486018,5442728) +/- 10000m.						За				
506564	Opercularia varia	variable stinkweed	Mike Askey- Doran (1624)	1990	Point (491942,5437383) +/- 100m.						За				
385779	Ozothamnus bracteolatus	woolly everlastingbush	Stephen Harris (2289)	1992	Point (480012,5452533) +/- 100m.	е							У		
385785	Ozothamnus turbinatus	coast everlastingbush	Stephen Harris (2289)	1992	Point (479612,5452283) +/- 100m.						За				
387159	Ozothamnus turbinatus	coast everlastingbush	Stephen Harris (2289)	1992	Point (480012,5452533) +/- 100m.						За				
387133	Ozothamnus turbinatus	coast everlastingbush	Stephen Harris (2289)	1992	Point (480012,5452483) +/- 100m.						За				
281976	Patersonia fragilis	short purpleflag	D.I. Morris (4111)	19-Nov-1986	Point (479012,5452483) +/- 100m.						За				
256839	Patersonia fragilis	short purpleflag	G. Kantvilas (4324)	19-Dec-1979	Point (479112,5452483) +/- 1000m.						За				
590314	Patersonia fragilis	short purpleflag	A North (2500)	20-Mar-2002	Point (492112,5436983) +/- 1000m.						За				
502716	Pelargonium inodorum	annual storksbill	Mike Askey- Doran (1624)	1990	Point (484612,5445993) +/- 100m.						За				
855964	Pelargonium inodorum	annual storksbill	- Unknown (21598)	01-Feb-1989?	Point (495612,5441683) +/- 1000m.						За				
110254	Pellaea falcata	sickle fern	Kristen Williams (1451)	14-Oct-1988?	Point (495712,5437083) +/- 100m.						За				
856024	Pellaea falcata	sickle fern	- Unknown (21598)	01-Feb-1989?	Point (493812,5443383) +/- 100m.						За				
855982	Pellaea falcata	sickle fern	- Unknown (21598)	01-Feb-1989?	Point (495612,5441683) +/- 1000m.						За				
598227	Pentapogon quadrifidus	five-awned speargrass	A North (2500)	20-Mar-2002	Point (492112,5436983) +/- 1000m.						За				
257105	Pheladenia deformis	blue fairies	F. Perrin (4258)	Nov-1926	Point (483212,5453583) +/- 1000m.						За				
345078	Phragmites australis	southern reed	Richard Schahinger (2944)	07-Feb-2002	Point (506512,5418703) +/- 5m.						За				
1021405	Phragmites australis	southern reed	Micah Visoiu (5870)	25-Mar-2003	Point (506512,5418683) +/- 300m.						За				
855984	Pimelea ligustrina subsp. ligustrina	tall riceflower	- Unknown (21598)	01-Feb-1989?	Point (495612,5441683) +/- 1000m.						За				
506767	Pimelea nivea	bushmans bootlace	Mike Askey- Doran (1624)	1990	Point (491572,5436793) +/- 100m.	e									
506815	Pimelea nivea	bushmans bootlace	Mike Askey- Doran (1624)	1990	Point (491512,5436983) +/- 100m.	е									
496171	Pimelea nivea	bushmans bootlace	Mike Askey- Doran (1624)	1990	Point (491942,5437383) +/- 100m.	е									





ld	Species	Common name	Observers	Date	Location	Bio	Sci	Rfa	Nat	Int	Res	Pri	Unc	Sen	Cul
256340	Pimelea nivea	bushmans bootlace	T.E. Burns (5652)	19-Nov-1970	Point (493312,5442483) +/- 1000m.	e									
598315	Pimelea nivea	bushmans bootlace	A North (2500)	19-Mar-2002	Point (496912,5440083) +/- 200m.	е									
286721	Platylobium formosum	handsome flatpea	- Unknown (21598)	21-Oct-1842	Point (495912,5441383) +/- 20000m.						За				
283618	Platylobium obtusangulum	common flatpea	- Unknown (21598)	23-Nov-1842	Point (485812,5443583) +/- 2000m.						За				
284646	Platylobium obtusangulum	common flatpea	- Unknown (21598)	23-Nov-1842	Point (485812,5443583) +/- 20000m.						За				
285895	Pomaderris apetala subsp. maritima	coastal dogwood	- Unknown (21598)	12-Dec-1959	Point (496712,5433583) +/- 2000m.						3a				
286765	Pomaderris elliptica var. diemenica	tasmanian yellow dogwood	F.E. Burbury (4270)	01-Oct-1911	Point (500912,5424683) +/- 2000m.	e					За				
284623	Pomaderris elliptica var. elliptica	yellow dogwood	T.E. Burns (5652)	17-Oct-1959	Point (485812,5443583) +/- 2000m.						За				
930000	Pomaderris elliptica var. elliptica	yellow dogwood	A.M. Buchanan (3758)	14-Feb-2003	Point (480421,5444565) +/- 1000m.						3a				
940283	Pomaderris elliptica var. elliptica	yellow dogwood	R. Verbeeten (6491)	11-Jul-2001	Point (494413,5435338) +/- 2000m.						За				
257278	Prasophyllum australe	austral leek- orchid	W.M. Curtis (5737)	20-Dec-1955	Point (485812,5442483) +/- 1000m.						За				
552519	Prasophyllum australe	austral leek- orchid	- Unknown (21598)	01-Dec-1936?	Point (497112,5433183) +/- 100m.						3a				
255999	Prasophyllum elatum	tall leek-orchid	F. Perrin (4258)	Jan-1926	Point (484912,5450283) +/- 1000m.						За				
255908	Prasophyllum lindleyanum	green leek- orchid	F. Perrin (4258)	01-Jan-1600?	Point (483212,5453583) +/- 1000m.						3a				
256000	Prasophyllum truncatum	truncate leek- orchid	F. Perrin (4258)	01-Jan-1600?	Point (484912,5450283) +/- 1000m.	e					3a				
255909	Pterostylis alata	striped greenhood	F. Perrin (4258)	1929	Point (483212,5453583) +/- 1000m.	e					За				
257129	Pterostylis alata	striped greenhood	F. Perrin? (6204)	01-Jan-1600?	Point (483212,5453583) +/- 1000m.	e					3a				
257130	Pterostylis alata	striped greenhood	- Unknown (21598)	Jul-1922	Point (483212,5453583) +/- 1000m.	е					3a				
563499	Pterostylis concinna	trim greenhood	- Unknown (21598)	01-Jun-1944?	Point (503112,5422283) +/- 100m.						За				
567853	Pterostylis curta	blunt greenhood	- Unknown (21598)	15-Oct-1893?	Point (485112,5445183) +/- 5000m.						3a				
257131	Pterostylis curta	blunt greenhood	F. Perrin (4258)	Nov-1928	Point (483212,5453583) +/- 1000m.						За				
552523	Pterostylis curta	blunt greenhood	- Unknown (21598)	01-Oct-1942?	Point (497212,5433283) +/- 100m.						За				
776408	Ranunculus lappaceus	woodland buttercup	- Unknown (21598)	11-Oct-1993?	Point (484512,5446583) +/- 50m.						За				
777486	Ranunculus Iappaceus	woodland buttercup	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (484562,5446683) +/- 162m.						3a				



ld	Species	Common name	Observers	Date	Location	Bio	Sci	Rfa	Nat	Int	Res	Pri	Unc	Sen	Cul
506785	Ranunculus Iappaceus	woodland buttercup	Mike Askey- Doran (1624)	1990	Point (491572,5436793) +/- 100m.						За				
506565	Ranunculus lappaceus	woodland buttercup	Mike Askey- Doran (1624)	1990	Point (491942,5437383) +/- 100m.						3a				
855986	Rorippa gigantea	large yellowcress	- Unknown (21598)	01-Feb-1989?	Point (495612,5441683) +/- 1000m.						3a				
1021378	Rumex brownii	slender dock	Micah Visoiu (5870)	26-Feb-2003	Point (506512,5418683) +/- 300m.						3a				
1021381	Samolus repens var. repens	creeping brookweed	Micah Visoiu (5870)	01-Mar-2003	Point (506512,5418683) +/- 300m.						3a				
284249	Samolus repens var. repens	creeping brookweed	T.E. Burns. (5653)	27-Dec-1970	Point (484112,5449083) +/- 2000m.						3a				
775758	Samolus repens var. repens	creeping brookweed	- Unknown (21598)	11-Oct-1993?	Point (497412,5428483) +/- 50m.						3a				
785867	Samolus repens var. repens	creeping brookweed	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (497412,5428433) +/- 100m.						3a				
776620	Samolus repens var. repens	creeping brookweed	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (497912,5428683) +/- 50m.						3a				
286882	Samolus repens var. repens	creeping brookweed	J. Somerville (4676)	10-Mar-1961	Point (502612,5424683) +/- 2000m.						3a				
777394	Samolus repens var. repens	creeping brookweed	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (483512,5445883) +/- 50m.						За				
777450	Samolus repens var. repens	creeping brookweed	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (483812,5445983) +/- 50m.						3a				
777451	Sarcocornia quinqueflora	beaded glasswort	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (483812,5445983) +/- 50m.						3a				
341441	Sarcocornia quinqueflora	beaded glasswort	Allison Woolley (3222)	25-Sep-2000	Point (489412,5444183) +/- 100m.						3a				
1021366	Sarcocornia quinqueflora	beaded glasswort	Micah Visoiu (5870)	14-Feb-2003	Point (506512,5418683) +/- 300m.						За				
284625	Schizaea bifida	forked combfern	A. Simson (3720)	1880	Point (485812,5443583) +/- 2000m.						3a	у			
1021394	Schoenoplectus pungens	sharp clubsedge	Micah Visoiu (5870)	14-Mar-2003	Point (506512,5418683) +/- 300m.						3a	у			
287617	Schoenus nitens	shiny bogsedge	- Unknown (21598)	23-Jan-1982	Point (500012,5430283) +/- 2000m.						3a				
257279	Selaginella uliginosa	swamp spikemoss	R.C. Gunn (5474)	25-Jan-1841	Point (485812,5442483) +/- 1000m.						3a	у			
598249	Selaginella uliginosa	swamp spikemoss	A North (2500)	20-Mar-2002	Point (492112,5436983) +/- 1000m.						3a	у			
1153929	Selliera radicans	shiny swampmat	Micah Visoiu (5870)	08-Jun-2007	Point (499994,5429604) +/- 100m.						3a				
283622	Senecio glomeratus	purple fireweed	W.M. Curtis (5737)	20-Dec-1955	Point (485812,5443583) +/- 2000m.						3a				
940923	Senecio glomeratus	purple fireweed	T.E. Burns (5652)	29-Nov-1970	Point (484609,5448276) +/- 2000m.						За				



ld	Species	Common name	Observers	Date	Location	Bio	Sci	Rfa	Nat	Int	Res	Pri	Unc	Sen	Cul
777491	Stellaria pungens	prickly starwort	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (484562,5446683) +/- 162m.						3a				
785639	Stellaria pungens	prickly starwort	- Unknown (21598)	11-Oct-1993?	Point (484512,5446583) +/- 50m.						3a				
368807	Stellaria pungens	prickly starwort	Allison Woolley (3222)	1998	Point (495112,5438183) +/- 100m.						За				
496405	Stellaria pungens	prickly starwort	Mike Askey- Doran (1624)	1990	Point (483102,5445863) +/- 100m.						За				
256956	Stylidium armeria subsp. armeria	coastal triggerplant	W.D. Jackson (5722)	24-Jan-1961	Point (480812,5444683) +/- 1000m.						За				
939532	Tetragonia tetragonoides	new zealand spinach	R.C. Gunn (5474)	05-Jul-1843	Point (486011,5446428) +/- 2000m.						3b				
281978	Thelionema caespitosum	tufted lily	D.I. Morris (4111)	19-Nov-1986	Point (479012,5452483) +/- 100m.						За				
256840	Thelionema caespitosum	tufted lily	G. Kantvilas (4324)	19-Dec-1979	Point (479112,5452483) +/- 1000m.						За				
590364	Thelionema caespitosum	tufted lily	A North (2500)	19-Mar-2002	Point (496912,5440083) +/- 200m.						За				
552540	Thelymitra circumsepta	naked sun- orchid	Greg Hocking (7572)	25-Nov-1972?	Point (497612,5430683) +/- 500m.						За				
552542	Thelymitra circumsepta	naked sun- orchid	- Unknown (21598)	01-Dec-1943?	Point (497812,5429683) +/- 100m.						3a				
552543	Thelymitra cyanea	veined sun orchid	- Unknown (21598)	01-Dec-1947?	Point (497812,5429683) +/- 100m.						За				
556685	Thelymitra erosa	striped sun- orchid	Neil Burrows (1792)	01-Dec-1943?	Point (497812,5429683) +/- 100m.						За				
284643	Thelymitra exigua	short sun- orchid	T.E. Burns (5652)	12-Nov-1961	Point (485812,5443583) +/- 2000m.								У		
284642	Thelymitra flexuosa	twisted sun- orchid	R.C. Gunn (5474)	28-Oct-1843	Point (485812,5443583) +/- 2000m.						3a				
257281	Thelymitra flexuosa	twisted sun- orchid	R.C. Gunn (5474)	28-Nov-1843	Point (485812,5446883) +/- 1000m.						За				
284641	Thelymitra flexuosa	twisted sun- orchid	T.E. Burns (5652)	24-Oct-1959	Point (485812,5443583) +/- 2000m.						За				
1021400	Triglochin procerum	greater waterribbons	Micah Visoiu (5870)	20-Mar-2003	Point (506512,5418683) +/- 300m.						За				
785835	Triglochin procerum	greater waterribbons	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (497912,5428683) +/- 50m.						За				
257958	Triglochin striatum	streaked arrowgrass	B. Robinson (3850)	23-Jan-1982	Point (500112,5430283) +/- 1000m.						За				
288211	Triglochin striatum	streaked arrowgrass	- Unknown (21598)	01-Jan-1600?	Point (506712,5419183) +/- 2000m.						3a				
1021401	Triglochin striatum	streaked arrowgrass	Micah Visoiu (5870)	21-Mar-2003	Point (506512,5418683) +/- 300m.						3a				
491855	Veronica calycina	hairy speedwell	Mike Askey- Doran (1624)	1990	Point (484612,5445993) +/- 100m.						За				
110230	Viola betonicifolia subsp. betonicifolia	showy violet	Kristen Williams (1451)	14-Oct-1988?	Point (495812,5437283) +/- 100m.						3a				



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256957	Xanthosia ternifolia	shrubby crossherb	W.D. Jackson (5722)	24-Jan-1961	Point (480812,5444683) +/- 1000m.						3a				

Unverified Records

For more information about flora and fauna species, please contact the Manager, Biodiversity Conservation Branch. Telephone: (03) 6233 6556

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E: 475525 N: 5455270 E: 510700 N: 5455270





E: 510700 N: 5414579



Department of Primary Industries, Parks, Water and Environment





Verified	Records							-	_	-					
ld	Species	Common name	Observers	Date	Location	Bio	Sci	Rfa	Nat	Int	Res	Pri	Unc	Sen	Cul
856046	Acanthiza ewingii	tasmanian thornbill	- Unknown (21598)	06-Feb-1989?	Point (495612,5441683) +/- 500m.	е									
998600	Anthochaera paradoxa	yellow wattlebird	Ralph Cooper (2107)	19-Mar-1996	Point (497700,5433000) +/- 100m.	е									
603725	Anthochaera paradoxa	yellow wattlebird	Ralph Cooper (2107)	10-May-1997	Point (498612,5427383) +/- 800m.	е									
669326	Anthochaera paradoxa	yellow wattlebird	- Unknown (21598)	13-Apr-1979?	Point (479113,5452129) +/- 18500m.	е									
640318	Anthochaera paradoxa	yellow wattlebird	- Unknown (21598)	31-Dec-1977?	Point (507081,5420701) +/- 18500m.	е									
723626	Anthochaera paradoxa	yellow wattlebird	- Unknown (21598)	31-Aug-1980?	Point (479113,5452129) +/- 18500m.	е									
704204	Anthochaera paradoxa	yellow wattlebird	- Unknown (21598)	31-Aug-1979?	Point (479113,5452129) +/- 18500m.	е									
722482	Anthochaera paradoxa	yellow wattlebird	- Unknown (21598)	25-Apr-1981?	Point (479113,5452129) +/- 18500m.	е									
722727	Anthochaera paradoxa	yellow wattlebird	- Unknown (21598)	28-Feb-1981?	Point (479113,5452129) +/- 18500m.	е									
654766	Anthochaera paradoxa	yellow wattlebird	- Unknown (21598)	31-Aug-1978?	Point (479113,5452129) +/- 18500m.	е									
730800	Anthochaera paradoxa	yellow wattlebird	- Unknown (21598)	31-May-1980?	Point (479113,5452129) +/- 18500m.	e									
615545	Anthochaera paradoxa	yellow wattlebird	- Unknown (21598)	31-May-1981?	Point (479113,5452129) +/- 18500m.	e									
695834	Anthochaera paradoxa	yellow wattlebird	- Unknown (21598)	31-May-1979?	Point (479113,5452129) +/- 18500m.	e									
722110	Anthochaera paradoxa	yellow wattlebird	- Unknown (21598)	29-Feb-1980?	Point (479113,5452129) +/- 18500m.	e									
864630	Anthochaera paradoxa	yellow wattlebird	- Unknown (21598)	06-Feb-1989?	Point (495612,5441683) +/- 500m.	e									
607213	Bassiana duperreyi	eastern three- lined skink	R Green QVM (2128)	02-Mar-1964?	Point (479113,5452129) +/- 670m.								n	n	n
607252	Bassiana duperreyi	eastern three- lined skink	R Green QVM (2128)	28-Jan-1962?	Point (479113,5452129) +/- 670m.								n	n	n
607004	Bassiana duperreyi	eastern three- lined skink	W Green QVM (2513)	01-Jan-1962?	Point (479113,5452129) +/- 670m.								n	n	n
607033	Bassiana duperreyi	eastern three- lined skink	R Green QVM (2128)	23-Feb-1963?	Point (479113,5452129) +/- 670m.								n	n	n
898842	Bettongia gaimardi	tasmanian bettong	B Munday (3913)	17-Jun-1974?	Point (508473,5418850) +/- 1850m.	eax									
856053	Bettongia gaimardi	tasmanian bettong	- Unknown (21598)	06-Feb-1989?	Point (495612,5441683) +/- 500m.	eax									
900356	Bettongia gaimardi	tasmanian bettong	Nick Mooney (16443)	01-Jan-1600?	Point (484312,5451583) +/- 10000m.	eax									
856078	Dasyurus viverrinus	eastern quoll	- Unknown (21598)	06-Feb-1989?	Point (495612,5441683) +/- 500m.	e									
358019	Dasyurus viverrinus	eastern quoll	Menna Jones (8901)	01-Jan-1996?	Point (500312,5426183) +/- 100m.	e									



