

Appendix M Terrestrial Flora and Fauna Assessment

EAST ARM WHARF EXPANSION PROJECT

TERRESTRIAL FLORA AND FAUNA ASSESSMENT

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Final Report
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Project

East Arm Wharf Expansion Project Terrestrial Flora and Fauna Assessment

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This report was prepared in January - March 2011 and is based on data reviewed and information compiled during field surveys undertaken in November 2010 and January 2011. Ecological Management Services Pty Ltd disclaims any responsibility for any changes that have occurred after this time.

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1. Introduction

To facilitate trade growth and local and regional economic development, a master plan was prepared for managing land and sea-based activities at East Arm Wharf (EAW) to the year 2030 (GHD 2009). The focus of this plan is to accommodate projected growth and provide for the staged expansion of the existing facilities and infrastructure. This study was commissioned to investigate and update data relating to the terrestrial flora and fauna within relevant components of the expansion project area as a component of the preparation of a Draft Environmental Impact Statement (EIS).

The project is situated on the East Arm Peninsula, within Darwin Harbour in the Northern Territory (Figure 1). The Peninsula has been developed to form the EAW and associated wharf related industries, in accordance with the EIS prepared by Acer Vaughn in 1993 (AECOM 2009). The EAW extends into the Darwin Harbour and is bounded by Bleesers Creek to the north and Hudson Creek to the southeast. Two small islands lie directly south and east of the project area; South Shell Island and Catalina Island (AECOM 2009).

Ecological Management Services Pty Ltd was commissioned by URS Australia/Northern Territory Department of Lands and Planning to prepare a terrestrial flora and fauna assessment for components of the proposed expansion area. The main focus of the assessment is the terrestrial vertebrate fauna of the proposed rail spur (Area 1), with a review of mangrove mapping and assessment of migratory and wetland birds in adjacent mangrove habitats, the existing dredge spoil areas and littoral components of proposed hardstand area (Area 2/3). An area of open woodland and mangrove habitat adjacent to Hamaura Road (Area 4) was also assessed. However although included in this assessment and listed as part of the proposal in the NOI, the Draft EIS for which this document was prepared does not include Area 4. The main terrestrial habitats within the project area are generally small remnants within a mosaic of disturbed regrowth and reclaimed land. The most extensive areas of intact habitat within the study area are mangrove, tidal flats and saline wetland habitat.

1.1. Objectives and Scope

The survey was required as a result of a gap analysis by AECOM (2009) which recommended that targeted flora and fauna surveys be conducted due to the potential presence of threatened species within the study area. The main objective of the survey was to assess the terrestrial flora and vertebrate fauna species within the study area, and migratory shorebirds/wetland birds present within and adjacent to the study area. The target species included flora and fauna species identified in a review of previous ecological studies undertaken in the East Arm area and other data sources, and species listed in threatened categories under Commonwealth and NT Government Legislation that potentially occur in the vicinity of the study area. Consideration was also given to migratory/marine bird species listed under Commonwealth legislation (Department of Sustainability, Environment, Water, Population and Communities 2009). Fauna survey methodologies were developed in consultation with the NRETAS biodiversity unit.

The scope of the vegetation assessment included an appraisal of existing ecological and floristic information relating to the study area and the collation of additional field data. The survey specifically targeted areas identified as remnant bushland, significant vegetation types and known habitat for scheduled species. Results from standard flora site assessments, vegetation mapping and additional surveys targeting specific flora groups and species are presented.

The scope of work included:

- Evaluation and description of the terrestrial flora and fauna of the study area.
- An evaluation of the likely presence/habitat suitability for other significant and/ threatened species.
- Assessment and mapping of terrestrial vegetation, including vegetation community mapping, species inventory, weeds and significant flora species/communities.
- A review of the mangrove communities based on existing mapping of the Darwin Harbour.
- An assessment of migratory shorebirds and other wetland birds.
- Evaluation of the site in terms of fauna and flora habitat significance.
- Review and assessment of flora and fauna species listed as threatened under the Northern Territory *Territory Parks and Conservation Act 2000 (TPWC Act 2000)*.
- Review and assessment of matters of National Environmental Significance, including threatened flora and fauna species, under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act 1999)*.
- Assessment of the ecological values of adjacent mangrove and tidal ecosystems in relation to migratory/marine bird species.
- Assessment of potential impacts on flora and fauna and potential management measures.



Figure 1. EAW Study Area

Aerial Photography Supplied by URS Australia
Datum GDA 94

 Study Area



2. Previous Surveys and Existing Data

2.1. Flora and Fauna Species Data

Prior to commencing field surveys the following data sources for the EAW precinct and surrounding region were reviewed:

- Previous ecological assessments including EAW EIS (Acer Vaughn 1993), Darwin Joint Terminal PER (SKM 1999), Darwin City Waterfront Redevelopment EIS (Smith & Firth 2003) and the Onshore Flora and Fauna Assessment for the Ichthys Gas Field Development Project site at Middle Arm (GHD 2009).
- Wader counts conducted at dredge spoil ponds for Darwin Port Corporation (Estbergs unpublished data 2011).
- Plan of Management for the Charles Darwin National Park to the north of Blesers Creek (PWCNT 2003).
- NT Government flora and fauna data, accessed using the NT NRM Infonet report tool for the project area (Appendix 1).
- An EPBC protected matters report for the East Arm study area 2km buffer (DSEWPC 2011).
- A review of conservation and biodiversity values of the Darwin Coastal bioregion (Baker *et al.* 2005).
- Museum vertebrate specimens (mammals, birds, reptiles and amphibians) from the Darwin Harbour region held in the Museum and Art Gallery of the Northern Territory (MAGNT), Museum of Victoria (MoV), Australian Museum, and South Australian Museum based on a search of the BioMaps database, which accesses fauna data from the Online Zoological Collections of Australian Museums (OZCAM) network.

A list of critically endangered, endangered and vulnerable flora and fauna species that are listed in existing databases and reports reviewed for this project is included in Table 2.1 and Table 2.2. NT Government data for the selected area (Appendix 1) included one flora species, the cycad *Cycas armstrongii*, which is listed as vulnerable in the *TPWC Act 2000* (Table 2.1, Plate 4). This database also lists twenty-four plant species listed as data deficient and seventy-five weeds and potential weeds for the search area (Appendix 1).

Thirteen threatened fauna species potentially occur in local habitats based on existing data and known habitat preferences (Table 2.2). The Commonwealth *Environment Protection & Biodiversity Conservation Act (EPBC Act 1999)* protected matter search (DSEWPC 2011) lists a range of listed migratory species that potentially occur in the East Arm area. Many of these species are also listed in existing data (Appendix 1, Appendix 3.1) or have been previously reported in the study area (Acer Vaughn 1993) or adjacent areas (PWCNT 2003).

Some of these records of threatened species are historical or are generated from data from the wider region and may no longer or may never have occurred within the study area and/or surrounding habitats. Existing data sources list a large number of fauna species that potentially occur in the region, however the small extent and limited diversity of the terrestrial habitats present within the study area indicates that local sites would support a sub-set of these species.

The list of fauna species known to occur in the nearby Charles Darwin National Park is likely to provide the best indication of the species that potentially occur within the study area (Appendix 3.1). This reserve is known to support nine amphibian, twenty-one reptile, fourteen mammal and one-hundred and sixteen bird species (PWCNT 2003). The East Arm Peninsula development has been guided by the Darwin Port Expansion - East Arm Environmental Impact Statement (EIS) prepared by Acer Vaughn (1993). This document presents a review and survey of the flora and fauna within the project area and provides the most detailed ecological assessment within the study area prior to the current project. Fauna species records from Acer Vaughn (1993) are included in Appendix 3.1.

Table 2.1 Critically Endangered, Endangered & Vulnerable Flora Species: Existing Regional Records

Scientific/Common Name	EPBC Act 1999	TPWC Act 2000	Data Source	Habitat
<i>Cycas armstrongii</i>		V	1	Grassy woodland on yellow and red earths, well drained sites

Conservation Status: V = Vulnerable

Data sources:

1 = NT Government Data/NT NRM report, 2011

Table 2.2 Critically Endangered, Endangered & Vulnerable Fauna Species: Existing Regional Records

Scientific/Common Name	EPBC Act 1999	TPWC Act 2000	Data Source	Habitat
Howard River Toadlet <i>Uperoleia daviesae</i>		V	*	Low-lying habitats with sandy soils, Melaleuca swamps
Yellow-spotted Monitor <i>Varanus panoptes</i>		V	1, 4, 5	Open forests and woodlands
Merten's Water Monitor <i>Varanus mertensi</i>		V	1, 5	Swamp forest and riparian habitats
Red Goshawk <i>Erythrotriorchis radiatus</i>	V	V	1, 2, 3	Open forest/woodland and riparian habitats
Australian Bustard <i>Ardeotis australis</i>	V		1, 3	Eucalyptus forest and woodland with grassy understorey
Australian Painted Snipe <i>Rostratula australis</i>	V	V	1	Shallow, vegetated, freshwater swamps, claypans or inundated grassland
Masked Owl <i>Tyto novaehollandiae kimberli</i>	V	V	1, 3	Tall open forest, monsoon vine forest
Gouldian Finch <i>Erythrura gouldiae</i>	E	E	1, 2, 3	Wooded hills and lowland grassy woodlands
Northern Quoll <i>Dasyurus hallucatus</i>	E	CE	1, 2, 3, 4, 5	Open forest and woodlands
Northern Phascogale <i>Phascogale pirata</i>		V	1, 2, 3	Eucalypt forest and woodland
Brush-tailed Rabbit-rat <i>Conilurus penicillatus</i>	V	V	2, 3	Open forests and woodlands

Scientific/Common Name	EPBC Act 1999	TPWC Act 2000	Data Source	Habitat
Bare-rumped Sheath-tailed Bat <i>Saccolaimus saccolaimus</i>	CE		1, 3	Tall open forest and woodlands in the coastal lowlands
Water Mouse <i>Xeromys myoides</i>	V	DD	2, 3	Mangroves and adjacent vegetation, freshwater wetlands

Conservation Status: CE = Critically Endangered E = Endangered, V = Vulnerable, DD = Data Deficient

Data sources:

* Possible occurrence in the Palmerston area

1 = NT Government Data/NT NRM report, 2011

2 = EAW EPBC protected matters report, 2011

3 = Baker *et al.* (2005) Darwin Coastal Bioregional Assessment

4 = East Arm Wharf Precinct EIS (Acer Vaughn 1993)

5 = Museum records (OZCAM)

2.2. Existing Vegetation Community Data and Mapping

Prior to conducting field surveys available vegetation mapping data products were examined and reviewed, including:

- Mangrove mapping of the Darwin harbour at a scale of 1:25,000 (Brocklehurst & Edmeades 1996);
- Darwin Port Expansion - East Arm Draft EIS (Acer Vaughn 1993);
- Remnant Vegetation Survey - Litchfield Shire Municipality at a scale of 1:25,000 (Brock 1995); and
- Aerial photography dated 2009 as supplied by URS Pty Ltd Darwin.

Mangrove communities of Darwin Harbour, including areas within and adjacent to the study area, have been mapped by Brocklehurst & Edmeades (1996). The authors recognise three broad categories which are divided into twelve map units or communities. The divisions include:

- Mangrove Closed Forests with six map units;
- Mangrove Woodlands/Open Woodlands with four map units; and
- Samphire/salt flat with two map units.

Seven of the twelve map units described in the Brocklehurst & Edmeades (1996) report occur in the study area.

Acer Vaughn (1993) contains vegetation information drawn from field assessments undertaken in 1990. This report described the existing terrestrial flora on the mainland as well as on the nearby smaller islands. The terrestrial vegetation was divided into six terrestrial plant associations, including 'Paperbark Forest', 'Littoral Woodland', 'Woodland', 'Vine Thicket', 'Mixed Woodland', 'Open Woodland' and 'Terrestrial Vegetation of the East Arm Islands' (Acer Vaughn 1993). Acer Vaughn (1993) includes a vegetation map for the East Arm area that shows additional mapping units, including 'Mangrove' and 'Hinterland Vegetation'. A plant species list is provided with the occurrence of species divided into five habitat types including 'Mangrove and Saltflat', 'Littoral Woodland', 'Woodland', 'Vine Thicket' and 'Mixed Woodland' (Acer Vaughn

1993). While Acer Vaughan (1993) provides background flora data for the study area, significant changes have occurred since this survey was compiled, including extensive clearing and filling of terrestrial and adjacent vegetation.

3. Flora Survey Methodology

3.1. Study Area

The current assessment was primarily focussed on terrestrial vegetation within the study area. Boundaries of the study area were identified from surveyed maps, diagrams, flagged boundaries, aerial photographs and consultation with Darwin Port Corporation officers. Specific locations in the study area were acquired with a Global Positioning System (GPS) set at the WGS 84 Map Datum. Aerial photo interpretation (API) was used to determine sites that covered recognisable terrestrial vegetation assemblages, regrowth and disturbed areas. Aerial photography was dated 2009 and provided by URS Pty Ltd Darwin. Ground truthing of API was conducted between 8th to the 12th November 2010.

The short descriptions of the mangrove communities presented in this report are based on the existing 1:25,000 Darwin Harbour mangrove mapping (Brocklehurst & Edmeades 1996). Tidal mangrove communities were not investigated and sampled during the current field survey. However, several of the mapped boundaries from existing mapping (Brocklehurst & Edmeades 1996) were realigned based on review of recent aerial photography. These include modifications to the outer edge of the *Sonneratia* Woodland (map unit 8 of Brocklehurst & Edmeades 1996) and the edges of the samphire/saltpan (map unit 11 of Brocklehurst & Edmeades 1996). Observations of weeds and other impacts were noted.

3.2. Vegetation Mapping: Floristics and Structure

The terrestrial vegetation in the study area is dominated by disturbed areas and regrowth, with several smaller areas of remnant vegetation. Consequently, a number of methods were employed to characterise the vegetation. Firstly, a 'check site', as described by Brocklehurst *et al.* (2007) was utilised. At specific sites (Figure 2, Table 3.1) vegetation was assessed to determine whether vegetation at the site satisfied established criteria to qualify as remnant vegetation.

At each flora site a 20m diameter site was assessed and basic floristic and structural data were collected. Structural data included the height and percentage foliage cover of the dominant strata (e.g. canopy, mid and ground strata). Floristic data such as the three main species from the dominant strata were recorded.

Table 3.1 Flora Survey Sites

Vegetation Community	Vegetation Community Description	Latitude	Longitude
1	Monsoon Vine Forest (MVF)	706450	8620238
2	L-MH Mixed Species OW/W	708237	8619585
2	L-MH Mixed Species OW/W	709000	8619628
2	L-MH Mixed Species OW/W	709110	8621309
2	L-MH Mixed Species OW/W	709141	8619635
3	Disturbed Areas with Regrowth	706706	8620429
3	Disturbed Areas with Regrowth	708113	8620937
3	Disturbed Areas with Regrowth	707696	8620845
3	Disturbed Areas with Regrowth	707539	8620755

Other components of the study area were traversed on foot to ensure that each vegetation assemblage was examined for its species composition and to compile short structural and floristic descriptions, generate a species list, determine the condition of the vegetation associations (including weeds), prepare a vegetation map and target the occurrence of threatened species as listed in the *TPWC Act 2000* and the *EPBC Act 1999*. A plant species check-list (Appendix 2) was compiled to include scientific and common names, growth form, presence/absence in each vegetation community, presence/absence in each stratum, relative abundances, conservation significance and pest status.

Descriptions of the vegetation assemblages are largely based on structural forms as specified by Walker & Hopkins (1990) augmented by floristic information. These descriptions were compared with NT vegetation descriptions based on Wilson *et al.* (1990) and communities were assigned a National Vegetation Information System (NVIS) Description and Code (Brocklehurst *et al.* 2007).

3.3. Declared Weeds and Vegetation Condition

Weed species observed within the study area were checked for status under the Northern Territory *Weeds Management Act 2001*. Table 3.2 describes the categories of declared weeds listed in the *Weeds Management Act 2001* and their management requirements.

Table 3.2 Schedule of Classes of Declared Weeds in the Northern Territory

Class	Management	Notes
A	To be eradicated	Reasonable effort must be made to eradicate the plant within the NT
B	Growth and spread to be controlled	Reasonable attempts must be made to contain the growth and prevent the movement of the plant
C	Not to be introduced to the Northern Territory	All Class A and Class B weeds are also considered to be Class C weeds.

Vegetation condition is described for each of the vegetation communities. The description of condition is based on categories established by Buchanan (1989) and used by The National Trust of Australia (NSW). Bushland condition has been assessed based on plant condition, habitat diversity, interspersions of habitat, spatial management, conditions of margins, the pattern and source of weed invasion, drainage patterns, foot tracks and adjoining land use and is divided into four categories ranging from 'good', 'fair', 'poor' to 'very

poor' (Buchanan 1989).

3.4. Flora Taxonomy and Nomenclature

Generally the identification of flora species in the study area was conducted on site. However, several of the plants were identified in the office using a stereomicroscope, herbarium reference material and current botanical keys (Thomas 2011). Identifications and nomenclature were based on Booth *et al.* (2001), Brocklehurst & Edmeades (1996), Centre for Plant Biodiversity Research (2006), Clark & Traynor (1987), Cowie *et al.* (2000), Dunlop *et al.* (1995), Maslin (2001), Sharp & Simon (2002), Wightman & Andrews (1989) and Wightman (2006).

3.5. Flora Survey Limitations

This survey does not account for plant species that may be evident during different seasons of the year (Thomas 2011). These could include species from the family Orchidaceae which are semi-deciduous, deciduous or not easily detected in the non-growing/flowering season and grasses from the family Poaceae which have an annual life cycle. Furthermore, other ephemeral species that tend to be short lived and only flower for a short time period may have also not been visible. Good quality identification material was lacking due to very recent fires in some areas. Other recent clearing and filling operations, particularly within Area 4, were noticeable during the field survey (Thomas 2011).

4. Flora Survey Results

4.1. Vegetation Community Summary

The vegetation in the study area is dominated by mangroves, with several smaller areas of terrestrial vegetation situated on the higher ground. The majority of the terrestrial vegetation is a disturbed/regrowth type and the remainder is comprised of small areas of two other remnant vegetation types. In some areas reclamation works have impacted on the condition of both the mangrove and terrestrial vegetation types. In summary the flora survey recorded:

- A total of one hundred and five (105) flora species;
- Ninety four (94) native flora species;
- Eleven (11) naturalised flora species;
- Five (5) 'Declared Weeds' (*Weeds Management Act 2001*);
- One (1) vulnerable scheduled flora species (*TPWC Act 2001*); and
- Two (2) sensitive or significant vegetation types according to the Northern Territory Land Clearing Guidelines (NRETAS 2010).

Three terrestrial vegetation communities were recorded within the study area (Figure 2, Table 4.1, Table 5.2). Native and naturalised plant species (including declared species) relative abundances are described in Appendix 2.

Table 4.1 Vegetation communities in the study area

Vegetation Community	Walker & Hopkins (1990)	NVIS Description (Brocklehurst <i>et al.</i> 2007)	NVIS Code	NT Veg. Mapping (Wilson <i>et al.</i> 1990)
1. Monsoon Vine Forest (MVF)	Low to Mid High Closed Forest	Low Closed Forest	T6d	Unit 1a
2. L-MH Mixed Species OW/W	Low to Midhigh Open Woodland/Woodland	Low Open Woodland to Low Woodland	T6r & T6i	Units 18 & 51
3. Disturbed Areas with Regrowth	NA	NA	NA	NA

4.2. Community 1: Monsoon Vine Forest

Location and Distribution:

One very small area of monsoon vine forest (MVF) was located in the study area. This area is situated approximately 500 m to the west-south-west of the Darwin Railway Station within Area 1. It is comprised of a narrow strip of vegetation on the southeastern side of the mangal communities, adjacent to the existing railway line and measuring approximately 6320 m² in size. From the marine sediments at sea level there is a slight rise to the MVF which is located on a kandosol soil (NRETAS 2010e).

Description:

A community with a low to mid high (5.1 m to 8 m), dense canopy comprised of mixed species (Plate 1). Although classified as MVF this vegetation is a species-poor semi-deciduous vine forest where the common canopy tree, *Peltophorum pterocarpum* (Yellow Flame Tree) also occasionally occurs as an emergent. Other canopy components include *Allophylus cobbe* (Tit-berry), *Dodonaea platyptera* (Native Hop Bush), *Glochidion xerocarpum* (Cheese Tree), *Mimusops elengi* (Bullet-wood Tree), *Sterculia quadrifida* (Peanut Tree) and *Strychnos lucida* (Strychnine Tree). The midstratum, from 1m to 5m, is mid dense and includes regenerating canopy species, as well as vines and other species such as *Bridelia tomentosa* (Pop-gun Seed) and *Premna acuminata* (Firestick Tree). A lower/ground strata (<1 m) which is very sparse may include vines, *Hypoestes floribunda* (Hypoestes) and seedlings of other common species such as *Peltophorum pterocarpum* (Yellow Flame Tree), *Dodonaea platyptera* (Native Hop Bush) and *Premna acuminata* (Firestick Tree).

Vines are very common and include *Alyxia spicata* (Chain Fruit), *Ampelocissus acetosa* (Wild Grape), *Capparis sepiaria* (Wild Orange), *Cayratia acris* (Hairy Water Vine), *C. trifolia* (Three-leaf Cayratia), *Dioscorea transversa* (Native Yam), *Flagellaria indica* (Whip Vine), *Ichnocarpus frutescens* (Black Creeper), *Ipomoea abrupta* (Bush Potato), *Jasminum didymum* (Native Jasmine), *Opilia amentacea* (Opilia), *Protasparagus racemosa* (Asparagus Fern) and *Ziziphus oenopolia* (Small-fruited Jujube).

As the slight slope drops away to the mangroves on marine and estuarine sediments, a narrow ecotonal edge with *Melaleuca leucadendra* (Weeping Paperbark), *Hibiscus tiliaceus* (Beach Hibiscus) and *Ichnocarpus frutescens* (Black Creeper) adjoins the MVF.

Relationships and significance of the vegetation community:

- This vegetation community is equivalent to a Low to Mid High Closed Forest (Walker & Hopkins 1990), Low Closed Forest or T6d (Brocklehurst *et al.* 2007) and Unit 1a (Wilson *et al.* 1990).

- The community is recognised as significant vegetation under the Northern Territory Land Clearing Guidelines (NRETAS 2010). It is not listed as significant or threatened under the *EPBC Act 1999*.
- Species listed in the threatened species schedules of the *EPBC Act 1999* and the *TPWC Act 2000* were not observed in the MVF community.

Condition, Declared and other Naturalised Species:

The vegetation community is generally in 'good' condition (Buchanan 1989). However, the edge adjoining the railway line and a section to the northeast are showing signs of previous impacts with loss of structure and floristics.

Melinis repens (Red Natal Grass) is the only naturalised species observed in Community 1, where it was uncommon and recorded only from the edge of the community near the existing railway line.

4.3. Community 2: Low to Mid High, Mixed Species Open Woodland to Woodland

Location and Distribution:

The low to mid high mixed species open woodland to woodland is present at a number of separate locations across the study area (Figure 2). There are several areas of this habitat to the south of Hamaura Road (Area 4). Recent filling and clearing was observed in this area. Soils were identified as hydrosols on plains and drainage systems as well as kandosols on plains and rises (NRETAS 2010e). In Area 1 there is a very small remnant of this community near the intersection of Berrimah Road and the Railway Line (2.5 kms northeast of the Darwin Railway Station). Soils at this site are hydrosols on drainage systems (NRETAS 2010e). An additional two smaller remnants are located in Area 1 to the northeast of the railway station (1 km & 1.2 kms). Soils at these sites are kandosols on plains and rises (NRETAS 2010e).

Description:

This vegetation community is comprised of a low to mid high (5.1 m to 10 m) very sparse to sparse canopy (Plate 2). The canopy can include a range of species, including *Buchanania obovata* (Green Plum), *Corymbia latifolia* (Round-leafed Bloodwood), *C. ptychocarpa* (Swamp Bloodwood), *C. polycarpa* (Long-fruited Bloodwood), *Eucalyptus tetradonta* (Stringy Bark), *Erythrophleum chlorostachys* (Cooktown Ironwood), *Livistona humilis* (Sand Palm), *Melaleuca viridiflora* (Broad-leaved Paperbark) and *Pandanus spiralis* (Screw Palm). As noted in the short description the canopy varies in composition and height; on the better drained rises a suite of *Corymbia* and *Eucalyptus* species tend to dominate while on the lower slopes and drainage systems *Corymbia polycarpa* (Long-fruited Bloodwood) occurs as an occasional emergent with a very sparse and lower canopy of *Melaleuca viridiflora* (Broad-leaved Paperbark), *Pandanus spiralis* (Screw Palm) and *Livistona humilis* (Sand Palm). The mid-stratum (generally 1.1 m to 5 m) is sparse and mainly dominated by regenerating canopy species. *Buchanania obovata* (Green Plum) and *Pandanus spiralis* (Screw Palm) are often dominant, and other common species include *Hakea arborescens* (Common Hakea), *Petalostigma quadriloculare* (Witchetty Bush) and *Planchonia careya* (Cocky Apple). The lower/ground strata (<1 m) is mid dense with various grasses and herbs common. A recent fire in these areas has made identification of some plant species difficult. Species recorded include *Mnesithea rottboellioides* (Northern Cane Grass), *Sebastiania chamaelea* (Sebastiania), *Pandanus spiralis* (Screw Pine), *Planchonia careya* (Cocky Apple), *Wrightia saligna* (Milk Bush), *Drosera petiolaris* (Sundew), *Waltheria indica* (Sleepy Morning), *Rhynchosia minima* (Burn Mouth Vine), *Ampelocissus acetosa* (Wild Grape), *Murdannia graminea* (Grass Lily) and *Heliotropium ventricosum* (White Lady Heliotrope).

Relationships and significance of the vegetation community:

- This association is equivalent to a mixed species Low to Midhigh Open Woodland/Woodland (Walker & Hopkins 1990); mixed species Low Open Woodland to Low Woodland or T6r and T6i of Brocklehurst *et al.* (2007); and Units 18 and 51 of Wilson *et al.* (1990).
- The community is not recognised as significant vegetation under the Land Clearing Guidelines (NRETAS 2010), and is not listed under the *EPBC Act 1999*.
- Plant species listed in threatened species schedules of the *EPBC ACT 1999* were not observed in this community.
- One species listed as vulnerable in the *TPWC Act 2000* (*Cycas armstrongii*) was common in the narrow strip of remnant vegetation along the edge of Hamaura Road within Area 4 (Figure 2; Plate 4).

Condition, Declared and other Naturalised Species:

The undisturbed remnant areas of this vegetation community are generally in 'good' condition (Buchanan (1989). *Passiflora foetida* (Stinking Passion Flower) is the only naturalised species observed in Community 2. This species was occasional and recorded from the area northeast of the railway station near Berrimah Road, within Area 1.