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900865	Dasyurus viverrinus	eastern quoll	B Munday (3913)	20-Mar-1982?	Point (509861,5415147) +/- 18500m.	е									
864654	Egernia whitii	Whites skink	- Unknown (21598)	06-Feb-1989?	Point (495612,5441683) +/- 500m.								n	n	n
616625	Egernia whitii	Whites skink	R Green QVM (2128)	16-Jan-1966?	Point (479113,5452129) +/- 670m.								n	n	n
607279	Egernia whitii	Whites skink	R Green QVM (2128)	05-Apr-1964?	Point (479113,5452129) +/- 670m.								n	n	n
616231	Egernia whitii	Whites skink	W Green QVM (2513)	01-Jan-1962?	Point (479113,5452129) +/- 670m.								n	n	n
607275	Egernia whitii	Whites skink	R Green QVM (2128)	15-Sep-1962?	Point (479113,5452129) +/- 670m.								n	n	n
616577	Egernia whitii	Whites skink	R Green QVM (2128)	15-Feb-1964?	Point (479113,5452129) +/- 670m.								n	n	n
603732	Gallinula mortierii	tasmanian native hen	Ralph Cooper (2107)	10-May-1997	Point (498612,5427383) +/- 800m.	е									
864658	Gallinula mortierii	tasmanian native hen	- Unknown (21598)	06-Feb-1989?	Point (495612,5441683) +/- 500m.	е									
731158	Gallinula mortierii	tasmanian native hen	- Unknown (21598)	25-Apr-1981?	Point (479113,5452129) +/- 18500m.	е									
732482	Gallinula mortierii	tasmanian native hen	- Unknown (21598)	31-Aug-1980?	Point (479113,5452129) +/- 18500m.	е									
695369	Gallinula mortierii	tasmanian native hen	- Unknown (21598)	31-Aug-1979?	Point (479113,5452129) +/- 18500m.	е									
663335	Gallinula mortierii	tasmanian native hen	- Unknown (21598)	31-Aug-1978?	Point (479113,5452129) +/- 18500m.	е									
730776	Gallinula mortierii	tasmanian native hen	- Unknown (21598)	29-Feb-1980?	Point (479113,5452129) +/- 18500m.	е									
624323	Gallinula mortierii	tasmanian native hen	- Unknown (21598)	31-May-1981?	Point (479113,5452129) +/- 18500m.	е									
709082	Gallinula mortierii	tasmanian native hen	- Unknown (21598)	31-May-1980?	Point (479113,5452129) +/- 18500m.	е									
687154	Gallinula mortierii	tasmanian native hen	- Unknown (21598)	31-May-1979?	Point (479113,5452129) +/- 18500m.	е									
664021	Gallinula mortierii	tasmanian native hen	- Unknown (21598)	31-Aug-1977?	Point (479113,5452129) +/- 18500m.	е									
953336	Gallinula mortierii	tasmanian native hen	Ralph Cooper (2107)	14-Mar-1996	Point (504800,5423700) +/- 100m.	е									
954657	Gallinula mortierii	tasmanian native hen	Ralph Cooper (2107)	10-Feb-1996	Point (504900,5423800) +/- 100m.	е									
894829	Isoodon obesulus subsp. affinis	southern brown bandicoot	B Munday (3913)	15-Apr-1974?	Point (502900,5422554) +/- 1850m.	е									
608020	lsoodon obesulus subsp. affinis	southern brown bandicoot	G Davis (7563)	30-Jul-1982?	Point (498482,5433656) +/- 2000m.	е									
901941	Isoodon obesulus subsp. affinis	southern brown bandicoot	R Baxter (2006)	11-Sep-1980?	Point (486130,5442894) +/- 18500m.	е									
547569	Lessonia corrugata	algae	N Barrett/GEdgar (6596)	19-Oct-1994	Point (482467,5454728) +/- 150m.	е									
731438	Lichenostomus flavicollis	yellow- throated honeyeater	- Unknown (21598)	26-Dec-1980?	Point (479113,5452129) +/- 18500m.	е									



ld	Species	Common name	Observers	Date	Location	Bio	Sci	Rfa	Nat	Int	Res	Pri	Unc	Sen	Cul
664039	Lichenostomus flavicollis	yellow- throated honeyeater	- Unknown (21598)	31-Aug-1977?	Point (479113,5452129) +/- 18500m.	е									
731162	Lichenostomus flavicollis	yellow- throated honeyeater	- Unknown (21598)	25-Apr-1981?	Point (479113,5452129) +/- 18500m.	e									
710161	Lichenostomus flavicollis	yellow- throated honeyeater	- Unknown (21598)	31-Aug-1979?	Point (479113,5452129) +/- 18500m.	e									
615550	Lichenostomus flavicollis	yellow- throated honeyeater	- Unknown (21598)	31-May-1981?	Point (479113,5452129) +/- 18500m.	e									
664445	Lichenostomus flavicollis	yellow- throated honeyeater	- Unknown (21598)	31-May-1978?	Point (479113,5452129) +/- 18500m.	e									
687159	Lichenostomus flavicollis	yellow- throated honeyeater	- Unknown (21598)	31-May-1979?	Point (479113,5452129) +/- 18500m.	e									
710451	Lichenostomus flavicollis	yellow- throated honeyeater	- Unknown (21598)	29-Feb-1980?	Point (479113,5452129) +/- 18500m.	e									
654789	Lichenostomus flavicollis	yellow- throated honeyeater	- Unknown (21598)	31-Aug-1978?	Point (479113,5452129) +/- 18500m.	e									
717646	Lichenostomus flavicollis	yellow- throated honeyeater	- Unknown (21598)	31-May-1980?	Point (479113,5452129) +/- 18500m.	e									
679911	Lichenostomus flavicollis	yellow- throated honeyeater	- Unknown (21598)	30-Nov-1978?	Point (479113,5452129) +/- 18500m.	e									
684262	Lichenostomus flavicollis	yellow- throated honeyeater	- Unknown (21598)	11-Jun-1977?	Point (479113,5452129) +/- 18500m.	e									
678642	Lichenostomus flavicollis	yellow- throated honeyeater	- Unknown (21598)	15-Dec-1978?	Point (479113,5452129) +/- 18500m.	e									
679012	Lichenostomus flavicollis	yellow- throated honeyeater	- Unknown (21598)	13-Apr-1979?	Point (479113,5452129) +/- 18500m.	е									
732278	Lichenostomus flavicollis	yellow- throated honeyeater	- Unknown (21598)	31-Aug-1980?	Point (479113,5452129) +/- 18500m.	e									
679187	Lichenostomus flavicollis	yellow- throated honeyeater	- Unknown (21598)	28-Apr-1979?	Point (479113,5452129) +/- 18500m.	e									
669675	Lichenostomus flavicollis	yellow- throated honeyeater	- Unknown (21598)	28-Feb-1979?	Point (479113,5452129) +/- 18500m.	e									
669379	Lichenostomus flavicollis	yellow- throated honeyeater	- Unknown (21598)	06-Apr-1979?	Point (479113,5452129) +/- 18500m.	e									
678549	Lichenostomus flavicollis	yellow- throated honeyeater	- Unknown (21598)	15-Mar-1979?	Point (479113,5452129) +/- 18500m.	e									
700732	Lichenostomus flavicollis	yellow- throated honeyeater	- Unknown (21598)	22-Sep-1979?	Point (479113,5452129) +/- 18500m.	e									
669617	Lichenostomus flavicollis	yellow- throated honeyeater	- Unknown (21598)	18-May-1979?	Point (479113,5452129) +/- 18500m.	e									
864661	Lichenostomus flavicollis	yellow- throated honeyeater	- Unknown (21598)	06-Feb-1989?	Point (495612,5441683) +/- 500m.	e									
613082	Lichenostomus flavicollis	yellow- throated honeyeater	Ralph Cooper (2107)	10-May-1997	Point (498612,5427383) +/- 800m.	e									
603734	Lichenostomus flavicollis	yellow- throated honeyeater	Ralph Cooper (2107)	07-May-1997	Point (498612,5427383) +/- 800m.	e									
603735	Lichenostomus flavicollis	yellow- throated honeyeater	Ralph Cooper (2107)	21-May-1997	Point (498612,5427383) +/- 800m.	e									
613113	Lichenostomus flavicollis	yellow- throated honeyeater	Ralph Cooper (2107)	12-May-1997	Point (498612,5427383) +/- 800m.	e									





ld	Species	Common name	Observers	Date	Location	Bio	Sci	Rfa	Nat	Int	Res	Pri	Unc	Sen	Cul
649120	Lichenostomus flavicollis	yellow- throated honeyeater	- Unknown (21598)	31-Dec-1977?	Point (507081,5420701) +/- 18500m.	е									
749983	Macropus rufogriseus subsp. rufogriseus	red-necked wallaby	Greg Hocking (7572)	24-Oct-1991	Point (497840,5426133) +/- 633m.	e									
864662	Macropus rufogriseus subsp. rufogriseus	red-necked wallaby	- Unknown (21598)	06-Feb-1989?	Point (495612,5441683) +/- 500m.	e									
692577	Melanodryas vittata	dusky robin	- Unknown (21598)	11-Jun-1977?	Point (479113,5452129) +/- 18500m.	е									
718692	Melanodryas vittata	dusky robin	- Unknown (21598)	31-Aug-1979?	Point (479113,5452129) +/- 18500m.	е									
700733	Melanodryas vittata	dusky robin	- Unknown (21598)	22-Sep-1979?	Point (479113,5452129) +/- 18500m.	е									
730777	Melanodryas vittata	dusky robin	- Unknown (21598)	29-Feb-1980?	Point (479113,5452129) +/- 18500m.	е									
613119	Melanodryas vittata	dusky robin	Ralph Cooper (2107)	12-May-1997	Point (498612,5427383) +/- 800m.	е									
613118	Melanodryas vittata	dusky robin	Ralph Cooper (2107)	10-May-1997	Point (498612,5427383) +/- 800m.	е									
613117	Melanodryas vittata	dusky robin	Ralph Cooper (2107)	07-May-1997	Point (498612,5427383) +/- 800m.	е									
856088	Melanodryas vittata	dusky robin	- Unknown (21598)	06-Feb-1989?	Point (495612,5441683) +/- 500m.	е									
655895	Melanodryas vittata	dusky robin	- Unknown (21598)	31-May-1978?	Point (479113,5452129) +/- 18500m.	e									
722163	Melanodryas vittata	dusky robin	- Unknown (21598)	31-May-1980?	Point (479113,5452129) +/- 18500m.	e									
722523	Melanodryas vittata	dusky robin	- Unknown (21598)	25-Apr-1981?	Point (479113,5452129) +/- 18500m.	e									
687750	Melanodryas vittata	dusky robin	- Unknown (21598)	15-Mar-1979?	Point (479113,5452129) +/- 18500m.	е									
723656	Melanodryas vittata	dusky robin	- Unknown (21598)	31-Aug-1980?	Point (479113,5452129) +/- 18500m.	е									
732296	Melithreptus affinis	black-headed honeyeater	- Unknown (21598)	31-Aug-1980?	Point (479113,5452129) +/- 18500m.	е									
722833	Melithreptus affinis	black-headed honeyeater	- Unknown (21598)	26-Dec-1980?	Point (479113,5452129) +/- 18500m.	е									
722120	Melithreptus affinis	black-headed honeyeater	- Unknown (21598)	29-Feb-1980?	Point (479113,5452129) +/- 18500m.	е									
710484	Melithreptus affinis	black-headed honeyeater	- Unknown (21598)	08-Feb-1980?	Point (479113,5452129) +/- 18500m.	e									
709459	Melithreptus affinis	black-headed honeyeater	- Unknown (21598)	31-Aug-1979?	Point (479113,5452129) +/- 18500m.	е									
679338	Platycercus caledonicus	green rosella	- Unknown (21598)	28-Feb-1979?	Point (479113,5452129) +/- 18500m.	e									
649123	Platycercus caledonicus	green rosella	- Unknown (21598)	31-Dec-1977?	Point (507081,5420701) +/- 18500m.	e									
709323	Platycercus caledonicus	green rosella	- Unknown (21598)	22-Sep-1979?	Point (479113,5452129) +/- 18500m.	e									



ld	Species	Common name	Observers	Date	Location	Bio	Sci	Rfa	Nat	Int	Res	Pri	Unc	Sen	Cul
678555	Platycercus caledonicus	green rosella	- Unknown (21598)	15-Mar-1979?	Point (479113,5452129) +/- 18500m.	е									
679190	Platycercus caledonicus	green rosella	- Unknown (21598)	28-Apr-1979?	Point (479113,5452129) +/- 18500m.	e									
696820	Platycercus caledonicus	green rosella	- Unknown (21598)	31-May-1979?	Point (479113,5452129) +/- 18500m.	e									
731167	Platycercus caledonicus	green rosella	- Unknown (21598)	25-Apr-1981?	Point (479113,5452129) +/- 18500m.	e									
615559	Platycercus caledonicus	green rosella	- Unknown (21598)	31-May-1981?	Point (479113,5452129) +/- 18500m.	e									
673113	Platycercus caledonicus	green rosella	- Unknown (21598)	31-Aug-1977?	Point (479113,5452129) +/- 18500m.	e									
731458	Platycercus caledonicus	green rosella	- Unknown (21598)	26-Dec-1980?	Point (479113,5452129) +/- 18500m.	e									
710459	Platycercus caledonicus	green rosella	- Unknown (21598)	29-Feb-1980?	Point (479113,5452129) +/- 18500m.	e									
717665	Platycercus caledonicus	green rosella	- Unknown (21598)	31-May-1980?	Point (479113,5452129) +/- 18500m.	e									
718697	Platycercus caledonicus	green rosella	- Unknown (21598)	31-Aug-1979?	Point (479113,5452129) +/- 18500m.	e									
732485	Platycercus caledonicus	green rosella	- Unknown (21598)	31-Aug-1980?	Point (479113,5452129) +/- 18500m.	e									
730832	Platycercus caledonicus	green rosella	- Unknown (21598)	26-Mar-1981?	Point (479113,5452129) +/- 18500m.	е									
678646	Platycercus caledonicus	green rosella	- Unknown (21598)	15-Dec-1978?	Point (479113,5452129) +/- 18500m.	е									
856110	Platycercus caledonicus	green rosella	- Unknown (21598)	06-Feb-1989?	Point (495612,5441683) +/- 500m.	e									
900091	Platycercus caledonicus	green rosella	N Broth (1775)	07-May-1978?	Point (491720,5444753) +/- 1850m.	е									
603762	Platycercus caledonicus	green rosella	Ralph Cooper (2107)	10-May-1997	Point (498612,5427383) +/- 800m.	e									
603763	Platycercus caledonicus	green rosella	Ralph Cooper (2107)	21-May-1997	Point (498612,5427383) +/- 800m.	e									
613122	Platycercus caledonicus	green rosella	Ralph Cooper (2107)	12-May-1997	Point (498612,5427383) +/- 800m.	е									
603761	Platycercus caledonicus	green rosella	Ralph Cooper (2107)	07-May-1997	Point (498612,5427383) +/- 800m.	е									
900984	Potorous tridactylus subsp. apicalis	long-nosed potoroo	C Lose (5440)	30-Nov-1974?	Point (480532,5444732) +/- 1850m.	e									
722839	Sericornis humilis	tasmanian scrubwren	- Unknown (21598)	26-Dec-1980?	Point (479113,5452129) +/- 18500m.	e									
696399	Sericornis humilis	tasmanian scrubwren	- Unknown (21598)	13-Jul-1979?	Point (479113,5452129) +/- 18500m.	е									
709325	Sericornis humilis	tasmanian scrubwren	- Unknown (21598)	22-Sep-1979?	Point (479113,5452129) +/- 18500m.	е									
709096	Sericornis humilis	tasmanian scrubwren	- Unknown (21598)	31-May-1980?	Point (479113,5452129) +/- 18500m.	е									
730797	Sericornis humilis	tasmanian scrubwren	- Unknown (21598)	29-Feb-1980?	Point (479113,5452129) +/- 18500m.	е									





ld	Species	Common name	Observers	Date	Location	Bio	Sci	Rfa	Nat	Int	Res	Pri	Unc	Sen	Cul
648367	Sericornis humilis	tasmanian scrubwren	- Unknown (21598)	18-Dec-1977?	Point (479113,5452129) +/- 18500m.	е									
603781	Sericornis humilis	tasmanian scrubwren	Ralph Cooper (2107)	07-May-1997	Point (498612,5427383) +/- 800m.	е									
732487	Sericornis humilis	tasmanian scrubwren	- Unknown (21598)	31-Aug-1980?	Point (479113,5452129) +/- 18500m.	е									
613124	Sericornis humilis	tasmanian scrubwren	Ralph Cooper (2107)	10-May-1997	Point (498612,5427383) +/- 800m.	е									
709326	Strepera fuliginosa	black currawong	- Unknown (21598)	22-Sep-1979?	Point (479113,5452129) +/- 18500m.	е									
649124	Strepera fuliginosa	black currawong	- Unknown (21598)	31-Dec-1977?	Point (507081,5420701) +/- 18500m.	е									
897145	Tachyglossus aculeatus subsp. setosus	short-beaked echidna	K Harmon (1394)	01-Jan-1600?	Point (493121,5442904) +/- 1850m.	е									
856114	Tachyglossus aculeatus subsp. setosus	short-beaked echidna	- Unknown (21598)	06-Feb-1989?	Point (495612,5441683) +/- 500m.	e									
742760	Thylogale billardierii	tasmanian pademelon	Greg Hocking (7572)	24-Oct-1991	Point (497840,5426133) +/- 633m.	eax									
856115	Thylogale billardierii	tasmanian pademelon	- Unknown (21598)	06-Feb-1989?	Point (495612,5441683) +/- 500m.	eax									
749984	Trichosurus vulpecula subsp. fuliginosus	common brushtail possum	Greg Hocking (7572)	24-Oct-1991	Point (497840,5426133) +/- 633m.	e									
742759	Trichosurus vulpecula subsp. fuliginosus	common brushtail possum	Greg Hocking (7572)	01-Aug-1992	Point (497520,5426638) +/- 979m.	e									
856116	Trichosurus vulpecula subsp. fuliginosus	common brushtail possum	- Unknown (21598)	06-Feb-1989?	Point (495612,5441683) +/- 500m.	е									
607445	Tympanocrypti s diemensis	mountain dragon	R Green QVM (2128)	30-Jan-1978?	Point (479113,5452129) +/- 670m.								n	n	n
606997	Tympanocrypti s diemensis	mountain dragon	R Green QVM (2128)	01-Oct-1961?	Point (479113,5452129) +/- 670m.								n	n	n
616619	Tympanocrypti s diemensis	mountain dragon	R Green QVM (2128)	17-Feb-1962?	Point (479113,5452129) +/- 670m.								n	n	n
856117	Tympanocrypti s diemensis	mountain dragon	- Unknown (21598)	06-Feb-1989?	Point (495612,5441683) +/- 500m.								n	n	n
607164	Tympanocrypti s diemensis	mountain dragon	R Green QVM (2128)	15-Feb-1964?	Point (479113,5452129) +/- 670m.								n	n	n
607241	Tympanocrypti s diemensis	mountain dragon	R Green QVM (2128)	16-Jan-1966?	Point (479113,5452129) +/- 670m.								n	n	n
607223	Tympanocrypti s diemensis	mountain dragon	R Green QVM (2128)	03-Jan-1964?	Point (479113,5452129) +/- 670m.								n	n	n
616229	Tympanocrypti s diemensis	mountain dragon	R Green QVM (2128)	01-Feb-1962?	Point (479113,5452129) +/- 670m.								n	n	n
607277	Tympanocrypti s diemensis	mountain dragon	R Green QVM (2128)	01-Mar-1964?	Point (479113,5452129) +/- 670m.								n	n	n
616617	Tympanocrypti s diemensis	mountain dragon	- Unknown (21598)	06-Nov-1950?	Point (494525,5435505) +/- 670m.								n	n	n
616257	Tympanocrypti s diemensis	mountain dragon	W Green QVM (2513)	02-Feb-1963?	Point (479113,5452129) +/- 670m.								n	n	n



ld	Species	Common name	Observers	Date	Location	Bio	Sci	Rfa	Nat	Int	Res	Pri	Unc	Sen	Cul
616233	Tympanocrypti s diemensis	mountain dragon	W Green QVM (2513)	01-Jan-1962?	Point (479113,5452129) +/- 670m.								n	n	n

Unverified Records

For more information about flora and fauna species, please contact the Manager, Biodiversity Conservation Branch. Telephone: (03) 6233 6556

Email: NatureConservation.Enquiries@dpipwe.tas.gov.au

Address: GPO Box 44, Hobart, Tasmania, Australia, 7000



#### Tas Management Act Weeds within 100 m



E: 510700 N: 5455270





E: 510700 N: 5414579



Department of Primary Industries, Parks, Water and Environment

#### Tas Management Act Weeds within 100 m




Verified	Records									
ld	Species	Common name	Observers	Date	Position (gda94)	Location	Obs state	Wma	Wons density	Data source
1168382	Asparagus asparagoides	bridal creeper	Jamie Cooper (6512)	01-Jun-2008	Point (492205.2285,5438805. 2159) +/1m.		Present	Yes	2	
1168383	Asparagus asparagoides	bridal creeper	Jamie Cooper (6512)	01-Jun-2008	Point (492258.3126,5438303. 9401) +/1m.		Present	Yes	2	
1168386	Asparagus asparagoides	bridal creeper	Jamie Cooper (6512)	01-Jun-2008	Point (498139.3146,5430901. 1828) +/1m.		Present	Yes	2	
908582	Asparagus asparagoides	bridal creeper	Stephen Welsh (3206)	03-Nov-1999	Point (492512,5438283) +/- 100m.		Present	Yes		
908509	Asparagus asparagoides	bridal creeper	Steve Summers (3008)	14-Oct-1996	Point (498150,5430898) +/- 50m.		Present	Yes		
908508	Asparagus asparagoides	bridal creeper	Kerry Graham (3086)	07-Jan-1995	Point (479112,5451883) +/- 1000m.		Present	Yes		
909221	Asparagus asparagoides	bridal creeper	Stephen Welsh (3206)	1998	Point (498012,5430933) +/- 50m.		Present	Yes		
281981	Asparagus asparagoides	bridal creeper	K. Graham (4790)	07-Jan-1995	Point (479012,5452483) +/- 2000m.	Greens Beach	Present	Yes		
1171186	Asparagus scandens	asparagus fern	Greg Stewart (5988)	18-Sep-2009	Point (493014.5395,5437187. 0819) +/- 50m.		Present	Yes	7	
257786	Billardiera heterophylla	bluebell creeper	A.M. Buchanan (3758)	26-Nov-1997	Point (498112,5434283) +/- 100m.	Hillwood on Tamar River.	Present	No		
1182185	Billardiera heterophylla	bluebell creeper	M F Duretto (9206)	25-Oct-2005	Point (497900,5434100) +/- 50m.		Present	No	7	
287779	Carduus pycnocephalus	slender thistle	C.R. Alcock (3994)	06-Dec-1984	Point (502612,5424683) +/- 2000m.	Tamar River, Craigburn.	Present	Yes		
1182043	Carduus tenuiflorus	winged thistle	M F Duretto (9206)	25-Oct-2005	Point (497200,5434300) +/- 50m.		Present	Yes	7	
1229354	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	14-Oct-2006	Polygon +/- 0m.		Present	Yes		
1229355	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	14-Oct-2006	Polygon +/- 0m.		Present	Yes		
1229359	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	06-Oct-2006	MultiPolygon +/- 0m.		Present	Yes		
1229360	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	06-Oct-2006	MultiPolygon +/- 0m.		Present	Yes		
1229401	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	08-Oct-2007	Polygon +/- 0m.		Present	Yes		
1229520	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	14-Oct-2006	Polygon +/- 0m.		Present	Yes		
1229356	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	01-Nov-2006	Polygon +/- 0m.		Present	Yes		
1229379	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	13-Oct-2007	Polygon +/- 0m.		Present	Yes		



Id	Species	Common name	Observers	Date	Position (gda94)	Location	Obs state	Wma	Wons density	Data source
911163	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	01-Jan-1600?	Point (495458,5437681) +/- 5000m.	Tamar R, Spring Bay	Present	Yes		
911167	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	01-Jan-1600?	Point (497951,5431031) +/- 5000m.	Tamar R, Paper Beach	Present	Yes		
1229391	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	08-Oct-2007	Polygon +/- 0m.		Present	Yes		
1229380	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	14-Oct-2007	Polygon +/- 0m.		Present	Yes		
911187	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	01-Jan-1600?	Point (500445,5424796) +/- 5000m.	Tamar R, Rosevears area	Present	Yes		
1229386	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	08-Oct-2007	Polygon +/- 0m.		Present	Yes		
51061	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Fred Duncan (7477)	29-Jul-1981?	Point (499012,5425483) +/- 200m.		Present	Yes		
911945	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Tim Rudman (2416)	01-Dec-2000	Point (498112,5430883) +/- 25m.	Tamar, Little Swan Point	Present	Yes		
1229387	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	08-Oct-2007	Polygon +/- 0m.		Present	Yes		
1229368	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	06-Oct-2007	Polygon +/- 0m.		Present	Yes		
911168	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	01-Jan-1600?	Point (498229,5434494) +/- 5000m.	Tamar R, egg isl-Mowbray	Present	Yes		
1229365	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	07-Oct-2007	Polygon +/- 0m.		Present	Yes		
1229367	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	13-Oct-2007	Polygon +/- 0m.		Present	Yes		
1229383	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	08-Oct-2007	Polygon +/- 0m.		Present	Yes		
785825	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (498612,5428483) +/- 50m.		Present	Yes		
494781	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Mike Askey- Doran (1624)	1990	Point (484012,5445083) +/- 100m.		Present	Yes		
1229385	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	08-Oct-2007	Polygon +/- 0m.		Present	Yes		
1229389	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	08-Oct-2007	Polygon +/- 0m.		Present	Yes		
911165	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	01-Jan-1600?	Point (496427,5435741) +/- 5000m.	Tamar R, egg isl-Mowbray	Present	Yes		



Id	Species	Common name	Observers	Date	Position (gda94)	Location	Obs state	Wma	Wons density	Data source
1097974	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Evi Kroggel (21181),Natalie Sullivan (21182)	07-Sep-2009	Point (493407,5436025) +/- 20m.	Deviot	Present	Yes		
911974	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	01-Jan-1600?	Point (501831,5422995) +/- 5000m.	Tamar R, Rosevears area	Present	Yes		
1229382	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	08-Oct-2007	Polygon +/- 0m.		Present	Yes		
911188	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Chris Moore (3358)	01-Dec-2000	Point (503412,5422783) +/- 100m.	Tamar R, Legana area	Present	Yes		
786570	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (483362,5445958) +/- 517m.		Present	Yes		
911944	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	01-Jan-1600?	Point (496843,5432693) +/- 5000m.	Tamar R, Paper Beach	Present	Yes		
1229361	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	09-Oct-2006	Polygon +/- 0m.		Present	Yes		
1229363	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	07-Oct-2006	Polygon +/- 0m.		Present	Yes		
1229388	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	08-Oct-2007	Polygon +/- 0m.		Present	Yes		
257735	Chrysanthemoi des monilifera subsp. monilifera	boneseed	A.M. Buchanan (3758)	26-Nov-1997	Point (497212,5435083) +/- 100m.	North of Hillwood	Present	Yes		
1229362	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	07-Oct-2006	Polygon +/- 0m.		Present	Yes		
1229390	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	08-Oct-2007	Polygon +/- 0m.		Present	Yes		
911942	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	01-Jan-1600?	Point (491578,5438928) +/- 5000m.	Tamar R, Kayeno	Present	Yes		
1229381	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	08-Oct-2007	Polygon +/- 0m.		Present	Yes		
1229378	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	13-Oct-2007	Polygon +/- 0m.		Present	Yes		
1168281	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (500088.804,5433003.7 19) +/1m.		Present	Yes	7	
1168282	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (500062.8332,5433029. 2526) +/1m.		Present	Yes	7	
1168283	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (500047.7532,5433019. 2614) +/1m.		Present	Yes	7	
1168284	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (500036.8621,5433018. 1513) +/1m.		Present	Yes	7	



Id	Species	Common name	Observers	Date	Position (gda94)	Location	Obs state	Wma	Wons density	Data source
1168285	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (500034.3488,5433022. 5919) +/1m.		Present	Yes	7	
1168286	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (500026.809,5433059.2 267) +/1m.		Present	Yes	7	
1168287	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (500010.0533,5433027. 0326) +/1m.		Present	Yes	7	
1168288	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (500012.5666,5433004. 8297) +/1m.		Present	Yes	7	
1168289	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (500006.7022,5433013. 7108) +/1m.		Present	Yes	7	
1168290	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (500016.7554,5432951. 5428) +/1m.		Present	Yes	7	
1168291	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (500010.0532,5432952. 6529) +/1m.		Present	Yes	7	
1168292	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (500001.6755,5432950. 4326) +/1m.		Present	Yes	7	
1168293	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499967.327,5432959.3 137) +/1m.		Present	Yes	7	
1168294	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499997.4867,5432995. 9485) +/1m.		Present	Yes	7	
1168295	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (500047.7531,5432998. 1687) +/1m.		Present	Yes	7	
1168296	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (500070.3726,5432968. 1946) +/1m.		Present	Yes	7	
1168297	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (500067.0217,5432988. 1772) +/1m.		Present	Yes	7	
1168298	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (500067.0219,5433000. 3888) +/1m.		Present	Yes	7	
1168299	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (500073.7242,5433011. 4902) +/1m.		Present	Yes	7	
1168300	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499967.3263,5433130. 2759) +/1m.		Present	Yes	7	
1168301	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499966.4885,5433116. 9542) +/1m.		Present	Yes	7	
1168302	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499961.4619,5433102. 5223) +/1m.		Present	Yes	7	
1168303	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499974.0287,5433102. 5223) +/1m.		Present	Yes	7	



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1168304	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499968.164200001,54 33091.4209) +/1m.		Present	Yes	7	
1168305	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499974.0287,5433085. 8702) +/1m.		Present	Yes	7	
1168306	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499977.3799,5433069. 218) +/1m.		Present	Yes	7	
1168307	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499998.3244,5433032. 5833) +/1m.		Present	Yes	7	
1168308	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499994.1356,5433024. 8123) +/1m.		Present	Yes	7	
1168309	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499984.0823,5433013. 7108) +/1m.		Present	Yes	7	
1168310	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499978.2178,5433019. 2615) +/1m.		Present	Yes	7	
1168311	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499963.9756,5433041. 4644) +/1m.		Present	Yes	7	
1168312	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499962.2999,5433055. 8962) +/1m.		Present	Yes	7	
1168313	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499964.8132,5433069. 218) +/1m.		Present	Yes	7	
1168314	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499948.8952,5433086. 9802) +/1m.		Present	Yes	7	
1168315	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499943.8685,5433089. 2004) +/1m.		Present	Yes	7	
1168316	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499917.06,5433038.13 35) +/1m.		Present	Yes	7	
1168317	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499910.3577,5433050. 3451) +/1m.		Present	Yes	7	
1168318	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499893.6021,5433049. 2347) +/1m.		Present	Yes	7	
1168319	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499909.5191,5433109. 1827) +/1m.		Present	Yes	7	
1168320	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499907.0058,5433105. 8522) +/1m.		Present	Yes	7	
1168321	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499893.6014,5433099. 1912) +/1m.		Present	Yes	7	
1168322	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499856.7395,5433066. 9964) +/1m.		Present	Yes	7	



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1168323	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499862.6041,5433060. 3356) +/1m.		Present	Yes	7	
1168324	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499914.5476,5432957. 093) +/1m.		Present	Yes	7	
1168325	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499949.7338,5432978. 1861) +/1m.		Present	Yes	7	
1168326	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499959.7869,5432991. 5079) +/1m.		Present	Yes	7	
1168327	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499968.1647,5432990. 3978) +/1m.		Present	Yes	7	
1168328	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499974.0291,5432980. 4065) +/1m.		Present	Yes	7	
1168329	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499984.0824,5432951. 5428) +/1m.		Present	Yes	7	
1168330	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499948.0585,5432934. 8904) +/1m.		Present	Yes	7	
1168331	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499931.3035,5432900. 4758) +/1m.		Present	Yes	7	
1168332	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499886.9019,5432917. 1274) +/1m.		Present	Yes	7	
1168333	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (499891.9286,5432909. 3565) +/1m.		Present	Yes	7	
1168398	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (500010.8913,5433148. 0383) +/1m.		Present	Yes	7	
1168399	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (500021.7825,5433149. 1484) +/1m.		Present	Yes	7	
1168400	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (500043.5653,5433176. 9019) +/1m.		Present	Yes	7	
1168401	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (500100.5331,5433020. 371) +/1m.		Present	Yes	7	
1168402	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (500077.0754,5433024. 8119) +/1m.		Present	Yes	7	
1168403	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Greg Stewart (5988)	01-Oct-2008	Point (500055.2932,5433022. 5918) +/1m.		Present	Yes	7	
1170846	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Jamie Cooper (6512)	01-Jan-1600?	Point (497007.2304,5435058. 4249) +/1m.		Present	Yes	7	
1181878	Chrysanthemoi des monilifera subsp. monilifera	boneseed	Alexander McGregor Buchanan (1467)	18-Sep-2007	Point (485667,5446082) +/- 50m.		Present	Yes	7	



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1182035	Chrysanthemoi des monilifera subsp. monilifera	boneseed	M F Duretto (9206)	25-Oct-2005	Point (497200,5434300) +/- 50m.		Present	Yes	7	
1229353	Chrysanthemoi des monilifera subsp. monilifera	boneseed	- Unknown (21598)	14-Oct-2006	Polygon +/- 0m.		Present	Yes		
1006026	Cortaderia selloana	white pampas grass	Mark Wapstra (1621)	11-Oct-2007	Point (493920,5443035) +/- 10m.		Present	Yes		
1006028	Cortaderia selloana	white pampas grass	Mark Wapstra (1621)	11-Oct-2007	Point (493941,5443306) +/- 10m.		Present	Yes		
1006029	Cortaderia selloana	white pampas grass	Mark Wapstra (1621)	11-Oct-2007	Point (494644,5442795) +/- 10m.		Present	Yes		
1006027	Cortaderia selloana	white pampas grass	Mark Wapstra (1621)	11-Oct-2007	Point (493933,5443011) +/- 10m.		Present	Yes		
1172179	Cytisus scoparius	english broom	Alexander McGregor Buchanan (1467)	18-Sep-2007	Point (484612.4957,5446425. 3073) +/- 50m.		Present	Yes	7	
1216013	Echium plantagineum	patersons curse	Anna Povey (3310)	06-Feb-2011	Point (484355,5451243) +/- 50m.	73 Low Head Road, Low Head	Present	Yes		
255979	Erica lusitanica	spanish heath	D.I. Morris (4111)	14-Oct-1979	Point (484912,5444683) +/- 1000m.	llfraville.	Present	Yes		
1227235	Erica lusitanica	spanish heath	- Unknown (21598)	08-Jan-1995	Line +/- 0m.		Present	Yes		
1089554	Erica lusitanica	spanish heath	Brian French (6551),James Hill (6623)	28-Oct-2009	Point (506501,5424139) +/- 5m.		Present	Yes		
1089552	Erica lusitanica	spanish heath	Brian French (6551),James Hill (6623)	28-Oct-2009	Point (506425,5424218) +/- 5m.	East Tamar Highway (easement)	Present	Yes		
1227098	Erica Iusitanica	spanish heath	- Unknown (21598)	08-Jan-1995	Line +/- 0m.		Present	Yes		
1227151	Erica Iusitanica	spanish heath	- Unknown (21598)	08-Jan-1995	Line +/- 0m.		Present	Yes		
1227080	Erica lusitanica	spanish heath	- Unknown (21598)	08-Jan-1995	MultiLine +/- 0m.		Present	Yes		
590287	Erica Iusitanica	spanish heath	A North (2500)	20-Mar-2002	Point (492112,5436983) +/- 1000m.	Bell Bay - Sidmouth Fibre Optic Cable Installation	Present	Yes		
1089553	Erica lusitanica	spanish heath	Brian French (6551),James Hill (6623)	28-Oct-2009	Point (506495,5424144) +/- 5m.		Present	Yes		
1227200	Erica lusitanica	spanish heath	- Unknown (21598)	08-Jan-1995	Line +/- 0m.		Present	Yes		
1089551	Erica lusitanica	spanish heath	Brian French (6551),James Hill (6623)	28-Oct-2009	Point (506420,5424218) +/- 5m.		Present	Yes		
1227085	Erica lusitanica	spanish heath	- Unknown (21598)	08-Jan-1995	Line +/- 0m.		Present	Yes		
1172180	Erica lusitanica	spanish heath	Alexander McGregor Buchanan (1467)	18-Sep-2007	Point (486011.3603,5446428. 1179) +/- 50m.		Present	Yes	7	
1227192	Erica Iusitanica	spanish heath	- Unknown (21598)	08-Jan-1995	Line +/- 0m.		Present	Yes		
1226451	Foeniculum vulgare	fennel	- Unknown (21598)	08-Jan-1995	Line +/- 0m.		Present	Yes		
1226467	Foeniculum vulgare	fennel	- Unknown (21598)	08-Jan-1995	Line +/- 0m.		Present	Yes		
1226448	Foeniculum vulgare	fennel	- Unknown (21598)	08-Jan-1995	Line +/- 0m.		Present	Yes		
1226483	Foeniculum vulgare	fennel	- Unknown (21598)	08-Jan-1995	Line +/- 0m.		Present	Yes		