4.4. Community 3: Disturbed Areas with Regrowth**Location and Distribution:**

Two larger areas of disturbed vegetation with regrowth were mapped in the study area within Area 1. They occur on the rises north of the railway line and are bordered by the mangroves within Area 1. They appear to have been part of the previous reclamation works, with species present being representative of regeneration.

Description:

Height of the canopy in these areas varies from 3 m to 8 m with a sparse or dense foliage cover of saplings or small trees (Plate 3). *Acacia*, *Melaleuca*, *Corymbia* and *Eucalyptus* are common. Species present include *Acacia holosericea* (Silver-leaf Wattle), *A. auriculiformis* (Earpod Wattle), *Melaleuca leucadendra* (Weeping Paperbark), *Melaleuca viridiflora* (Broad-leaved Paperbark), *Corymbia polycarpa* (Long-fruited Bloodwood), *Eucalyptus tetradonta* (Darwin Stringybark) and *Buchanania obovata* (Green Plum). Grasses are very common in the ground stratum; native species include *Alloteropsis semialata* (Cockatoo Grass), *Eriachne burkittii* (Wanderrie Grass), *Eulalia mackinlayi* (Silky Brown Top), *Mnesithea rottboellioides* (Northern Cane Grass) and *Sorghum timorense* (Downs Sorghum).

Relationships and significance of the vegetation assemblage:

- This community has no equivalents in Walker & Hopkins (1990); Brocklehurst *et al.* (2007) and Wilson *et al.* (1990).
- The community is not recognised as significant vegetation under the Land Clearing Guidelines (NRETAS 2010) and is not listed under the *EPBC Act 1999*.
- Species listed in the threatened species schedules of the *EPBC ACT 1999* and the *TPWC Act 2000* were not observed in this community.

Condition, Declared and other Naturalised Species:

Generally in 'poor' to 'very poor' condition (Buchanan 1989).

Naturalised species were very common and included several declared weeds (Northern Territory of Australia 2001). Declared species recorded include *Andropogon gayanus* (Gamba Grass), *Lantana camara* (Lantana), *Pennisetum polystachion* (Mission Grass) and *Sida cordifolia* (Flannel Weed). Others included *Clitoria ternatea* (Butterfly Pea), *Ipomoea quamoclit* (Cardinal Vine), *Leucaena leucocephala* (Leucaena), *Melinis repens* (Red Natal Grass), *Passiflora foetida* (Stinking Passion Flower) and *Stylosanthes scabra* (Shrubby Stylo).

4.5. Mangrove Communities

Mangrove communities in the tidal reaches of the study area were not investigated during the course of the current survey. Information regarding these mangroves is based on Brocklehurst & Edmeades (1996).

Location and Distribution:

Mangroves and associated marine communities are widespread and cover a large part of the study area (Figure 2). Mangroves are situated in tidal areas on marine and estuary sediments (NRETAS 2010e) north of the existing railway line and fronting Darwin Harbour at the mouth of Blessers Creek (Area 1) and Hudson Creek (Area 4). A small area of mangrove habitat occurs within Area 2/3 and on offshore islands (Catalina Island, South Shell Island). The Darwin Harbour is often referred to as macro-tidal (Northern Territory 2010), with tidal ranges up to 8m, indicating that these habitats are subject to strong tidal influences.

Short Description:

The mangal communities of the East Arm area have been previously mapped by Brocklehurst & Edmeades (1996). The communities recognised by those authors and represented in the study area are described in Table 4.2 and are mapped in Figure 2.

Table 4.2 Mangrove communities in the study area

Mangrove Community Short Description	Community Numbers: Brocklehurst & Edmeades (1996)
<i>Rhizophora stylosa</i> / <i>Camptostemon schultzei</i> closed-forest (tidal creek)	2
<i>Ceriops australis</i> low closed-forest (mid tidal flat)	4
<i>Ceriops australis</i> / <i>Avicennia marina</i> low closed forest (high tidal flat).	5
Mixed species low closed forest/open forest (hinterland)	6
<i>Sonneratia</i> Woodland	8
Low open-woodland (low tidal mudflat)	10
Samphire and Saltpans	11

Relationships and significance of the vegetation assemblages:

- Several of these communities are equivalent to Closed Forest (Walker & Hopkins 1990), Low to Tall Closed Forest T7d and T6d (Brocklehurst *et al.* 2007) and Unit 105 (Wilson *et al.* 1990).

- Mangrove communities are recognised as sensitive or significant vegetation under the Northern Territory Land Clearing Guidelines (NRETAS 2010). The mangal communities cover a large portion of Area 1 and Area 4. They are not listed as threatened under the *EPBC Act 1999*.
- Species listed in the threatened species schedules of the *EPBC ACT 1999* and the *TPWC Act 2000* were not observed in this community.

Condition, Declared and other Naturalised Species:

Generally in 'good' condition (Buchanan 1989). However at several places, filling, clearing and tracks were recorded. Debris from the marine environment was also observed scattered throughout the mangrove vegetation. Naturalised species were not recorded.

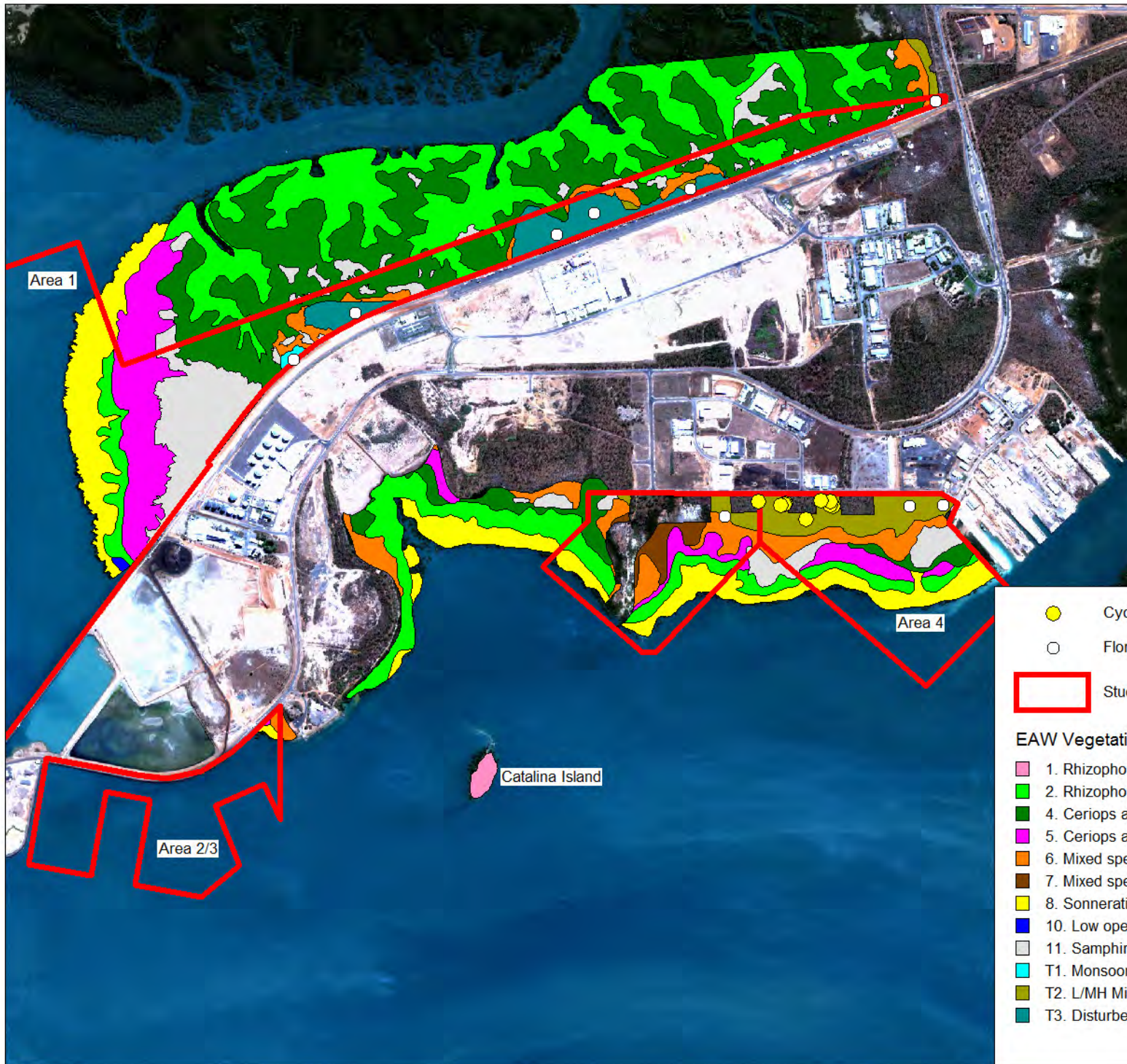


Figure 2. EAW Vegetation Communities, Flora Sites and Threatened Plant Species

Aerial Photography Supplied by URS Australia
Datum GDA 94

Mangrove community mapping based on
Brocklehurst and Edmeades 1996
Terrestrial Community Mapping (T1 - T3)
from Thomas 2011
Plan note: Extent of Community T2 in Area 4
has been altered by recent clearing/filling activity.
Mapped boundary is indicative only.



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- *Cycas armstrongii* (Vulnerable) Locations
- Flora Survey Site Locations

Study Area

EAW Vegetation Communities

- 1. *Rhizophora stylosa* closed-forest/low closed forest (Shoreline forest)
- 2. *Rhizophora stylosa*/*Campostemon schultzei* closed-forest (tidal creek)
- 4. *Ceriops australis* low closed-forest (mid tidal flat)
- 5. *Ceriops australis*/*Avicennia marina* low closed forest (high tidal flat)
- 6. Mixed species low closed forest/open-forest (hinterland)
- 7. Mixed species low woodland
- 8. *Sonneratia alba* woodland
- 10. Low open-woodland (low tidal mudflat)
- 11. Samphire/Saltpan
- T1. Monsoon Vine Forest
- T2. L/MH Mixed Species Open Woodland/Woodland
- T3. Disturbed Areas/Regrowth

5. Fauna Survey Methodology

5.1. Study Area

In this report the study area refers to the area encompassed by the Area 1 and Area 2/3 of the East Arm Wharf Expansion precinct. Surveys for migratory/wetland birds were also conducted within existing dredge spoil ponds and tidal/littoral areas adjacent to the expansion area, including Bleesers Creek and adjacent islands. An additional standard fauna site (S4) was sampled in woodland and mangrove habitat to the south of Hamaura Road (Area 4), however the Draft EIS for which this document was prepared does not include Area 4. Sites for which fauna data was collected during the current survey are listed in Table 5.1 and Figure 3.

Systematic fauna surveys were undertaken at four survey sites, and other components of Area 1, Area 2/3 and Area 4 were inspected and observational surveys/bird counts were conducted. Surveys of wetland and shore birds were focussed on a broader area to incorporate the study area and adjacent dredge spoil ponds, islands and tidal saline wetlands, to provide an assessment of adjacent terrestrial and mangrove habitats. Bird surveys within these additional areas included wader counts and observational surveys.

Table 5.1 EAW Site Areas November 2010 - January 2011 (GDA 94, zone 52 L)

Site	Description	Site Area	Latitude	Longitude
Fauna Site 1	Monsoon vine forest/mangrove	1	706438	8620251
Fauna Site 2	Mixed species open woodland/Regrowth/Mangrove	1	707832	8620863
Fauna Site 3	<i>Ceriops australis</i> low closed forest (mangrove)	1	708434	8621070
Fauna Site 4	Mixed species open woodland/mangrove	4	708589	8619560
Rail Spur Loop	Salt pan and mangrove forest	1	705994	8619994
Bleesers Creek	Tidal mudflat and mangrove creek frontage	1	705440	8619910
Area 2/3 Foreshore	Tidal mudflat, rocky reef, bund wall	2/3	705852	8618446
Pond A	Dredge spoil pond	EAW	706275	8618926
Pond B	Dredge spoil pond	EAW	706092	8619227
Pond C	Dredge spoil pond	EAW	706096	8618828
Pond D	Dredge spoil pond	EAW	705828	8619074
Pond K	Dredge spoil pond	EAW	705854	8618670
Rail Pond	Dredge spoil pond	EAW	705524	8618838
South Shell Island	Offshore Island	Off-shore	704944	8617895
Catalina Island	Offshore Island	Off-shore	707226	8618506



Figure 3. EAW Fauna Survey Sites and Areas

Aerial Photography Supplied by URS Australia
Datum GDA 94



5.2. Site Selection and Habitats

Vegetation in the study area has been previously mapped during the EAW EIS (Acer Vaughan 1993) and updated during the current assessment by Thomas (2011). Several floristically and structurally distinct vegetation communities occur throughout the study area, with the distribution of various vegetation communities related to topography (creek lines, tidal areas), aspect, geology, soils and previous disturbance and filling (Table 5.2). The main focus of the current flora and fauna assessment were the terrestrial habitats, however representative mangrove habitats were sampled during the fauna assessment. The terrestrial vegetation within the study area predominantly consists of disturbed areas/regrowth with minor remnants of mixed species open woodland and monsoon vine forest (Thomas 2011). Non-terrestrial areas are dominated by tidal mudflats, saline flats and mangrove communities. Systematic fauna survey sites were selected to sample the major terrestrial and mangrove habitats within the study area based on existing mapping and site inspections. As most areas of terrestrial habitat represent minor or linear remnants, most terrestrial survey sites included mangrove ecotone and mangrove edge habitats. Near coastal areas of mangrove habitats (e.g. at the western end of Area 1) were not sampled due to restricted access, the risk of the site/traps being inundated by tidal variation and the presence of estuarine crocodiles. Fauna site habitat data and site photographs for the systematic sites are included in Appendix 4.

Table 5.2 Area (Hectares) of Remnant Vegetation, Regrowth, Mangroves and Marine Habitat, EAW Study Area

Vegetation Community	Area 1 (Hectares)	Area 2/3 (Hectares)	Area 4 (Hectares)	Total (Hectares)
T1. Monsoon Vine Forest (MVF)	0.632	-	-	0.632
T2. L-MH Mixed Species OW/W	0.295	-	11.3	11.595
T3. Disturbed Areas/Regrowth	12.25	-	11.2	23.45
Combined Mangroves/Saltpan	87.21	1.02	44.7	132.93
Total Vegetation	100.387	1.02	67.2	168.607
Total Area	469	36.4	88.37	593.77
Marine Component	368	35.38	21.17	425.163

5.3. Fauna Survey Methods

The wet season fauna survey incorporating the main vertebrate fauna trapping program was undertaken from the 9th to 24th November 2010. Four systematic survey sites were sampled within the study area. Standard biological survey techniques were used during field surveys, including a number of live capture/release trapping techniques, standard and general observational (birds and mammals) and habitat searches (reptiles and amphibians), as well as methods to indirectly detect the presence of terrestrial fauna. The survey focussed on terrestrial vertebrate taxa and specifically targeted a number of threatened species. Fauna surveys were conducted under NT Parks and Wildlife Permit No. 33658.

The survey methodology was based on the minimum standard Northern Territory Parks and Wildlife Biodiversity Unit fauna survey methodology (DIPE 2002) and included a number of additional sampling methods. This methodology is based on a 50 x 50 m trapping grid surrounded by a 100 x 100 m grid where bird surveys and searches are conducted. In addition to the standard plot based surveys, additional bird

counts were conducted in similar habitat adjacent to standard sites and shorebird counts were conducted in suitable habitats (e.g. tidal flats and dredge spoil ponds).

Table 5.3 provides a summary of the standard methods and survey effort undertaken for this study. A detailed description of the survey methods is included in sections 5.4 and 5.5.

5.4. Standard Methods Used at Systematic Sites

At each standard systematic fauna survey site, the following standard methods were conducted:

Elliott Trapping for Small Mammals

Twenty small Elliott traps were set at each site on a 50 x 50 m grid (five traps per side). Traps were baited with a peanut butter, honey and oat mixture and mullet pieces. Traps were operated for four nights and checked in the morning and rebaited in the afternoon.

Wire Cage Trapping

Four wire cage traps were used per site, with one wire cage trap set at each corner of the 50 x 50 m trapping grid. Traps included a mixture of hook and base trigger mechanisms. Traps were baited with a mixture of sweet potato, apple and meat baits and were operated for four nights. Traps were checked in the morning and rechecked/rebaited in the afternoon.

Pitfall Trapping

Pitfall traps were used to capture amphibians, reptiles and small mammals. At each site four pitfall buckets (20 litre) were set with a 10m plastic drift fence were set randomly within the 50 x 50 m trapping grid. Pitfall lines were left open for four nights and traps were checked in the morning and afternoon. At site 3 (mangrove habitat) pitfall trapping was not undertaken due to high ground water levels and potential risk to captured animals due to tidal flows. Each trap was supplied with a polystyrene float to provide shelter for captured animals and prevent drowning during rainfall events.

Reptile Funnel Traps

One reptile funnel trap was set in association with each pitfall trap drift fence (4 funnel traps per site at three sites) and operated over a four night period. Funnel traps were checked in the early morning and late afternoon.

Hair Funnels for Small to Medium-sized Mammals

Five hair funnels (Faunatech) were set at each site, with a funnel placed on each corner of the 50 x 50 m grid and one placed within the centre of the grid. The funnels were baited with a mixture of honey, peanut butter, oats and mullet pieces. Hair funnels were left in the field for 14 nights. Hair funnels set in mangrove areas were placed on low mangrove roots and tree bases to allow access for small rodents. Hair samples collected in hair funnels were analysed in the laboratory to obtain species identifications.

Diurnal Bird Counts

Eight 10-minute diurnal bird counts were undertaken at each systematic site within the 100 x 100 m grid. Timed area searches involved walking through a habitat area for 10 minutes recording all bird species seen or heard within the broad habitat type with the 100 x 100 m area. Bird counts were conducted between dawn and 0900 hours and in the late morning or late afternoon at each site. Birds overflying the quadrat were only recorded if they were actively foraging and birds observed adjacent to the quadrat were recorded as incidental. Four additional 10 minute area counts were conducted in similar habitat adjacent to each established survey site. Birds observed incidentally during time spent within habitats or sites were recorded as incidental records.

Diurnal Searches

Active diurnal searches were conducted at each systematic site for 40 minutes (4 x 10 minute searches). Active searching involved recording all individuals (small mammals, reptiles, amphibians) found active or sheltering underneath or within fallen woody debris, rocks, litter and peeling bark within the 100 x 100m area. The searches included observations and identification of any characteristic diggings, focussing on locating tracks and scats. Active searches were undertaken between 0830 and 1600 hours.

Nocturnal Searches

Active nocturnal searches were undertaken at each systematic site for 40 minutes (4 x 10 minute searches). Active searches involved the use of headlamps and spotlights, and recording all individuals (small mammals, reptiles and amphibians) found active on the ground or in trees, or underneath fallen debris, rocks, litter and peeling bark within the 100 x 100 m grid. Frogs heard calling at each site were also recorded during this time.

Spotlighting

A spotlighting survey was undertaken at each site with a 50 watt spotlight for 40 minutes. Spotlight searches were undertaken within the 100 x 100 m grid by scanning the tree canopy, mid canopy and ground layer. Any calling nocturnal birds and mammals were identified.

Ultrasonic Microbat Call Detection

Ultrasonic microbat call detection was used to sample microchiropteran bats. Ultrasonic call detection was conducted at each systematic site for one night of remote sampling using Anabat CF ZCAIM systems, commencing at dusk with effective sampling for approximately 11.5 hours per night. Hand held Anabat recordings were collected during the nocturnal search survey period at each site (40 minutes per site). Recorded calls were analysed by Paul Barden, Ecological Management Services, using regional reference calls and existing guides.

Remote Cameras

A remote camera with motion and heat trigger activation was placed at each site for a total of seven nights. Cameras were placed on trees at sites where animals were likely to be active (e.g. where animal tracks were present). The area in front of each camera was baited with a standard trap bait and mullet pieces.

5.5. Non-standard Methods

Shorebird Counts

A total of 42 shorebird point counts were conducted at sites within and adjacent to the study area. At each of the main dredge spoil ponds (Pond B, D, K and the Rail Pond), the Area 2/3 foreshore and the rail spur loop component of Area 1, five wader counts were conducted in November 2010 and one in January 2011. At a number of other sites counts were undertaken opportunistically (South Shell Island, Catalina Island, Bleasers Creek and the tidal mudflat within Area 4) with sites accessed by boat or on foot (6 additional counts). Bleasers Creek and the tidal mudflat within Area 1 were counted on two occasions (11/11/2010 and 16/01/2011). The tidal mudflat within Area 4 was also counted on two occasions (11/11/2010 and 12/11/2010). Wader counts involved scanning site with binoculars and spotting scopes and counting and identifying all shorebirds and other birds (e.g. raptors, terns and gulls). Where large numbers of an individual species were present an estimate of the number of birds was made. Each site was scanned until all visible birds were counted, and care was taken not to double count moving birds.

Scat Collection, Tracks & Signs, Incidental Records

Searches were conducted for predator and non-predator scats during diurnal and nocturnal searches. Searches for scats suitable for analysis were undertaken during surveys and other time spent on site. Tracks, nest sites and other signs were inspected and identified where possible. Incidental fauna observations were recorded during the field survey.

Table 5.3 Summary of Fauna Survey Effort

	Survey Method	Survey Effort Per Site	No of Sites	Total Effort
Standard Methods	Ground Mammal Elliott Trapping Type A	20 traps x 4 nights	4	320 trap nights
	Wire Cage Traps	4 traps x 4 nights	4	64 trap nights
	Pitfall Trapping	4 x buckets + drift fence x 4 nights	3	48 PF trap nights
	Reptile Funnel Traps	1 per pitfall drift fence	3	48 Funnel nights
	Hair Funnels (10 to 23 February 2010)	5 funnels x 14 nights	4	280 funnel nights
	Diurnal Bird Counts	12 x 10 minute counts	4	8 hours
	Diurnal Searches	4 x 10 minute searches	4	160 minutes
	Nocturnal Searches	4 x 10 minute searches	4	160 minutes
	Spotlight Survey	4 x 10 minute searches	4	160 minutes
	Remote Camera	7 days per site	4	28 camera days
	Ultrasonic Microbat Detection	1 night overnight remote detection per site (~11.5 hours)	4	46 hours
	Hand Held Ultrasonic Microbat Detection	40 minutes per site	4	160 minutes

	Survey Method	Survey Effort Per Site	No of Sites	Total Effort
Non-standard Methods	Shorebird Counts - Dredge Spoil Ponds	6 counts at each site	4	24 counts
	Shorebird Counts - Area 1, Area 2/3	6 counts at each site	2	12 counts
	Shorebird Counts - Other Sites	6 additional counts at four sites: Bleasers Ck (2 counts), Catalina Island (1 count), South Shell Island (1 count), Area 4 mudflats (2 counts)		6 counts
	Scat collection	No standard effort, scats identified/collected during time spent on site, during other surveys and searches		Opportunistic
	Assessment of animal tracks, scats + signs	No standard effort, as for scat collections		Opportunistic
	Incidental fauna observations	No standard effort		Opportunistic

5.6. Limitations, Seasonality & Climatic Conditions

Fauna surveys were conducted during typical early wet season conditions between 9th and 24th November 2010. General weather and climate data were obtained from the nearest meteorological recording station (Darwin) (Appendix 6) and rainfall data was obtained from the East Arm station. At East Arm rainfall was recorded on six of the survey days for a total of 137 mm for the survey period. Most rainfall occurred between the 16th and 19th November 2010. Conditions were generally warm and humid with a maximum daily temperature of 34.5°C and minimum overnight temperature of 23.3°C. Relative humidity ranged from 49% to 81%. Surface water was present at some sites in depressions and drains and ground water levels were high in low-lying Melaleuca and mangrove habitats. Additional shorebird counts were conducted in January 2011 during similar conditions, with rainfall recorded on all survey days.

The fauna survey is limited by the fact that no surveys were conducted during the dry season. However previous fauna surveys of the site were conducted in the mid dry season (June 1990) (Acer Vaughan 1993) and data for eight shorebird counts is available for the site from late 2009 to late 2010 (Estbergs 2011), including the East Asian - Australian flyway northern staging period (April 2010).

6. Fauna Survey Results

A total of one-hundred and forty-one (141) species of native terrestrial vertebrate species were recorded within the study area, including seven (7) amphibian, eleven (11) reptile, one-hundred and nine (109) bird and fourteen (14) mammal species (Appendix 3.2). Two introduced species, the Cane Toad (*Rhinella marina*) and the Asian House Gecko (*Hemidactylus frenatus*), were recorded within the study area. An additional marine mammal, the Indo-pacific Hump-back Dolphin (*Sousa chinensis*), was observed in offshore habitat adjacent to the study area.

6.1. Amphibians

Seven native amphibian species were recorded during the surveys within the study area. Habitats for amphibians within Area 1 (Sites 1 - 3) are limited to small areas of terrestrial vegetation and drains on the

margin of the existing railway lines. Common species at these sites include the Purple Treefrog (*Litoria rubella*), Common Tree Frog (*Litoria caerulea*) (Plate 5) and Striped Rocket Frog (*Litoria nasuta*). More extensive habitat for amphibians was present at Site 4 (Area 4), however this area is restricted to a band of open woodland and grassland between Hamaura Road and mangrove habitats. Additional species recorded at this site included the Giant Frog (*Cyclorana australis*), Marbled Frog (*Limnodynastes convexiusculus*) and Northern Dwarf Tree Frog (*Litoria bicolor*). Most amphibians were recorded along drain lines and inundated areas in low-lying melaleuca dominated mixed open woodland habitats in Area 4. The introduced Cane Toad was present at a number of sites and was observed along tracks and in rail yards.

Native amphibians recorded in the vicinity of the project area and in the local area are generally common in the Top End and have been previously reported in the region. Habitats suitable for amphibians are extremely restricted in the study area, particularly in Area 1 and Area 2/3, due to the limited nature of terrestrial and freshwater habitat. None of the species present are listed as threatened (endangered or vulnerable) in relevant legislation.

The only amphibian species listed as threatened under Northern Territory Legislation, the Howard River Toadlet (*Uperoleia daviesae*), is known to occur in the Palmerston area. *Uperoleia* species were not detected in the study area despite the surveys being conducted in suitable climatic conditions. There appears to be no or extremely limited suitable habitat for this species within the main study area.

6.2. Reptiles

Eleven reptile species were recorded within the study area (Appendix 3.2). The most commonly encountered and widespread species was the introduced Asian house gecko. One varanid species, the Mitchell's Water Monitor (*Varanus mitchelli*), was trapped in mangroves at S3 (Plate 6). The Slate-Grey Snake (*Stegonotus cucullatus*) was the only snake species observed during the survey.