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1226423	Foeniculum vulgare	fennel	- Unknown (21598)	08-Jan-1995	Line +/- 0m.		Present	Yes		
1226418	Foeniculum vulgare	fennel	- Unknown (21598)	08-Jan-1995	Line +/- 0m.		Present	Yes		
1172181	Genista monspessulana	canary broom	Alexander McGregor Buchanan (1467)	21-Sep-2007	Point (490207.9531,5446434. 9436) +/- 50m.		Present	Yes	7	
1006282	Genista monspessulana	canary broom	Brian French (6551)	02-May-2008	Point (508525,5418163) +/- 10m.	western side of East Tamar Highway	Present	Yes		
776626	Genista monspessulana	canary broom	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (497562,5428583) +/- 100m.		Present	Yes		
909015	Lycium ferocissimum	african boxthorn	Anne Kitchener (3289)	Aug-2000	Point (482292,5455120) +/- 132m.		Present	Yes		
909016	Lycium ferocissimum	african boxthorn	Helen Crawford (5955)	Aug-2000	Point (482299,5454835) +/- 104m.		Present	Yes		
909717	Lycium ferocissimum	african boxthorn	Helen Crawford (5955)	Aug-2000	Point (482355,5454459) +/- 75m.		Present	Yes		
1227758	Nassella tenuissima	mexican feather grass	David Lane (3556)	08-Apr-2011	Point (498525,5425895) +/- 5m.	Lanena	Present	Yes	3	
1227757	Nassella tenuissima	mexican feather grass	David Lane (3556)	08-Apr-2011	Point (498487,5425860) +/- 5m.	Rosevears Drive, Lanena	Present	Yes	3	
257083	Pennisetum clandestinum	kikuyu grass	A.M. Buchanan (3758)	26-Nov-1997	Point (482412,5454683) +/- 100m.	Low Head	Present	No		
257152	Polygala myrtifolia	myrtleleaf milkwort	R.J. Bayer et.al. (6400)	17-Jan-2000	Point (483312,5452483) +/- 1000m.	George Town, She- Oak Point. Growing at base of lighthouse between Low Head and George Town	Present	No		
776434	Rubus fruticosus	blackberry	- Unknown (21598)	11-Oct-1993?	Point (484512,5447383) +/- 50m.		Present	Yes		
1226271	Rubus fruticosus	blackberry	- Unknown (21598)	08-Jan-1995	Line +/- 0m.		Present	Yes		
777487	Rubus fruticosus	blackberry	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (484562,5446683) +/- 162m.		Present	Yes		
1226276	Rubus fruticosus	blackberry	- Unknown (21598)	08-Jan-1995	Line +/- 0m.		Present	Yes		
1021384	Rubus fruticosus	blackberry	Micah Visoiu (5870)	04-Mar-2003	Point (506512,5418683) +/- 300m.		Present	Yes		
257722	Rubus fruticosus	blackberry	A.M. Buchanan (3758)	26-Nov-1997	Point (496512,5435283) +/- 100m.	North west of Hillwood	Present	Yes		
1089845	Rubus fruticosus	blackberry	Brian French (6551),James Hill (6623)	29-Oct-2009	Point (506597,5424042) +/- 5m.		Present	Yes		
1006646	Rubus fruticosus	blackberry	Brian French (6551)	02-May-2008	Point (508480,5418624) +/- 10m.	western side of East Tamar Highway	Present	Yes		
1006551	Rubus fruticosus	blackberry	Brian French (6551)	14-May-2008	Point (497042,5440015) +/- 10m.	on road edge above East Arm	Present	Yes		
1089841	Rubus fruticosus	blackberry	Brian French (6551),James Hill (6623)	29-Oct-2009	Point (506443,5424198) +/- 5m.		Present	Yes		
1006648	Rubus fruticosus	blackberry	Brian French (6551)	02-May-2008	Point (508517,5418167) +/- 10m.	western side of East Tamar Highway (on fenceline)	Present	Yes		



ld	Species	Common name	Observers	Date	Position (gda94)	Location	Obs state	Wma	Wons density	Data source
506843	Rubus fruticosus	blackberry	Mike Askey- Doran (1624)	1990	Point (483102,5445863) +/- 100m.		Present	Yes		
776630	Rubus fruticosus	blackberry	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (497562,5428583) +/- 100m.		Present	Yes		
786727	Rubus fruticosus	blackberry	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (484512,5447433) +/- 100m.		Present	Yes		
368127	Rubus fruticosus	blackberry	Allison Woolley (3222)	1998	Point (495112,5438183) +/- 100m.		Present	Yes		
1089840	Rubus fruticosus	blackberry	Brian French (6551),James Hill (6623)	29-Oct-2009	Point (506424,5424214) +/- 5m.		Present	Yes		
785830	Rubus fruticosus	blackberry	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (498612,5428483) +/- 50m.		Present	Yes		
1006550	Rubus fruticosus	blackberry	Mark Wapstra (1621)	19-Oct-2007	Point (497033,5440038) +/- 10m.	George Town	Present	Yes		
110151	Rubus fruticosus	blackberry	Kristen Williams (1451)	14-Oct-1988?	Point (495812,5437283) +/- 100m.		Present	Yes		
1226151	Rubus fruticosus	blackberry	- Unknown (21598)	08-Jan-1995	MultiLine +/- 0m.		Present	Yes		
494811	Rubus fruticosus	blackberry	Mike Askey- Doran (1624)	1990	Point (484012,5445083) +/- 100m.		Present	Yes		
1089842	Rubus fruticosus	blackberry	Brian French (6551),James Hill (6623)	29-Oct-2009	Point (506465,5424172) +/- 5m.		Present	Yes		
1006647	Rubus fruticosus	blackberry	Brian French (6551)	02-May-2008	Point (508501,5418692) +/- 10m.	western side of East Tamar Highway	Present	Yes		
1226347	Rubus fruticosus	blackberry	- Unknown (21598)	08-Jan-1995	Line +/- 0m.		Present	Yes		
776409	Rubus fruticosus	blackberry	- Unknown (21598)	11-Oct-1993?	Point (484512,5446583) +/- 50m.		Present	Yes		
598234	Rubus fruticosus	blackberry	A North (2500)	20-Mar-2002	Point (492112,5436983) +/- 1000m.	Bell Bay - Sidmouth Fibre Optic Cable Installation	Present	Yes		
1089839	Rubus fruticosus	blackberry	Brian French (6551),James Hill (6623)	29-Oct-2009	Point (506410,5424228) +/- 5m.		Present	Yes		
1089843	Rubus fruticosus	blackberry	Brian French (6551),James Hill (6623)	29-Oct-2009	Point (506471,5424168) +/- 5m.		Present	Yes		
1006651	Rubus fruticosus	blackberry	Brian French (6551)	02-May-2008	Point (508616,5418022) +/- 10m.	under East Tamar Highway (around creek from Alanvale)	Present	Yes		
1006644	Rubus fruticosus	blackberry	Brian French (6551)	02-May-2008	Point (508455,5418360) +/- 10m.	western side of East Tamar Highway	Present	Yes		
1089844	Rubus fruticosus	blackberry	Brian French (6551),James Hill (6623)	29-Oct-2009	Point (506571,5424073) +/- 5m.		Present	Yes		
1226161	Rubus fruticosus	blackberry	- Unknown (21598)	08-Jan-1995	Line +/- 0m.		Present	Yes		
1006552	Rubus fruticosus	blackberry	Brian French (6551)	14-May-2008	Point (497045,5440013) +/- 10m.	on road edge	Present	Yes		
494812	Salix Xfragilis var. fragilis	crack willow	Mike Askey- Doran (1624)	1990	Point (484012,5445083) +/- 100m.		Present	Yes		



Id	Species	Common name	Observers	Date	Position (gda94)	Location	Obs state	Wma	Wons density	Data source
938080	Salix Xfragilis var. fragilis	crack willow	M L Baker (9318)	31-Oct-2003	Point (502626,5421555) +/- 100m.		Present	Yes		
908764	Senecio jacobaea	ragwort	John Ireson (3188)	16-Feb-1996	Point (494412,5439283) +/- 100m.		Present	Yes		
907645	Senecio jacobaea	ragwort	John Ireson (3188)	01-May-1992	Point (502812,5421783) +/- 100m.		Present	Yes		
908716	Senecio jacobaea	ragwort	John Ireson (3188)	06-Feb-1996	Point (499512,5433683) +/- 100m.		Present	Yes		
908739	Senecio jacobaea	ragwort	John Ireson (3188)	08-Feb-1996	Point (500112,5425083) +/- 100m.		Present	Yes		
908790	Senecio jacobaea	ragwort	John Ireson (3188)	23-Feb-1996	Point (493512,5442283) +/- 100m.		Present	Yes		
908718	Senecio jacobaea	ragwort	John Ireson (3188)	06-Feb-1996	Point (499612,5433483) +/- 100m.		Present	Yes		
908717	Senecio jacobaea	ragwort	John Ireson (3188)	06-Feb-1996	Point (499712,5433383) +/- 100m.		Present	Yes		
1228591	Spartina anglica	rice grass or common cordgrass	- Unknown (21598)	25-Jan-2007	Polygon +/- 0m.		Present	No	7	
1228592	Spartina anglica	rice grass or common cordgrass	- Unknown (21598)	25-Jan-2007	Polygon +/- 0m.		Present	No	7	
1228593	Spartina anglica	rice grass or common cordgrass	- Unknown (21598)	02-Feb-2007	Polygon +/- 0m.		Present	No	7	
1228594	Spartina anglica	rice grass or common cordgrass	- Unknown (21598)	02-Feb-2007	Polygon +/- 0m.		Present	No	7	
909412	Spartina anglica	rice grass or common cordgrass	Andrew Drenen (3354)	Jun-2001	Point (508142,5418212) +/- 181m.		Present	No		
785218	Spartina anglica	rice grass or common cordgrass	- Unknown (21598)	11-Oct-1993?	Point (497412,5428483) +/- 50m.		Present	No		
785834	Spartina anglica	rice grass or common cordgrass	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (497912,5428683) +/- 50m.		Present	No		
287390	Spartina anglica	rice grass or common cordgrass	J.H. Hemsley (4720)	20-Jun-1972	Point (498412,5430283) +/- 2000m.	Tamar Valley near Gravelly Beach	Present	No		
286883	Spartina anglica	rice grass or common cordgrass	J. Somerville (4676)	10-Mar-1961	Point (502612,5424683) +/- 2000m.	Nelsons Shoal, East Tamar	Present	No		
286767	Spartina anglica	rice grass or common cordgrass	- Unknown (21598)	13-Dec-1971	Point (500912,5430283) +/- 2000m.	Swan Bay, Tamar Estuary	Present	No		
776653	Spartina anglica	rice grass or common cordgrass	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (497412,5428433) +/- 100m.		Present	No		
285898	Spartina anglica	rice grass or common cordgrass	- Unknown (21598)	Dec-1971	Point (496712,5435783) +/- 2000m.	Opposite Paper Beach, Tamar Estuary	Present	No		
909411	Spartina anglica	rice grass or common cordgrass	Andrew Drenen (3354)	Jun-2001	Point (507010,5417812) +/- 546m.		Present	No		
286766	Spartina anglica	rice grass or common cordgrass	A.W. Phillips (3782)	13-Dec-1971	Point (500912,5424683) +/- 2000m.	Rosevears, W. Tamar	Present	No		
286868	Spartina anglica	rice grass or common cordgrass	T.E. Burns (5652)	15-Jan-1961	Point (502612,5422483) +/- 2000m.	Legana, Tamar River	Present	No		



ld	Species	Common name	Observers	Date	Position (gda94)	Location	Obs state	Wma	Wons density	Data source
785831	Spartina anglica	rice grass or common cordgrass	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (498612,5428483) +/- 50m.		Present	No		
1228590	Spartina anglica	rice grass or common cordgrass	- Unknown (21598)	25-Jan-2007	Polygon +/- 0m.		Present	No	7	
1228589	Spartina anglica	rice grass or common cordgrass	- Unknown (21598)	25-Jan-2007	Polygon +/- 0m.		Present	No	7	
1228588	Spartina anglica	rice grass or common cordgrass	- Unknown (21598)	25-Jan-2007	Polygon +/- 0m.		Present	No	7	
1228587	Spartina anglica	rice grass or common cordgrass	- Unknown (21598)	25-Jan-2007	Polygon +/- 0m.		Present	No	7	
1228586	Spartina anglica	rice grass or common cordgrass	- Unknown (21598)	25-Jan-2007	Polygon +/- 0m.		Present	No	7	
1228585	Spartina anglica	rice grass or common cordgrass	- Unknown (21598)	25-Jan-2007	Polygon +/- 0m.		Present	No	7	
1228584	Spartina anglica	rice grass or common cordgrass	- Unknown (21598)	25-Jan-2007	Polygon +/- 0m.		Present	No	7	
910128	Spartina anglica	rice grass or common cordgrass	Andrew Drenen (3354)	Aug-2000	Point (500161,5429789) +/- 74m.		Present	No		
1228582	Spartina anglica	rice grass or common cordgrass	- Unknown (21598)	25-Jan-2007	Polygon +/- 0m.		Present	No	7	
1228583	Spartina anglica	rice grass or common cordgrass	- Unknown (21598)	25-Jan-2007	Polygon +/- 0m.		Present	No	7	
257250	Tradescantia fluminensis	wandering creeper	A.M. Buchanan (3758)	23-Nov-1999	Point (485312,5443183) +/- 100m.	Beauty Point	Present	No		
590330	Ulex europaeus	gorse	A North (2500)	20-Mar-2002	Point (492112,5436983) +/- 1000m.	Bell Bay - Sidmouth Fibre Optic Cable Installation	Present	Yes		
1226798	Ulex europaeus	gorse	- Unknown (21598)	08-Jan-1995	Line +/- 0m.		Present	Yes		
1226732	Ulex europaeus	gorse	- Unknown (21598)	08-Jan-1995	Line +/- 0m.		Present	Yes		
1226580	Ulex europaeus	gorse	- Unknown (21598)	08-Jan-1995	Line +/- 0m.		Present	Yes		
909020	Ulex europaeus	gorse	Anne Kitchener (3289)	Aug-2000	Point (484507,5450223) +/- 50m.		Present	Yes		
777431	Ulex europaeus	gorse	Alexander McGregor Buchanan (1467)	11-Oct-1993?	Point (483362,5445958) +/- 517m.		Present	Yes		
909008	Ulex europaeus	gorse	Andrew Drenen (3354)	Aug-2001	Point (483760,5448490) +/- 173m.		Present	Yes		
1226749	Ulex europaeus	gorse	- Unknown (21598)	08-Jan-1995	Line +/- 0m.		Present	Yes		
909010	Ulex europaeus	gorse	Helen Crawford (5955)	Aug-2001	Point (484491,5450178) +/- 24m.		Present	Yes		
1007081	Ulex europaeus	gorse	Brian French (6551)	02-May-2008	Point (508550,5418110) +/- 10m.	above drainage depression - western side of East Tamar Highway	Present	Yes		
1226558	Ulex europaeus	gorse	- Unknown (21598)	08-Jan-1995	MultiLine +/- 0m.		Present	Yes		
909417	Ulex europaeus	gorse	Elizabeth Rollins (6042)	Dec-2000	Point (500213,5432915) +/- 213m.		Present	Yes		



Tas Management Act	Weeds	within	100 m	า
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ld	Species	Common name	Observers	Date	Position (gda94)	Location	Obs state	Wma	Wons density	Data source
1007060	Ulex europaeus	gorse	Mark Wapstra (1621)	11-Oct-2007	Point (493947,5443004) +/- 10m.		Present	Yes		
909692	Ulex europaeus	gorse	Helen Crawford (5955)	Aug-2001	Point (484435,5450158) +/- 26m.		Present	Yes		
910103	Ulex europaeus	gorse	Andrew Drenen (3354)	Jun-2001	Point (509925,5415919) +/- 43m.		Present	Yes		
1007079	Ulex europaeus	gorse	Brian French (6551)	02-May-2008	Point (508528,5418164) +/- 10m.	slashed grass on highway easement	Present	Yes		
1007083	Ulex europaeus	gorse	Brian French (6551)	02-May-2008	Point (508621,5418034) +/- 10m.	on side of creek channel - highway easement	Present	Yes		
1007078	Ulex europaeus	gorse	Brian French (6551)	02-May-2008	Point (508501,5418226) +/- 10m.	western side of East Tamar Highway	Present	Yes		
1226565	Ulex europaeus	gorse	- Unknown (21598)	08-Jan-1995	Line +/- 0m.		Present	Yes		
1007082	Ulex europaeus	gorse	Brian French (6551)	02-May-2008	Point (508618,5418042) +/- 10m.	western side of East Tamar Highway	Present	Yes		

#### Unverified Records

For more information about introduced weed species, please visit the following URL for contact details in your area. http://www.dpipwe.tas.gov.au/inter.nsf/WebPages/TPRY-52J8Z3?open



E: 475525 N: 5455270 E: 510700 N: 5455270



E: 475525 N: 5414579 E: 510700 N: 5414579



Department of Primary Industries, Parks, Water and Environment

	Place Names		DOB	$\square$	RSH		HCM
	Relief Names		DPU		NAD	17	HSE
	Major Rivers		DOV		NAF	1	HUE
$\overline{\mathcal{A}}$	Other Rivers	$\langle \rangle$	DOW		NAL	× ×	HSW
<b></b>	Water Body	$\sim$	DPD	$\sim$	NAR	z z	HHW
	Estuaries	× ×	DPE	× ×	NAV		MBR
	Sea	z z	DPO	z z	NBA		MBE
	Contours		DRI		NBS		MBP
1	Index	I	DRO		NCR	//,	MBS
1	Intermediate		DVG		NLA	$\left \right $	MBU
1	Depression Index		DSC	//,	NLE	× ×	MBW
1	Depression Intermediate		DSG	$\sim$	NLM		MSW
<i>(</i>	Land		DSO	× ×	NLN		MSP
	Road Centrelines	$\sim$	DTD	z z	NME		MRR
		× ×	DTO	///	NNP	//,	MGH
×,	National/State Highway	z z	DVC		AWU	$\sim$	MDS
1	Major Arterial Road	$\square$	DVF		AHF	× ×	MAP
1	Arterial Road		DTG		AHL		GCL
1	Feeder	<u>(X</u>	DVS		AHS		GHC
~	Access Road		WDU	$\sim$	ASF		GPH
1	Porestry		WDB	× ×	ASS		GPL
1	Venicular Frack		WDR	z z	AUS	$\sim$	GRP
	Forest Groups		WDL		ARS	× ×	GSL
	Rainforest		WRE		SCH	z z	GTL
	Hardwood Plantation		WBR		SSK		FAG
	Softwood Plantation	Щ	WDA	Щ	SSW		FPF
	Other Native Forest	Æ	WGK	4	scw		FMG
	Tall Native Eucalypt Forest		WGL		SCK	4	FRG
	Low Native Eucalypt Forest	× ×	wsu	<	SSC	$\sum$	FSM
	Non-Forest	z z	WVI	z z	SCA	<u>///</u>	FPL
	No Data		wou		SHL	× ×	FWU
	Sea	_	WOB		840	=	FPE
	TASVEG	R	wor		eur	zz	FUR
	DAC		WAL	$\langle \langle \rangle$	SHC		040
_	DAD		WND	~~~	shw	243	ORO
II.	DAI		WNU	× ×	SHU	52	OSM
	DAM		PKD	2 2	SMM		Cadactral Parcole
$\sim$	DAS		RKF		SBM		Cadastral Parcels
××	DAZ		RPW		SBR		
z z	DNF	—	RKS		SMP		
14	DNI	$\leq$	RKX	$\leq$	SMR		
	DDE	$\mathbb{R}^{2}$	RPF		SLW		
	DBA		RPP		SQR		
	DCR		RMU		SRC		
$\langle \langle \rangle$	DGW		RCO		SRI		
11	DDB		RFE		sww		
× ×	DGI		RFS		SDU		
z z ///	DKW	$\overline{\mathcal{Z}}$	RHP		SAC		
///	DMO	$\leq$	RLS		нне		
/ V	DMW	××	RML		нсн		
11	(cont)		(cont)		(cont)		



Department of Primary Industries, Parks, Water and Environment

Id	Code	Community	Emergent species
101493720	FAG	Agricultural land	
101487485	FAG	Agricultural land	
101494572	DAC	Eucalyptus amygdalina coastal forest and woodland	
101493277	FAG	Agricultural land	
101490905	FSM	Spartina marshland	
101493301	DOB	Eucalyptus obligua dry forest and woodland	
101493327	FUM	Extra-urban miscellaneous	
101493493	DOV	Eucalyptus ovata forest and woodland	
101493506	NME	Melaleuca ericifolia swamp forest	
101493595	FUR	Urban areas	
101493396	NAV	Allocasuarina verticillata forest	
101493505	NMF	Melaleuca ericifolia swamp forest	
101491434	FLIR	Urban areas	
101491846	OSM	Sand mud	
101493397	NAV	Allocasuarina verticillata forest	
101492271		Fucalvatus anyodalina coastal forest and woodland	
101492271		Eucalyptus amygdalina - Eucalyptus obligua damp sclerophyll forest	
101473320	EAG	Agricultural land	
101473447	EDIT	Unverified plantations for silviculture	
101473302			
101493302	FPU EAC		
101494953	FAG		
101494991	FUR	UI Dall di eds	
101494960	DAC	Eucalyptus amygdalina coastal forest and woodland	
101494978	DAC	Eucalyptus amygdalina coastal forest and woodland	
101493562	OAQ		
101494375	GCL		
101494598	FUR		
101494982	DAC	Eucalyptus amygdalina coastal forest and woodland	
101494334	FAG	Agricultural land	
101493549	FAG	Agricultural land	
101494368	FUR	Urban areas	
101494961	FAG	Agricultural land	
101495130	NME	Melaleuca ericifolia swamp forest	
101494956	FUM	Extra-urban miscellaneous	
101489853	NBA	Bursaria - Acacia woodland and scrub	
101494470	FPE	Permanent easements	
101494669	DVG	Eucalyptus viminalis grassy forest and woodland	
101492773	DAD	Eucalyptus amygdalina forest and woodland on dolerite	
101493648	FUR	Urban areas	
101491682	SSC	Coastal Scrub	
101491686	NME	Melaleuca ericifolia swamp forest	
101494649	NME	Melaleuca ericifolia swamp forest	
101488591	NME	Melaleuca ericifolia swamp forest	
101494510	FUR	Urban areas	
101493894	DAC	Eucalyptus amygdalina coastal forest and woodland	
101490914	FAG	Agricultural land	
101490904	FUR	Urban areas	
101485388	OAQ	Water, sea	
101494536	FAG	Agricultural land	
101494597	DVG	Eucalyptus viminalis grassy forest and woodland	
101493835	DAD	Eucalyptus amygdalina forest and woodland on dolerite	
101494477	DAC	Eucalyptus amygdalina coastal forest and woodland	
101493657	DAC	Eucalyptus amygdalina coastal forest and woodland	
101492361	DAD	Eucalyptus amygdalina forest and woodland on dolerite	
101494812	DAD	Eucalyptus amygdalina forest and woodland on dolerite	
101489106	DAD	Eucalyptus amygdalina forest and woodland on dolerite	
101491600	FSM	Spartina marshland	
101494817	NME	Melaleuca ericifolia swamp forest	
101493907	NME	Melaleuca ericifolia swamp forest	



Id	Code	Community	Emergent species
101492793	DAD	Eucalyptus amygdalina forest and woodland on dolerite	
101485065	FUR	Urban areas	
101491688	FUR	Urban areas	
101491690	FUR	Urban areas	
101494537	FAG	Agricultural land	
101493896	FAG	Agricultural land	Eucalyptus viminalis
101494865	SSC	Coastal Scrub	
101490650	DAD	Eucalyptus amygdalina forest and woodland on dolerite	
101490672	FSM	Spartina marshland	
101489125	DAC	Eucalyptus amygdalina coastal forest and woodland	
101492280	DAC	Eucalyptus amygdalina coastal forest and woodland	
101494556	DAC	Eucalyptus amygdalina coastal forest and woodland	
101490680	FWU	Weed infestation	
101490674	NBA	Bursaria - Acacia woodland and scrub	
101490677	FSM	Spartina marshland	
101494520	FUR	Urban areas	
101495240	FSM	Spartina marshland	
101494154	ARS	Saline grassland	
101493949	FUR	Urban areas	
101583307	FPL	Plantations for silviculture	
101497052	FSM	Spartina marshland	
101496542	ARS	Saline grassland	
101497300	DAZ	Eucalyptus amygdalina inland forest and woodland on Cainozoic deposits	
101497322	AHL	lacustrine herbland	
101497324	NME	Melaleuca ericifolia swamp forest	
101497332	FAG	Agricultural land	Eucalyptus viminalis
101496568	FSM	Spartina marshland	
101496781	FSM	Spartina marshland	
101496780	FUR	Urban areas	
101496534	FSM	Spartina marshland	
101492730	ARS	Saline grassland	
101496545	FSM	Spartina marshland	
101496397	FAG	Agricultural land	
101496403		Melaleuca ericifolia swamp forest	
101494957	FUM	Extra-urban miscellaneous	
101508008		vvaler, sea	
101493387	DAD		
101493100		Linuarified plantations for silviculture	
101493302	SAC		
101493500	SAC	Coastal Scrub	
101473522	23C	Acacia longifolia coastal scrub	
101473300		Fucal/notus amyadalina forest and woodland on sandstone	
101489837	FLIR		
101401037		Fucalvotus anvodalina coastal forest and woodland	
101489839	FLIR	Urban areas	
101493593	OSM	Sand, mud	
101489842	FUR	Urban areas	
101489841	SAC	Acacia longifolia coastal scrub	
101491433	SAC	Acacia longifolia coastal scrub	
101493736	FAG	Agricultural land	
101494331	DAM	Eucalyptus amygdalina forest and woodland on mudstone	
101494955	DAC	Eucalyptus amygdalina coastal forest and woodland	
101490900	FAG	Agricultural land	
101493587	GHC	Coastal grass and herbfield	
101493292	FWU	Weed infestation	
101493332	FUR	Urban areas	
101492912	FAG	Agricultural land	Eucalyptus amygdalina
101494980	FAG	Agricultural land	



Id	Code	Community	Emergent species
101491909	FUR	Urban areas	
101494281	DAM	Eucalyptus amyodalina forest and woodland on mudstone	
101494328	FAG	Agricultural land	
101494374	DAM	Eucalyptus amygdalina forest and woodland on mudstone	
101494373	DOV	Eucalyptus ovata forest and woodland	
101493444	FUR	Urban areas	
101493840	FUR	Urban areas	
101492144	FPF	Permanent easements	
101494642	FPU	Unverified plantations for silviculture	
101494604	NME	Melaleuca ericifolia swamp forest	
101494641	NME	Melaleuca ericifolia swamp forest	
101494483	FUR	Urban areas	
101491681	FUR	Urban areas	
101491685	FUM	Extra-urban miscellaneous	
101494486	DVS	Eucalyptus viminalis shrubby/heathy woodland	
101494572	DAC	Eucalyptus amyodalina coastal forest and woodland	
101494647	FAG	Agricultural land	
101494650	DVG	Fucalvatus viminalis grassy forest and woodland	
101494655	FPU	Unverified plantations for silviculture	
101494660	FAG	Agricultural land	Fucalyptus viminalis
101492789	DAD	Fucalvotus amvadalina forest and woodland on dolerite	
101490890	NAD	Acaria dealbata forest	
101490894	FSM	Snartina marshland	
101490842	FLIM	Extra-urban miscellaneous	
101494532	FLIR		
101494532	SSC	Coastal Scrub	
101494555	FSM	Sparting marshland	
101489871	FSM	Spartina marshland	
101403071		Fucalvatus anyadalina forest and woodland on dolarite	
101494007	SSC	Coastal Scrub	
101494000	NBA	Bursaria Acacia woodland and scrub	
101490009		Water sea	
101490041	EWIL	Weed infectation	
101494534	FAG	Agricultural land	
101495125	SSC	Coastal Scrub	
101493123	FLIP		
101494356	GTI	Lowland Themeda grassland	
101494600		Eucalyntus amygdalina forest and woodland on dolerite	
101494673		Eucalyptus amygdalina forest and woodland on dolerite	
101583219	EPI	Plantations for silviculture	
101491821	OSM	Sand mud	
101491599	NME	Melaleuca ericifolia swamp forest	
101492807	DAD	Eucalyptus amyadalina forest and woodland on dolerite	
101492791	FUM	Extra-urban miscellaneous	
101485066	DAC	Euclyntus amyddalina coastal forest and woodland	
101494507	DAC	Eucalyptus amygdalina coastal forest and woodland	
101493826	DAC	Eucalyptus amygdalina coastal forest and woodland	
101490899	GPI	Lowland Poa labillardierei grassland	
101490896	DAC	Eucalyntus amyndalina coastal forest and woodland	
101490907	EWU	Weed infestation	
101493832	DAC	Eucalyptus amyodalina coastal forest and woodland	
101490662	FUR	Urban areas	
101494519	FAG	Agricultural land	
101494530	NME	Melaleuca ericifolia swamp forest	
101494524	DAC	Eucalyptus amyodalina coastal forest and woodland	
101495241	OAO	Water sea	
101496579	FUR	Urban areas	
101494927	ARS	Saline grassland	
101490660	ΟΑΟ	Water sea	
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Id	Code	Community	Emergent species
101/83570		Water sea	
101403370		Allocasuarina verticillata forest	
101492255	EDC	Pogoporating cloared land	
101470300		Fucalization of the second sec	
101493940			
101490373			
101474371		Allocasuarina vorticillata forest	
101473377	FLID		
101473400		Allocasuarina verticillata forest	
101473401		Fucalvatus ovata forest and woodland	
101493100		Eucalyptus ovata forest and woodland on mudstone	
101493288	NME	Melaleura ericifolia swamn forest	
101493171	FLIR		
101493308		Fucalvatus ovata forest and woodland	
101493323	DOV	Eucalyptus ovata forest and woodland	
101493329	DVG	Eucalyptus ovata forest and woodland	
101493504	NME	Melaleura ericifolia swamn forest	
101493494	FLIR		
101491033		Fucalvotus amvodalina coastal forest and woodland	
101491432	FUR	Urban areas	
101491435	SAC	Acacia longifolia coastal scrub	
101493594	EWU	Weed infestation	
101493598	FWU	Weed infestation	
101493552	DOV	Fucalvatus ovata forest and woodland	
101494981	DVC	Eucalyptus viminalis - Eucalyptus globulus coastal forest and woodland	
101495253	FUR	Urban areas	
101493148	FWU	Weed infestation	
101491905	FUR	Urban areas	
101494969	FUM	Extra-urban miscellaneous	
101494967	FPU	Unverified plantations for silviculture	
101495139	FUM	Extra-urban miscellaneous	
101494367	FUR	Urban areas	
101494346	NBA	Bursaria - Acacia woodland and scrub	
101493558	FSM	Spartina marshland	
101493559	DSC	Eucalyptus amygdalina - Eucalyptus obliqua damp sclerophyll forest	
101493838	FUR	Urban areas	
101494592	GCL	Lowland grassland complex	Eucalyptus viminalis
101494596	GCL	Lowland grassland complex	
101493839	DVG	Eucalyptus viminalis grassy forest and woodland	
101494668	FAG	Agricultural land	
101494643	DVG	Eucalyptus viminalis grassy forest and woodland	
101494675	DSC	Eucalyptus amygdalina - Eucalyptus obliqua damp sclerophyll forest	
101494676	NME	Melaleuca ericifolia swamp forest	
101492911	FUR	Urban areas	
101493291	DAS	Eucalyptus amygdalina forest and woodland on sandstone	
101493175	DOB	Eucalyptus obliqua dry forest and woodland	
101494952	DAD	Eucalyptus amygdalina forest and woodland on dolerite	
101492910	DAD	Eucalyptus amygdalina forest and woodland on dolerite	
101493147	FWU	Weed infestation	
101495129	DAC	Eucalyptus amygdalina coastal forest and woodland	
101495653	DAD	Eucalyptus amygdalina forest and woodland on dolerite	
101491593	FAG	Agricultural land	
101492993			
101492090		Agricultural land	Eucalyptus viminalia
101492900		Ayriculul di Idilu	
101494043		Lucaryprus virinians yrassy iorest and woodland	
101494658	FAG		Fucalvotus viminalis
101474030	NME	Melaleuca ericifolia swamn forest	
1017/0/00			



Id	Code	Community	Emergent species
101489921	FUR	Urban areas	
101489916	GCL	Lowland grassland complex	
101490013	FUR	Urban areas	
101489947	FUR	Urban areas	
101488588	FAG	Agricultural land	
101493829	FAG	Agricultural land	
101494511	SSC	Coastal Scrub	
101494517	FUR	Urban areas	
101493827	FSM	Spartina marshland	
101492805	FAG	Agricultural land	Eucalyptus viminalis
101494125	FAG	Agricultural land	
101494862	DAC	Eucalyptus amyodalina coastal forest and woodland	
101492786	SRI	Riparian scrub	
101494863	SRI	Riparian scrub	
101489910	FAG	Agricultural land	
101490897	NME	Melaleuca ericifolia swamp forest	
101490760	FSM	Spartina marshland	
101490657	FUR	Urban areas	
101493649	FSM	Spartina marshland	
101497046	NME	Melaleuca ericifolia swamp forest	
101494176	FRG	Regenerating cleared land	
101494037	FAG	Agricultural land	
101496581	FSM	Spartina marshland	
101496574	FWU	Weed infestation	
101496404	OAQ	Water, sea	
101496602	OAQ	Water, sea	
101494920	FWU	Weed infestation	
101496402	FUM	Extra-urban miscellaneous	
101494919	FWU	Weed infestation	
101489824	FAG	Agricultural land	
101494652	FAG	Agricultural land	Eucalyptus viminalis
101497331	FAG	Agricultural land	Eucalyptus viminalis
101497302	NME	Melaleuca ericifolia swamp forest	
101497298	FUR	Urban areas	
101497306	DAZ	Eucalyptus amygdalina inland forest and woodland on Cainozoic deposits	
101496544	AUS	Saltmarsh (undifferntiated)	
101494384	FAG	Agricultural land	
101493098	FAG	Agricultural land	
101493179	FUM	Extra-urban miscellaneous	
101493178	DAC	Eucalyptus amygdalina coastal forest and woodland	
101493173	DOV	Eucalyptus ovata forest and woodland	
101493514	FWU	Weed infestation	
101493499	DVG	Eucalyptus viminalis grassy forest and woodland	
101494972	SSC	Coastal Scrub	
101494954	SLW	Leptospermum scrub	
101494976	SSC	Coastal Scrub	
101494986	FAG	Agricultural land	
101494983	SCH	Coastal heathland	
101493144	FWU	Weed infestation	
101493149	SSC	Coastal Scrub	
101491907	GPL	Lowland Poa labillardierei grassland	
101494280	DVS	Eucalyptus viminalis shrubby/heathy woodland	
101494327	FWU	Weed infestation	
101494329	FAG		
101494330	DAM	Eucalyptus amygdalina forest and woodland on mudstone	
101493547	DAM	Eucalyptus amygdalina forest and woodland on mudstone	
101494338	2MIK	Inicialeuca squarrosa scrub	
101494962	FRG	Regenerating cleared land	
101495128	FAG	Agricultural land	



Id	Code	Community	Emergent species
101494350	GCL	Lowland grassland complex	<u> </u>
101494590	GCL	Lowland grassland complex	
101493440	DAC	Eucalyptus amygdalina coastal forest and woodland	
101493560	FUR	Urban areas	
101493571	FUM	Extra-urban miscellaneous	
101493836	GCL	Lowland grassland complex	Eucalyptus viminalis
101494593	GCL	Lowland grassland complex	
101493441	FUR	Urban areas	
101492365	FPU	Unverified plantations for silviculture	
101494640	DVG	Eucalyptus viminalis grassy forest and woodland	
101494678	FAG	Agricultural land	Eucalyptus amygdalina
101493657	DAC	Eucalyptus amygdalina coastal forest and woodland	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
101494681	FAG	Agricultural land	Eucalyptus amygdalina
101495652	DAD	Eucalyptus amygdalina forest and woodland on dolerite	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
101494484	FUR	Urban areas	
101491819	FSM	Spartina marshland	
101493647	FUR	Urban areas	
101494646	FAG	Agricultural land	Eucalyptus viminalis
101492779	DVG	Eucalyptus viminalis grassy forest and woodland	
101494816	NME	Melaleuca ericifolia swamp forest	
101493911	DAD	Eucalyptus amyadalina forest and woodland on dolerite	
101489108	FUR	Urban areas	
101488495	FUR	Urban areas	
101485064	DAC	Eucalyptus amyodalina coastal forest and woodland	
101494512	DAC	Eucalyptus amyodalina coastal forest and woodland	
101493895	DAC	Eucalyptus amygdalina coastal forest and woodland	
101492286	FRG	Regenerating cleared land	
101494540		Fucalvotus amvodalina coastal forest and woodland	
101493899		Eucalyptus amygdalina coastal forest and woodland	
101492810	FAG	Anricultural land	
101492784		Fucalvatus amvadalina coastal forest and woodland	
101472704		Acacia dealbata forest	
101470070	FLIR		
101490902	F\W/LI	Weed infestation	
101485067	FUR	Urban areas	
101403007		Fucalvotus anyodalina forest and woodland on dolerite	
101494544	FLIR	Urhan areas	
101494546	FLIR	Urban areas	
101494540	NME	Melaleuca ericifolia swamp forest	
101470004	FAG	Agricultural land	
101494033		Fucalvatus amundalina forest and woodland on mudstone	
101493094		Eucalyptus amygdalina forest and woodland on industone	
101473333		Eucalyptus amygdalina forest and woodland on dolerite	
101474502		Water sea	
101472705		Fucalvatus anyodalina coastal forest and woodland	
101473700		Eucalyptus amygdalina coasta forest and woodland on dolerite	
1014/0007		Eucalyptus amygdalina coastal forest and woodland	
101491025		Eucalyptus amygdalina coasta no est and woodland on dolerite	
101409005		Eucalyptus amygdalina coastal forest and woodland	
101492279		Sparting marshland	
101494525			
101/05235	NME	Melaleuca ericifolia swamn forest	
101473233			
101473000		Jame yr assianu Melaleuca aricifolia swamp forast	
101474030			
101494032		Saltmarch (undifferntiated)	
101494030		Saltmarch (undifferntiated)	
1014000/1	AU2	Janmar SH (Unumer mulateu)	
101493947			
101496587	FSIVI	spar una marsniano	