Acer Vaughn (1993) reported one vulnerable (NT) species, the Yellow-Spotted Monitor (*Varanus panoptes*), in the study area. This species was not recorded during the 2010 - 2011 surveys (Appendix 3.1). Estuarine Crocodiles (*Crocodylus porosus*) are known to occur in marine and estuarine habitats in the local area and are infrequently captured in Bleasers Creek by the NT Parks and Wildlife Service. This species is listed as a migratory and marine species under the Commonwealth *EPBC Act 1999*.

6.3. Terrestrial Birds

One-hundred and nine bird species were recorded within the study area during the survey (Appendix 3.2). Acer Vaughn (1993) list eleven additional common bird species for the study area and Estbergs (2011) has recorded a number of terrestrial birds not recorded during the current assessment, including the Peregrine Falcon (*Falco peregrinus*) and Nankeen Kestrel (*Falco cenchroides*).

The most frequently recorded terrestrial bird species were the Red-headed Honeyeater (*Myzomela erythrocephala*), Rainbow Lorikeet (*Trichoglossus haematodus*), Little Corella (*Cacatua sanguinea*), Rainbow Bee-eater (*Merops ornatus*), Yellow White-eye (*Zosterops luteus*), White-throated Honeyeater (*Melithreptus albogularis*), White-gaped Honeyeater (*Lichenostomus unicolor*) and Bar-shouldered Dove (*Geopelia humeralis*). Bird species that were restricted or more frequently recorded in mangrove habitats within the study area included the Collared Kingfisher (*Todiramphus chloris*), Red-headed Honeyeater, Green-backed Gerygone (*Gerygone chloronota*), Mangrove Gerygone (*Gerygone levigaster*), Yellow White-

eye, Mangrove Robin (*Peneonanthe pulverulenta*) (Plate 7), Grey Whistler (*Pachycephala simplex*), Shining Flycatcher (*Myiagra alecto*) and Helmeted Friarbird (*Philemon buceroides*).

Three nocturnal bird species, the Tawny Frogmouth (*Podargus strigoides*), Large-tailed Nightjar (*Caprimulgus macrurus*) and Barking Owl (*Ninox connivens*), were recorded within the study area.

The terrestrial bird species recorded during the current and previous surveys within the study area are not listed as threatened in relevant legislation. The Bush Stone-Curlew (*Burhinus grallarius*) is listed as near-threatened under the NT *TPWC Act 2000*. A number of terrestrial bird species listed in *EPBC Act 1999* migratory species schedules, including the Rainbow Bee-Eater and Cicadabird (*Coracina tenuirostris melvillensis*), were recorded within the study area.

6.4. Marine and Wetland Birds

Forty-seven marine and wetland bird species were recorded during shorebird counts within the study area (Appendix 3.2). Estbergs (2011) recorded a number of additional listed migratory bird species on the dredge spoil ponds during monitoring conducted in 2009 - 2010, including an unidentified species of pratincole, an unidentified Snipe, Pacific Golden Plover (*Pluvialis fulva*), Oriental Plover (*Charadrius veredus*), Wood Sandpiper (*Tringa glareola*), Sanderling (*Calidris alba*) and Red Knot (*Calidris canutus*). A total of 31 species of birds listed as migratory wetland or marine species under the *EPBC Act 1999* have been recorded within the study area, and 59 species are classified as marine species under this Act (Table 7.2).

A number of raptor species, including the Eastern Osprey (*Pandion cristatus*) (Plate 8), White-bellied Sea-Eagle (*Haliaeetus leucogaster*), Brahminy Kite (*Haliastur indus*) and Whistling Kite (*Haliastur sphenurus*), have been observed in association with marine and wetland habitats within the study area. The Black-winged Stilt (*Himantopus himantopus*) (*EPBC Act 1999* listed marine species) was recorded breeding on the dredge spoil ponds during the survey period.

The largest single count of wetland and marine birds from combined shorebird count sites across the study area was 1330 birds (22/11/2010) (Appendix 3.3). The largest concentrations of wetland and marine birds during November 2010 were associated with the dredge spoil ponds within the EAW study area, with sites supporting large numbers of migratory and marine birds including Pond D, B and K. Numbers of birds at these sites generally increased during the rising tide as birds moved from foraging areas on mudflats surrounding the East Arm area as these areas were inundated (Plate 9). These dredge spoil ponds supported fewer birds during January 2011 as heavy rainfall had partially filled the ponds, reducing opportunities for roosting and foraging. Data from Estbergs (2011) suggests that the numbers of marine and wetland birds using these sites varies depending on local conditions, including tides, weather and seasonality (Appendix 3.4).

Other components of the study area, including saline flats, mudflats and mangroves, supported shorebirds, marine birds and wetland birds dispersed throughout broad areas of habitat. During high tides small numbers of birds were roosting on saline flats and in mangrove areas, however no large aggregations (> 30 birds) of roosting birds were detected away from the dredge spoil ponds. Species present in mangrove and salt marsh habitat included Whimbrel (*Numenius phaeopus*), Far Eastern Curlew (*Numenius madagascariensis*), Marsh Sandpiper (*Tringa stagnatilis*), Common Greenshank (*Tringa nebularia*) and Greater Sand Plover (*Charadrius leschenaultii*). A high tide survey of creeks and mangrove areas adjacent to Area 1 and Area 4 recorded small mixed flocks on migratory waders roosting at these sites, with common species including

Terek Sandpiper (*Xenus cinereus*), Grey-tailed Tattler (*Tringa brevipes*) and Common Sandpiper (*Actitis hypoleucos*). A single Terek Sandpiper roosting in mangroves at high tide adjacent to Area 1 was carrying leg flags indicating that it was captured and banded in China (Chongming Dao). At low tide groups of shorebirds were feeding on tidal mudflats in Area 1 and 4.

Very few birds were observed foraging or roosting on the foreshore areas of Area 2/3 and South Shell Island. Catalina Island supported small numbers of roosting birds, mainly Intermediate Egret (*Ardea intermedia*), Eastern Reef Egret (*Egretta sacra*) and single Beach Stone-curlew (*Esacus neglectus*) and White-bellied Sea-eagle. The Chestnut Rail (*Eulabeornis castaneiventris*) was common in mangrove habitats across the study area, being detected at all standard fauna sites within the rail spur (Area 1), mangroves at the western end of Area 1 and along Bleasers Creek (Plate 10).

Four tern species listed as migratory species under the *EPBC Act 1999*, including the Common Tern, (*Sterna hirundo*), Bridled Tern (*Onychoprion anaethetus*), Little Tern (*Sterna albifrons*) and White-winged Black-tern (*Chlidonias leucopterus*), were recorded during the shorebird counts. The Roseate Tern (*Sterna dougalli*) was reported incidentally at the dredge spoil ponds during a number of surveys conducted by Estbergs (2011). Most tern species were observed foraging in near coastal areas of Area 1 and Area 2/3, and Little Tern and White-winged black tern were recorded roosting on Pond D within the dredge spoil reclamation area.

6.5. Mammals

Fourteen native mammal species were identified within the study area during the survey (Appendix 3.2). 10 of these species were bats, some of which could not be identified to species level. An additional marine species, the Indo-pacific Humpback Dolphin (*Sousa chinensis*), was observed in offshore components of Area 1 and Area 2/3.

A total of 384 Elliott and wire cage trap nights resulted in the capture of a single small mammal species, the Grassland Melomys (*Melomys burtoni*), in open woodland and mangrove habitats. Spotlight survey recorded few mammals, including small numbers of Black Flying-fox (*Pteropus alecto*), Little Red Flying-fox (*Pteropus scapulatus*) and Dingo (*Canis lupus dingo*). A single mammal species, the Northern Brown Bandicoot (*Isoodon macrourus*), was detected at a single site from hairs collected from hair funnels.

Acer Vaughn (1993) recorded four native mammal species, including the Northern Quoll (*Dasyurus hallucatus*), Agile Wallaby (*Macropus agilis*), Antilopine Wallaroo (*Macropus antilopinus*) and the Common Brushtail Possum (*Trichosurus vulpecula*), that were not recorded during the 2010 - 2011 survey.

Eight microchiropteran bat species/taxa were recorded from echolocation call detection using Anabat detectors. Sequences of sufficient quality for positive identification were recorded for the Northern Freetail-bat (*Chaerephon jobensis*), Mangrove Freetail-bat (*Mormopterus [loriae] cobourgiana*), Mangrove Pipistrelle (*Pipistrellus westralis*), Large-footed Myotis (*Myotis macropus*) and Little Cave Bat (*Vespadelus caurinus*). The Yellow-bellied Sheath-tail-bat (*Saccolaimus flaviventris*) was identified tentatively from a small number of poor recordings. It is not possible to separate the calls of this species from that of the endangered Bare-rumped Sheath-tail Bat (*Saccolaimus saccolaimus*) without better quality calls including feeding buzzes.

A species of Long-eared Bat (*Nyctophilus* sp) was recorded but could not be identified to species level using the Anabat system. A number of calls were recorded with a characteristic frequency range at around 35 - 40

khz, which could represent a number of species, including Hoary Wattled Bat (*Chalinolobus nigrogriseus*) or Broad-nosed Bat (*Scotorepens greyii/sanborni*). Calls in the characteristic frequency range/pulse shape of the Mangrove Pipistrelle (*Pipistrellus westralis*) were recorded in mangrove areas during the survey, however it should be noted that calls of this species can be confused with the Northern Bentwing Bat (*Miniopterus oriana oriana*).

The most common and widespread bat species were the Northern Freetail-bat and Mangrove Freetail-bat. The Northern Freetail-bat is frequently observed roosting in jetty and wharf structures in the Darwin Harbour area. The Large-footed Myotis (*Myotis macropus*) was recorded in mangroves and along an open drain at Site 1.

Mammal species recorded in the study area are generally common in northern Australia and none of the species are classified as threatened under the *EPBC Act 1999* and the *TPWC Act 2000*. Acer Vaughn (1993) previously recorded the endangered Northern Quoll within the study area, however this species was not recorded during the 2010 - 2011 surveys.

7. Significant Flora and Fauna Species & Vegetation Communities

7.1. Overview

Fauna species occurring within the study area are assigned a threatened status according to Northern Territory and Commonwealth legislation described in the:

- Northern Territory *TPWC Act 2000*; and
- Commonwealth *EPBC Act 1999*.

In addition to threatened species, the *EPBC Act 1999* also includes a list of migratory and marine species (DSEWPC 2011). The listed migratory species include birds, mammals, reptiles and invertebrates listed under international agreements to which Australia is a signatory nation.

The significance of flora species at national and territorial levels, based on vulnerability and threats, plant distributions and noteworthiness, was determined by an examination of current botanical literature (Thomas 2011). Publications and resources consulted include ANZECC (1999), *EPBC Act 1999*, NRETA (2005; 2006), NRETAS (2010), NRETAS (2010a), NRETAS (2010b) and Woinarski *et al.* (2007).

The conservation status of each of the vegetation types in the study area was evaluated against Federal and Northern Territory legislative criteria. For example, Commonwealth legislation refers to ecological communities that may be critically endangered, endangered or vulnerable as 'Threatened Ecological Communities' under the *EPBC Act 1999*. The Northern Territory Planning Scheme Land Clearing Guidelines (NRETAS 2010) recognise significant vegetation communities such as rainforest, vine thicket, closed forest or riparian vegetation, mangroves, monsoon vine forest, sand sheet heath and vegetation containing large trees with hollows suitable for fauna and the presence of essential habitats, within the context of the *TPWC Act 2000* and potential impacts of the proposed clearing on regional biodiversity.

7.2. Threatened Flora and Fauna Species

Significant threatened species in the context of this review are those which are listed in the higher categories of critically endangered, endangered, vulnerable or near threatened under Commonwealth or Northern Territory legislation. Listed species (endangered, vulnerable, near threatened and migratory/marine) that have been recorded within the study area during current and past surveys are discussed below.

One plant species listed as vulnerable under the *TPWC Act 2000* (*Cycas armstrongii*), was recorded during the survey (Table 7.1). One fauna species listed as near threatened under the *TPWC Act 2000*, the Bush Stone-curlew (*Burhinus grallarius*), was also recorded within the study area (Table 7.1). Thirty-one (31) species of birds listed as migratory wetland or marine species under the *EPBC Act 1999* and 59 bird species are classified as marine species under this act have been recorded within the study area (Table 7.4).

Table 7.1 Listed Threatened Flora and Fauna Species/Site Records

Common Name	Scientific Name	EPBC Act 1999	TPWC Act 2000	Study Area Site Records
No Common Name	<i>Cycas armstrongii</i>	-	Vulnerable	Area 4
Northern Quoll	<i>Dasyurus hallucatus</i>	Endangered	Critically Endangered	Site records from Acer Vaughn (1993). No recent records.
Yellow-spotted Monitor	<i>Varanus panoptes</i>	-	Vulnerable	Site records from Acer Vaughn (1993). No recent records.
Bush Stone-curlew	<i>Burhinus grallarius</i>	-	Near Threatened	S1, S4 in Area 1

7.3. *Cycas armstrongii* Vulnerable NT *TPWC Act 2000*

Cycas armstrongii is classified as vulnerable under the *TPWC Act 2000*. This species was common in a narrow strip of the L-MH Mixed Species OW/W remnant vegetation along the edge of Hamaura Road within Area 4 (Table 7.2, Figure 2, Plate 4). This species was not observed within other components of the study area.

Table 7.2 Location Details for *Cycas armstrongii* Plants

Scientific Name	Easting	Northing	Study Area Component	Vegetation Community	Number of Plants
<i>Cycas armstrongii</i>	708572	8619576	Area 4	2	1
<i>Cycas armstrongii</i>	708684	8619628	Area 4	2	2
<i>Cycas armstrongii</i>	708675	8619635	Area 4	2	2
<i>Cycas armstrongii</i>	708673	8619648	Area 4	2	15
<i>Cycas armstrongii</i>	708634	8619653	Area 4	2	11
<i>Cycas armstrongii</i>	708487	8619642	Area 4	2	39
<i>Cycas armstrongii</i>	708483	8619638	Area 4	2	1
<i>Cycas armstrongii</i>	708470	8619633	Area 4	2	1
<i>Cycas armstrongii</i>	708376	8619650	Area 4	2	9

Cycas armstrongii is endemic to the Northern Territory and is known to occur from Gunn Point to Hayes Creek, west to within 50 km of the coast and east to the Wildman River catchment, and also occurs on the Tiwi Islands and Cobourg Peninsula (Kerrigan *et al.* 2006). Threatening processes include land clearing for development projects in the Darwin region and forestry operations on the Tiwi islands (Kerrigan *et al.* 2006). A management program for Cycads in the Northern Territory was prepared in 2009 which aims to maintain viable wild populations of all cycad taxa and cycad habitats across their range in the Northern Territory (Liddle 2009). To achieve this aim the program provides guidance (Liddle 2009):

- To promote the conservation of cycad populations through sustainable land management practices.
- To develop and apply strategies for the ecologically sustainable use of cycads.
- To provide for the wise use of cycads that will otherwise be destroyed through land use permitted under relevant legislation.
- To facilitate essential research.
- To promote public awareness and education.

Under the *TPWC Act 2000* a permit is required by individuals to take Protected Wildlife or their parts for non-commercial purposes. In the case of cycads, *Cycas armstrongii* is protected due to its threatened status under the *TPWC Act 2000*. Where land clearing has been approved under the formal procedures of the Northern Territory Government, no additional permit will be required to take cycads for non-commercial purposes on areas designated to be cleared. Cycads salvaged from such areas for commercial purposes are subject to the commercial harvest provisions of this program (Liddle 2009).

7.4. Northern Quoll (*Dasyurus hallucatus*) Critically Endangered *EPBC Act 1999*

The Northern Quoll (*Dasyurus hallucatus*) is classified as endangered under the *EPBC Act 1999* and critically endangered under the *TPWC Act 2000*. This species was detected from tracks in the study area and reported to be common during surveys conducted in 1990 (Acer Vaughn 1993). Northern Quoll populations in the Darwin region declined rapidly following the arrival of Cane Toads in 2004 - 2005, however there had been documented declines in the Northern Territory prior to the arrival of toads, possibly due to inappropriate fire regimes or other factors (Hill & Ward 2010). Cane Toads are currently considered the main threat to Northern Quoll populations in parts of their range within Australia (Hill & Ward 2010).

The Northern Quoll was not detected within the study area during the 2010 - 2011 survey. At sites in the Northern Territory where Northern Quoll populations persist and animals are present in reasonable numbers they are generally detected by the standard trapping and survey techniques applied during the current survey, including trapping, spotlighting, hair funnels and camera traps. As recent trapping and other surveys within the project area have failed to locate this species, it is possible that Northern Quoll no longer occurs in the local area. However if they do persist they are likely to be present at significantly lower density than observations in 1990 indicate. There is a very small area of fragmented suitable habitat for the Northern Quoll present within the study area.

7.5. Water Mouse (*Xeromys myoides*) Vulnerable EPBC Act 1999

The Water Mouse is listed as a possible species in the EPBC protected matters report for the EAW area, and mangrove habitats in the Darwin Harbour are mapped as potential (likely) habitat in the EPBC significance guidelines for this species (DEWHA 2009a). However the Water Mouse has not been recorded from the Darwin Harbour area and it was not detected during the current survey using trapping, hair funnels and searches for nests or other signs.

7.6. Yellow-spotted monitor (*Varanus panoptes*) Vulnerable NT TPWC Act 2000

The Yellow-spotted Monitor (*Varanus panoptes*) is classified as vulnerable under the *TPWC Act 2000*. Declines of this species have been associated with the invasion of the Cane Toad. This species has persisted in the Darwin region following the arrival of the Cane Toad (e.g. Smith and Firth 2003), however it is likely to be present at lower population densities. This species was recorded during surveys within the study area conducted in 1990 (Acer Vaughn 1993). It is potentially still present in the local area, however as for the Northern Quoll there is a limited area of fragmented suitable habitat for the Yellow-spotted Monitor present within the study area.

7.7. Bush Stone-curlew (*Burhinus grallarius*) Near Threatened NT TPWC Act 2000

The Bush Stone-curlew is listed as near threatened the under the *TPWC Act 2000*. A species qualifies as near threatened when it has been evaluated against criteria but does not qualify as critically endangered, endangered or vulnerable at the time of assessment, but is close to qualifying for or is likely to qualify for a threatened category in the near future (IUCN 2001). This species is relatively common in the Darwin region and the small numbers of pairs that are present in the study area are unlikely to represent a significant population. The individuals observed within the bushland and regrowth remnants within the study area were also observed moving into adjacent areas of cleared land, railway yards and parkland.

7.8. Migratory Species

A number of migratory species (*EPBC Act 1999*) have been recorded within the study area, predominantly within the mangroves, saline wetlands (including samphire and salt flat habitat) and the dredge spoil ponds (Table 7.3). The most significant habitats for listed migratory species within the local area are marine habitats and mangrove areas, and roost and foraging sites associated with the dredge spoil ponds. Numbers of migratory shore-birds present in local roost sites, mangroves and near-coastal habitats are low when compared to other sites to the north of Darwin (e.g. Lee Point) and Darwin Harbour has not been found to support Nationally or Internationally significant numbers of migratory shorebirds or wetland birds (Chatto 2003; Harrison *et al.* 2009). However the area does support locally significant numbers of some migratory shorebirds.

The most significant aggregations of migratory birds within the study area are associated with the dredge spoil ponds, which provide high tide foraging and roosting sites for birds that move onto adjacent mud flats, rocky shores and saline wetlands at low tide. Other wetland bird species also occur on the water-bodies at the dredge spoil ponds, including ducks, stilt, Australian Pelican (*Pelecanus conspicillatus*) (Plate 11), ibis and spoonbill. Acer Vaughn (1993) reported that significant numbers of migratory birds were known to roost on off-shore islands, including South Shell Island, however few birds were observed on these islands during the 2010 - 2011 surveys.

Total counts of wetland and marine waders and shorebirds for the combined sites compiled by Estbergs (2011) and during the current survey record relatively high numbers of birds for some species, however none of the total counts exceed the threshold for determining site significance criteria under the Ramsar Convention (20,000 wetland birds or 1% of the estimated flyway population, species or subspecies population) (Table 7.4). The Ramsar convention criteria state that a wetland should be considered internationally important if it (Bamford *et al.* 2008):

- Regularly supports 20,000 or more waterbirds or;
- Regularly supports 1% of the individuals in a population of one species or subspecies of waterbird.

Some migratory species, such as Far Eastern Curlew (*Numenius madagascariensis*), are present at numbers that are approaching significant populations levels under the Ramsar criteria (Table 7.4). The Far Eastern Curlew has been counted roosting on the dredge spoil ponds within the EAW in numbers between 100 and 120 birds on a number of occasions and the maximum count from the study area is equivalent to 0.31% of the East Asian - Australasian Flyway (EAA) flyway (global) population.

Based on the Estbergs (2011) count conducted in April 2010, none of the migratory shorebird species present within the study area were present in significant numbers (0.25% of the flyway estimate or greater) during the EAA flyway northern migration staging period. A site is recognised as a significant staging site for a species if at least one migration period count is equal to or greater than 0.25% of the estimated flyway population size (Bamford *et al.* 2008). It should however be noted that his assessment is based on a single count. These counts are also likely to underestimate the waders present in the local area, as they do not assess waders roosting saline flats and in mangroves.

While the international criteria provided by Ramsar are effective in identifying important shorebird sites in many countries across the EAA flyway, they are insufficient to provide protection for migratory shorebirds within Australia (DEWHA 2009). The distribution of migratory shorebirds in Australia is more dispersed than in other areas, suggesting that international criteria are not applicable (DEWHA 2009). EPBC Act policy statement 3.21 (Significant Impact Guidelines for 36 Migratory Shorebird Species) provides a set of criteria for determining the importance of habitat for migratory shorebirds in Australia (DEWHA 2009), which rates a site as *important habitat* if:

- The site is identified as internationally important under Ramsar; or
- The site supports at least 0.1% of the flyway population of a single migratory shorebird species; or
- At least 2000 migratory shorebirds; or
- At least 15 shorebird species.

In the context of the definition provided by DEWHA (2009), a “site” includes the entire area of contiguous habitat used by the same group of migratory shorebirds, which may include multiple roosts and feeding areas, and may extend beyond the boundaries of a property or project area.

The study area meets the DEWHA (2009) criteria for important migratory shorebird habitat, in that:

- Five migratory shorebird species have been recorded within the study area at numbers greater than 0.1% of the flyway population, including Lesser Sand Plover, Greater Sand Plover, Far Eastern Curlew, Terek Sandpiper and Sharp-tailed Sandpiper (Plate 12) (Table 7.4); and
- Twenty-two migratory shorebird species have been recorded within the study area, exceeding the significance threshold of 15 species.

Table 7.3 EAW Study Area EPBC Act 1999 Listed Migratory and Marine Species

Common Name	Scientific Name	EPBC Migratory Terrestrial Species	EPBC Migratory Wetland/ Marine Species	EPBC Listed Marine Species	EAW Maximum Count EMS	EAW Maximum Count Estbergs 2011	EAW Max Single Count
Estuarine Crocodile	<i>Crocodylus porosus</i>		X	X			
Wandering Whistling-Duck	<i>Dendrocygna arcuata</i>			X	8	269	269
Radjah Shelduck	<i>Tadorna radjah</i>			X	17	17	17
Green Pygmy-goose	<i>Nettapus pulchellus</i>			X	1		1
Pied Imperial-Pigeon	<i>Ducula bicolor</i>			X			
Australian Pelican	<i>Pelecanus conspicillatus</i>			X	40	39	40
Eastern Great Egret	<i>Ardea modesta</i>		X	X	3	1	3
Intermediate Egret	<i>Ardea intermedia</i>			X	2		2
Little Egret	<i>Egretta garzetta</i>			X	4	10	10
Eastern Reef Egret	<i>Egretta sacra</i>		X	X	12	2	12
Australian White Ibis	<i>Threskiornis molucca</i>			X	2		2
Eastern Osprey	<i>Pandion cristatus</i>		X	X	1	1	1
Whistling Kite	<i>Haliastur sphenurus</i>			X		1	
Brahminy Kite	<i>Haliastur indus</i>			X	2	2	2
White-bellied Sea-Eagle	<i>Haliaeetus leucogaster</i>		X	X	3		3
Buff-banded Rail	<i>Gallirallus philippensis</i>			X	1		1
Beach Stone-curlew	<i>Esacus neglectus</i>			X	1		1
Black-winged Stilt	<i>Himantopus himantopus</i>			X	60	47	60
Grey Plover	<i>Pluvialis squatarola</i>		X	X	6	17	17
Pacific Golden Plover	<i>Pluvialis fulva</i>		X	X		12	12
Oriental Plover	<i>Charadrius veredus</i>		X	X		1	1
Lesser Sand Plover	<i>Charadrius mongolus</i>		X	X	302	7	302
Greater Sand Plover	<i>Charadrius leschenaultii</i>		X	X	210	70	210
Red-capped Plover	<i>Charadrius ruficapillus</i>			X	9	43	43
Black-tailed Godwit	<i>Limosa limosa</i>		X	X	23	20	23
Bar-tailed Godwit	<i>Limosa lapponica</i>		X	X	21	11	21
Little Curlew	<i>Numenius minutus</i>		X	X	4		4
Whimbrel	<i>Numenius phaeopus</i>		X	X	8	45	45
Far Eastern Curlew	<i>Numenius madagascariensis</i>		X	X	99	120	120
Marsh Sandpiper	<i>Tringa stagnatilis</i>		X	X	263	3	263
Wood Sandpiper	<i>Tringa glareola</i>		X	X		1	1

Common Name	Scientific Name	EPBC Migratory Terrestrial Species	EPBC Migratory Wetland/ Marine Species	EPBC Listed Marine Species	EAW Maximum Count EMS	EAW Maximum Count Estbergs 2011	EAW Max Single Count
Common Greenshank	<i>Tringa nebularia</i>		X	X	20	31	31
Terek Sandpiper	<i>Xenus cinereus</i>		X	X	52		52
Common Sandpiper	<i>Actitis hypoleucos</i>		X	X	23	2	23
Grey-tailed Tattler	<i>Tringa brevipes</i>		X	X	15	24	24
Great Knot	<i>Calidris tenuirostris</i>		X	X	20	51	51
Red Knot	<i>Calidris tenuirostris</i>		X	X		150	150
Sanderling	<i>Calidris alba</i>		X	X		1	1
Red-necked Stint	<i>Calidris ruficollis</i>		X	X	89	47	89
Sharp-tailed Sandpiper	<i>Calidris acuminata</i>		X	X	200	34	200
Curlew Sandpiper	<i>Calidris ferruginea</i>		X	X	23	2	23
Gull-billed Tern	<i>Gelochelidon nilotica</i>			X	26	65	65
Crested Tern	<i>Thalasseus bergii</i>			X	5		5
Common Tern	<i>Sterna hirundo</i>		X	X	10		10
Little Tern	<i>Sternula albigrons</i>		X	X	11	90	90
Bridled Tern	<i>Onychoprion anaethetus</i>		X	X	2		2
Whiskered Tern	<i>Chlidonias hybrida</i>			X	65	62	65
White-winged Black Tern	<i>Chlidonias leucopterus</i>		X	X	150	25	150
Silver Gull	<i>Chroicocephalus novaehollandiae</i>			X	18	40	40
Little Bronze-Cuckoo	<i>Chalcites minutillus</i>			X			
Eastern Koel	<i>Eudynamys orientalis</i>			X			
Sacred Kingfisher	<i>Todiramphus sanctus</i>			X			
Rainbow Bee-eater	<i>Merops ornatus</i>	X		X			
Black-faced Cuckoo-shrike	<i>Coracina novaehollandiae</i>			X			
White-bellied Cuckoo-shrike	<i>Coracina papuensis</i>			X			
Cicadabird	<i>Coracina tenuirostris melvillensis</i>	X		X			
Magpie-lark	<i>Grallina cyanoleuca</i>			X			
Australasian Pipit	<i>Anthus novaeseelandiae</i>			X			
Tree Martin	<i>Petrochelidon nigricans</i>			X			
Total Listed Species		2	31	59			

Table 7.4 EAW Migratory Shorebird Threshold Criteria Indicating Site Significance Based on Count Data

Common Name	Scientific Name	EPBC Migratory Wetland/ Marine Species	EAW Max Single Count	EAW Max Count Northern Staging April 2010	Bamford <i>et al.</i> 2008			Delany & Scott 2006		DEWHA 2009	EAW Max Count Exceeds 0.1% Flyway Threshold
					Flyway Estimate	1% of the Flyway Estimate	Staging 0.25% of the flyway estimate	WPE4 Population Estimate	WPE4 1% Threshold	EPBC Draft Sig Impact Guidelines 0.1% Threshold	
Grey Plover	<i>Pluvialis squatarola</i>	X	17		125 000	1250	313	125 000	1300	125	
Pacific Golden Plover	<i>Pluvialis fulva</i>	X	12		100 000-1 000 000	1000	250	100 000	1 000	100	
Oriental Plover	<i>Charadrius veredus</i>	X	1		70 000	7000	175	70 000	7 000	700	
Lesser Sand Plover	<i>Charadrius mongolus</i>	X	302		140 000	1400	350	40 000	400	40	✓
Greater Sand Plover	<i>Charadrius leschenaultii</i>	X	210		110 000	1100	275	100 000	1 000	100	✓
Black-tailed Godwit	<i>Limosa limosa</i>	X	23	7	160 000	1600	400	160 000	1 600	160	
Bar-tailed Godwit	<i>Limosa lapponica</i>	X	21	1	325 000	3250	813	325 000	3 250	325	
Little Curlew	<i>Numenius minutus</i>	X	4		180 000	1800	450	180 000	1 800	180	
Whimbrel	<i>Numenius phaeopus</i>	X	45		100 000	1000	250	55 000	550	55	
Far Eastern Curlew	<i>Numenius madagascariensis</i>	X	120	1	38 000	380	95	38 000	380	38	✓
Common Greenshank	<i>Tringa nebularia</i>	X	31	5	60 000	600	150	100 000	1 000	100	
Marsh Sandpiper	<i>Tringa stagnatilis</i>	X	263	1	100 000-1 000 000	1000	250		10 000	1 000	
Wood Sandpiper	<i>Tringa glareola</i>	X	1		100 000-1 000 000	1000	250	100 000	1 000	100	
Terek Sandpiper	<i>Xenus cinereus</i>	X	52		60 000	600	150	50 000	500	50	✓
Common Sandpiper	<i>Actitis hypoleucos</i>	X	23	1	25 000-100 000	250	63	50 000	500	50	
Grey-tailed Tattler	<i>Tringa brevipes</i>	X	24		50 000	500	125	40 000	400	40	
Great Knot	<i>Calidris tenuirostris</i>	X	51		375 000	3750	938	380 000	3 800	380	
Red Knot	<i>Calidris tenuirostris</i>	X	150	150	220 000	2200	550	220 000	2 200	220	
Sanderling	<i>Calidris alba</i>	X	1		325 000	3250	813	315 000	3 200	320	
Red-necked Stint	<i>Calidris ruficollis</i>	X	89	12	160 000	1600	400	160 000	1 600	160	
Sharp-tailed Sandpiper	<i>Calidris acuminata</i>	X	200	13	180 000	1800	450	180 000	1 800	180	✓
Curlew Sandpiper	<i>Calidris ferruginea</i>	X	23		180 000	1800	450	180 000	1 800	180	

7.9. Bioregional Significance of Fauna

None of the fauna species recorded within the study area are listed as endemic to the Darwin Coastal bioregion or the Northern Territory in the Northern Territory Assessment of Key Biodiversity Values and Threats for Bioregions (Baker *et al.* 2005).

7.10. Fauna Significance of Monsoon Vine Forest Habitat

The study area supports a small area of remnant disturbed monsoon vine forest covering approximately 0.632 ha within Area 1. This is likely to be a small remnant of an extensive band of monsoon vine forest that formerly occurred on the northern margin of Quarantine Island prior to the original East Arm development (Acer Vaughn 1993). The remnant monsoon vine forest is floristically simplified (Thomas 2011) and has been disturbed by the works associated with filling and clearing for the adjacent railway line. It is also impacted from edge effects associated with the close proximity of the rail line and yards. It is possible that this is a remnant of a habitat that formerly more extensive in the local area. However it is not currently providing significant habitat for wildlife, it is not an ecologically outstanding vegetation community and it is not a particularly good example of the habitat type.

7.11. Fauna Significance of Mixed Open Woodland Habitat

The Area 1 component of the project area supports a small area of remnant disturbed mixed open woodland covering approximately 0.295 ha. This vegetation is mixed with the regrowth and disturbed areas that are more widespread within Area 1. Open woodland habitats have been disturbed by the works associated with filling and clearing for the adjacent railway line and impacted from edge effects associated with the close proximity of the railway line and yards. These habitats are not currently providing significant habitat for wildlife, are not an ecologically outstanding vegetation community and are not a particularly good example of the habitat type.

Within Area 4 a more extensive area of better quality open woodland habitat is present. This area also supports an NT *TPWC Act 2000* vulnerable plant species (*Cycas armstrongii*).

7.12. Fauna Significance of Mangrove/Saline Wetland Habitats

Mangrove and salt marsh/saline wetland habitats within and surrounding the study area support a number of listed migratory marine birds and shorebirds. Under EPBC significance criteria (DEWHA 2009) these areas qualify as important habitat for migratory species listed under the *EPBC Act 1999*. These areas also support a range of other mangrove specialist fauna species. A significant proportion of the proposed rail spur within Area 1 is an easement (<200 m) that is located directly adjacent to the existing railway line. For much of its length the corridor does not penetrate core areas of important mangrove or saline wetland. The impacts on terrestrial vegetation are likely to be lessened because of this, as it is likely that core areas of mangrove forest removed from the existing development are likely to be of greater significance for wildlife. The mangrove habitats directly adjacent to the existing facility are already impacted to some degree by edge effects associated with the existing facility, including drainage, sedimentation, noise and artificial light. Despite these impacts the area continues to support a suite of mangrove and wetland specialist fauna species, including small numbers of listed migratory shorebirds.

Higher quality and more extensive mangrove and saline wetland habitat will be intersected by the proposal at the western end of the corridor within Area 1. This area supports aggregations of listed migratory birds and some of these birds are using this area for high tide roosting and foraging. Mudflats at the western end of Area 1 and on the margins of Area 4 are used as a feeding area by migratory shorebirds at low tide.

Mangrove and saline wetland habitats are the most significant habitats for wildlife within the study area. Mangrove and marine habitats surrounding the study area are generally good representations of their type and support specialist bird and marine species, including listed migratory species. Mangrove habitats away from the immediate edge of the existing facility are generally undisturbed and appear to be in good ecological condition. The mangrove forests surrounding the existing East Arm facility represent a significant area of relatively intact mangrove and saline wetland vegetation.

Small areas of mangrove habitat occur within Area 2/3. While these areas are relatively small in area, they are used by small numbers of birds, including listed migratory/marine species.

7.13. Fauna Significance of Dredge Spoil Ponds

Dredge spoil ponds are highly disturbed artificial wetlands created by infilling areas with dredge spoil material within bunds. These areas have become locally significant habitat for migratory and wetland birds, and represent the most significant known high tide roost for migratory shorebirds in the East Arm area. These areas will ultimately be filled and developed as hardstand areas and the roost sites will be lost. It is not known where birds will subsequently roost during high tides, however there may be alternative sites on offshore islands or adjacent areas.

7.14. Habitat Connectivity

Assessment of the 2009 aerial photography found that the mangrove vegetation in Area 1 is connected to larger tracts of remnant mangrove habitat to the north and in particular the Charles Darwin National Park. There are four separate areas of terrestrial vegetation in Area 1; they are relatively small and demonstrate varying degrees of ecological condition. Three of these are isolated from other areas of terrestrial vegetation. The small section of open woodland near Berrimah Road is connected to the north, however this area is increasingly being disturbed and fragmented by road construction works. The East Arm Wharf precinct development and construction of road and rail easements has severed ecological corridors to the south and east of the study area.

Remaining areas of terrestrial and mangrove vegetation in Area 4 are essentially isolated from any other larger tracts of remnant habitat. Roads and land clearing for development have severed viable native vegetation corridors and the overall terrestrial vegetation assessed within Area 4 is limited to approximately 20 hectares. Land Clearing Guidelines (NRETAS 2010) should be considered for bioregional biodiversity when assessing areas to clear in Areas 1 and 4.

7.15. Significance of Vegetation Communities

None of the vegetation communities mapped in the study area are listed as threatened under the *EPBC ACT 1999*. However several vegetation community types recorded in the study area are regarded as sensitive or significant vegetation according to the Northern Territory Land Clearing Guidelines (NRETAS 2010). These include mangrove communities as well as the small area of vine thicket/monsoon vine forest (vegetation Community 1, in Area 1).

The Land Clearing Guidelines (NRETAS 2010) state that applications to clear in coastal areas or in areas subject to tidal influence (e.g. floodplain systems associated with tidal rivers and creeks, coastal monsoon vine thickets and mangroves) must be supported by additional information, which may include:

- A plan for acid sulphate management where the area is considered a moderate to high acid sulphate soil risk.

- Potential or expected impacts of the land clearing on sensitive or fragile coastal landscapes and the steps taken to reduce and manage risks.

NRETAS (2010) states that mangrove areas that occur in the 'coastal tidal zone are considered sensitive or significant vegetation and it is recommended that clearing of these communities be avoided and applicants wanting to clear land in these areas must demonstrate how the extent to be cleared has been minimized'.

Although vegetation Community 1 (Area 1) is classified in this report as monsoon vine forest, it has been noted that it is a poor representation of the MVF community that occurs in the Darwin Harbour region (Thomas 2011). The canopy is dominated by one species (*Peltophorum pterocarpum*) and it is generally species-poor when compared to representative examples of this habitat. There were thirty one native plant species recorded at this site; Bowman & Dunlop (1986) recorded in excess of fifty-five species in a pure thicket and mixed thicket. The overall area is very small and the community is bordered by the existing railway facilities. It is likely to be a small remnant of a larger area of MVF that occurred on Quarantine Island prior to the East Arm development (Acer Vaughn 1993).

Land Clearing Guidelines (NRETAS 2010) should be considered for bioregional biodiversity when assessing areas to clear in Areas 1 and 4.

7.16. Declared Weeds and Other Naturalised Species

Eleven naturalised flora species were recorded in the study area. Five of these species are declared weeds listed in the *Weeds Management Act 2001* (Northern Territory of Australia 2001). These species include:

- *Andropogon gayanus* (Gamba Grass) is declared a Class A (to be eradicated) and Class C (not to be introduced to the Northern Territory) weed in accordance with the Northern Territory *Weeds Management Act 2001*.
- *Jatropha gossypifolia* (Bellyache Bush) is declared a Class A (to be eradicated) and Class C (not to be introduced to the Northern Territory) weed in accordance with the Northern Territory *Weeds Management Act 2001*.
- *Pennisetum polystachion* (Mission Grass) is declared a Class B (spread to be controlled) and Class C (not to be introduced to the Northern Territory) weed in accordance with the Northern Territory *Weeds Management Act 2001*.
- *Lantana camara* (Common Lantana) is declared a Class B (spread to be controlled) and Class C (not to be introduced to the Northern Territory) weed in accordance with the Northern Territory *Weeds Management Act 2001*.
- *Sida cordifolia* (Flannel Weed) is declared a Class B (spread to be controlled) and Class C (not to be introduced to the Northern Territory) weed in accordance with the Northern Territory *Weeds Management Act 2001*.

A weed management risk system (Northern Territory 2011), which is a program to identify and assess the weed risk of the naturalised plants in the study area, is recommended in order to prioritise management responses.

8. Management Recommendations

8.1. Significant Vegetation Communities

- It is recommended that the Land Clearing Guidelines (NRETAS 2010) are followed for proposed clearing of mangrove and MVF communities.
- Applications to clear should provide additional information regarding the 'potential or expected impacts of the land clearing on sensitive or fragile coastal landscapes and the steps taken to reduce and manage risks.'

8.2. Significant Flora Species

- Under the *TPWC Act 2000* a permit is required by individuals to take Protected Wildlife or their parts for non-commercial purposes. Any proposed clearing or filling of *Cycas armstrongii* habitat within Area 4 should be conducted with reference to provisions and requirements of the Act.
- If possible habitats supporting known populations of *Cycas armstrongii* within Area 4 should be retained.
- Management of the local population of *Cycas armstrongii* should consider the management program for Cycads in the Northern Territory (Liddle 2009).

8.3. Fauna Species and Habitat

- Minimise clearing and disturbance to areas identified as important habitat under EPBC Act 1999 criteria for migratory birds, including tidal mudflats, mangroves and saline flats/salt pans.
- Establish appropriate buffers to significant mangrove and marine habitats supporting aggregations of listed migratory/marine species.
- Develop appropriate management strategies to minimise potential impacts on adjacent areas of mangrove and tidal habitats, particularly areas where migratory birds and marine birds forage and roost (e.g. controls on sediment deposition during the construction and operational phases).
- Significant works in the vicinity of areas where migratory shorebirds occur should be undertaken in the dry season when most northern hemisphere migrants are absent (May – August).
- Ensure that no cane toad breeding habitat (e.g. small, still ponded freshwater or brackish areas) is created during or following construction. Controls on creation of these habitats will also assist in minimising creation of recruitment sites for mosquitoes.

8.4. Migratory Shorebirds

Threatening processes for migratory shorebirds include habitat loss, habitat degradation and disturbance (e.g. night lighting, noise, human access, dogs etc.). The habitat surrounding the EAW supports migratory shorebirds in sufficient numbers and diversity for the area to be considered important habitat for these species (DEWHA 2009). Therefore measures aimed at minimising potential impacts on migratory shorebirds and their habitats should be considered. This should include:

- Minimise the area of mangrove, salt pan and tidal mudflat areas disturbed for any works or reclamation.
- Strict controls on sedimentation or other impacts that may impact shorebird feeding sites
- Protection of high tide roost sites and provision of additional high tide roost sites if there are opportunities in the design for the project (e.g. within the proposed rail loop component of Area 1).
- Controls on activities or facilities that might disturb feeding and roosting birds (e.g. noise, nocturnal lighting).
- Continued restricted access to the public and animals (dogs) to areas where migratory shorebirds roost and feed.
- Continued monitoring of shorebirds, expanded to include the western component of Area 1.
- Inclusion of buffer zones to important migratory shorebird sites where possible.

8.5. Rehabilitation of Disturbed Areas

- If rehabilitation of any disturbed areas is proposed measures should include consideration of the requirements of fauna species that will potentially recolonise these areas. Measures should include stockpiling of deadwood and woody debris following clearing, for later return to the rehabilitation area to provide fauna microhabitat and increase the rate of faunal return.

8.6. Weeds

- A weed management risk system (Northern Territory 2011), which is a program to identify and assess the weed risk of the naturalised plants in the study area, is recommended in order to prioritise management responses.
- Include measures to minimise the potential import and/or spread of weeds during construction.
- Develop and refine measures for inspection, identification and control of weeds.

8.7. Feral Animals

- Cane Toads are a major threat to a number of threatened species that occur in the Darwin region. Ensure that no cane toad breeding habitat is created during or following construction.
- Cats are potentially a threat to shorebirds and other wildlife in the EAW. Control and management of Feral Cats should be included in management programs for feral species.

8.8. Monitoring

- The methodology used at standard fauna sites can be adapted as a monitoring protocol. These sites or similar/adjacent sites could be re-sampled in the future as a component of a monitoring project to compare changes in fauna species composition and abundance.
- Shorebirds and wetland birds are currently monitored within the EAW, mainly at the dredge spoil ponds (David McMaster, Darwin Port Corporation pers comm. 2011). This monitoring should be continued and expanded to include the saline flats/tidal mudflats within Area 1 and Area 3/4.

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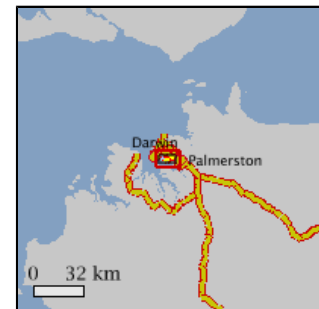
Appendix 1 NT NRM Area Report



East Arm Precinct

East Arm Precinct encompasses an area of 49.04 sq km extending from 12 deg 27.0 min to 12 deg 30.0 min S and 130 deg 52.0 min to 130 deg 57.0 min E.

East Arm Precinct is located in the Darwin Coastal, bioregion(s)



Location of East Arm Precinct



East Arm Precinct Climate

The closest long-term weather station is DARWIN AIRPORT (12 deg 25.0 min S, 130.8925E) 6 km N of the center of selected area

Statistics

Mean max temp (deg C)
 Mean min temp (deg C)
 Average rainfall (mm)
 Average days of rain

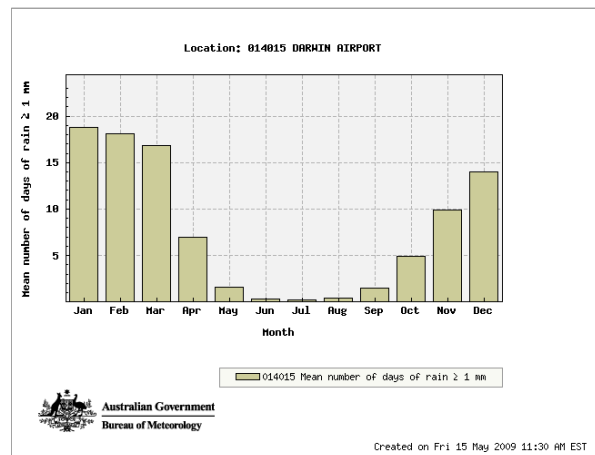
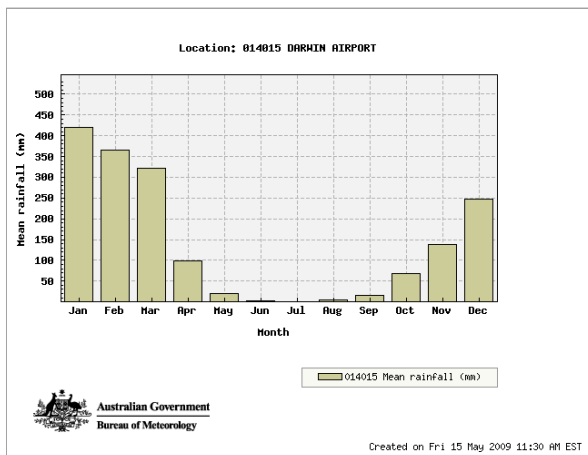
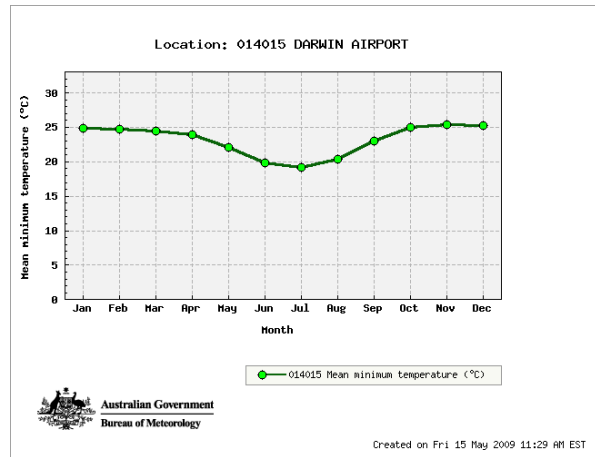
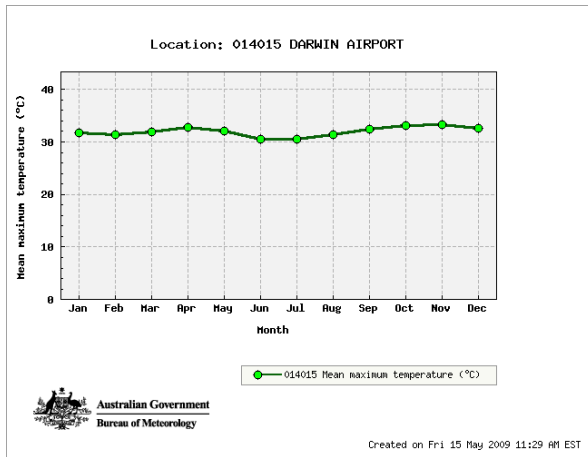
Annual Values

32.0
 23.2
 1715.0
 93.5

Years of record

68
 68
 68
 68

Climate summaries from Bureau of Meteorology (www.bom.gov.au)



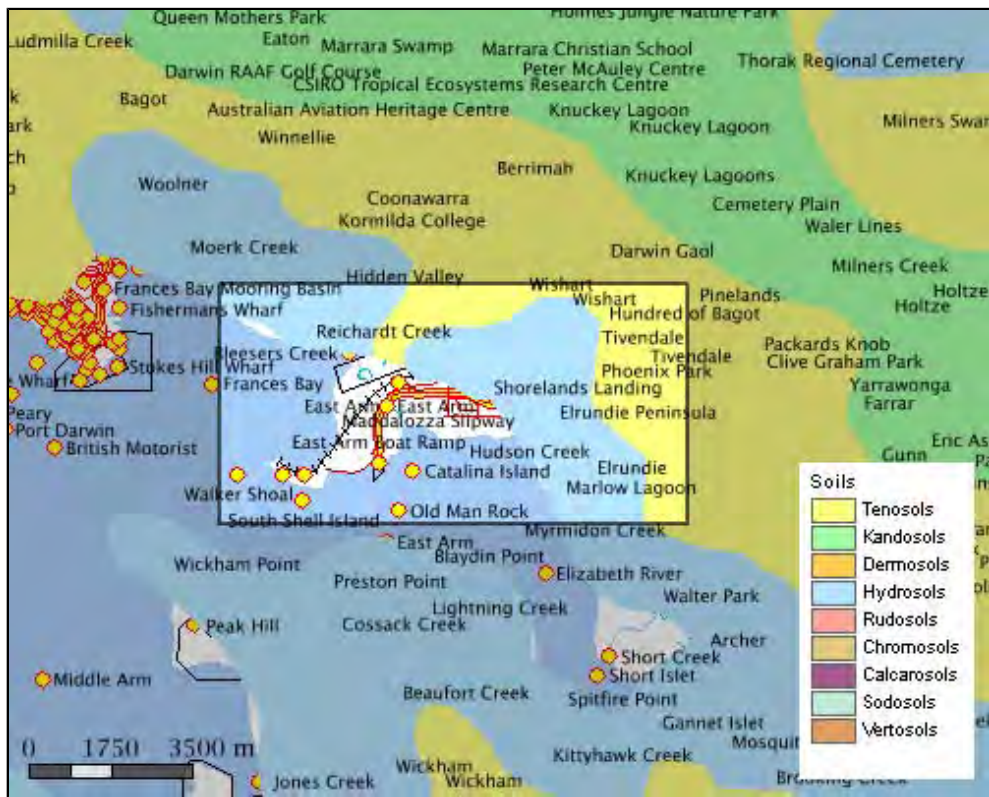
East Arm Precinct Soils

Soil Types

Area of soil types (Northcote Factual Key)

Selected area is too small to produce reliable statistics

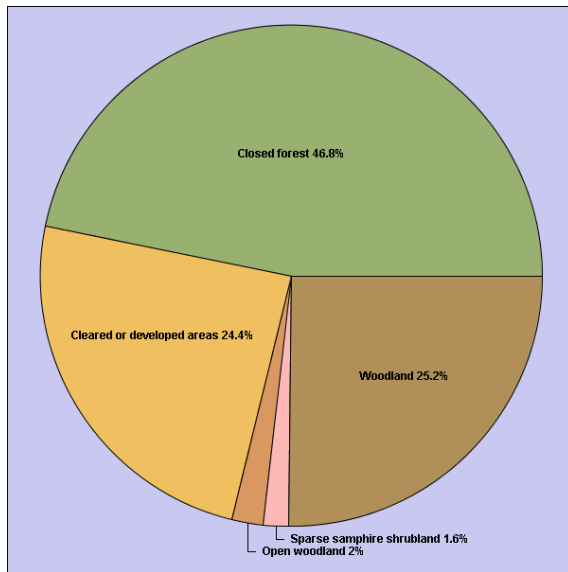
Soil Types



Soils 1:2M Layer is a copy of the NT portion (1:2,000,000 scale dataset) of the CSIRO Atlas of Australian Soils - K.H. Northcote et al. Data scale: 1:2,000,000 ANZLIC Identifier: 2DBC771205D06B6E040CD9B0F274EFE
More details: Go to www.nt.gov.au/nreta/nretamaps/ and enter the ANZLIC identifier in the Spatial Data Search