Id	Code	Community	Emergent species
101496588	NBA	Bursaria - Acacia woodland and scrub	
101490555	FAG		Eucalyntus viminalis
101494137	FAG	Agricultural land	
101470374		Fucalitation and and woodland	
101494033			
101493304	INAV FAC		
101488834	FAG		
101489835	FAG		
101493523			
101493518	NAV		
101493095	SCH		
101493169	FAG		
101493174	DAC	Eucalyptus amygdalina coastal forest and woodland	
101493519	SDU	Dry scrub	
101491844	FAG	Agricultural land	
101494140	NAD	Acacia dealbata forest	
101493303	DAD	Eucalyptus amygdalina forest and woodland on dolerite	
101489838	OSM	Sand, mud	
101493448	FUM	Extra-urban miscellaneous	
101489119	FUM	Extra-urban miscellaneous	
101489843	SAC	Acacia longifolia coastal scrub	
101492913	FAG	Agricultural land	
101491908	NME	Melaleuca ericifolia swamp forest	
101494323	SSC	Coastal Scrub	
101494326	SCH	Coastal heathland	
101494278	AHL	lacustrine herbland	
101493554	SDU	Dry scrub	
101494332	FAG	Agricultural land	
101493556	NME	Melaleuca ericifolia swamp forest	
101494347	FAG	Agricultural land	
101494369	FUM	Extra-urban miscellaneous	
101493561	DVG	Eucalyptus viminalis grassy forest and woodland	
101494357	GCL	Lowland grassland complex	
101494711	SCA	Coastal scrub on alkaline sands	
101493923	SSC	Coastal Scrub	
101497299	NME	Melaleuca ericifolia swamp forest	
101491613	FAG	Agricultural land	
101492253	FUR	Urban areas	
101492271	DAM	Eucalyntus amyndalina forest and woodland on mudstone	
101493287	DAS	Eucalyptus amygdalina forest and woodland on sandstone	
101493682		Eucalyptus amygdalina coastal forest and woodland	
101494324		Eucalyptus amygdalina coustantorest and woodland on mudstone	
101403555		Eucalyptus amygdalina forest and woodland on industone	
101473333		Eucalyptus amygdalina forest and woodland on dolerite	
101494071			
101494470	EAC		
101494474			
101493440			
101492339	FUR DSC	Ul Dall di eas	
101494599		Eucaryptus arrivguarria - Eucaryptus obriqua darrip scier opriyii forest	
101494609	NIVIE	Melaleuca ericitolia swamp forest	
101493058		Eucalyptus arriygdallina - Eucalyptus obliqua damp scierophyll forest	
101493057		Eucalyptus amygdalina coastal forest and woodland	
101494814		Extra-urdan miscellaneous	
101494745	FUM		
101495660	NME	Melaleuca ericifolia swamp forest	
101492776	DAD	Eucalyptus amygdalina forest and woodland on dolerite	
101492904	FAG	Agricultural land	
101494656	FPU	Unverified plantations for silviculture	
101493902	NME	Melaleuca ericifolia swamp forest	
101493910	SBR	Broadleaf scrub	



Id	Code	Community	Emergent species
101493903	FAG	Agricultural land	Eucalyptus ovata
101489632	FAG	Agricultural land	
101488494	FUM	Extra-urban miscellaneous	
101488496	FSM	Spartina marshland	
101489109	DAD	Eucalyptus amygdalina forest and woodland on dolerite	
101490014	FSM	Spartina marshland	
101494514	DAC	Eucalyptus amygdalina coastal forest and woodland	
101494515	FSM	Spartina marshland	
101494506	NAD	Acacia dealbata forest	
101494516	NBA	Bursaria - Acacia woodland and scrub	
101489872	DAC	Eucalyptus amygdalina coastal forest and woodland	
101493898	NAD	Acacia dealbata forest	
101494864	DOV	Eucalyptus ovata forest and woodland	
101490673	DAC	Eucalyptus amygdalina coastal forest and woodland	
101493429	FPF	Pteridium esculentum fernland	
101494557	FUR	Urban areas	
101490909	DVG	Eucalyptus viminalis grassy forest and woodland	
101494529	FUR	Urban areas	
101495236	ARS	Saline grassland	
101496570	ARS	Saline grassland	
101496585	ARS	Saline grassland	
101496408	FAG	Agricultural land	
101496416	DAC	Eucalyptus amygdalina coastal forest and woodland	
101488799	DAD	Eucalyptus amygdalina forest and woodland on dolerite	
101490895	FSM	Spartina marshland	
101489866	FAG	Agricultural land	
101489563	FAG	Agricultural land	
101493092	DAC	Eucalyptus amygdalina coastal forest and woodland	
101491271	DOV	Eucalyptus ovata forest and woodland	
101493172	DOV	Eucalyptus ovata forest and woodland	
101565502	DAC	Eucalyptus amygdalina coastal forest and woodland	
101493521	NAV	Allocasuarina verticillata forest	
101491845	DAC	Eucalyptus amygdalina coastal forest and woodland	
101493324		Eucalyptus amygdalina coastal forest and woodland	
101491438			
101491437	FUR	Urban areas	
101493080		Eucalyptus arrygoanna forest and woodland on mudstone	
101493003		Melaleuca oricifelia swamp forest	
101492900			
101492909	FAG		
101492900	DVC	Fucalvatus viminalis - Eucalvatus alobulus coastal forest and woodland	
101494931	EAG		
101494959		Fucalvatus amvadalina coastal forest and woodland	
101494977	NMF	Melaleuca ericifolia swamp forest	
101494979	FPF	Pteridium esculentum fernland	Fucalyptus amygdalina
101493145	FWU	Weed infestation	
101493150	FWU	Weed infestation	
101494325	FWU	Weed infestation	
101489850	DAM	Eucalyptus amyodalina forest and woodland on mudstone	
101494320	DAS	Eucalyptus amygdalina forest and woodland on sandstone	
101494335	NAV	Allocasuarina verticillata forest	
101494958	FPE	Permanent easements	
101494392	OSM	Sand, mud	
101494401	NME	Melaleuca ericifolia swamp forest	
101494366	FAG	Agricultural land	
101494348	FAG	Agricultural land	
101494370	FUR	Urban areas	
101494353	DOV	Eucalyptus ovata forest and woodland	





Id	Code	Community	Emergent species
101/0/351	FDF	Permanent essements	Temergent species
101494551		Fucalization and woodland on dolarite	
101474712	FDF	Parmanent essements	
101473034		Fucalvatus anvadalina Eucalvatus obligua dama sclarophyll forast	
101493030	FDII	Unverified plantations for silviculture	
101492304	FDU	Unverified plantations for silviculture	
101494007	FLID		
101494613	EAC	Agricultural land	
101494077		Agricultural land	
101494401		Unverified plantations for silviculture	
101492902	FAG		
101492901		Plantations for silviculture	
101303217	FAG		
101492000	FAG		Eucalyntus ovata
101494004		Fucalvatus amvadalina coastal forest and woodland	
101494015		Eucalyptus amygdalina coasta noi est and woodland on dolerite	
101494477	FAG		Eucalyntus amygdalina
101494007		Fucalvatus amvadalina forest and woodland on dolerite	
101492774		Eucalyptus amygdalina coastal forest and woodland	
101471374	FDI	Plantations for silviculture	
101303278		Fightations for sinculture	
101473072		Eucalyptus amygdalina forest and woodland on dolerite	
101492707		Eucalyptus amygdalina forest and woodland	
101493307	DAC	Eucalyptus amygdalina coasta noi est and woodland on sandstone	
101493550		Diantations for silviculture	
101303090		Fightations for sinculture	
101494595		Eucalyptus amygdalina forest and woodland on dolerite	
101494080		Eucalyptus amygdalina forest and woodland on dolerite	
101492992		Eucalyptus amygdalina forest and woodland on dolerite	
101492995		Eucalyptus arrygualina forest and woodland on doler ite	
101491007			
101409031		Euclyntus amyrddling forost and woodland on dolorito	
101400495		Eucalyptus amygdalina coastal forest and woodland	
101485063	FAG	Anricultural land	
101485061	FSM	Sparting marshland	
101493824	FUR	Urban areas	
101494572	DAD	Eucalyptus amyodalina forest and woodland on dolerite	
101489870	DAC	Eucalyptus amyodalina coastal forest and woodland	
101494823	FAG	Agricultural land	Eucalyptus viminalis
101492785	DAC	Eucalyptus amygdalina coastal forest and woodland	
101490668	FAG	Agricultural land	
101490759	FUR	Urban areas	
101490906	FAG	Agricultural land	Eucalyptus amygdalina
101486361	FUR	Urban areas	
101489867	FSM	Spartina marshland	
101493427	FAG	Agricultural land	
101494535	SSC	Coastal Scrub	
101490658	ARS	Saline grassland	
101490679	DAC	Eucalyptus amygdalina coastal forest and woodland	
101490681	FAG	Agricultural land	
101490682	FAG	Agricultural land	
101494526	FAG	Agricultural land	
101494524	DAC	Eucalyptus amygdalina coastal forest and woodland	
101492295	DAZ	Eucalyptus amygdalina inland forest and woodland on Cainozoic deposits	
101495233	FUR	Urban areas	
101497051	FSM	Spartina marshland	
101497301	FPU	Unverified plantations for silviculture	
101497303	DAZ	Eucalyptus amygdalina inland forest and woodland on Cainozoic deposits	
101497321	FAG	Agricultural land	



Id	Code	Community	Emergent species
101497319	ARS	Saline grassland	
101497308	ARS	Saline grassland	
101497054	AUS	Saltmarsh (undifferntiated)	
101496779	DSC	Eucalyptus amygdalina - Eucalyptus obligua damp sclerophyll forest	
101496535	ARS	Saline grassland	
101496784	FAG	Agricultural land	Eucalyptus amygdalina
101494156	DVS	Eucalyptus viminalis shrubby/heathy woodland	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
101496406	ARS	Saline grassland	
101496589	ARS	Saline grassland	
101496405	ARS	Saline grassland	
101496407	FWU	Weed infestation	
101494034	OAQ	Water, sea	
101493885	FAG	Agricultural land	
101492256	NAV	Allocasuarina verticillata forest	
101493110	FAG	Agricultural land	
101493398	NAV	Allocasuarina verticillata forest	
101493176	DOV	Eucalyptus ovata forest and woodland	
101493524	FAG	Agricultural land	
101493302	FPU	Unverified plantations for silviculture	
101493331	DOB	Eucalyptus obliqua dry forest and woodland	
101493447	NME	Melaleuca ericifolia swamp forest	
101493596	FUM	Extra-urban miscellaneous	
101494312	OAQ	Water, sea	
101494315	FAG	Agricultural land	
101493684	NME	Melaleuca ericifolia swamp forest	
101494949	DOB	Eucalyptus obliqua dry forest and woodland	
101494950	SSC	Coastal Scrub	
101489858	GHC	Coastal grass and herbfield	
101491910	GHC	Coastal grass and herbfield	
101494990	FUR	Urban areas	
101491906	NME	Melaleuca ericifolia swamp forest	
101492815	FAG	Agricultural land	
101493548	GHC	Coastal grass and herbfield	
101493566	FAG	Agricultural land	
101494337	NME	Melaleuca ericifolia swamp forest	
101494966	FRG	Regenerating cleared land	
101494968	FAG	Agricultural land	
101494391	FWU	Weed intestation	
101495127	OSM	Sand, mud	
101495126	GHC	Coastal grass and herbfield	
101494365	FUR	Urban areas	
101494591	DVG	Eucalyptus viminalis grassy forest and woodland	
101494372			
101492090		Agricultural lanu	
101494471			
101493037	DVG	Fucalyntus viminalis grassy forest and woodland	
101493437		Fucalyptus amyodalina coastal forest and woodland	
101493443	FUR	Urban areas	
101494601	FUR	Urban areas	
101493445	DSC	Eucalyptus amyodalina - Eucalyptus obligua damp sclerophyll forest	
101494671	FUR	Urban areas	
101495654	FPE	Permanent easements	
101492775	FUM	Extra-urban miscellaneous	
101494478	FAG	Agricultural land	
101491680	AUS	Saltmarsh (undifferntiated)	
101494485	DVG	Eucalyptus viminalis grassy forest and woodland	
101494608	FPU	Unverified plantations for silviculture	
101494659	FAG	Agricultural land	Eucalyptus viminalis



Id	Code	Community	Emergent species
101492783	FPLL	Unverified plantations for silviculture	
101492790		Eucalyptus amyodalina forest and woodland on dolerite	
101472770	GCL		
101494010		Eucalyptus amygdalina forest and woodland on dolerite	
101489924	FAG		
101407724	FLID		
101493033		Euclyntus anyddlina coastal forest and woodland	
101409073		Saltmarsh (undifferntiated)	
101409073	AUS	Saltmarsh (undifferntiated)	
101403003	AUS EAC	Agricultural land	
101492004		Ayriculturariand	
101493904			
101494001			
101490901			
101489950	FUR	Or Dali al eas	Fuch intus amundalina
101490675	FAG		
101490903	FUR		
101494522		vvaler, sea	
101494523	FSIVI	spartina marshiand	
101494528	NME	Melaleuca ericifolia swamp forest	
101493435	FPF	Pteridium esculentum fernland	
101493434	FWU	Weed infestation	
10149/323	NME	Melaleuca ericitolia swamp forest	
101497053	NME	Melaleuca ericifolia swamp forest	
101497309	NME	Melaleuca ericifolia swamp forest	
101497050	FUR	Urban areas	
101494031	ARS	Saline grassland	
101494039	NME	Melaleuca ericifolia swamp forest	
101496572	NME	Melaleuca ericifolia swamp forest	
101494926	ARS	Saline grassland	
101489895	DAC	Eucalyptus amygdalina coastal forest and woodland	
101496389	FUR	Urban areas	
101492254	DAD	Eucalyptus amygdalina forest and woodland on dolerite	
101493325	DAS	Eucalyptus amygdalina forest and woodland on sandstone	
101494674	DAD	Eucalyptus amygdalina forest and woodland on dolerite	
101494679	DAD	Eucalyptus amygdalina forest and woodland on dolerite	
101493718	FAG	Agricultural land	
101583324	FPL	Plantations for silviculture	
101583325	FPL	Plantations for silviculture	
101492792	DAD	Eucalyptus amygdalina forest and woodland on dolerite	
101489394	DAD	Eucalyptus amygdalina forest and woodland on dolerite	
101497325	FUR	Urban areas	
101494155	DAZ	Eucalyptus amygdalina inland forest and woodland on Cainozoic deposits	
101493627	FAG	Agricultural land	
101492146	FAG	Agricultural land	
101493109	DAC	Eucalyptus amygdalina coastal forest and woodland	
101492258	SAC	Acacia longifolia coastal scrub	
101493091	SCH	Coastal heathland	
101493101	FUR	Urban areas	
101493286	ASF	Fresh water aquatic sedgeland and rushland	
101491034	FUR	Urban areas	
101493191	FAG	Agricultural land	
101493520	SDU	Dry scrub	
101493326	DOV	Eucalyptus ovata forest and woodland	
101491436	SAC	Acacia longifolia coastal scrub	
101493597	FWU	Weed infestation	
101493730	DAM	Eucalyptus amygdalina forest and woodland on mudstone	
101494310	FUR	Urban areas	
101492907	DAD	Eucalyptus amygdalina forest and woodland on dolerite	
101492910	DAC	Eucalyptus amygdalina coastal forest and woodland	



Id	Code	Community	Emergent species
101494146	DAC	Eucalyptus amyodalina coastal forest and woodland	J J J J J
101494987	FAG	Agricultural land	
101493146	FWU	Weed infestation	
101493555	DAS	Eucalyptus amyadalina forest and woodland on sandstone	
101494333	FRG	Regenerating cleared land	
101494965	SSC	Coastal Scrub	
101494963	FUM	Extra-urban miscellaneous	
101494389	FWU	Weed infestation	
101495133	FUM	Extra-urban miscellaneous	
101494352	DAD	Eucalyptus amygdalina forest and woodland on dolerite	
101494354	DOV	Eucalyptus ovata forest and woodland	
101494355	DAD	Eucalyptus amygdalina forest and woodland on dolerite	
101493557	FUR	Urban areas	
101494810	DAD	Eucalyptus amygdalina forest and woodland on dolerite	
101494594	DAD	Eucalyptus amyadalina forest and woodland on dolerite	
101492145	SSC	Coastal Scrub	
101493439	DVG	Eucalyptus viminalis grassy forest and woodland	
101493442	FUR	Urban areas	
101494672	NMF	Melaleuca ericifolia swamp forest	
101494608	FPU	Unverified plantations for silviculture	
101494670	DAD	Eucalyptus amyodalina forest and woodland on dolerite	
101494603	NMF	Melaleuca ericifolia swamn forest	
101494605	FSM	Snartina marshland	
101494809		Eucalyntus amyddalina forest and woodland on dolerite	
101493575		Eucalyptus amygdalina forest and woodland on dolerite	
101493373	FAG		
1014/02807	FAG		
101492097	FLID		
101492903	NIME	Molalouca oricifolia swamp forost	
101491003	FAG	Agricultural land	
101491004	ESM	Sparting marshland	
101494040		Spailing Indistignation	
101492700			
101490093			
101409112	FUR	Agricultural land	
101493030			
101493031		Fucalitation	
101491009			
101494508			
101494515	FUR	Ut ball di eas	
101493023			
101493020	FUR		
101494509		Ayricultural land	
101493097	DAC	Eucalyptus arriyyualina coastal for est and woodland	
101494124	DVG	Eucalyptus vinimalis grassy for est and woodland	
101493903	ESM	Eucaryptus annygualina coastal foi est and woouland	
101490078		Melaleura aricifalia suamp forost	
101490090		Melaleuca ericifelia swamp forest	
101490037			
101403309		Fuchture any adding coastal forest and woodland	
101407000		Lucaryprus arriyyuanna cuastariorest anu woodland	
101490039		Agricultural land	
101470701			
101490070			
101403450		UI Dall al Eds	
101493050		vveeu intestation	
101494524		Eucalyptus amygdalina lorest and woodland on dolerite	
101492290			
101492289	FVVU	vveed intestation	
101495237	AR2	Saline grassland	



ld	Code	Community	Emergent species
101492293	FUR	Urban areas	
101495238	FAG	Agricultural land	
101495239	NME	Melaleuca ericifolia swamp forest	
101497304	ARS	Saline grassland	
101496580	OAQ	Water, sea	
101497305	FUR	Urban areas	
101497048	NME	Melaleuca ericifolia swamp forest	
101496778	FUR	Urban areas	
101496536	ARS	Saline grassland	
101494928	ARS	Saline grassland	
101496409	ARS	Saline grassland	
101494321	DAS	Eucalyptus amygdalina forest and woodland on sandstone	
101494361	FAG	Agricultural land	
101494471	DAD	Eucalyptus amygdalina forest and woodland on dolerite	
101493438	DAD	Eucalyptus amygdalina forest and woodland on dolerite	
101493657	DAD	Eucalyptus amygdalina forest and woodland on dolerite	
101491820	DAD	Eucalyptus amygdalina forest and woodland on dolerite	
101582824	FPL	Plantations for silviculture	
101583092	FPL	Plantations for silviculture	
101583168	FPL	Plantations for silviculture	
101496410	DAC	Eucalyptus amygdalina coastal forest and woodland	