East Arm Precinct Vegetation

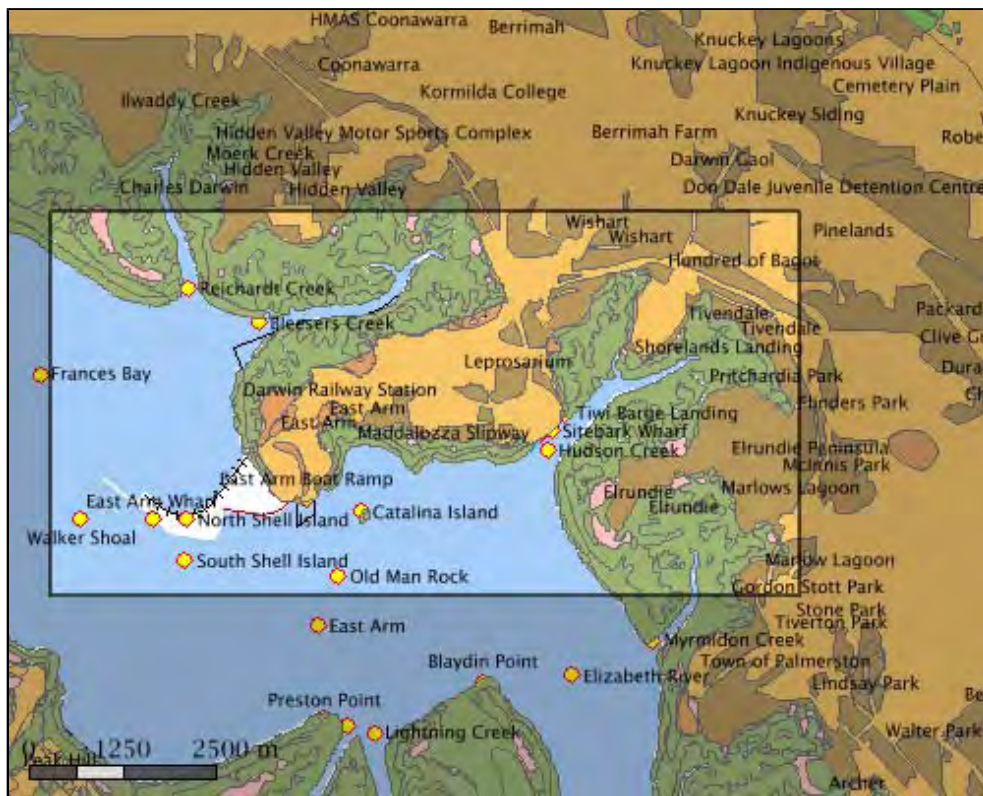
Vegetation Communities



Area of vegetation communities

Category	Area sq km	Area%
Closed forest	13.54	27.61
Cleared or developed areas	7.06	14.40
Open woodland	.58	1.18
Sparse samphire shrubland	.47	.97
Woodland	7.28	14.84

Vegetation Communities



The NVIS 2005 Layer is compiled from a number of vegetation and land unit survey maps that were recoded and re-attributed for the National Vegetation Information System (NVIS)

Data scale variable depending on location. ANZLIC Identifier:2DBC8771207006B6E040CD9B0F274EFE

More details: Go to www.nt.gov.au/nreta/nretamaps/ and enter the ANZLIC identifier in the Spatial Data Search

East Arm Precinct Threatened Species

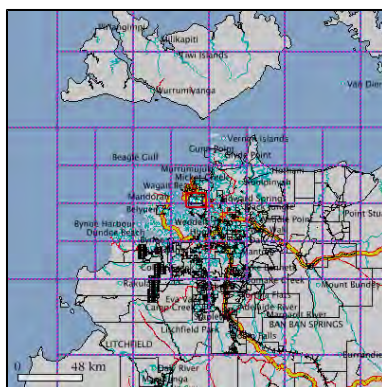
Threatened species recorded in the grid cell(s) in which East Arm Precinct occurs

Group	Common Name	Scientific Name	NT Status	National Status	ID
Cycads	Armstrong`s Cycad	<i>Cycas armstrongii</i>	VU	.	351085
Insects	Atlas Moth	<i>Attacus wardi</i>	EN	.	183182
Fish	Dwarf Sawfish	<i>Pristis clavata</i>	VU	.	176943
Fish	Green Sawfish	<i>Pristis zijsron</i>	VU	VU	176965
Reptiles	Green Turtle	<i>Chelonia mydas</i>	.	VU	176291
Reptiles	Hawksbill Turtle	<i>Eretmochelys imbricata</i>	.	VU	176298
Reptiles	Olive Ridley	<i>Lepidochelys olivacea</i>	.	EN	176305
Reptiles	Flatback Turtle	<i>Natator depressus</i>	.	VU	176284
Reptiles	Mertens` Water Monitor	<i>Varanus mertensi</i>	VU	.	347295
Reptiles	Yellow-spotted Monitor	<i>Varanus panoptes</i>	VU	.	347307
Birds	Emu	<i>Dromaius novaehollandiae</i>	VU	.	176363
Birds	Red Goshawk	<i>Erythrotriorchis radiatus</i>	VU	VU	176391
Birds	Australian Bustard	<i>Ardeotis australis</i>	VU	.	176354
Birds	Australian Painted Snipe	<i>Rostratula australis</i>	VU	VU	246428
Birds	Masked Owl	<i>Tyto novaehollandiae</i>	EN/ VU	EN/VU	177895
Birds	Masked Owl (northern mainland)	<i>Tyto novaehollandiae kimberli</i>	VU	VU	594609
Birds	Gouldian Finch	<i>Erythrura gouldiae</i>	EN	EN	176370
Mammals	Northern Quoll	<i>Dasyurus hallucatus</i>	CR	EN	176443
Mammals	Northern Brush-tailed Phascogale	<i>Phascogale pirata</i>	VU	.	177965
Mammals	Bare-rumped Sheath-tailed Bat	<i>Saccolaimus saccolaimus</i>	.	CR	177111
Mammals	Blue Whale	<i>Balaenoptera musculus</i>	DD	EN	233883
Mammals	Humpback Whale	<i>Megaptera novaeangliae</i>	DD	VU	280686

EX = Extinct EW = Extinct in the Wild ER= Extinct in the NT EN = Endangered
 EN/VU = One Endangered subspecies/One Vulnerable subspecies
 VU=Vulnerable
 VU/- = One or more subspecies vulnerable EN/- = One or more subspecies endangered

More species info: Go to www.landmanager.org.au/view/index.aspx?id=####
 where #### is the ID number from the tables above for the species of interest.

Species listed in the table above were recorded from all the grid cells shown below (red/blue line) that overlap East Arm Precinct



East Arm Precinct Native Animals

Native species that have been recorded in the grid cell(s) in which East Arm Precinct					
Group	Common Name	Scientific Name	NT Status	National Status	ID
Fern Allies	Staghorn Club Moss	<i>Lycopodiella cernua</i>	.	.	.
Fern Allies	Quillwort	<i>Isoetes coromandelina</i> <i>subsp. macrotuberculata</i>	.	.	.
Fern Allies	Spike Moss	<i>Selaginella ciliaris</i>	.	.	.
Ferns	Flowering Fern	<i>Helminthostachys zeylanica</i>	.	.	.
Ferns	Large Adder`s Tongue	<i>Ophioglossum costatum</i>	.	.	.
Ferns	Adder`s Tongue	<i>Ophioglossum reticulatum</i>	.	.	.
Ferns	Dragon Fern	<i>Lygodium flexuosum</i>	.	.	.
Ferns	Climbing Maidenhair Fern	<i>Lygodium microphyllum</i>	.	.	.
Ferns	Common Wedgefern	<i>Lindsaea ensifolia</i>	.	.	.
Ferns	Water Fern	<i>Ceratopteris thalictroides</i>	.	.	.
Ferns	Northern Rock-fern	<i>Cheilanthes brownii</i>	.	.	.
Ferns	Fern	<i>Cheilanthes contigua</i>	.	.	.
Ferns	Fern	<i>Cheilanthes fragillima</i>	.	.	.
Ferns	Fern	<i>Cheilanthes nitida</i>	.	.	.
Ferns	Fern	<i>Cheilanthes pumilio</i>	.	.	.
Ferns	Rock Fern	<i>Cheilanthes tenuifolia</i>	.	.	.
Ferns	Creeping Swamp Fern	<i>Cyclosorus interruptus</i>	.	.	.
Ferns	Climbing Swamp Fern	<i>Stenochlaena palustris</i>	.	.	.
Ferns	Fishbone Fern	<i>Nephrolepis hirsutula</i>	DD	.	.
Ferns	Fern	<i>Microsorium grossum</i>	.	.	.
Cycads	Armstrong`s Cycad	<i>Cycas armstrongii</i>	VU	.	351085
Cycads	Cycad	<i>Cycas maconochiei subsp.</i> <i>maconochiei</i>	.	.	.
Flowering Plants	Waterlily	<i>Nymphaea hastifolia</i>	.	.	.
Flowering Plants	Blue Waterlily	<i>Nymphaea violacea</i>	.	.	.
Flowering Plants	Native Dutchman`s Pipe	<i>Aristolochia holtzei</i>	.	.	.
Flowering Plants	Cape Chestnut	<i>Horsfieldia australiana</i>	.	.	.
Flowering Plants	Native Nutmeg	<i>Myristica insipida</i>	.	.	.
Flowering Plants	Raspberry Jelly Plant	<i>Milusa brahei</i>	.	.	.
Flowering Plants	Native Mast Tree	<i>Polyalthia australis</i>	.	.	.
Flowering Plants	Canary Beech	<i>Polyalthia nitidissima</i>	.	.	.
Flowering Plants	Hairy Dodder-laurel	<i>Cassytha filiformis</i>	.	.	.
Flowering Plants	Laurel	<i>Cryptocarya cunninghamii</i>	.	.	.
Flowering Plants	Soft Bollygum	<i>Litsea glutinosa</i>	.	.	.
Flowering Plants	Sweet Snakeskin Lily	<i>Amorphophallus galbra</i>	.	.	.
Flowering Plants	Yam	<i>Amorphophallus</i> <i>paeoniifolius</i>	.	.	.
Flowering Plants	Taro	<i>Colocasia esculenta</i>	.	.	289544
Flowering Plants	Lesser Duck Weed	<i>Lemna aequinoctialis</i>	.	.	.
Flowering Plants	Large Duckweed	<i>Spirodela polyrhiza</i>	.	.	292894
Flowering Plants	Typhonium	<i>Typhonium praetermissum</i>	DD	.	.
Flowering Plants	Caldesia	<i>Caldesia oligococca var.</i> <i>oligococca</i>	.	.	.
Flowering Plants	Blyxia	<i>Blyxa aubertii</i>	.	.	.
Flowering Plants	Water Thyme	<i>Hydrilla verticillata</i>	.	.	.
Flowering Plants	Water Nymph	<i>Najas malesiana</i>	.	.	.
Flowering Plants	Eel Grass	<i>Vallisneria nana</i>	.	.	.
Flowering Plants	Small Water Ribbons	<i>Triglochin dubia</i>	.	.	.
Flowering Plants	Native Arrowroot	<i>Tacca leontopetaloides</i>	.	.	.
Flowering Plants	Water Yam	<i>Dioscorea bulbifera</i>	.	.	.
Flowering Plants	Long Yam	<i>Dioscorea transversa</i>	.	.	.
Flowering Plants	River Pandanus	<i>Pandanus aquaticus</i>	.	.	.
Flowering Plants	Screw Palm	<i>Pandanus spiralis</i>	.	.	.
Flowering Plants	Austral Smilax	<i>Smilax australis</i>	.	.	.
Flowering Plants	Hyacinth Orchid	<i>Dipodium stenocheilum</i>	.	.	.
Flowering Plants	Ground Orchid	<i>Geodorum neocaledonicum</i>	.	.	.
Flowering Plants	Ground Orchid	<i>Habenaria hymenophylla</i>	DD	.	.
Flowering Plants	Ground Orchid	<i>Habenaria ochroleuca</i>	.	.	.
Flowering Plants	Ground Orchid	<i>Habenaria triplonema</i>	DD	.	.
Flowering Plants	Ground Orchid	<i>Liparis habenarina</i>	DD	.	.
Flowering Plants	Ground Orchid	<i>Nervilia holochila</i>	.	.	.
Flowering Plants	Ground Orchid	<i>Nervilia peltata</i>	DD	.	.
Flowering Plants	Grass Potato	<i>Curculigo ensifolia</i>	.	.	.
Flowering Plants	Flax-lily	<i>Dianella odorata</i>	.	.	.
Flowering Plants	Crinum Lily	<i>Crinum angustifolium</i>	.	.	.

Group	Common Name	Scientific Name	NT Status	National Status	ID
Flowering Plants	Lily	<i>Crinum uniflorum</i>	.	.	.
Flowering Plants	Lily	<i>Chlorophytum laxum</i>	.	.	.
Flowering Plants	Mat-Rush	<i>Lomandra tropica</i>	.	.	.
Flowering Plants	Native Dracaena	<i>Pleomele angustifolia</i>	.	.	.
Flowering Plants	Native Asparagus Fern	<i>Protasparagus racemosus</i>	.	.	.
Flowering Plants	Vanilla Lily	<i>Sowerbaea alliacea</i>	.	.	.
Flowering Plants	Fringe-Lily	<i>Thysanotus banksii</i>	.	.	.
Flowering Plants	Carpentaria Palm	<i>Carpentaria acuminata</i>	.	.	.
Flowering Plants	Bentham's Fan Palm	<i>Livistona benthamii</i>	.	.	.
Flowering Plants	Sandpalm	<i>Livistona humilis</i>	.	.	.
Flowering Plants	Cumbungi	<i>Typha domingensis</i>	.	.	.
Flowering Plants	Yellow-eye	<i>Xyris cheumatophila</i>	.	.	.
Flowering Plants	Hatpins	<i>Xyris complanata</i>	.	.	.
Flowering Plants	Yellow-eye	<i>Xyris indica</i>	.	.	.
Flowering Plants	Hatpins	<i>Eriocaulon schultzii</i>	.	.	.
Flowering Plants	Anemone Rush	<i>Eriocaulon setaceum</i>	.	.	.
Flowering Plants	Short-leaved Rush	<i>Bulbostylis barbata</i>	.	.	.
Flowering Plants	Sedge	<i>Cyperus angustatus</i>	.	.	.
Flowering Plants	Flat-head Rush	<i>Cyperus aquatilis</i>	.	.	.
Flowering Plants	Sedge	<i>Cyperus breviculmis</i>	.	.	.
Flowering Plants	Sedge	<i>Cyperus castaneus</i>	.	.	.
Flowering Plants	Dirty Dora	<i>Cyperus difformis</i>	.	.	.
Flowering Plants	Giant Sedge	<i>Cyperus exaltatus</i>	.	.	.
Flowering Plants	Small Umbrella Rush	<i>Cyperus haspan subsp. juncoides</i>	.	.	.
Flowering Plants	Rice Flat Sedge	<i>Cyperus iria</i>	.	.	.
Flowering Plants	Sedge	<i>Cyperus javanicus subsp. armstrongii</i>	.	.	.
Flowering Plants	Sedge	<i>Cyperus nervulosus</i>	.	.	.
Flowering Plants	Bunchy Sedge	<i>Cyperus polystachyos</i>	.	.	.
Flowering Plants	White Button Sedge	<i>Cyperus pulchellus</i>	.	.	.
Flowering Plants	Sedge	<i>Cyperus scariosus</i>	.	.	.
Flowering Plants	Sedge	<i>Cyperus serotinus</i>	.	.	.
Flowering Plants	Chinese Water Chestnut	<i>Eleocharis dulcis</i>	.	.	.
Flowering Plants	Spike-Rush	<i>Eleocharis geniculata</i>	.	.	.
Flowering Plants	Spike-Rush	<i>Eleocharis spiralis</i>	.	.	.
Flowering Plants	Fringe-Rush	<i>Fimbristylis acicularis</i>	.	.	.
Flowering Plants	Fringe-Rush	<i>Fimbristylis acuminata</i>	.	.	.
Flowering Plants	Fringe-Rush	<i>Fimbristylis bisumbellata</i>	DD	.	.
Flowering Plants	Fringe-Rush	<i>Fimbristylis compacta</i>	.	.	.
Flowering Plants	Dainty Fringe-Rush	<i>Fimbristylis cymosa</i>	.	.	.
Flowering Plants	Angle Head	<i>Fimbristylis densa</i>	.	.	.
Flowering Plants	Fringe-Rush	<i>Fimbristylis depauperata</i>	.	.	.
Flowering Plants	Eight Day Grass	<i>Fimbristylis dichotoma</i>	.	.	.
Flowering Plants	Fringe-Rush	<i>Fimbristylis ferruginea</i>	.	.	.
Flowering Plants	Fringe-Rush	<i>Fimbristylis furva</i>	.	.	.
Flowering Plants	Fringe-Rush	<i>Fimbristylis littoralis var. littoralis</i>	.	.	.
Flowering Plants	Fringe-Rush	<i>Fimbristylis macassarensis</i>	.	.	.
Flowering Plants	Fringe-Rush	<i>Fimbristylis macrantha</i>	.	.	.
Flowering Plants	Fringe-Rush	<i>Fimbristylis merrillii</i>	DD	.	.
Flowering Plants	Fringe-Rush	<i>Fimbristylis microcarya</i>	.	.	.
Flowering Plants	Fringe-Rush	<i>Fimbristylis modesta</i>	.	.	.
Flowering Plants	lukarrara	<i>Fimbristylis oxystachya</i>	.	.	.
Flowering Plants	Fringe-Rush	<i>Fimbristylis pachyptera</i>	.	.	.
Flowering Plants	Fringe-Rush	<i>Fimbristylis pallida</i>	.	.	.
Flowering Plants	Fringe-Rush	<i>Fimbristylis pauciflora</i>	.	.	.
Flowering Plants	Fringe-Rush	<i>Fimbristylis polytrichoides</i>	.	.	.
Flowering Plants	Fringe-Rush	<i>Fimbristylis pterygosperma</i>	.	.	.
Flowering Plants	Fringe-Rush	<i>Fimbristylis pubisquama</i>	.	.	.
Flowering Plants	Salt Fringe-rush	<i>Fimbristylis rara</i>	.	.	.
Flowering Plants	Fringe-Rush	<i>Fimbristylis recta</i>	.	.	.
Flowering Plants	Fringe-Rush	<i>Fimbristylis schoenoides</i>	.	.	.
Flowering Plants	Fringe-Rush	<i>Fimbristylis schultzii</i>	.	.	.
Flowering Plants	Fringe-Rush	<i>Fimbristylis simplex</i>	.	.	.
Flowering Plants	Fringe-Rush	<i>Fimbristylis sp. Charles Darwin</i>	.	.	.
Flowering Plants	Fringe-Rush	<i>Fimbristylis sp. Darwin</i>	.	.	.
Flowering Plants	Fringe-Rush	<i>Fimbristylis sp. Howard River</i>	.	.	.
Flowering Plants	Fringe-Rush	<i>Fimbristylis sp. Latz sp.B</i>	.	.	.
Flowering Plants	Fringe-Rush	<i>Fimbristylis tetragona</i>	.	.	.
Flowering Plants	Fringe-Rush	<i>Fimbristylis trachycarya</i>	.	.	.

Group	Common Name	Scientific Name	NT Status	National Status	ID
Flowering Plants	Fringe-Rush	<i>Fimbristylis tristachya</i>	.	.	.
Flowering Plants	Fringe-Rush	<i>Fimbristylis xyridis</i>	.	.	.
Flowering Plants	Small Club Rush	<i>Fuirena ciliaris</i>	.	.	.
Flowering Plants	Five-sided Rush	<i>Fuirena umbellata</i>	.	.	.
Flowering Plants	Button Rush	<i>Lipocarpha microcephala</i>	.	.	.
Flowering Plants	Grey-beak Sedge	<i>Rhynchospora corymbosa</i>	.	.	.
Flowering Plants	Star Sedge	<i>Rhynchospora exserta</i>	.	.	.
Flowering Plants	Star Sedge	<i>Rhynchospora heterochaeta</i>	.	.	.
Flowering Plants	Tick Grass	<i>Rhynchospora longisetis</i>	.	.	.
Flowering Plants	Star Sedge	<i>Rhynchospora submarginata</i>	.	.	.
Flowering Plants	Star Sedge	<i>Rhynchospora subtenuifolia</i>	.	.	.
Flowering Plants	Star Sedge	<i>Rhynchospora wightiana</i>	.	.	.
Flowering Plants	River Club-Rush	<i>Schoenoplectus litoralis</i>	.	.	.
Flowering Plants	Sedge	<i>Scleria brownii</i>	.	.	.
Flowering Plants	Sedge	<i>Scleria levis</i>	.	.	.
Flowering Plants	Sedge	<i>Scleria lingulata</i>	.	.	.
Flowering Plants	Sedge	<i>Scleria novae-hollandiae</i>	.	.	.
Flowering Plants	Sedge	<i>Scleria polycarpa</i>	.	.	.
Flowering Plants	Sedge	<i>Scleria pygmaea</i>	.	.	.
Flowering Plants	Mildrop Sedge	<i>Scleria rugosa</i>	.	.	.
Flowering Plants	Bog-Rush	<i>Tricostularia undulata</i>	.	.	.
Flowering Plants	Supplejack	<i>Flagellaria indica</i>	.	.	.
Flowering Plants	Rush	<i>Dapsilanthus spathaceus</i>	.	.	.
Flowering Plants	Centrolepis	<i>Centrolepis exserta</i>	.	.	.
Flowering Plants	Cockatoo Grass	<i>Alloterospis semialata</i>	.	.	451013
Flowering Plants	Erect Kerosene Grass	<i>Aristida holathera</i>	.	.	.
Flowering Plants	Erect Kerosene Grass	<i>Aristida holathera var. holathera</i>	.	.	.
Flowering Plants	Unequal Threeawn	<i>Aristida inaequiglumis</i>	.	.	.
Flowering Plants	Wire Grass	<i>Aristida macroclada</i>	.	.	.
Flowering Plants	Wire Grass	<i>Aristida macroclada subsp. macroclada</i>	.	.	.
Flowering Plants	Gulf Feathertop Wiregrass	<i>Aristida pruinosa</i>	.	.	.
Flowering Plants	Native Bamboo	<i>Bambusa arnhemica</i>	.	.	.
Flowering Plants	Forest Bluegrass	<i>Bothriochloa bladhii subsp. bladhii</i>	.	.	.
Flowering Plants	Native Couch	<i>Brachyachne ambigua</i>	.	.	.
Flowering Plants	Spider Grass	<i>Brachyachne convergens</i>	.	.	.
Flowering Plants	Scented Top	<i>Capillipedium parviflorum</i>	.	.	.
Flowering Plants	Scented Top	<i>Capillipedium spicigerum</i>	.	.	.
Flowering Plants	Burr-grass	<i>Cenchrus elymoides</i>	.	.	.
Flowering Plants	Bush Couch	<i>Chamaeraphis hordeacea</i>	.	.	.
Flowering Plants	Tall Tamil Grass	<i>Chrysopogon elongatus</i>	.	.	.
Flowering Plants	Golden-beard Grass	<i>Chrysopogon fallax</i>	.	.	.
Flowering Plants	Broadleaf Ribbon Grass	<i>Chrysopogon latifolius</i>	.	.	.
Flowering Plants	Silky Oilgrass	<i>Cymbopogon bombycinus</i>	.	.	.
Flowering Plants	Scentgrass	<i>Cymbopogon procerus</i>	.	.	.
Flowering Plants	Finger Grass	<i>Digitaria gibbosa</i>	.	.	.
Flowering Plants	Dimeria	<i>Dimeria ornithopoda</i>	.	.	.
Flowering Plants	Haresfoot Grass	<i>Ectrosia agrostoides</i>	.	.	.
Flowering Plants	Haresfoot Grass	<i>Ectrosia leporina</i>	.	.	.
Flowering Plants	Haresfoot Grass	<i>Ectrosia schultzii</i>	.	.	.
Flowering Plants	Lemon-scented Grass	<i>Elionurus citreus</i>	DD	.	.
Flowering Plants	Cuming's Lovegrass	<i>Eragrostis cumingii</i>	.	.	.
Flowering Plants	Lovegrass	<i>Eragrostis exigua</i>	.	.	.
Flowering Plants	Drooping Lovegrass	<i>Eragrostis leptocarpa</i>	.	.	.
Flowering Plants	Lovegrass	<i>Eragrostis schultzii</i>	.	.	.
Flowering Plants	Handsome Lovegrass	<i>Eragrostis speciosa</i>	.	.	.
Flowering Plants	Wanderrie Grass	<i>Eriachne agrostidea</i>	.	.	.
Flowering Plants	Wanderrie Grass	<i>Eriachne avenacea</i>	.	.	.
Flowering Plants	Wanderrie Grass	<i>Eriachne burkittii</i>	.	.	.
Flowering Plants	Slender Wanderrie	<i>Eriachne ciliata</i>	.	.	.
Flowering Plants	Wanderrie Grass	<i>Eriachne pallescens var. pallescens</i>	.	.	.
Flowering Plants	Salt-and-Pepper Grass	<i>Eriachne schultziana</i>	.	.	.
Flowering Plants	Wanderrie Grass	<i>Eriachne semiciliata</i>	.	.	.
Flowering Plants	Wanderrie Grass	<i>Eriachne triseta</i>	.	.	.
Flowering Plants	Slender Cupgrass	<i>Eriochloa procera</i>	.	.	.
Flowering Plants	Silky Browntop	<i>Eulalia mackinlayi</i>	.	.	.
Flowering Plants	Yellow Spear Grass	<i>Germainia grandiflora</i>	.	.	.
Flowering Plants	Germainia	<i>Germainia truncatiglumis</i>	.	.	.
Flowering Plants	Heterachne	<i>Heterachne abortiva</i>	.	.	.