For more information about TASVEG maps, please contact the Coordinator, Tasmanian Vegetation Monitoring and Mapping Program. Telephone: (03) 6233 4501

Email: TASVEG@dpipwe.tas.gov.au

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E: 475525 N: 5455270 E: 510700 N: 5455270



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Department of Primary Industries, Parks, Water and Environment

	Place Names		
	Relief Names		
	Threatened Communities		
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Department of Primary Industries, Parks, Water and Environment

Code	Title	Status
DVC	Fucal units viminalis Eucal units all obulus coastal forest and woodland	
	Malalausa orisifelia swamp forest	
		r.
	Eucaryptus ovata ioi est anu woodianu	
DOV	Eucalyptus ovata forest and woodland	
DAS	Eucalyptus amygdalina forest and woodland on sandstone	V
DAZ	Eucalyptus amygdalina inland forest and woodland on Cainozoic deposits	
DOV	Eucalyptus ovata forest and woodland	<u>E</u>
NME	Melaleuca ericifolia swamp forest	R,E
DOV	Eucalyptus ovata forest and woodland	E
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
AHL	lacustrine herbland	V
DAZ	Eucalyptus amygdalina inland forest and woodland on Cainozoic deposits	V
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
DAZ	Eucalyptus amygdalina inland forest and woodland on Cainozoic deposits	V
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	RE
DMW	Midlands woodland complex	E
NMF	Melaleuca ericifolia swamp forest	R F
NMF	Melaleuca ericifolia swamp forest	RF
NMF	Melaleuca ericifolia swamp forest	RF
NME	Melaleuca ericifolia swamp forest	RE
NME	Melaleuca ericifolia swamp forest	R F
NME	Melaleuca ericifolia swamp forest	P F
	Fucal votes and woodland on Cainozoic deposits	
NIME	Melaleuca aricifolia swamp forest	
	Fucility and a swamp for est	
DAS	Eucalyptus amygdalina forest and woodland on sandstone	
	Malalauca oricifalia swamp foract	
	Melaleuca ericifelia swamp forest	R,E
	Melaleuca ericifelia swamp forest	
	Melaleuca ericifolia swamp forest	K,L
	Melaleuca ericifolia swamp forest	K,E
NME		K,E
	Eucaryptus amygdallina inland forest and woodland on Calinozoic deposits	
NME	Melaleuca ericitolia swamp torest	K,L
DOV	Eucalyptus ovata forest and woodland	
NME	Melaleuca ericitolia swamp torest	K,E
NME	Melaleuca ericifolia swamp forest	R,E
DVC	Eucalyptus viminalis - Eucalyptus globulus coastal forest and woodland	R,V
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
DOV	Eucalyptus ovata forest and woodland	E
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
SRI	Riparian scrub	V
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E



Code	Title	Status
	Fucalyntus amygdalina forest and woodland on sandstone	V
NMF	Melaleuca ericifolia swamp forest	RF
NME	Melaleuca ericifolia swamp forest	RE
NME	Melaleuca ericifolia swamp forest	RE
NME	Melaleuca ericifolia swamp forest	RE
	Fucalization over a forest and woodland	F
	Eucalyptus ovata forest and woodland	F
	Eucalyptus ovata forest and woodland	F
NIME	Melaleuca ericifolia swamp forest	DF
NME	Melaleuca ericifolia swamp forest	
	Melaleuca ericifelia swamp forest	
	Fucalization over a forest and woodland	
	Melalouca oricifelia swamp forest	
	Melaleuca ericifelia swamp forest	
	Melaleuca ericifolia swamp forest	
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
NME		R,E
DOV	Eucalyptus ovata forest and woodland	E
DOV	Eucalyptus ovata forest and woodland	<u>L</u>
DAS	Eucalyptus amygdalina forest and woodland on sandstone	
DOV	Eucalyptus ovata forest and woodland	<u>E</u>
DAS	Eucalyptus amygdalina forest and woodland on sandstone	V
DAS	Eucalyptus amygdalina forest and woodland on sandstone	V
NME	Melaleuca ericitolia swamp forest	R,E
NME	Melaleuca ericitolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
DOV	Eucalyptus ovata forest and woodland	E
ASF	Fresh water aquatic sedgeland and rushland	V
DAS	Eucalyptus amygdalina forest and woodland on sandstone	V
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
AHL	lacustrine herbland	V
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
DOV	Eucalyptus ovata forest and woodland	E
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
NME	Melaleuca ericifolia swamp forest	R,E
DOV	Eucalyptus ovata forest and woodland	E

For more information about threatened vegetation communities, please contact the Resource Management and Conservation Division. Ph: (03) 6233 4501,

Fax: (03) 6233 3186





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Department of Primary Industries, Parks, Water and Environment

#### Geoconservation sites within 100 metres

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#### Geoconservation sites within 100 metres





#### Geoconservation sites within 100 metres

ld	Name	Significance	Geographical significance	Status
2879	Browns Bluff Eocene Plant Fossil Site	The best preserved Early Eocene flora macrofossils in Northern Tasmania. This site is also has some historical significance as R.M. Johnston noted the fossiliferous unit as a representative site for the Tertiary in the region in the late 1800s.	Region	Listed
3173	Cenozoic Plant Macrofossils of Tasmania	Tasmania contains a rich assemblage of Cenozoic plant macrofossils, many in an excellent state of preservation. Collectively, the fossil sites allow reconstruction of the character, evolution and palaeoenvironmental context of the southern hemisphere temperate palaeoflora of Tasmania across ca. 60 million years. The fossil record is crucial to our understanding of Tasmania's distinctive modern flora, especially conifers.	Global	Listed
3180	Craigburn basalt mass movement feature	The site demonstrates translational mass movement of large coherent volumes of basalt near the top of a slope. The basalt is inferred to overlie a sequence of Paleogene clayey sediments. Basalt is involved in slope failures elsewhere in the Tamar Valley as large translational slides, but this is the most obvious example. The well displayed columnar jointing is also of local significance.	Continent	Listed
3017	Middle Arm Fossil Site	Data not yet completed	Region	Listed
3022	Middle Arm Group Type Section	Data not yet completed	Sub-Region	Listed
3021	West Arm Group Type Section	Geological type section.	Sub-Region	Listed

#### Note: Restricted sites are not displayed.

For more information about the Geoconservation Database, please visit the DPIPWE web site (www.dpipwe.tas.gov.au) or contact the DPIPWE Geoconservation Officer:

Telephone: (03) 6233 6455

Email: Rolan.Eberhard@dpipwe.tas.gov.au

Address: GPO Box 44, Hobart, Tasmania, Australia, 7000



#### Reserves within 100 metres



E: 510700 N: 5455270





E: 510700 N: 5414579



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Name	Classification	Status
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
George Town Conservation Area	Conservation Area	Other Formal Reserve
	Informal reserve on other public land	Informal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
George Town Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Low Head Conservation Area	Conservation Area	Other Formal Reserve
	Informal reserve on other public land	Informal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Yorktown Historic Site	Historic Site	Dedicated Formal Reserve
	Informal reserve on other public land	Informal Reserve
Yorktown Historic Site	Historic Site	Dedicated Formal Reserve
Narawntapu National Park	National Park	Dedicated Formal Reserve
	Informal reserve on other public land	Informal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
	Informal reserve on other public land	Informal Reserve
Yorktown Historic Site	Historic Site	Dedicated Formal Reserve
	Informal reserve on other public land	Informal Reserve
	Informal reserve on other public land	Informal Reserve
Native Point Nature Reserve	Nature Reserve	Dedicated Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
	Informal reserve on other public land	Informal Reserve
George Town Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
	Informal reserve on other public land	Informal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Varktour Historia Cita		Informal Reserve
Yorktown Historic Site	Historic Site	Dedicated Formal Reserve
	HISTORIC SITE	
Coorgo Town Concernation Area		Other Formal Deserve
Tamar Concernation Area	Conservation Area	Other Formal Deserve
	Laformal reserve on other public land	
	Informal reserve on other public land	Informal Reserve
	Informal reserve on other public land	Informal Reserve
Low Head Historic Site		Dedicated Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
	Private Sanctuary	Private Reserve (Pernetual)
	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
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Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
	Informal reserve on other public land	Informal Reserve
Native Point Nature Reserve	Nature Reserve	Dedicated Formal Reserve
	Informal reserve on other public land	Informal Reserve



Name	Classification	Status
Yorktown Historic Site	Historic Site	Dedicated Formal Reserve
Redbill Point Conservation Area	Conservation Area	Other Formal Reserve
Low Head Conservation Area	Conservation Area	Other Formal Reserve
	Informal reserve on other public land	Informal Reserve
	Informal reserve on other public land	Informal Reserve
	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Yorktown Historic Site	Historic Site	Dedicated Formal Reserve
	Informal reserve on other public land	Informal Reserve
	Informal reserve on other public land	Informal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
	Informal reserve on other public land	Informal Reserve
Redbill Point Conservation Area	Conservation Area	Other Formal Reserve
Low Head Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
	Private Sanctuary	Private Reserve (Perpetual)
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Narawntapu National Park	National Park	Dedicated Formal Reserve
	Informal reserve on other public land	Informal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
	Informal reserve on other public land	Informal Reserve
Native Point Nature Reserve	Nature Reserve	Dedicated Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
George Town Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
George Town Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
	Informal reserve on other public land	Informal Reserve
	Informal reserve on other public land	Informal Reserve
	Informal reserve on other public land	Informal Reserve
	Conservation Area	Other Formal Reserve
	Informal reserve on other public land	Informal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
Yorktown Historic Site	Historic Site	Dedicated Formal Reserve
	Informal reserve on other public land	Informal Reserve
	Informal reserve on other public land	Informal Reserve



Name	Classification	Status
George Town Conservation Area	Conservation Area	Other Formal Reserve
George Town Conservation Area	Conservation Area	Other Formal Reserve
	Informal reserve on other public land	Informal Reserve
	Informal reserve on other public land	Informal Reserve
Low Head Conservation Area	Conservation Area	Other Formal Reserve
Low Head Historic Site	Historic Site	Dedicated Formal Reserve
	Informal reserve on other public land	Informal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
	Informal reserve on other public land	Informal Reserve
Tamar Conservation Area	Conservation Area	Other Formal Reserve
	Informal reserve on other public land	Informal Reserve
	Informal reserve on other public land	Informal Reserve

For more information about the Tasmanian Reserve Estate, please contact the Land Conservation Branch DPIPWE.

Ph: (03) 6233 2744

Fax (03) 6223 8603

Address: GPO Box 44, Hobart, Tasmania, Australia, 7000



### APPENDIX B: EPBC ONLINE PROTECTED MATTERS SEARCH REPORT

Australian Government



Department of Sustainability, Environment, Water, Population and Communities

# **EPBC** Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information about the EPBC Act including significance guidelines, forms and application process details can be found at http://www.environment.gov.au/epbc/assessmentsapprovals/index.html

Report created: 26/03/12 11:52:15

Summary Details Matters of NES Other Matters Protected by the EPBC Act Extra Information Caveat Acknowledgements



This map may contain data which are ©Commonwealth of Australia (Geoscience Australia), ©PSMA 2010

Coordinates Buffer: 1.0Km



# Summary

### Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance - see http://www.environment.gov.au/epbc/assessmentsapprovals/guidelines/index.html

World Heritage Properties:	None
National Heritage Places:	1
Wetlands of International	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Areas:	None
Threatened Ecological Communities:	1
Threatened Species:	49
Migratory Species:	47

# Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place and the heritage values of a place on the Register of the National Estate. Information on the new heritage laws can be found at http://www.environment.gov.au/heritage/index.html

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species. Information on EPBC Act permit requirements and application forms can be found at http://www.environment.gov.

Commonwealth Lands:	1
Commonwealth Heritage Places:	1
Listed Marine Species:	69
Whales and Other Cetaceans:	11
Critical Habitats:	None
Commonwealth Reserves:	None

### **Extra Information**

This part of the report provides information that may also be relevant to the area you have

Place on the RNE:	39
State and Territory Reserves:	12
Regional Forest Agreements:	1
Invasive Species:	9
Nationally Important Wetlands:	None

# Details

## Matters of National Environmental Significance

National Heritage Properties		[Resource Information]
Name	State	Status
Historic		
Low Head Historic Precinct	TAS	Nominated place
Threatened Ecological Communities		[Resource Information]
For threatened ecological communities where recovery plans, State vegetation maps, remot ecological community distributions are less we data are used to produce indicative distributio	e the distribution is well known, map te sensing imagery and other sourc ell known, existing vegetation maps on maps.	os are derived from es. Where threatened s and point location
Name	Status	Type of Presence

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Name	Status	Type of Presence
Lowland Native Grasslands of Tasmania	Critically Endangered	Community likely to occur within area
Threatened Species		[Resource Information]
Name	Status	Type of Presence
BIRDS		
Aquila audax fleayi		
Wedge-tailed Eagle (Tasmanian) [64435]	Endangered	Breeding likely to occur within area
Botaurus poiciloptilus		
Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area
<u>Ceyx azureus diemenensis</u>		<b>.</b>
Tasmanian Azure Kingfisher [25977]	Endangered	Species or species habitat likely to occur within area
Diomedea epomophora epomophora		
Southern Royal Albatross [25996]	Vulnerable	Species or species habitat may occur within area
Diomedea epomophora sanfordi		
Northern Royal Albatross [82331]	Endangered	Species or species habitat may occur within area
Diomedea exulans amsterdamensis		
Amsterdam Albatross [82330]	Endangered	Species or species habitat may occur within area
Diomedea exulans antipodensis		
Antipodean Albatross [82269]	Vulnerable	Species or species habitat may occur within area
Diomedea exulans exulans		
Tristan Albatross [82337]	Endangered	Foraging, feeding or related behaviour may occur within area
Gibson's Albatross [82271]	Vulnerable	Species or species
		habitat may occur within

alea Diomedea exulans (sensu lato) Wandering Albatross [1073] Species or species Vulnerable habitat may occur within area Fregetta grallaria grallaria White-bellied Storm-Petrel (Tasman Sea), White-Species or species Vulnerable bellied Storm-Petrel (Australasian) [64438] habitat likely to occur within area Halobaena caerulea Blue Petrel [1059] Vulnerable Species or species habitat may occur within area Lathamus discolor Swift Parrot [744] Endangered Breeding likely to occur within area Macronectes giganteus Southern Giant-Petrel [1060] Endangered Species or species habitat may occur within area Macronectes halli Northern Giant-Petrel [1061] Vulnerable Species or species habitat may occur within area Sternula nereis nereis Fairy Tern (Australian) [82950] Vulnerable Species or species habitat known to occur

within area

Name	Status	Type of Presence
Thalassarche bulleri		
Buller's Albatross [64460]	Vulnerable	Species or species habitat may occur within area
Thalassarche cauta cauta		
Shy Albatross, Tasmanian Shy Albatross [82345]	Vulnerable	Species or species habitat may occur within area
Thalassarche cauta salvini		
Salvin's Albatross [82343]	Vulnerable	Species or species habitat may occur within area
<u>I naiassarche chrysostoma</u>		<b>.</b>
Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
<u>Inalassaiche melanophils</u> Block browed Albetroes [66472]	Vulparabla	Spacios or aposios
Thelessoreho melenephria impervide	vuirierable	habitat may occur within area
<u>Inalassarche melanophris Impavida</u>		
Campbell Albatross [82449]	Vuinerable	Species of species habitat may occur within area
<u>Tyto novaehollandiae castanops</u>		
Masked Owl (Tasmanian) [67051]	Vulnerable	Breeding known to occur within area
CRUSTACEANS		
Astacopsis gouldi		
Tasmanian Giant Freshwater Lobster, Giant Lobster, Giant Freshwater Crayfish [64415]	Vulnerable	Species or species habitat may occur within area
Engaeus granulatus		
Central North Burrowing Crayfish [78959]	Endangered	Species or species habitat may occur within area
Engaeus orramakunna		
Mount Arthur Burrowing Crayfish [66778]	Vulnerable	Species or species habitat may occur within area
FISH		
Prototroctes maraena		
Australian Grayling [26179]	Vulnerable	Species or species habitat known to occur within area

FROGS		
Litoria raniformis		
Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog [1828]	Vulnerable	Species or species habitat known to occur within area
MAMMALS		
Balaenoptera musculus		
Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
Dasyurus maculatus maculatus (Tasmanian population	<u>)</u>	
Spotted-tail Quoll, Spot-tailed Quoll, Tiger Quoll (Tasmanian population) [75183]	Vulnerable	Species or species habitat likely to occur within area
Eubalaena australis		
Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area
Megaptera novaeangliae		
Humpback Whale [38]	Vulnerable	Species or species habitat likely to occur within area
Perameles gunnii gunnii		
Eastern Barred Bandicoot (Tasmania) [66651]	Vulnerable	Species or species habitat likely to occur within area

Name	Status	Type of Presence
<u>Sarcophilus harrisii</u> Tasmanian Devil [299]	Endangered	Species or species
	U U	habitat likely to occur
PLANTS		within area
Barbarea australis		
Native Wintercress, Riverbed Wintercress [12540]	Critically Endangered	Species or species habitat likely to occur within area
<u>Caladenia caudata</u>		
Carex tasmanica	Vumerable	habitat likely to occur within area
Curly Sedge [9101]	Vulnerable	Species or species habitat likely to occur within area
Epacris exserta South Esk Heath [19879]	Endangered	Species or species
	Lindangered	habitat known to occur within area
Pretty Heath Dan Hill Heath [20375]	Endangered	Species or species
Glycine latrobeana	Lindangered	habitat likely to occur within area
Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species
Prasophyllum apoxychilum		habitat likely to occur within area
Tapered Leek-orchid [64947]	Endangered	Species or species
		habitat likely to occur within area
Prasopnyllum secutum Northern Look-orchid [6/05/]	Endangorod	Spacios ar spacios
Northern Leek-orchid [04934]	Endangered	habitat likely to occur within area
<u>Pterostylis commutata</u>		0
Dterrectulia zie golori	Critically Endangered	Species or species habitat may occur within area
<u>Pterostylis ziegeleri</u> Grassland Greenbood, Cane Portland Greenbood	Vulnerable	Species or species
[64971]	Vullerable	habitat may occur within area
<u>Spyriaium obcordatum</u> Creening Dusty Miller [17/47]	Vulnerable	Species or species
	Vullerable	habitat likely to occur within area
<u>Tetratneca gunnii</u> Shy Susan [1//15]	Critically Endangered	Species or species
Vertherrhees erererie		habitat likely to occur within area
Sand Grasstree [21603]	Vulnerable	Species or species
	Vullerable	habitat may occur within area
<u>Xanthorrhoea bracteata</u> Shiny Grasstrop [7950]	Endangorod	Spacios ar spacios
Shiny Grasstree [7950]	Endangered	habitat known to occur within area
SHARKS		
Great White Shark [64470]	Vulnerable	Species or species
	Vullerable	habitat likely to occur within area
Migratory Species		[Resource Information
* Species is listed under a different scientific name on the	he EPBC Act - Threatened	Species list.
Name	Threatened	Type of Presence
wigratory warine Birds		