Group	Common Name	Scientific Name	NT Status	National Status	ID
Flowering Plants	Heterachne	<i>Heterachne gulliveri</i> var. <i>gulliveri</i>	.	.	.
Flowering Plants	Black Speargrass	<i>Heteropogon contortus</i>	.	.	.
Flowering Plants	Giant Speargrass	<i>Heteropogon triticeus</i>	.	.	.
Flowering Plants	Blady Grass	<i>Imperata cylindrica</i>	.	.	.
Flowering Plants	Isachne	<i>Isachne confusa</i>	.	.	.
Flowering Plants	Isachne	<i>Isachne pulchella</i>	.	.	361275
Flowering Plants	Ischaemum	<i>Ischaemum australe</i>	.	.	.
Flowering Plants	Ischaemum	<i>Ischaemum australe</i> var. <i>australe</i>	.	.	.
Flowering Plants	Fisherman Grass	<i>Ischaemum decumbens</i>	.	.	.
Flowering Plants	Ribbed Murainagrass	<i>Ischaemum rugosum</i>	.	.	.
Flowering Plants	Small-flowered Beetle Grass	<i>Leptochloa fusca</i> subsp. <i>fusca</i>	.	.	290874
Flowering Plants	Red Grass	<i>Mnesithea formosa</i>	.	.	.
Flowering Plants	Northern Canegrass	<i>Mnesithea rottboellioides</i>	.	.	.
Flowering Plants	Hopeless Menace	<i>Oplismenus burmanni</i>	.	.	.
Flowering Plants	Wild Rice	<i>Oryza meridionalis</i>	.	.	.
Flowering Plants	Australian Millet	<i>Panicum decompositum</i>	.	.	.
Flowering Plants	Australian Millet	<i>Panicum decompositum</i> var. <i>tenuius</i>	.	.	.
Flowering Plants	Native Panic	<i>Panicum mindanaense</i>	.	.	.
Flowering Plants	Swamp Panic	<i>Panicum paludosum</i>	.	.	.
Flowering Plants	Whistle Grass	<i>Panicum trachyrhachis</i>	.	.	.
Flowering Plants	Bunch Paspalidium	<i>Paspalidium rarum</i>	.	.	.
Flowering Plants	Paspalum	<i>Paspalum longifolium</i>	.	.	.
Flowering Plants	Scrobic	<i>Paspalum scrobiculatum</i>	.	.	.
Flowering Plants	Comet Grass	<i>Perotis rara</i>	.	.	.
Flowering Plants	Cane Grass	<i>Phragmites karka</i>	.	.	.
Flowering Plants	Black Top	<i>Pseudopogonatherum contortum</i>	.	.	.
Flowering Plants	Pseudopogonatherum	<i>Pseudopogonatherum irritans</i>	.	.	.
Flowering Plants	Spiny Mudgrass	<i>Pseudoraphis spinescens</i>	.	.	.
Flowering Plants	Itchgrass	<i>Rottboellia cochinchinensis</i>	.	.	292294
Flowering Plants	Indian Cupscale Grass	<i>Sacciolepis indica</i>	.	.	.
Flowering Plants	Cupscale Grass	<i>Sacciolepis myosuroides</i>	.	.	.
Flowering Plants	Fire Grass	<i>Schizachyrium fragile</i>	.	.	.
Flowering Plants	Fire Grass	<i>Schizachyrium pachyarthron</i>	.	.	.
Flowering Plants	Short-leaved Silk Grass	<i>Schizachyrium pseudeulalia</i>	.	.	.
Flowering Plants	White Grass	<i>Sehima nervosum</i>	.	.	.
Flowering Plants	Pigeon Grass	<i>Setaria apiculata</i>	.	.	.
Flowering Plants	Annual Sorghum	<i>Sorghum intrans</i>	.	.	.
Flowering Plants	Plume Sorghum	<i>Sorghum plumosum</i>	.	.	.
Flowering Plants	Downs Sorghum	<i>Sorghum timorense</i>	.	.	.
Flowering Plants	Sand Couch	<i>Sporobolus virginicus</i>	.	.	.
Flowering Plants	Thaumastochloa	<i>Thaumastochloa major</i>	.	.	.
Flowering Plants	Annual Kangaroo Grass	<i>Themeda arguens</i>	.	.	.
Flowering Plants	Oat Kangaroo Grass	<i>Themeda avenacea</i>	.	.	.
Flowering Plants	Kangaroo Grass	<i>Themeda triandra</i>	.	.	.
Flowering Plants	Curly Spinifex	<i>Triodia bitextura</i>	.	.	.
Flowering Plants	Tropical Signal Grass	<i>Urochloa distachya</i>	.	.	293254
Flowering Plants	Silkytop Armgrass	<i>Urochloa holosericea</i>	.	.	.
Flowering Plants	Silkytop Armgrass	<i>Urochloa holosericea</i> subsp. <i>holosericea</i>	.	.	.
Flowering Plants	Hairy Armgrass	<i>Urochloa piligera</i>	.	.	.
Flowering Plants	Large Armgrass	<i>Urochloa praetervisiva</i>	.	.	.
Flowering Plants	Armgrass Millet	<i>Urochloa pubigera</i>	.	.	.
Flowering Plants	Green Summer Grass	<i>Urochloa subquadripara</i>	.	.	293344
Flowering Plants	Whiteochloa	<i>Whiteochloa capillipes</i>	.	.	.
Flowering Plants	Rice Grass	<i>Xerochloa imberbis</i>	.	.	.
Flowering Plants	Yakirra	<i>Yakirra nulla</i>	.	.	.
Flowering Plants	Cartonema	<i>Cartonema spicatum</i>	.	.	.
Flowering Plants	Wandering Jew	<i>Commelina ensifolia</i>	.	.	.
Flowering Plants	Commelina	<i>Cyanotis axillaris</i>	.	.	.
Flowering Plants	Murdannia	<i>Murdannia gigantea</i>	.	.	.
Flowering Plants	Pink Swamp Lily	<i>Murdannia graminea</i>	.	.	.
Flowering Plants	Day Flower	<i>Murdannia vaginata</i>	.	.	291404
Flowering Plants	Monochoria	<i>Monochoria vaginalis</i>	.	.	.
Flowering Plants	Woolly Waterlily	<i>Philydrum lanuginosum</i>	.	.	.
Flowering Plants	Bloodroot	<i>Haemodorum brevicaule</i>	.	.	.
Flowering Plants	Scarlet-flowered Bloodroot	<i>Haemodorum coccineum</i>	.	.	.
Flowering Plants	Red Root	<i>Haemodorum ensifolium</i>	.	.	.

Group	Common Name	Scientific Name	NT Status	National Status	ID
Flowering Plants	Bloodroot	<i>Haemodorum parviflorum</i>	.	.	.
Flowering Plants	Pachygone	<i>Pachygone ovata</i>	.	.	.
Flowering Plants	Tape Vine	<i>Stephania japonica</i>	.	.	.
Flowering Plants	Tape Vine	<i>Stephania japonica</i> var. <i>timoriensis</i>	.	.	.
Flowering Plants	Snake Vine	<i>Tinospora smilacina</i>	.	.	.
Flowering Plants	Northern Banksia	<i>Banksia dentata</i>	.	.	.
Flowering Plants	Clothes-peg Tree	<i>Grevillea decurrens</i>	.	.	.
Flowering Plants	Dryander's Grevillea	<i>Grevillea dryandri</i>	.	.	.
Flowering Plants	Dryander's Grevillea	<i>Grevillea dryandri</i> subsp. <i>dryandri</i>	.	.	.
Flowering Plants	Prostrate Grevillea	<i>Grevillea goodii</i>	.	.	.
Flowering Plants	Fern-leaved Grevillea	<i>Grevillea pteridifolia</i>	.	.	.
Flowering Plants	Yellow Hakea	<i>Hakea arborescens</i>	.	.	.
Flowering Plants	Helicia	<i>Helicia australasica</i>	.	.	.
Flowering Plants	Milky Plum	<i>Persoonia falcata</i>	.	.	.
Flowering Plants	Stenocarpus	<i>Stenocarpus acacioides</i>	.	.	.
Flowering Plants	Beefwood	<i>Stenocarpus cunninghamii</i>	.	.	.
Flowering Plants	Guinea Flower	<i>Hibbertia</i> sp. Darwin	.	.	.
Flowering Plants	Guinea Flower	<i>Hibbertia tasmanica</i>	.	.	.
Flowering Plants	Pachynema	<i>Pachynema junceum</i>	.	.	.
Flowering Plants	Sundew	<i>Drosera brevicornis</i>	.	.	.
Flowering Plants	Burman's Sundew	<i>Drosera burmanni</i>	.	.	.
Flowering Plants	Sundew	<i>Drosera darwinensis</i>	.	.	.
Flowering Plants	Sundew	<i>Drosera falconeri</i>	.	.	.
Flowering Plants	Narrow-leaved Sundew	<i>Drosera indica</i>	.	.	.
Flowering Plants	Woolly Sundew	<i>Drosera petiolaris</i>	.	.	.
Flowering Plants	Club Mangrove	<i>Aegialitis annulata</i>	.	.	.
Flowering Plants	Smartweed	<i>Persicaria attenuata</i> subsp. <i>attenuata</i>	.	.	.
Flowering Plants	Polycarpaea	<i>Polycarpaea holtzei</i>	.	.	.
Flowering Plants	Polycarpaea	<i>Polycarpaea violacea</i>	.	.	.
Flowering Plants	Prickly Chaff Flower	<i>Achyranthes aspera</i>	.	.	.
Flowering Plants	Narrow-leaf Joyweed	<i>Alternanthera angustifolia</i>	.	.	.
Flowering Plants	Lesser Joyweed	<i>Alternanthera denticulata</i>	.	.	.
Flowering Plants	Native Amaranth	<i>Amaranthus interruptus</i>	.	.	.
Flowering Plants	Batchelor's Buttons	<i>Gomphrena canescens</i>	.	.	.
Flowering Plants	Batchelor's Buttons	<i>Gomphrena canescens</i> subsp. <i>erythrina</i>	.	.	.
Flowering Plants	Gomphrena Weed	<i>Gomphrena flaccida</i>	.	.	.
Flowering Plants	Mulla Mulla	<i>Ptilotus distans</i>	.	.	.
Flowering Plants	Queensland Seablite	<i>Suaeda arbusculoides</i>	.	.	.
Flowering Plants	Australasian Samphire	<i>Tecticornia australasica</i>	.	.	.
Flowering Plants	Brown-head Glaswort	<i>Tecticornia indica</i>	.	.	.
Flowering Plants	Samphire	<i>Tecticornia indica</i> subsp. <i>julacea</i>	.	.	.
Flowering Plants	Carpet Weed	<i>Glinus sessiliflorus</i>	DD	.	.
Flowering Plants	Carpet Weed	<i>Mollugo pentaphylla</i>	.	.	.
Flowering Plants	Parakeelya	<i>Calandrinia gracilis</i>	.	.	.
Flowering Plants	Parakeelya	<i>Calandrinia</i> sp. <i>oblong</i>	.	.	.
Flowering Plants	Parakeelya	<i>Calandrinia uniflora</i>	.	.	.
Flowering Plants	Heart Plant	<i>Portulaca bicolor</i>	.	.	.
Flowering Plants	Munyeroo	<i>Portulaca oleracea</i>	.	.	292104
Flowering Plants	Sea Purslane	<i>Sesuvium portulacastrum</i>	.	.	.
Flowering Plants	Tar Vine	<i>Boerhavia dominii</i>	.	.	.
Flowering Plants	Club-vine	<i>Pisonia aculeata</i>	.	.	.
Flowering Plants	Opilia	<i>Opilia amentacea</i>	.	.	.
Flowering Plants	Native Cherry	<i>Exocarpos latifolius</i>	.	.	.
Flowering Plants	Indian Sandalwood	<i>Santalum album</i>	.	.	.
Flowering Plants	Blood Mistletoe	<i>Amyema sanguinea</i> var. <i>pulchra</i>	.	.	.
Flowering Plants	Mistletoe	<i>Decaisnina signata</i>	.	.	.
Flowering Plants	Mistletoe	<i>Decaisnina signata</i> subsp. <i>signata</i>	.	.	.
Flowering Plants	Hairy Mistletoe	<i>Dendrophthoe odontocalyx</i>	.	.	.
Flowering Plants	Flat-leaved Mistletoe	<i>Lysiana spathulata</i>	.	.	.
Flowering Plants	Water Milfoil	<i>Myriophyllum trachycarpum</i>	.	.	.
Flowering Plants	Wild Grape	<i>Ampelocissus acetosa</i>	.	.	.
Flowering Plants	Wild Grape	<i>Ampelocissus frutescens</i>	.	.	.
Flowering Plants	Native Grape	<i>Cayratia maritima</i>	.	.	.
Flowering Plants	Native Grape	<i>Cayratia trifolia</i>	.	.	.
Flowering Plants	Large-leaved Jungle Vine	<i>Cissus reniformis</i>	.	.	.
Flowering Plants	Bandicoot Berry	<i>Leea indica</i>	.	.	.

Group	Common Name	Scientific Name	NT Status	National Status	ID
Flowering Plants	Leea	<i>Leea rubra</i>	.	.	.
Flowering Plants	White-flowered Black Mangrove	<i>Lumnitzera racemosa</i>	.	.	.
Flowering Plants	Wild Peach	<i>Terminalia carpentariae</i>	.	.	.
Flowering Plants	Billy-goat Plum	<i>Terminalia ferdinandiana</i>	.	.	.
Flowering Plants	Nut Tree	<i>Terminalia grandiflora</i>	.	.	.
Flowering Plants	Kangaroo Tucker	<i>Terminalia latipes</i>	.	.	.
Flowering Plants	Damson	<i>Terminalia microcarpa</i>	.	.	.
Flowering Plants	Wing-fruited Terminalia	<i>Terminalia pterocarya</i>	.	.	.
Flowering Plants	Ammannia	<i>Ammannia baccifera</i>	.	.	.
Flowering Plants	Rotala	<i>Rotala mexicana</i>	.	.	.
Flowering Plants	White-flowered Mangrove-apple	<i>Sonneratia alba</i>	.	.	.
Flowering Plants	White Ludwigia	<i>Ludwigia adscendens</i>	.	.	.
Flowering Plants	Seedbox	<i>Ludwigia hyssopifolia</i>	.	.	290974
Flowering Plants	Willow Primrose	<i>Ludwigia octovalvis</i>	.	.	.
Flowering Plants	Ludwigia	<i>Ludwigia perennis</i>	.	.	.
Flowering Plants	Liniment Tree	<i>Asteromyrtus symphyocarpa</i>	.	.	.
Flowering Plants	Turkey Bush	<i>Calytrix exstipulata</i>	.	.	.
Flowering Plants	Ghost Gum	<i>Corymbia bella</i>	.	.	.
Flowering Plants	Smooth-stemmed Bloodwood	<i>Corymbia bleeseri</i>	.	.	.
Flowering Plants	Roughleaf Cabbage Gum	<i>Corymbia confertiflora</i>	.	.	.
Flowering Plants	Variable-barked Bloodwood	<i>Corymbia dichromophloia</i>	.	.	.
Flowering Plants	Broad-leaved Bloodwood	<i>Corymbia foelscheana</i>	.	.	.
Flowering Plants	Round-leaved Bloodwood	<i>Corymbia latifolia</i>	.	.	.
Flowering Plants	Long-fruited Bloodwood	<i>Corymbia polycarpa</i>	.	.	.
Flowering Plants	Apple Gum	<i>Corymbia polysciada</i>	.	.	.
Flowering Plants	Grey Bloodwood	<i>Corymbia porrecta</i>	.	.	.
Flowering Plants	White Gum	<i>Eucalyptus alba</i> var. <i>australasica</i>	.	.	.
Flowering Plants	Northern Salmon Gum	<i>Eucalyptus bigalerita</i>	.	.	.
Flowering Plants	Darwin Woollybutt	<i>Eucalyptus miniata</i>	.	.	.
Flowering Plants	McArthur River Box	<i>Eucalyptus tectifera</i>	.	.	.
Flowering Plants	Darwin Stringybark	<i>Eucalyptus tetradonta</i>	.	.	.
Flowering Plants	Weeping Tea Tree	<i>Leptospermum madidum</i> subsp. <i>sativum</i>	.	.	.
Flowering Plants	Swampbox	<i>Lophostemon lactifluus</i>	.	.	.
Flowering Plants	Silver-leaved Paperbark	<i>Melaleuca argentea</i>	.	.	.
Flowering Plants	Cajuput Tree	<i>Melaleuca cajuputi</i>	.	.	.
Flowering Plants	Blue-leaved Paperbark	<i>Melaleuca dealbata</i>	.	.	.
Flowering Plants	Weeping Paperbark	<i>Melaleuca leucadendra</i>	.	.	.
Flowering Plants	Yellow-barked Paperbark	<i>Melaleuca nervosa</i>	.	.	.
Flowering Plants	Broad-leaved Paperbark	<i>Melaleuca viridiflora</i>	.	.	.
Flowering Plants	Myrtle Mangrove	<i>Osbornia octodonta</i>	.	.	.
Flowering Plants	River Apple	<i>Syzygium armstrongii</i>	.	.	.
Flowering Plants	White Apple	<i>Syzygium eucalyptoides</i> subsp. <i>bleeseri</i>	.	.	.
Flowering Plants	White Apple	<i>Syzygium eucalyptoides</i> subsp. <i>eucalyptoides</i>	.	.	.
Flowering Plants	Black Apple	<i>Syzygium nervosum</i>	.	.	.
Flowering Plants	Red Bush Apple	<i>Syzygium suborbiculare</i>	.	.	.
Flowering Plants	Cunningham's Feather-flower	<i>Verticordia cunninghamii</i>	.	.	.
Flowering Plants	Featherflower	<i>Verticordia verticillata</i>	.	.	.
Flowering Plants	Bridal Tree	<i>Xanthostemon paradoxus</i>	.	.	.
Flowering Plants	Native Lasiandra	<i>Melastoma malabathricum</i> subsp. <i>malabathricum</i>	.	.	.
Flowering Plants	Sour Plum	<i>Memecylon pauciflorum</i>	.	.	.
Flowering Plants	Osbeckia	<i>Osbeckia australiana</i>	.	.	.
Flowering Plants	Tribulopis	<i>Tribulopis pentandra</i>	.	.	.
Flowering Plants	Orange Root	<i>Denhamia obscura</i>	.	.	.
Flowering Plants	Yellowberry Bush	<i>Maytenus cunninghamii</i>	.	.	.
Flowering Plants	Matytenuis	<i>Maytenus ferdinandi</i>	.	.	.
Flowering Plants	Wiry Stackhousia	<i>Stackhousia intermedia</i>	.	.	.
Flowering Plants	Maranthes	<i>Maranthes corymbosa</i>	.	.	.
Flowering Plants	Bush Cherry	<i>Flacourtia territorialis</i>	.	.	.
Flowering Plants	Blue Spade Flower	<i>Hybanthus enneaspermus</i> subsp. <i>enneaspermus</i>	.	.	.
Flowering Plants	Lacewing Vine	<i>Adenia heterophylla</i> subsp. <i>australis</i>	.	.	.
Flowering Plants	Yellow Tulipwood	<i>Drypetes deplanchei</i>	.	.	.
Flowering Plants	Native Croton	<i>Croton arnhemicus</i>	.	.	.

Group	Common Name	Scientific Name	NT Status	National Status	ID
Flowering Plants	Croton	<i>Croton habrophyllus</i>	.	.	.
Flowering Plants	Northern Croton	<i>Croton schultzei</i>	.	.	.
Flowering Plants	Euphorbia	<i>Euphorbia armstrongiana</i>	.	.	.
Flowering Plants	Euphorbia	<i>Euphorbia muelleri</i>	.	.	.
Flowering Plants	Euphorbia	<i>Euphorbia schultzei</i>	.	.	.
Flowering Plants	Euphorbia	<i>Euphorbia vachellii</i>	.	.	.
Flowering Plants	Blind Your Eye	<i>Excoecaria ovalis</i>	.	.	.
Flowering Plants	Brown Macaranga	<i>Macaranga involucreta</i> var. <i>mallotooides</i>	.	.	.
Flowering Plants	Yellow Ball Flower	<i>Mallotus nesophilus</i>	.	.	.
Flowering Plants	Red Kamala	<i>Mallotus philippensis</i>	.	.	.
Flowering Plants	Striped Seed Plant	<i>Sebastiania chamaelea</i>	.	.	.
Flowering Plants	Black Currant Bush	<i>Antidesma ghesaembilla</i>	.	.	.
Flowering Plants	Breynia	<i>Breynia cernua</i>	.	.	.
Flowering Plants	Pop-gun Seed	<i>Bridelia tomentosa</i>	.	.	.
Flowering Plants	White Currant	<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	.	.	.
Flowering Plants	Buttonwood	<i>Glochidion sumatranum</i>	.	.	.
Flowering Plants	Little Cheeses	<i>Glochidion xerocarpum</i>	.	.	.
Flowering Plants	Phyllanthus	<i>Phyllanthus eutaxioides</i>	.	.	.
Flowering Plants	Phyllanthus	<i>Phyllanthus exilis</i>	.	.	.
Flowering Plants	Phyllanthus	<i>Phyllanthus flagellaris</i>	.	.	.
Flowering Plants	Phyllanthus	<i>Phyllanthus minutiflorus</i>	.	.	.
Flowering Plants	Phyllanthus	<i>Phyllanthus reticulatus</i>	.	.	.
Flowering Plants	Phyllanthus	<i>Phyllanthus urinaria</i>	.	.	.
Flowering Plants	Seed-under-leaf	<i>Phyllanthus virgatus</i>	.	.	.
Flowering Plants	Poaranthera	<i>Poaranthera coerulea</i>	DD	.	.
Flowering Plants	Sauropus	<i>Sauropus brunonis</i>	.	.	.
Flowering Plants	Sauropus	<i>Sauropus dunlopianus</i>	.	.	.
Flowering Plants	Sauropus	<i>Sauropus glaucus</i>	.	.	.
Flowering Plants	Sauropus	<i>Sauropus ochrophyllus</i>	.	.	.
Flowering Plants	Sauropus	<i>Sauropus paucifolius</i>	.	.	.
Flowering Plants	Quinine Tree	<i>Petalostigma pubescens</i>	.	.	.
Flowering Plants	Quinine Bush	<i>Petalostigma quadriloculare</i>	.	.	.
Flowering Plants	Native Beauty Leaf	<i>Calophyllum sil</i>	.	.	.
Flowering Plants	Beauty Leaf	<i>Calophyllum soulattri</i>	.	.	.
Flowering Plants	Red Mangrove	<i>Bruguiera exaristata</i>	.	.	.
Flowering Plants	Orange Mangrove	<i>Bruguiera gymnorhiza</i>	.	.	.
Flowering Plants	Slender-fruited Mangrove	<i>Bruguiera parviflora</i>	.	.	.
Flowering Plants	Billabong Tree	<i>Carallia brachiata</i>	.	.	.
Flowering Plants	Smooth-fruited Spurred Mangrove	<i>Ceriops australis</i>	.	.	.
Flowering Plants	Orange Mangrove	<i>Ceriops tagal</i>	.	.	.
Flowering Plants	Stilt Mangrove	<i>Rhizophora stylosa</i>	.	.	.
Flowering Plants	Arnhem Land Quandong	<i>Elaeocarpus arnhemicus</i>	.	.	.
Flowering Plants	Crab's Eye	<i>Abrus precatorius</i> subsp. <i>precatorius</i>	.	.	.
Flowering Plants	Needle-leaved Wattle	<i>Acacia alleniana</i>	.	.	.
Flowering Plants	Northern Black Wattle	<i>Acacia auriculiformis</i>	.	.	.
Flowering Plants	River Wattle	<i>Acacia difficilis</i>	.	.	.
Flowering Plants	Swamp Wattle	<i>Acacia dimidiata</i>	.	.	.
Flowering Plants	Elephant Ear Wattle	<i>Acacia dunnii</i>	.	.	.
Flowering Plants	Candelabra Wattle	<i>Acacia holosericea</i>	.	.	.
Flowering Plants	Hickory Wattle	<i>Acacia lamprocarpa</i>	.	.	.
Flowering Plants	Ball Wattle	<i>Acacia latescens</i>	.	.	.
Flowering Plants	Flat Wattle	<i>Acacia latifolia</i>	.	.	.
Flowering Plants	Wattle	<i>Acacia mimula</i>	.	.	.
Flowering Plants	Wattle	<i>Acacia oncinocarpa</i>	.	.	.
Flowering Plants	Soap Bush	<i>Acacia pellita</i>	.	.	.
Flowering Plants	Wattle	<i>Acacia plectocarpa</i>	.	.	.
Flowering Plants	Wattle	<i>Acacia praelongata</i>	.	.	.
Flowering Plants	Red Bead Tree	<i>Adenantha pavonina</i>	.	.	.
Flowering Plants	Indian Siris	<i>Albizia lebbek</i>	.	.	.
Flowering Plants	Forest Siris	<i>Albizia procera</i>	.	.	.
Flowering Plants	Alyce Clover	<i>Alysicarpus schomburgkii</i>	.	.	.
Flowering Plants	Austrodolichos	<i>Austrodolichos errabundus</i>	.	.	.
Flowering Plants	Pigeon-pea	<i>Cajanus geminatus</i>	.	.	.
Flowering Plants	Wild Jack Bean	<i>Canavalia papuana</i>	.	.	.
Flowering Plants	Coastal Jack Bean	<i>Canavalia rosea</i>	.	.	.
Flowering Plants	Hairy Cassia	<i>Chamaecrista absus</i>	.	.	289214
Flowering Plants	Five-leafed Cassia	<i>Chamaecrista mimosoides</i>	.	.	.
Flowering Plants	Cassia	<i>Chamaecrista nomame</i>	.	.	.
Flowering Plants	Clitoria	<i>Clitoria australis</i>	.	.	.

Group	Common Name	Scientific Name	NT Status	National Status	ID
Flowering Plants	Rattlepod	<i>Crotalaria brevis</i>	.	.	.
Flowering Plants	Trefoil Rattlepod	<i>Crotalaria medicaginea</i>	.	.	.
Flowering Plants	Trefoil Rattlepod	<i>Crotalaria medicaginea</i> var. <i>medicaginea</i>	.	.	.
Flowering Plants	Rattlepod	<i>Crotalaria montana</i>	.	.	.
Flowering Plants	Rattlepod	<i>Crotalaria montana</i> var. <i>angustifolia</i>	.	.	.
Flowering Plants	Annual Birdflower	<i>Crotalaria quinquefolia</i>	.	.	.
Flowering Plants	Wedge-leaved Rattlepod	<i>Crotalaria retusa</i>	.	.	289704
Flowering Plants	Cyclocarpa	<i>Cyclocarpa stellaris</i>	.	.	289784
Flowering Plants	Dalbergia	<i>Dalbergia candenatensis</i>	.	.	.
Flowering Plants	Dendrolobium	<i>Dendrolobium multiflorum</i>	.	.	.
Flowering Plants	Tick-trefoil	<i>Desmodium brownii</i>	.	.	.
Flowering Plants	Tick-trefoil	<i>Desmodium filiforme</i>	.	.	.
Flowering Plants	Tick-trefoil	<i>Desmodium glareosum</i>	.	.	.
Flowering Plants	Tick-trefoil	<i>Desmodium heterocarpon</i> var. <i>strigosum</i>	.	.	.
Flowering Plants	Tick-trefoil	<i>Desmodium muelleri</i>	.	.	.
Flowering Plants	Tick-trefoil	<i>Desmodium pullenii</i>	.	.	.
Flowering Plants	Tick-trefoil	<i>Desmodium pycnotrichum</i>	.	.	.
Flowering Plants	Tick-trefoil	<i>Desmodium trichostachyum</i>	.	.	.
Flowering Plants	Dunbaria	<i>Dunbaria rotundifolia</i>	.	.	.
Flowering Plants	Dunbaria	<i>Dunbaria singuliflora</i>	.	.	.
Flowering Plants	Bush Carrot	<i>Eriosema chinense</i>	.	.	.
Flowering Plants	Northern Ironwood	<i>Erythrophleum</i> <i>chlorostachys</i>	.	.	.
Flowering Plants	Flemingia	<i>Flemingia parviflora</i>	.	.	.
Flowering Plants	Flemingia	<i>Flemingia pauciflora</i>	.	.	.
Flowering Plants	Galactia	<i>Galactia megalophylla</i>	.	.	.
Flowering Plants	Mueller's Pea	<i>Galactia muelleri</i>	.	.	.
Flowering Plants	Poison Pea	<i>Galactia tenuiflora</i>	.	.	.
Flowering Plants	Small-flower Indigo	<i>Indigostrum parviflorum</i>	.	.	.
Flowering Plants	Native Indigo	<i>Indigofera linifolia</i>	.	.	.
Flowering Plants	Indigo	<i>Indigofera trifoliata</i>	.	.	.
Flowering Plants	Cladode Pea	<i>Jacksonia dilatata</i>	.	.	.
Flowering Plants	Indian Beech	<i>Milletia pinnata</i>	.	.	.
Flowering Plants	Burny Bean	<i>Mucuna gigantea</i> subsp. <i>gigantea</i>	.	.	.
Flowering Plants	Native Sensitive Plant	<i>Neptunia gracilis</i>	.	.	.
Flowering Plants	Yellow Flame Tree	<i>Peltophorum pterocarpum</i>	.	.	291814
Flowering Plants	Pycnospora	<i>Pycnospora lutescens</i>	.	.	.
Flowering Plants	Native Rock Trefoil	<i>Rhynchosia australis</i>	.	.	.
Flowering Plants	Native Pea	<i>Rhynchosia minima</i>	.	.	.
Flowering Plants	Scrambled Egg Plant	<i>Senna surattensis</i>	.	.	.
Flowering Plants	Yellow Pea-bush	<i>Sesbania cannabina</i>	.	.	.
Flowering Plants	Smithia	<i>Smithia conferta</i>	.	.	.
Flowering Plants	Tephrosia	<i>Tephrosia bifacialis</i>	.	.	.
Flowering Plants	Small Pink Pea Bush	<i>Tephrosia juncea</i>	.	.	.
Flowering Plants	Tephrosia	<i>Tephrosia lamproloboides</i>	.	.	.
Flowering Plants	Tephrosia	<i>Tephrosia nematophylla</i>	.	.	.
Flowering Plants	Purple Clover-weed	<i>Uraria lagopodioides</i>	.	.	.
Flowering Plants	Vigna	<i>Vigna adenantha</i>	.	.	.
Flowering Plants	Maloga Bean	<i>Vigna lanceolata</i>	.	.	.
Flowering Plants	Maloga Bean	<i>Vigna lanceolata</i> var. <i>filiformis</i>	.	.	.
Flowering Plants	Mung Bean	<i>Vigna radiata</i> var. <i>sublobata</i>	.	.	.
Flowering Plants	Medicine Bean	<i>Vigna vexillata</i>	.	.	.
Flowering Plants	Medicine Bean	<i>Vigna vexillata</i> var. <i>angustifolia</i>	.	.	.
Flowering Plants	Medicine Bean	<i>Vigna vexillata</i> var. <i>vexillata</i>	.	.	.
Flowering Plants	Zornia	<i>Zornia acuta</i>	DD	.	.
Flowering Plants	Zornia	<i>Zornia prostrata</i>	.	.	.
Flowering Plants	Milkwort	<i>Polygala exsuarrosa</i>	.	.	.
Flowering Plants	Milkwort	<i>Polygala longifolia</i>	.	.	.
Flowering Plants	Milkwort	<i>Polygala</i> sp. <i>winged fruit</i>	.	.	.
Flowering Plants	Milkwort	<i>Polygala triflora</i>	.	.	.
Flowering Plants	Salomonina	<i>Salomonina ciliata</i>	.	.	.
Flowering Plants	Red Ash	<i>Alphitonia excelsa</i>	.	.	.
Flowering Plants	Hairy Sarsaparilla	<i>Alphitonia oblata</i>	.	.	.
Flowering Plants	Wine Jujube	<i>Ziziphus oenopolia</i>	.	.	.
Flowering Plants	Celtis	<i>Celtis philippensis</i>	.	.	.
Flowering Plants	Peach-leaved Poison-bush	<i>Trema tomentosa</i>	.	.	.

Group	Common Name	Scientific Name	NT Status	National Status	ID
Flowering Plants	Antiaris	<i>Antiaris toxicaria</i> var. <i>macrophylla</i>	.	.	.
Flowering Plants	Native Jackfruit	<i>Artocarpus glaucus</i>	.	.	.
Flowering Plants	Sandpaper Fig	<i>Ficus aculeata</i> var. <i>orbicularis</i>	.	.	.
Flowering Plants	Small-leaved Rock Fig	<i>Ficus brachypoda</i>	.	.	.
Flowering Plants	Cluster Fig	<i>Ficus congesta</i>	.	.	.
Flowering Plants	White Sandpaper Fig	<i>Ficus hispida</i>	.	.	.
Flowering Plants	Sandpaper Fig	<i>Ficus scobina</i>	.	.	.
Flowering Plants	Banyan	<i>Ficus virens</i>	.	.	.
Flowering Plants	Banyan	<i>Ficus virens</i> var. <i>virens</i>	.	.	.
Flowering Plants	Burny Vine	<i>Trophis scandens</i> subsp. <i>scandens</i>	.	.	.
Flowering Plants	Ivy Gourd	<i>Coccoloba grandis</i>	.	.	289524
Flowering Plants	Loofah	<i>Luffa aegyptiaca</i>	.	.	.
Flowering Plants	Coastal She-Oak	<i>Casuarina equisetifolia</i>	.	.	289054
Flowering Plants	Batis	<i>Batis argillicola</i>	.	.	.
Flowering Plants	Native Caper	<i>Capparis sepiaria</i>	.	.	.
Flowering Plants	Northern Wild Orange	<i>Capparis umbonata</i>	.	.	.
Flowering Plants	Spiderflower	<i>Cleome tetrandra</i>	.	.	.
Flowering Plants	Kapok Bush	<i>Cochlospermum fraseri</i>	.	.	.
Flowering Plants	Native Rosella	<i>Abelmoschus moschatus</i> subsp. <i>tuberosus</i>	.	.	.
Flowering Plants	Indian Lantern-flower	<i>Abutilon indicum</i>	.	.	.
Flowering Plants	Berya	<i>Berya javanica</i>	.	.	.
Flowering Plants	Kapok Tree	<i>Bombax ceiba</i>	.	.	.
Flowering Plants	Northern Kurrajong	<i>Brachychiton diversifolius</i> subsp. <i>diversifolius</i>	.	.	.
Flowering Plants	Red-flowered Kurrajong	<i>Brachychiton megaphyllus</i>	.	.	.
Flowering Plants	Red-flowering Kurrajong	<i>Brachychiton paradoxus</i>	.	.	.
Flowering Plants	Kapok Mangrove	<i>Campostemon schultzei</i>	.	.	.
Flowering Plants	Grubweed	<i>Corchorus aestuans</i>	.	.	.
Flowering Plants	Coffee Fruit	<i>Grewia breviflora</i>	.	.	.
Flowering Plants	Dog`s Balls	<i>Grewia oxyphylla</i>	.	.	.
Flowering Plants	Emu Berries	<i>Grewia retusifolia</i>	.	.	.
Flowering Plants	Helicteres	<i>Helicteres dentata</i> var. <i>dentata</i>	.	.	.
Flowering Plants	Helicteres	<i>Helicteres hirsuta</i>	.	.	.
Flowering Plants	Spiral Bush	<i>Helicteres isora</i>	.	.	.
Flowering Plants	Helicteres	<i>Helicteres</i> sp. <i>Darwin</i>	.	.	.
Flowering Plants	Ballerina Hibiscus	<i>Hibiscus meraukensis</i>	.	.	.
Flowering Plants	Beach Hibiscus	<i>Hibiscus tiliaceus</i>	.	.	.
Flowering Plants	Spiny Sida	<i>Sida spinosa</i>	.	.	292614
Flowering Plants	Sterculia	<i>Sterculia holtzei</i>	.	.	.
Flowering Plants	Peanut Tree	<i>Sterculia quadrifida</i>	.	.	.
Flowering Plants	Pacific Rosewood	<i>Thespesia populneoides</i>	.	.	.
Flowering Plants	Mallow	<i>Thespesia thespesioides</i>	.	.	.
Flowering Plants	Burr	<i>Urena armitiana</i> var. <i>spenceri</i>	.	.	.
Flowering Plants	Pink-flowered Burr	<i>Urena lobata</i>	.	.	293234
Flowering Plants	Waltheria	<i>Waltheria indica</i>	.	.	.
Flowering Plants	Red Wax Plant	<i>Thecanthes punicea</i>	.	.	.
Flowering Plants	Soapberry	<i>Allophylus cobbe</i>	.	.	.
Flowering Plants	Whitewood	<i>Atalaya hemiglaucula</i>	.	.	.
Flowering Plants	Wing-leaf Whitewood	<i>Atalaya variifolia</i>	.	.	.
Flowering Plants	Tuckeroo	<i>Cupaniopsis anacardioides</i>	.	.	.
Flowering Plants	False Hopbush	<i>Distichostemon hispidulus</i>	.	.	.
Flowering Plants	Hop Bush	<i>Dodonaea platyptera</i>	.	.	.
Flowering Plants	Scaly Ash	<i>Ganophyllum falcatum</i>	.	.	.
Flowering Plants	Mango Bark	<i>Canarium australicum</i>	.	.	.
Flowering Plants	Bush Currant	<i>Buchanania arborescens</i>	.	.	.
Flowering Plants	Green Plum	<i>Buchanania obovata</i>	.	.	.
Flowering Plants	Native Mahogany	<i>Dysoxylum acutangulum</i> subsp. <i>foveolatum</i>	.	.	.
Flowering Plants	Vavaea	<i>Vavaea australiana</i>	.	.	.
Flowering Plants	Boronia	<i>Boronia lanceolata</i>	.	.	.
Flowering Plants	Pink Lime	<i>Glycosmis trifoliata</i>	.	.	.
Flowering Plants	Pink Evodia	<i>Melicope elleryana</i>	.	.	.
Flowering Plants	Lime Berry	<i>Micromelum minutum</i>	.	.	.
Flowering Plants	Freshwater Mangrove	<i>Barringtonia acutangula</i> subsp. <i>acutangula</i>	.	.	.
Flowering Plants	Cocky Apple	<i>Planchonia careya</i>	.	.	.
Flowering Plants	Iron Tree	<i>Diospyros calycantha</i>	.	.	.

Group	Common Name	Scientific Name	NT Status	National Status	ID
Flowering Plants	Iron Tree	<i>Diospyros compacta</i>	.	.	.
Flowering Plants	Native Ebony	<i>Diospyros littorea</i>	.	.	.
Flowering Plants	Iron Tree	<i>Diospyros rugosula</i>	.	.	.
Flowering Plants	River Mangrove	<i>Aegiceras corniculatum</i>	.	.	.
Flowering Plants	Embelia	<i>Embelia curvinervia</i>	.	.	.
Flowering Plants	Red Condo	<i>Mimusops elengi</i>	.	.	.
Flowering Plants	Yellow Boxwood	<i>Pouteria arnhemica</i>	.	.	.
Flowering Plants	Wild Prune	<i>Pouteria sericea</i>	.	.	.
Flowering Plants	Coldenia	<i>Coldenia procumbens</i>	.	.	.
Flowering Plants	Cordia	<i>Cordia dichotoma</i>	.	.	.
Flowering Plants	Sea Trumpet	<i>Cordia subcordata</i>	.	.	.
Flowering Plants	Heliotrope	<i>Heliotropium bracteatum</i>	.	.	.
Flowering Plants	Devil's Son	<i>Heliotropium tenuifolium</i>	.	.	.
Flowering Plants	White Heliotrope	<i>Heliotropium ventricosum</i>	.	.	.
Flowering Plants	Archer Cherry	<i>Aidia racemosa</i>	.	.	.
Flowering Plants	Cyclophyllum	<i>Cyclophyllum schultzii</i>	.	.	.
Flowering Plants	Cyclophyllum	<i>Cyclophyllum schultzii f. angustifolium</i>	.	.	.
Flowering Plants	Bedstraw	<i>Dentella dioeca</i>	.	.	.
Flowering Plants	Bedstraw	<i>Dentella repens</i>	.	.	.
Flowering Plants	Native Gardenia	<i>Gardenia megasperma</i>	.	.	.
Flowering Plants	Native Gardenia	<i>Gardenia schwarzii</i>	.	.	.
Flowering Plants	Gynochthodes	<i>Gynochthodes sp. Docherty Hills</i>	.	.	.
Flowering Plants	Native Ixora	<i>Ixora timorensis</i>	.	.	.
Flowering Plants	Native Gardenia	<i>Kailarsenia suffruticosa</i>	.	.	.
Flowering Plants	Knoxia	<i>Knoxia stricta</i>	.	.	.
Flowering Plants	Rotten Cheese Fruit	<i>Morinda citrifolia</i>	.	.	.
Flowering Plants	Leichhardt Tree	<i>Nauclea orientalis</i>	.	.	.
Flowering Plants	Oldenlandia	<i>Oldenlandia galioides</i>	.	.	.
Flowering Plants	Oldenlandia	<i>Oldenlandia mitrasacmoides</i>	.	.	.
Flowering Plants	Oldenlandia	<i>Oldenlandia mitrasacmoides subsp. mitrasacmoides</i>	.	.	.
Flowering Plants	Oldenlandia	<i>Oldenlandia tenuifolia</i>	.	.	.
Flowering Plants	Native Ixora	<i>Pavetta brownii var. brownii</i>	.	.	.
Flowering Plants	Medicine Bush	<i>Pogonolobus reticulatus</i>	.	.	.
Flowering Plants	Gabu	<i>Psychotria nesophila</i>	.	.	.
Flowering Plants	Shiny-leaved Canthium	<i>Psydrax odorata subsp. arnhemica</i>	.	.	.
Flowering Plants	Buttonweed	<i>Spermacoce breviflora</i>	.	.	.
Flowering Plants	Buttonweed	<i>Spermacoce calliantha</i>	.	.	.
Flowering Plants	Silver-blue Buttonweed	<i>Spermacoce leptoloba</i>	.	.	.
Flowering Plants	Buttonweed	<i>Spermacoce phalloides</i>	DD	.	.
Flowering Plants	Blue Buttonweed	<i>Spermacoce stenophylla</i>	.	.	.
Flowering Plants	Swizzle Bush	<i>Timonius timon</i>	.	.	.
Flowering Plants	Canscora	<i>Canscora diffusa</i>	.	.	.
Flowering Plants	Mitre Plant	<i>Mitrasacme aggregata</i>	.	.	.
Flowering Plants	Mitre Plant	<i>Mitrasacme connata</i>	.	.	.
Flowering Plants	White Flood Plant	<i>Mitrasacme exserta</i>	.	.	.
Flowering Plants	Mitre Plant	<i>Mitrasacme gentianeae</i>	.	.	.
Flowering Plants	Mitre Plant	<i>Mitrasacme glaucescens</i>	.	.	.
Flowering Plants	Mitre Plant	<i>Mitrasacme latiflora</i>	.	.	.
Flowering Plants	Mitre Plant	<i>Mitrasacme multicaulis</i>	.	.	.
Flowering Plants	Mitre Plant	<i>Mitrasacme nudicaulis</i>	.	.	.
Flowering Plants	Mitre Plant	<i>Mitrasacme nummularia</i>	.	.	.
Flowering Plants	Mitre Plant	<i>Mitrasacme retroloba</i>	.	.	.
Flowering Plants	Mitre Plant	<i>Mitrasacme secedens</i>	DD	.	.
Flowering Plants	Mitre Plant	<i>Mitrasacme subvolubilis</i>	.	.	.
Flowering Plants	Strychnine Tree	<i>Strychnos lucida</i>	.	.	.
Flowering Plants	Milkwood	<i>Alstonia actinophylla</i>	.	.	.
Flowering Plants	Chainfruit	<i>Alyxia spicata</i>	.	.	.
Flowering Plants	Bally Yam	<i>Brachystelma glabriflorum</i>	.	.	.
Flowering Plants	Mangrove Creeper	<i>Cynanchum carnosum</i>	.	.	.
Flowering Plants	Milkvine	<i>Cynanchum liebianum</i>	DD	.	.
Flowering Plants	Gymnanthera	<i>Gymnanthera oblonga</i>	.	.	.
Flowering Plants	Ichnocarpus	<i>Ichnocarpus frutescens</i>	.	.	.
Flowering Plants	Milkvine	<i>Marsdenia geminata</i>	.	.	.
Flowering Plants	Milkvine	<i>Marsdenia glandulifera</i>	.	.	.
Flowering Plants	Milkvine	<i>Marsdenia trinervis</i>	.	.	.
Flowering Plants	Bush Banana	<i>Marsdenia viridiflora subsp. tropica</i>	.	.	.
Flowering Plants	Hairy Silkpod	<i>Parsonsia velutina</i>	.	.	.
Flowering Plants	Caustic Vine	<i>Sarcostemma viminale</i>	.	.	.

Group	Common Name	Scientific Name	NT Status	National Status	ID
Flowering Plants	Corky Milk Vine	<i>Secamone elliptica</i>	.	.	.
Flowering Plants	Iodine Plant	<i>Tabernaemontana orientalis</i>	.	.	.
Flowering Plants	Tylophora	<i>Tylophora erecta</i>	.	.	.
Flowering Plants	Tylophora	<i>Tylophora flexuosa</i>	.	.	.
Flowering Plants	Wrightia	<i>Wrightia pubescens</i> subsp. <i>pubescens</i>	.	.	.
Flowering Plants	Milk Bush	<i>Wrightia saligna</i>	.	.	.
Flowering Plants	Wild Gooseberry	<i>Physalis angulata</i>	.	.	291984
Flowering Plants	Wild Tomato	<i>Solanum echinatum</i>	.	.	.
Flowering Plants	White Jacket	<i>Aniseia martinicensis</i>	.	.	.
Flowering Plants	Bonamia	<i>Bonamia brevifolia</i>	.	.	.
Flowering Plants	Erycibe	<i>Erycibe coccinea</i>	.	.	.
Flowering Plants	Blue Periwinkle	<i>Evolvulus alsinoides</i>	.	.	.
Flowering Plants	Cow-vine	<i>Ipomoea abrupta</i>	.	.	.
Flowering Plants	Cow-vine	<i>Ipomoea coptica</i>	.	.	.
Flowering Plants	Cow-vine	<i>Ipomoea diversifolia</i>	.	.	.
Flowering Plants	Small Pink Convolvulus	<i>Ipomoea eriocarpa</i>	.	.	.
Flowering Plants	Mallamak	<i>Ipomoea graminea</i>	.	.	.
Flowering Plants	Native Woodrose	<i>Ipomoea macrantha</i>	.	.	.
Flowering Plants	Goatsfoot Creeper	<i>Ipomoea pes-caprae</i> subsp. <i>brasiliensis</i>	.	.	.
Flowering Plants	Silky Cow-vine	<i>Ipomoea polymorpha</i>	.	.	.
Flowering Plants	Snake Stem	<i>Jacquemontia browniana</i>	.	.	.
Flowering Plants	Jacquemontia	<i>Jacquemontia</i> sp. Douglas <i>Daly</i>	DD	.	.
Flowering Plants	Merremia	<i>Merremia gemella</i>	.	.	.
Flowering Plants	Creeping Polymeria	<i>Polymeria ambigua</i>	.	.	.
Flowering Plants	Morning Vine	<i>Xenostegia tridentata</i>	.	.	.
Flowering Plants	Native Jasmine	<i>Jasminum aemulum</i>	.	.	.
Flowering Plants	Native Jasmine	<i>Jasminum didymum</i> subsp. <i>didymum</i>	.	.	.
Flowering Plants	Mock-Olive	<i>Notelaea</i> sp. Elcho Island	.	.	.
Flowering Plants	Mangrove	<i>Avicennia integra</i>	.	.	.
Flowering Plants	White Mangrove	<i>Avicennia marina</i> var. <i>eucalyptifolia</i>	.	.	.
Flowering Plants	Blue Trumpet	<i>Brunoniella australis</i>	.	.	.
Flowering Plants	Hygrophila	<i>Hygrophila angustifolia</i>	.	.	.
Flowering Plants	Rosy Hypoestes	<i>Hypoestes floribunda</i>	.	.	.
Flowering Plants	Whistling Tree	<i>Dolichandrone filiformis</i>	.	.	.
Flowering Plants	Flowers of Magic	<i>Clerodendrum costatum</i>	.	.	.
Flowering Plants	Smooth Spiderbush	<i>Clerodendrum floribundum</i>	.	.	.
Flowering Plants	Scrambling Clerodendrum	<i>Clerodendrum inerme</i>	.	.	.
Flowering Plants	Clerodendrum	<i>Clerodendrum tatei</i>	.	.	.
Flowering Plants	Dalrymple's White Beech	<i>Gmelina schlechteri</i>	.	.	.
Flowering Plants	Huxleya	<i>Huxleya linifolia</i>	.	.	.
Flowering Plants	Mintbush	<i>Plectranthus scutellarioides</i>	.	.	.
Flowering Plants	Pogo	<i>Pogostemon stellatus</i>	.	.	.
Flowering Plants	Premna	<i>Premna acuminata</i>	.	.	.
Flowering Plants	Premna	<i>Premna odorata</i>	.	.	.
Flowering Plants	Creek Premna	<i>Premna serratifolia</i>	.	.	.
Flowering Plants	Cheeky Black Plum	<i>Vitex acuminata</i>	.	.	.
Flowering Plants	Black Plum	<i>Vitex glabrata</i>	.	.	.
Flowering Plants	Monkey-flower	<i>Mimulus uvedaliae</i>	.	.	.
Flowering Plants	Monkey-flower	<i>Mimulus uvedaliae</i> var. <i>uvedaliae</i>	.	.	.
Flowering Plants	Dwarf Peplidium	<i>Peplidium maritimum</i>	.	.	.
Flowering Plants	Blackrod	<i>Buchnera gracilis</i>	.	.	.
Flowering Plants	Dainty Bush Flower	<i>Buchnera linearis</i>	.	.	.
Flowering Plants	Swamp Foxglove	<i>Centranthera</i> <i>cochinchinensis</i>	.	.	.
Flowering Plants	Limnophila	<i>Limnophila chinensis</i>	.	.	.
Flowering Plants	Limnophila	<i>Limnophila fragrans</i>	.	.	.
Flowering Plants	Bluerod	<i>Stemodia lythrifolia</i>	.	.	.
Flowering Plants	Witchweed	<i>Striga curviflora</i>	.	.	.
Flowering Plants	Lindernia	<i>Lindernia aplectra</i>	.	.	.
Flowering Plants	Fringed False Pimpernel	<i>Lindernia ciliata</i>	.	.	290934
Flowering Plants	Lindernia	<i>Lindernia clausa</i>	.	.	.
Flowering Plants	Lindernia	<i>Lindernia lobelioides</i>	.	.	.
Flowering Plants	Lindernia	<i>Lindernia scapigera</i>	.	.	.
Flowering Plants	Lindernia	<i>Lindernia</i> sp. Mount Bunday	.	.	.
Flowering Plants	Lindernia	<i>Lindernia tenuifolia</i>	.	.	.
Flowering Plants	Golden Bladderwort	<i>Utricularia aurea</i>	.	.	.
Flowering Plants	Blue Bladderwort	<i>Utricularia caerulea</i>	.	.	.

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Flowering Plants	Bladderwort	<i>Utricularia capilliflora</i>	.	.	.
Flowering Plants	Golden Bladderwort	<i>Utricularia chrysantha</i>	.	.	.
Flowering Plants	Bladderwort	<i>Utricularia gibba</i>	.	.	.
Flowering Plants	Bladderwort	<i>Utricularia kimberleyensis</i>	.	.	.
Flowering Plants	Bladderwort	<i>Utricularia lasiocaulis</i>	.	.	.
Flowering Plants	Bladderwort	<i>Utricularia leptoplectra</i>	.	.	.
Flowering Plants	Bladderwort	<i>Utricularia leptorhyncha</i>	.	.	.
Flowering Plants	Bladderwort	<i>Utricularia muelleri</i>	.	.	.
Flowering Plants	Bladderwort	<i>Utricularia odorata</i>	.	.	.
Flowering Plants	Bladderwort	<i>Utricularia sp. small white</i>	.	.	.
Flowering Plants	Byblis	<i>Byblis aquatica</i>	.	.	.
Flowering Plants	Flypaper Trap	<i>Byblis liniflora</i>	.	.	.
Flowering Plants	Wild Parsnip	<i>Trachymene didisoides</i>	.	.	.
Flowering Plants	Lace Flower	<i>Trachymene rotundifolia</i>	.	.	.
Flowering Plants	Auranticarpa	<i>Auranticarpa melanosperma</i>	.	.	.
Flowering Plants	Pittosporum	<i>Pittosporum moluccanum</i>	.	.	.
Flowering Plants	Trigger Plant	<i>Stylidium candelabrum</i>	.	.	.
Flowering Plants	Trigger Plant	<i>Stylidium ceratophorum</i>	.	.	.
Flowering Plants	Trigger Plant	<i>Stylidium cordifolium</i>	.	.	.
Flowering Plants	Trigger Plant	<i>Stylidium ensatum</i>	DD	.	.
Flowering Plants	Trigger Plant	<i>Stylidium ericksoniae</i>	.	.	.
Flowering Plants	Trigger Plant	<i>Stylidium longicornu</i>	.	.	.
Flowering Plants	Rosette Trigger Plant	<i>Stylidium multiscapum</i>	.	.	.
Flowering Plants	Trigger Plant	<i>Stylidium muscicola</i>	.	.	.
Flowering Plants	Trigger Plant	<i>Stylidium schizanthum</i>	.	.	.
Flowering Plants	Trigger Plant	<i>Stylidium tenerrimum</i>	DD	.	.
Flowering Plants	Trigger Plant	<i>Stylidium turbinatum</i>	.	.	.
Flowering Plants	Marshwort	<i>Nymphoides aurantiaca</i>	.	.	.
Flowering Plants	Marshwort	<i>Nymphoides minima</i>	.	.	.
Flowering Plants	Marshwort	<i>Nymphoides parvifolia</i>	.	.	.
Flowering Plants	Marshwort	<i>Nymphoides subacuta</i>	.	.	.
Flowering Plants	Narrow-leaved Goodenia	<i>Goodenia armstrongiana</i>	.	.	.
Flowering Plants	Goodenia	<i>Goodenia holtzeana</i>	.	.	.
Flowering Plants	Goodenia	<i>Goodenia neglecta</i>	.	.	.
Flowering Plants	Goodenia	<i>Goodenia paludicola</i>	.	.	.
Flowering Plants	Goodenia	<i>Goodenia porphyrea</i>	.	.	.
Flowering Plants	Goodenia	<i>Goodenia pumilio</i>	.	.	.
Flowering Plants	Goodenia	<i>Goodenia purpurascens</i>	.	.	.
Flowering Plants	Goodenia	<i>Goodenia sp. Melville Island</i>	.	.	.
Flowering Plants	Pipe Tree	<i>Scaevola taccada</i>	.	.	.
Flowering Plants	Adenostemma	<i>Adenostemma lavenia</i>	.	.	.
Flowering Plants	Parrot Daisy	<i>Allopterigeron filifolius</i>	.	.	.
Flowering Plants	Cobbler's Pegs	<i>Bidens bipinnata</i>	.	.	288764
Flowering Plants	Daisy	<i>Blumea saxatilis</i>	.	.	.
Flowering Plants	Sneezeweed	<i>Centipeda nidiformis</i>	.	.	.
Flowering Plants	Vernonia	<i>Cyanthillium cinereum</i>	.	.	.
Flowering Plants	White Twin-heads	<i>Eclipta prostrata</i>	.	.	.
Flowering Plants	Twin-heads	<i>Eclipta sp. Gove</i>	.	.	.
Flowering Plants	Minnie Daisy	<i>Minuria macrorhiza</i>	.	.	.
Flowering Plants	Pleurocarpaea	<i>Pleurocarpaea denticulata</i>	.	.	.
Flowering Plants	Fruit Salad Bush	<i>Pterocaulon serrulatum</i>	.	.	.
Flowering Plants	Fruit Salad Bush	<i>Pterocaulon serrulatum var. serrulatum</i>	.	.	.
Flowering Plants	Spreading Nut-heads	<i>Sphaeromorphaea australis</i>	.	.	.
Flowering Plants	Daisy	<i>Wedelia cunninghamii</i>	.	.	.
Insects	Atlas Moth	<i>Attacus wardi</i>	EN	.	183182
Fish	Dwarf Sawfish	<i>Pristis clavata</i>	VU	.	176943
Fish	Green Sawfish	<i>Pristis zijsron</i>	VU	VU	176965
Frogs	Marbled Frog	<i>Limnodynastes convexiusculus</i>	.	.	.
Frogs	Ornate Burrowing Frog	<i>Opisthodon ornatus</i>	DD	.	.
Frogs	Bilingual Froglet	<i>Crinia bilingua</i>	.	.	.
Frogs	Remote Froglet	<i>Crinia remota</i>	.	.	.
Frogs	Floodplain Toadlet	<i>Uperoleia inundata</i>	.	.	.
Frogs	Stonemason Toadlet	<i>Uperoleia lithomoda</i>	.	.	.
Frogs	Giant Frog	<i>Litoria australis</i>	DD	.	.
Frogs	Northern Dwarf Tree-frog	<i>Litoria bicolor</i>	DD	.	.
Frogs	Green Tree-frog	<i>Litoria caerulea</i>	.	.	.
Frogs	Dahl's Aquatic Frog	<i>Litoria dahliei</i>	.	.	.
Frogs	Long-footed Frog	<i>Litoria longipes</i>	.	.	.
Frogs	Javelin Frog	<i>Litoria microbelos</i>	.	.	.
Frogs	Rocket Frog	<i>Litoria nasuta</i>	.	.	.
Frogs	Pale Frog	<i>Litoria pallida</i>	.	.	.