Name	Threatened	Type of Presence
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat may occur within area
Ardea alba Great Egret, White Egret [59541]		Species or species habitat may occur within area
Ardea IDIS		
Cattle Egret [59542]		Species or species habitat may occur within area
Amsterdam Albatross [64405]	Endangered*	Species or species habitat may occur within area
Antipodean Albatross [64458]	Vulnerable*	Species or species habitat may occur within area
Diomedea dabbenena		
Tristan Albatross [66471]	Endangered*	Foraging, feeding or related behaviour may occur within area
Southern Royal Albatross [1072]	Vulnerable*	Species or species habitat may occur within area
<u>Diomedea exulans (sensu lato)</u>		
Wandering Albatross [1073]	Vulnerable	Species or species habitat may occur within area
Gibson's Albatross [64466]	Vulnerable*	Species or species habitat may occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered*	Species or species habitat may occur within area
Macronectes giganteus Southern Giant-Petrel [1060]	Endangered	Species or species habitat may occur within
Macropoctos balli		area
Northern Giant-Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Buller's Albatross [64460]	Vulnerable	Species or species habitat may occur within area
Thalassarche cauta (sensu stricto)		
Shy Albatross, Tasmanian Shy Albatross [64697]	Vulnerable*	Species or species habitat may occur within area
<u>i naiassarche chrysostoma</u>		
Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
		•
Campbell Albatross [64459]	Vulnerable*	Species or species habitat may occur within area
Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
<u>I halassarche salvini</u>		
Salvin's Albatross [64463]	Vulnerable*	Species or species habitat may occur within area
Migratory Marine Species		

Name	Threatened	Type of Presence
Balaenoptera musculus		
Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
<u>Caperea marginata</u>		
Pygmy Right whale [39]		Species or species habitat may occur within area
<u>Carcharodon carcharias</u>		
Great White Shark [64470]	Vuinerable	Species or species habitat likely to occur within area
Southorn Pight Whole [40]	Endangered	Spacios or spacios
	Endangered	habitat known to occur within area
Lagenorhynchus obscurus		
Dusky Dolphin [43]		Species or species habitat may occur within area
Lamna nasus		
Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area
Megaptera novaeangliae		
Humpback Whale [38]	Vulnerable	Species or species habitat likely to occur within area
<u>Orcinus orca</u>		
Killer Whale, Orca [46]		Species or species habitat may occur within area
Migratory Terrestrial Species		
Haliaeetus leucogaster		
White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area
<u>Mirundapus caudacutus</u>		
White-throated Needletail [682]		Species or species habitat may occur within area
Satin Flycatcher [612]		Breeding likely to occur
		within area
Migratory Wetlands Species		

Common Sandpiper [59309]

Ardea alba Great Egret, White Egret [59541]

Ardea ibis Cattle Egret [59542]

Arenaria interpres Ruddy Turnstone [872]

Calidris acuminata Sharp-tailed Sandpiper [874]

Calidris canutus Red Knot, Knot [855]

<u>Calidris ferruginea</u> Curlew Sandpiper [856] Species or species habitat known to occur within area

Species or species habitat may occur within area

Species or species habitat may occur within area

Species or species habitat known to occur within area

Species or species habitat known to occur within area

Species or species habitat known to occur within area

Species or species habitat known to occur within area

Name	Threatened	Type of Presence
Calidris ruficollis		
Red-necked Stint [860]		Species or species habitat known to occur within area
Double handed Player [805]		Spacios ar spacios
Charadrius mongolus		habitat known to occur within area
Lassar Sand Player, Mangalian Player [870]		Spacios or spacios
		habitat known to occur within area
Gailinago hardwickii		
Latnam's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
<u>Heteroscelus brevipes</u>		
Grey-tailed Tattler [59311]		Species or species habitat known to occur within area
Limosa lapponica		
Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Numenius madagascariensis		
Eastern Curlew [847]		Species or species habitat known to occur within area
Numenius phaeopus		
Whimbrel [849]		Species or species habitat known to occur within area
Pluvialis fulva		
Pacific Golden Plover [25545]		Species or species habitat known to occur within area
<u>Fiuvialis squatatula</u> Grov Dlover [965]		Spanica ar apacica
Xenus cinereus		habitat known to occur within area
Terek Sandpiper [59300]		Species or species
		habitat known to occur within area

### Other Matters Protected by the EPBC Act

#### Commonwealth Lands

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

#### Name

Commonwealth Land -

Commonwealth Heritage Places		[Resource Information]
Name	State	Status
Historic		
Australian Maritime College, Newnham Campus	TAS	Listed place
Listed Marine Species		[Resource Information]
* Species is listed under a different scientific name on th	e EPBC Act - Threatened	Species list.
Name	Threatened	Type of Presence
Birds		
Actitis hypoleucos		
Common Sandpiper [59309]		Species or species habitat known to occur within area
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat may occur within

[Resource Information]

Name	Threatened	Type of Presence
		area
Ardea alba Great Egret, White Egret [59541]		Species or species habitat may occur within area
Ardea ibis		
Cattle Egret [59542]		Species or species habitat may occur within area
Arenaria interpres		
Ruddy Turnstone [872]		Species or species habitat known to occur within area
Calidris acuminata		
Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
<u>Calidris canutus</u>		
Red Knot, Knot [855]		Species or species habitat known to occur within area
Calidris ferruginea		
Curlew Sandpiper [856]		Species or species habitat known to occur within area
Calidris ruficollis		
Red-necked Stint [860]		Species or species habitat known to occur within area
Catharacta skua		<b>o</b> · · ·
Great Skua [59472]		Species or species habitat may occur within area
Charadrius bicinctus		
Double-banded Plover [895]		Species or species habitat known to occur within area
Lesser Sand Plover Mongolian Plover [870]		Species or species
		habitat known to occur within area
Charadrius ruticapilius Ded conned Diever [004]		Chapter of chapter
Reu-capped Plover [881]		opecies of species habitat known to occur

Diomedea amsterdamensis

Amsterdam Albatross [64405]

Diomedea antipodensis Antipodean Albatross [64458]

Diomedea dabbenena Tristan Albatross [66471]

Diomedea epomophora (sensu stricto) Southern Royal Albatross [1072]

Diomedea exulans (sensu lato) Wandering Albatross [1073]

Diomedea gibsoni Gibson's Albatross [64466]

Diomedea sanfordi Northern Royal Albatross [64456]

### Endangered\*

Vulnerable\*

Endangered\*

Vulnerable\*

Vulnerable

Vulnerable\*

Endangered\*

Species or species habitat may occur within area

within area

Species or species habitat may occur within area

Foraging, feeding or related behaviour may occur within area

Species or species habitat may occur within area

Name	Threatened	Type of Presence
Gallinago hardwickii		
Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
<u>Gallinago megala</u>		
Swinhoe's Snipe [864]		Species or species habitat known to occur within area
<u>Haliaeetus leucogaster</u>		
White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area
<u>Halobaena caerulea</u>		
Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
<u>Heteroscelus brevipes</u>		
Grey-tailed Tattler [59311]		Species or species habitat known to occur within area
<u>Hirundapus caudacutus</u>		
White-throated Needletail [682]		Species or species habitat may occur within area
Lathamus discolor		
Swift Parrot [744]	Endangered	Breeding likely to occur within area
<u>Limosa lapponica</u>		
Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Southorn Giant Potrol [1060]	Endangered	Spacios or spacios
	Lindangered	habitat may occur within area
Northern Giant-Petrel [1061]	Vulnerable	Species or species habitat may occur within area
<u>Iviyiagra cyanoleuca</u>		
Satin Flycatcher [612]		Breeding likely to occur within area
		<b>On</b>
Eastern Curiew [847]		Species or species habitat known to occur within area

Numenius phaeopus Whimbrel [849]

Pluvialis fulva Pacific Golden Plover [25545]

Pluvialis squatarola Grey Plover [865]

Thalassarche bulleri Buller's Albatross [64460]

Thalassarche cauta (sensu stricto) Shy Albatross, Tasmanian Shy Albatross [64697]

Thalassarche chrysostoma Grey-headed Albatross [66491]

Thalassarche impavida Campbell Albatross [64459] within area

Species or species habitat known to occur within area

Species or species habitat known to occur within area

Species or species habitat known to occur within area

Species or species habitat may occur within

Endangered

Vulnerable\*

Vulnerable

Vulnerable\*

Name	Threatened	Type of Presence
		area
Thalassarche melanophris		
Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
Thalassarche salvini		
Salvin's Albatross [64463]	Vulnerable*	Species or species habitat may occur within area
Thinornis rubricollis rubricollis		
Hooded Plover (eastern) [66726]		Species or species habitat likely to occur within area
Xenus cinereus		
Terek Sandpiper [59300]		Species or species habitat known to occur within area
Fish		
Heraldia nocturna		
Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area
<u>Hippocampus abdominalis</u>		
Bigbelly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area
<u>Hippocampus breviceps</u>		
Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area
<u>Histiogamphelus briggsii</u>		
Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area
Histiogamphelus cristatus		
Rhino Pipefish, Macleay's Crested Pipefish, Ring- back Pipefish [66243]		Species or species habitat may occur within area
Hypselognathus rostratus		
Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area
Kaupus costatus		
Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within

Kimblaeus bassensis

Trawl Pipefish, Bass Strait Pipefish [66247]

Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]

<u>Lissocampus runa</u> Javelin Pipefish [66251]

Maroubra perserrata Sawtooth Pipefish [66252]

Mitotichthys semistriatus Halfbanded Pipefish [66261]

Mitotichthys tuckeri Tucker's Pipefish [66262]

Notiocampus ruber Red Pipefish [66265] area

Species or species habitat may occur within area

Species or species habitat may occur within

Name	Threatened	Type of Presence
		area
Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area
Pugnaso curtirostris		
Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area
Solegnathus robustus		
Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area
Solegnathus spinosissimus		
Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area
<u>Stigmatopora argus</u>		
Spotted Pipefish, Gulf Pipefish [66276]		Species or species habitat may occur within area
Stigmatopora nigra		
Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area
<u>Stipecampus cristatus</u>		
Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area
Urocampus carinirostris		
Hairy Pipefish [66282]		Species or species habitat may occur within area
<u>Vanacampus phillipi</u>		
Port Phillip Pipefish [66284]		Species or species habitat may occur within area
<u>Vanacampus poecilolaemus</u>		
Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area
Mammals		
Arctocephalus forsteri		

New Zealand Fur-seal [20]

Species or species habitat may occur within

	area
	Species or species habitat likely to occur within area
	[Resource Information]
Status	Type of Presence
	Species or species habitat may occur within area
Endangered	Species or species habitat likely to occur within area
	Species or species habitat may occur within area
	Spacios or spacios
	habitat may occur within area
Endangered	Species or species habitat known to occur
	Status Endangered

Name	Status	Type of Presence
		within area
<u>Globicephala macrorhynchus</u>		
Short-finned Pilot Whale [62]		Species or species habitat may occur within area
Grampus griseus		
Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
Lagenorhynchus obscurus		
Dusky Dolphin [43]		Species or species habitat may occur within area
Megaptera novaeangliae		
Humpback Whale [38]	Vulnerable	Species or species habitat likely to occur within area
Orcinus orca		
Killer Whale, Orca [46]		Species or species habitat may occur within area
Tursiops truncatus s. str.		
Bottlenose Dolphin [68417]		Species or species habitat may occur within area

# Extra Information

Places on the RNE	[Resource Information
Places on the RNE	<u>[Resource Informati</u>

Note that not all Indigenous sites may be listed.

Name	State	Status
Natural		
Clarence Point Area	TAS	Indicative Place
Dans Hill - Scotts Hill Area	TAS	Indicative Place
Four Mile Creek Wildlife Sanctuary	TAS	Registered
Native Point Nature Reserve	TAS	Registered
Tamar River Conservation Area	TAS	Registered
Historic		
Dilston Lodge	TAS	Indicative Place
House And	TAS	Indicative Place
House	TAS	Indicative Place
Middle Arm Lime Kiln	TAS	Indicative Place
Mowbray Racecourse Grandstand	TAS	Indicative Place
St Finn Barrs School	TAS	Indicative Place
Star Theatre (former)	TAS	Indicative Place
Supply River Historic Area	TAS	Indicative Place
Australian Maritime College, Newnham Campus	TAS	Registered
Beaconsfield Gold Mine Buildings Ruins	TAS	Registered
Cable Station (Former)	TAS	Registered
Cormiston	TAS	Registered
Coulsons Inn & Attached Wooden House	TAS	Registered
Edwardian House Near the Low Head Lighthouse	TAS	Registered
Gardeners Cottage At Newnham School	TAS	Registered
George Town Cemetery	TAS	Registered
Kelso House	TAS	Registered
Landfall Mill and House	TAS	Registered
Low Head Lighthouse & Adjacent Cottage	TAS	Registered
Low Head Settlement	TAS	Registered
Marion Villa	TAS	Registered
Mount Stuart (1813 and 1824 portions only)	TAS	Registered
Newnham Hall, Including Outbuildings to Rear	TAS	Registered
Northern Leading Light & Conjoined Cottages	TAS	Registered
Pilot Station Complex	TAS	Registered
<u>Plaisance</u>	TAS	Registered

Name	State	Status
Rostella	TAS	Registered
Sidmouth Presbyterian Church and Grounds	TAS	Registered
Southern Leading Light and Conjoined Cottage	TAS	Registered
St Matthias Anglican Church and Graveyard	TAS	Registered
Steam Packet Hotel (Former)	TAS	Registered
The Cedars	TAS	Registered
The Grove	TAS	Registered
York Town Historic Site	TAS	Registered

State and Territory Reserves	[Resource Information]
Name	State
Andersons Creek	TAS
Bradys Lookout	TAS
George Town	TAS
Long Reach	TAS
Long Reach	TAS
Low Head	TAS
Low Head	TAS
Native Point	TAS
Redbill Point	TAS
Tamar	TAS
Tippogoree Hills	TAS
Yorktown	TAS

### Regional Forest Agreements

Note that all areas with completed RFAs have been included.

Name	State
Tasmania RFA	Tasmania

Invasive Species		[Resource Information]
Weeds reported here are the 20 species of nationa plants that are considered by the States and Territo biodiversity. The following feral animals are reporte and Cane Toad. Maps from Landscape Health Proj	I significance (WoNa ories to pose a partic ed: Goat, Red Fox, C ject, National Land a	S), along with other introduced cularly significant threat to Cat, Rabbit, Pig, Water Buffalo and Water Resouces Audit,
Name	Status	Type of Presence

Name	Status	Type of Presence
Mammals		
Capra hircus		
Goat [2]		Species or species habitat likely to occur within area
Felis catus		
Cat, House Cat, Domestic Cat [19]		Species or species

Oryctolagus cuniculus Rabbit, European Rabbit [128]

Vulpes vulpes Red Fox, Fox [18]

#### Plants

<u>Asparagus asparagoides</u> Bridal Creeper, Bridal Veil Creeper, Smilax, Florist's Smilax, Smilax Asparagus [22473]

<u>Chrysanthemoides monilifera</u> Bitou Bush, Boneseed [18983]

Rubus fruticosus aggregate Blackberry, European Blackberry [68406]

Salix spp. except S.babylonica, S.x calodendron & S.x reichardtiji Willows except Weeping Willow, Pussy Willow and Sterile Pussy Willow [68497] habitat likely to occur within area

[Resource Information]

Species or species habitat likely to occur within area

Species or species habitat likely to occur within area

Species or species habitat likely to occur within area

Species or species habitat may occur within area

Species or species habitat likely to occur within area

Species or species habitat likely to occur within area

<u>Ulex europaeus</u>

Gorse, Furze [7693]

#### Status

Species or species habitat likely to occur within area

# Coordinates

-41.04999 146.78604,-41.18604 146.97155,-41.18604 146.97155,-41.18723 146.97274, -41.19794 146.95489,-41.22768 146.94894,-41.23363 146.9775,-41.28003 147.02508, -41.29074 146.99177,-41.30501 146.99772,-41.30382 147.03579,-41.41566 147.14287, -41.42161 147.10837,-41.4109 147.10837,-41.39662 147.07624,-41.38235 147.07029, -41.34903 147.06197,-41.34665 147.05364,-41.35022 147.02746,-41.33119 147.00367, -41.32167 146.9775,-41.3062 146.95846,-41.27646 146.96917,-41.26218 146.95727, -41.26099 146.9418,-41.19794 146.89183,-41.19794 146.90135,-41.17057 146.91444, -41.16344 146.88351,-41.17414 146.85495,-41.20151 146.84544,-41.20032 146.81807, -41.17057 146.82997,-41.1563 146.80142,-41.17057 146.77167,-41.15392 146.75859, -41.11347 146.78952,-41.07778 146.75026,-41.04999 146.78604

# Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World Heritage and Register of National Estate properties, Wetlands of International Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the qualifications below and may need to seek and consider other

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

For species where the distributions are well known, maps are digitised from sources such as recovery plans and detailed habitat studies. Where appropriate, core breeding, foraging and roosting areas are indicated under 'type of presence'. For species whose distributions are less well known, point locations are collated from government wildlife authorities, museums, and non-government organisations; bioclimatic distribution models are generated and these validated by experts. In some cases, the distribution maps are based solely on expert knowledge.

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and
- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

The following groups have been mapped, but may not cover the complete distribution of the species:

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

Such breeding sites may be important for the protection of the Commonwealth Marine environment.

# Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

- -Department of Environment, Climate Change and Water, New South Wales
- -Department of Sustainability and Environment, Victoria
- -Department of Primary Industries, Parks, Water and Environment, Tasmania
- -Department of Environment and Natural Resources, South Australia
- -Parks and Wildlife Service NT, NT Dept of Natural Resources, Environment and the Arts
- -Environmental and Resource Management, Queensland

-Department of Environment and Conservation, Western Australia -Department of the Environment, Climate Change, Energy and Water -Birds Australia -Australian Bird and Bat Banding Scheme -Australian National Wildlife Collection -Natural history museums of Australia -Museum Victoria -Australian Museum -SA Museum -Queensland Museum -Online Zoological Collections of Australian Museums -Queensland Herbarium -National Herbarium of NSW -Royal Botanic Gardens and National Herbarium of Victoria -Tasmanian Herbarium -State Herbarium of South Australia -Northern Territory Herbarium -Western Australian Herbarium -Australian National Herbarium, Atherton and Canberra -University of New England -Ocean Biogeographic Information System -Australian Government, Department of Defence -State Forests of NSW

-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

#### Please feel free to provide feedback via the Contact Us page.

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