Group	Common Name	Scientific Name	NT Status	National Status	ID
Frogs	Roth`s Tree-Frog	<i>Litoria rothii</i>	.	.	.
Frogs	Red Tree-frog	<i>Litoria rubella</i>	.	.	.
Frogs	Tornier`s Frog	<i>Litoria tornieri</i>	.	.	.
Frogs	Wotjulum Frog	<i>Litoria wotjulumensis</i>	.	.	.
Reptiles	Saltwater Crocodile	<i>Crocodylus porosus</i>	.	.	.
Reptiles	Green Turtle	<i>Chelonia mydas</i>	.	VU	176291
Reptiles	Hawksbill Turtle	<i>Eretmochelys imbricata</i>	.	VU	176298
Reptiles	Olive Ridley	<i>Lepidochelys olivacea</i>	.	EN	176305
Reptiles	Flatback Turtle	<i>Natator depressus</i>	.	VU	176284
Reptiles	Northern Long-necked Turtle	<i>Macrochelodina rugosa</i>	.	.	.
Reptiles	Northern Snapping Turtle	<i>Elseya dentata</i>	.	.	.
Reptiles	Northern Yellow-faced Turtle	<i>Emydura tanybaraga</i>	.	.	.
Reptiles	Northern Dtella	<i>Gehyra australis</i>	.	.	.
Reptiles	Bynoe`s Gecko	<i>Heteronotia binoei</i>	.	.	.
Reptiles	Zig-zag Gecko	<i>Oedura rhombifer</i>	.	.	.
Reptiles	Spiny-tailed Gecko	<i>Strophurus ciliaris</i>	.	.	.
Reptiles	Rusty-topped Delma	<i>Delma borea</i>	.	.	.
Reptiles	Black-necked Snake-lizard	<i>Delma tincta</i>	.	.	.
Reptiles	Burton`s Legless Lizard	<i>Lialis burtonis</i>	.	.	.
Reptiles	Two-Spined Rainbow Skink	<i>Carlia amax</i>	.	.	.
Reptiles	Slender Rainbow Skink	<i>Carlia gracilis</i>	.	.	.
Reptiles	Striped Rainbow Skink	<i>Carlia munda</i>	.	.	.
Reptiles	Red-Sided Rainbow Skink	<i>Carlia rufilatus</i>	.	.	.
Reptiles	Three-Spined Rainbow Skink	<i>Carlia triacantha</i>	.	.	.
Reptiles	Northern Ctenotus	<i>Ctenotus borealis</i>	.	.	.
Reptiles	Port Essington Ctenotus	<i>Ctenotus essingtonii</i>	.	.	.
Reptiles	Hill`s Ctenotus	<i>Ctenotus hilli</i>	.	.	.
Reptiles	Robust Ctenotus	<i>Ctenotus robustus</i>	.	.	.
Reptiles	Storr`s Ctenotus	<i>Ctenotus storri</i>	.	.	.
Reptiles	Darwin Skink	<i>Glaphyromorphus darwiniensis</i>	.	.	.
Reptiles	Douglas` Skink	<i>Glaphyromorphus douglasi</i>	.	.	.
Reptiles	Smooth-Tailed Skink	<i>Glaphyromorphus isolepis</i>	.	.	.
Reptiles	Alana`s Menetia	<i>Menetia alanae</i>	.	.	.
Reptiles	Grey`s Menetia	<i>Menetia greyii</i>	.	.	.
Reptiles	Storr`s Snake-Eyed Skink	<i>Morethia storri</i>	.	.	.
Reptiles	Common Blue-Tongued Lizard	<i>Tiliqua scincoides</i>	DD	.	.
Reptiles	Frilled Lizard	<i>Chlamydosaurus kingii</i>	.	.	.
Reptiles	Two-Lined Dragon	<i>Diporiphora bilineata</i>	.	.	.
Reptiles	Yellow-sided Two-line Dragon	<i>Diporiphora magna</i>	.	.	.
Reptiles	Gilbert`s Dragon	<i>Lophognathus gilberti</i>	.	.	.
Reptiles	Northern Water Dragon	<i>Lophognathus temporalis</i>	.	.	.
Reptiles	Black-spotted Ridge-tailed Monitor	<i>Varanus baritji</i>	DD	.	.
Reptiles	Sand Goanna	<i>Varanus gouldii</i>	.	.	.
Reptiles	Mertens` Water Monitor	<i>Varanus mertensi</i>	VU	.	347295
Reptiles	Mitchell`s Water Monitor	<i>Varanus mitchelli</i>	DD	.	.
Reptiles	Yellow-spotted Monitor	<i>Varanus panoptes</i>	VU	.	347307
Reptiles	Northern Ridge-tailed Monitor	<i>Varanus primordius</i>	.	.	.
Reptiles	Spotted Tree Monitor	<i>Varanus scalaris</i>	DD	.	.
Reptiles	Black-tailed Monitor	<i>Varanus tristis</i>	.	.	.
Reptiles	Northern Blind Snake	<i>Ramphotyphlops diversus</i>	.	.	.
Reptiles	Robust Blind Snake	<i>Ramphotyphlops ligatus</i>	.	.	.
Reptiles	Darwin Blind Snake	<i>Ramphotyphlops tovelli</i>	.	.	.
Reptiles	Claw-snouted Blind Snake	<i>Ramphotyphlops unguirostris</i>	.	.	.
Reptiles	Yirrkala Blind Snake	<i>Ramphotyphlops yirrikalae</i>	DD	.	.
Reptiles	Children`s Python	<i>Antaresia childreni</i>	DD	.	.
Reptiles	Black-headed Python	<i>Aspidites melanocephalus</i>	.	.	.
Reptiles	Water Python	<i>Liasis fuscus</i>	.	.	.
Reptiles	Olive Python	<i>Liasis olivaceus</i>	.	.	.
Reptiles	Carpet Python	<i>Morelia spilota</i>	.	.	.
Reptiles	Arafura File Snake	<i>Acrochordus arafurae</i>	.	.	.
Reptiles	Brown Tree Snake	<i>Boiga irregularis</i>	DD	.	.
Reptiles	Australian Bockadam	<i>Cerberus australis</i>	.	.	.
Reptiles	Green Tree Snake	<i>Dendrelaphis punctulata</i>	DD	.	.
Reptiles	Macleay`s Water Snake	<i>Enhydryis polylepis</i>	DD	.	.

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Reptiles	White-bellied Mangrove Snake	<i>Fordonia leucobalia</i>	.	.	.
Reptiles	Richardson`s Mangrove Snake	<i>Myron richardsonii</i>	.	.	.
Reptiles	Slaty-grey Snake	<i>Stegonotus cucullatus</i>	.	.	.
Reptiles	Keelback	<i>Tropidonophis mairii</i>	.	.	.
Reptiles	Northern Death Adder	<i>Acanthophis praelongus</i>	.	.	.
Reptiles	Half-girdled Snake	<i>Brachyuropsis semifasciatus</i>	.	.	.
Reptiles	Northern Small-eyed Snake	<i>Cryptophis pallidiceps</i>	DD	.	.
Reptiles	Olive Whip Snake	<i>Demansia olivacea</i>	DD	.	.
Reptiles	Papaun Whip Snake	<i>Demansia papuensis</i>	DD	.	.
Reptiles	Black Whip Snake	<i>Demansia vestigiata</i>	DD	.	.
Reptiles	Orange-naped Snake	<i>Furina ornata</i>	.	.	.
Reptiles	King Brown Snake	<i>Pseudechis australis</i>	.	.	.
Reptiles	Western Brown Snake	<i>Pseudonaja nuchalis</i>	.	.	.
Reptiles	Horned Sea Snake	<i>Acalyptophis peronii</i>	.	.	.
Birds	Emu	<i>Dromaius novaehollandiae</i>	VU	.	176363
Birds	Orange-footed Scrubfowl	<i>Megapodius reinwardt</i>	.	.	.
Birds	Brown Quail	<i>Coturnix ypsilophora</i>	.	.	.
Birds	Magpie Goose	<i>Anseranas semipalmata</i>	.	.	.
Birds	Wandering Whistling-Duck	<i>Dendrocygna arcuata</i>	.	.	.
Birds	Plumed Whistling-Duck	<i>Dendrocygna eytoni</i>	.	.	.
Birds	Black Swan	<i>Cygnus atratus</i>	.	.	.
Birds	Radjah Shelduck	<i>Tadorna radjah</i>	.	.	177769
Birds	Pink-eared Duck	<i>Malacorhynchus membranaceus</i>	.	.	.
Birds	Green Pygmy-Goose	<i>Nettapus pulchellus</i>	.	.	.
Birds	Garganey	<i>Anas querquedula</i>	.	.	.
Birds	Grey Teal	<i>Anas gracilis</i>	.	.	.
Birds	Pacific Black Duck	<i>Anas superciliosa</i>	.	.	.
Birds	Hardhead	<i>Aythya australis</i>	.	.	.
Birds	Australasian Grebe	<i>Tachybaptus novaehollandiae</i>	.	.	.
Birds	Hoary-headed Grebe	<i>Poliiocephalus poliocephalus</i>	.	.	.
Birds	Emerald Dove	<i>Chalcophaps indica</i>	.	.	.
Birds	Common Bronzewing	<i>Phaps chalcoptera</i>	.	.	.
Birds	Flock Bronzewing	<i>Phaps histrionica</i>	.	.	.
Birds	Crested Pigeon	<i>Ocyphaps lophotes</i>	.	.	.
Birds	Diamond Dove	<i>Geopelia cuneata</i>	.	.	.
Birds	Peaceful Dove	<i>Geopelia striata</i>	.	.	.
Birds	Bar-shouldered Dove	<i>Geopelia humeralis</i>	.	.	.
Birds	Rose-crowned Fruit-dove	<i>Ptilinopus regina</i>	.	.	.
Birds	Pied Imperial Pigeon	<i>Ducula bicolor</i>	.	.	.
Birds	Tawny Frogmouth	<i>Podargus strigoides</i>	.	.	.
Birds	Spotted Nightjar	<i>Eurostopodus argus</i>	.	.	.
Birds	Large-tailed Nightjar	<i>Caprimulgus macrurus</i>	.	.	.
Birds	Australian Owllet-nightjar	<i>Aegotheles cristatus</i>	.	.	.
Birds	Fork-tailed Swift	<i>Apus pacificus</i>	.	.	.
Birds	Lesser Frigatebird	<i>Fregata ariel</i>	.	.	.
Birds	Brown Booby	<i>Sula leucogaster</i>	.	.	.
Birds	Australasian Darter	<i>Anhinga novaehollandiae</i>	.	.	.
Birds	Little Pied Cormorant	<i>Microcarbo melanoleucos</i>	.	.	.
Birds	Great Cormorant	<i>Phalacrocorax carbo</i>	.	.	.
Birds	Little Black Cormorant	<i>Phalacrocorax sulcirostris</i>	.	.	.
Birds	Pied Cormorant	<i>Phalacrocorax varius</i>	.	.	.
Birds	Australian Pelican	<i>Pelecanus conspicillatus</i>	.	.	.
Birds	Black-necked Stork	<i>Ephippiorhynchus asiaticus</i>	.	.	.
Birds	Australian Little Bittern	<i>Ixobrychus dubius</i>	DD	.	.
Birds	Black Bittern	<i>Ixobrychus flavicollis</i>	DD	.	.
Birds	White-necked Heron	<i>Ardea pacifica</i>	.	.	.
Birds	Eastern Great Egret	<i>Ardea modesta</i>	.	.	.
Birds	Intermediate Egret	<i>Ardea intermedia</i>	.	.	.
Birds	Great-billed Heron	<i>Ardea sumatrana</i>	.	.	.
Birds	Cattle Egret	<i>Ardea ibis</i>	.	.	.
Birds	Striated Heron	<i>Butorides striata</i>	.	.	.
Birds	Pied Heron	<i>Egretta picata</i>	.	.	.
Birds	White-faced Heron	<i>Egretta novaehollandiae</i>	.	.	.
Birds	Little Egret	<i>Egretta garzetta</i>	.	.	.
Birds	Eastern Reef Egret	<i>Egretta sacra</i>	.	.	.
Birds	Nankeen Night Heron	<i>Nycticorax caledonicus</i>	.	.	.
Birds	Glossy Ibis	<i>Plegadis falcinellus</i>	.	.	.
Birds	Australian White Ibis	<i>Threskiornis molucca</i>	.	.	.
Birds	Straw-necked Ibis	<i>Threskiornis spinicollis</i>	.	.	.

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Birds	Royal Spoonbill	<i>Platalea regia</i>	.	.	.
Birds	Yellow-billed Spoonbill	<i>Platalea flavipes</i>	.	.	.
Birds	Eastern Osprey	<i>Pandion cristatus</i>	.	.	.
Birds	Black-shouldered Kite	<i>Elanus axillaris</i>	.	.	.
Birds	Letter-winged Kite	<i>Elanus scriptus</i>	.	.	.
Birds	Square-tailed Kite	<i>Lophoictinia isura</i>	.	.	.
Birds	Black-breasted Buzzard	<i>Hamirostra melanosternon</i>	.	.	.
Birds	Pacific Baza	<i>Aviceda subcristata</i>	.	.	.
Birds	White-bellied Sea-eagle	<i>Haliaeetus leucogaster</i>	.	.	.
Birds	Whistling Kite	<i>Haliastur sphenurus</i>	.	.	.
Birds	Brahminy Kite	<i>Haliastur indus</i>	.	.	.
Birds	Black Kite	<i>Milvus migrans</i>	.	.	.
Birds	Brown Goshawk	<i>Accipiter fasciatus</i>	.	.	.
Birds	Collared Sparrowhawk	<i>Accipiter cirrhocephalus</i>	.	.	.
Birds	Grey Goshawk	<i>Accipiter novaehollandiae</i>	.	.	.
Birds	Spotted Harrier	<i>Circus assimilis</i>	.	.	.
Birds	Swamp Harrier	<i>Circus approximans</i>	.	.	.
Birds	Red Goshawk	<i>Erythrotriorchis radiatus</i>	VU	VU	176391
Birds	Wedge-tailed Eagle	<i>Aquila audax</i>	.	.	.
Birds	Little Eagle	<i>Hieraaetus morphnoides</i>	.	.	.
Birds	Nankeen Kestrel	<i>Falco cenchroides</i>	.	.	.
Birds	Brown Falcon	<i>Falco berigora</i>	.	.	.
Birds	Australian Hobby	<i>Falco longipennis</i>	.	.	.
Birds	Black Falcon	<i>Falco subniger</i>	.	.	.
Birds	Peregrine Falcon	<i>Falco peregrinus</i>	.	.	.
Birds	Brolga	<i>Grus rubicunda</i>	.	.	.
Birds	Purple Swamphen	<i>Porphyrio porphyrio</i>	.	.	.
Birds	Chestnut Rail	<i>Eulabeornis castaneiventris</i>	.	.	.
Birds	Buff-banded Rail	<i>Gallirallus philippensis</i>	.	.	.
Birds	Baillon's Crake	<i>Porzana pusilla</i>	DD	.	.
Birds	Spotless Crake	<i>Porzana tabuensis</i>	DD	.	.
Birds	White-browed Crake	<i>Amauornis cinerea</i>	.	.	.
Birds	Pale-vented Bush-hen	<i>Amauornis moluccana</i>	.	.	.
Birds	Eurasian Coot	<i>Fulica atra</i>	.	.	.
Birds	Australian Bustard	<i>Ardeotis australis</i>	VU	.	176354
Birds	Bush Stone-curlew	<i>Burhinus grallarius</i>	.	.	.
Birds	Beach Stone-curlew	<i>Esacus magnirostris</i>	.	.	.
Birds	Australian Pied Oystercatcher	<i>Haematopus longirostris</i>	.	.	.
Birds	Sooty Oystercatcher	<i>Haematopus fuliginosus</i>	.	.	.
Birds	Black-winged Stilt	<i>Himantopus himantopus</i>	.	.	.
Birds	Red-necked Avocet	<i>Recurvirostra novaehollandiae</i>	.	.	.
Birds	Pacific Golden Plover	<i>Pluvialis fulva</i>	.	.	.
Birds	Grey Plover	<i>Pluvialis squatarola</i>	.	.	.
Birds	Ringed Plover	<i>Charadrius hiaticula</i>	.	.	.
Birds	Little Ringed Plover	<i>Charadrius dubius</i>	.	.	.
Birds	Red-capped Plover	<i>Charadrius ruficapillus</i>	.	.	.
Birds	Lesser Sand Plover	<i>Charadrius mongolus</i>	.	.	.
Birds	Greater Sand Plover	<i>Charadrius leschenaultii</i>	.	.	.
Birds	Oriental Plover	<i>Charadrius veredus</i>	.	.	.
Birds	Black-fronted Dotterel	<i>Eiseyornis melanops</i>	.	.	.
Birds	Red-kneed Dotterel	<i>Erythrogonyx cinctus</i>	.	.	.
Birds	Masked Lapwing	<i>Vanellus miles</i>	.	.	.
Birds	Comb-crested Jacana	<i>Irediparra gallinacea</i>	.	.	.
Birds	Australian Painted Snipe	<i>Rostratula australis</i>	VU	VU	246428
Birds	Pin-tailed Snipe	<i>Gallinago stenura</i>	DD	.	.
Birds	Swinhoe's Snipe	<i>Gallinago megala</i>	DD	.	.
Birds	Black-tailed Godwit	<i>Limosa limosa</i>	.	.	.
Birds	Bar-tailed Godwit	<i>Limosa lapponica</i>	.	.	.
Birds	Little Curlew	<i>Numenius minutus</i>	.	.	.
Birds	Whimbrel	<i>Numenius phaeopus</i>	.	.	.
Birds	Eastern Curlew	<i>Numenius madagascariensis</i>	.	.	.
Birds	Terek Sandpiper	<i>Xenus cinereus</i>	.	.	.
Birds	Common Sandpiper	<i>Actitis hypoleucos</i>	.	.	.
Birds	Green Sandpiper	<i>Tringa ochropus</i>	.	.	.
Birds	Grey-tailed Tattler	<i>Tringa brevipes</i>	.	.	.
Birds	Wandering Tattler	<i>Tringa incana</i>	.	.	.
Birds	Common Greenshank	<i>Tringa nebularia</i>	.	.	.
Birds	Marsh Sandpiper	<i>Tringa stagnatilis</i>	.	.	.
Birds	Common Redshank	<i>Tringa totanus</i>	.	.	.
Birds	Wood Sandpiper	<i>Tringa glareola</i>	.	.	.

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Birds	Ruddy Turnstone	<i>Arenaria interpres</i>	.	.	.
Birds	Asian Dowitcher	<i>Limnodromus semipalmatus</i>	.	.	.
Birds	Great Knot	<i>Calidris tenuirostris</i>	.	.	.
Birds	Red Knot	<i>Calidris canutus</i>	.	.	.
Birds	Sanderling	<i>Calidris alba</i>	.	.	.
Birds	Little Stint	<i>Calidris minuta</i>	.	.	.
Birds	Red-necked Stint	<i>Calidris ruficollis</i>	.	.	.
Birds	Long-toed Stint	<i>Calidris subminuta</i>	.	.	.
Birds	Pectoral Sandpiper	<i>Calidris melanotos</i>	DD	.	.
Birds	Sharp-tailed Sandpiper	<i>Calidris acuminata</i>	.	.	.
Birds	Curlew Sandpiper	<i>Calidris ferruginea</i>	.	.	.
Birds	Stilt Sandpiper	<i>Calidris himantopus</i>	.	.	.
Birds	Broad-billed Sandpiper	<i>Limicola falcinellus</i>	.	.	.
Birds	Ruff	<i>Philomachus pugnax</i>	.	.	.
Birds	Red-necked Phalarope	<i>Phalaropus lobatus</i>	.	.	.
Birds	Red-backed Button-quail	<i>Turnix maculosus</i>	.	.	.
Birds	Chestnut-backed Button-quail	<i>Turnix castanotus</i>	DD	.	.
Birds	Red-chested Button-quail	<i>Turnix pyrrhothorax</i>	.	.	.
Birds	Oriental Pratincole	<i>Glareola maldivarum</i>	.	.	.
Birds	Australian Pratincole	<i>Stiltia isabella</i>	.	.	.
Birds	Bridled Tern	<i>Onychoprion anaethetus</i>	.	.	.
Birds	Sooty Tern	<i>Onychoprion fuscata</i>	.	.	.
Birds	Little Tern	<i>Sternula albifrons</i>	.	.	.
Birds	Gull-billed Tern	<i>Gelochelidon nilotica</i>	.	.	.
Birds	Caspian Tern	<i>Hydroprogne caspia</i>	.	.	.
Birds	Whiskered Tern	<i>Chlidonias hybrida</i>	.	.	.
Birds	White-winged Black Tern	<i>Chlidonias leucopterus</i>	.	.	.
Birds	Common Tern	<i>Sterna hirundo</i>	.	.	.
Birds	Lesser Crested Tern	<i>Thalasseus bengalensis</i>	.	.	.
Birds	Crested Tern	<i>Thalasseus bergii</i>	.	.	.
Birds	Silver Gull	<i>Chroicocephalus novaehollandiae</i>	.	.	.
Birds	Red-tailed Black-Cockatoo	<i>Calyptorhynchus banksii</i>	N	.	223765
Birds	Galah	<i>Eulophus roseicapilla</i>	.	.	.
Birds	Little Corella	<i>Cacatua sanguinea</i>	.	.	.
Birds	Sulphur-Crested Cockatoo	<i>Cacatua galerita</i>	N	.	223772
Birds	Cockatiel	<i>Nymphicus hollandicus</i>	.	.	.
Birds	Rainbow Lorikeet	<i>Trichoglossus haematodus</i>	.	.	.
Birds	Varied Lorikeet	<i>Psitteuteles versicolor</i>	.	.	.
Birds	Red-winged Parrot	<i>Aprosmictus erythropterus</i>	.	.	.
Birds	Northern Rosella	<i>Platycercus venustus</i>	.	.	.
Birds	Pheasant Coucal	<i>Centropus phasianinus</i>	.	.	.
Birds	Eastern Koel	<i>Eudynamys orientalis</i>	.	.	.
Birds	Channel-billed Cuckoo	<i>Scythrops novaehollandiae</i>	.	.	.
Birds	Horsfield's Bronze-Cuckoo	<i>Chalcites basalis</i>	.	.	.
Birds	Black-eared Cuckoo	<i>Chalcites osculans</i>	.	.	.
Birds	Little Bronze-Cuckoo	<i>Chalcites minutillus</i>	.	.	.
Birds	Pallid Cuckoo	<i>Cacomantis pallidus</i>	.	.	.
Birds	Brush Cuckoo	<i>Cacomantis variolosus</i>	.	.	.
Birds	Oriental Cuckoo	<i>Cuculus optatus</i>	.	.	.
Birds	Rufous Owl	<i>Ninox rufa</i>	.	.	.
Birds	Barking Owl	<i>Ninox connivens</i>	.	.	.
Birds	Southern Boobook	<i>Ninox novaeseelandiae</i>	.	.	.
Birds	Masked Owl	<i>Tyto novaehollandiae</i>	EN/ VU	EN/VU	177895
Birds	Masked Owl (northern mainland)	<i>Tyto novaehollandiae kimberli</i>	VU	VU	594609
Birds	Eastern Barn Owl	<i>Tyto javanica</i>	.	.	.
Birds	Eastern Grass Owl	<i>Tyto longimembris</i>	.	.	.
Birds	Azure Kingfisher	<i>Ceyx azureus</i>	.	.	.
Birds	Little Kingfisher	<i>Ceyx pusilla</i>	.	.	.
Birds	Blue-winged Kookaburra	<i>Dacelo leachii</i>	DD	.	.
Birds	Forest Kingfisher	<i>Todiramphus macleayii</i>	.	.	.
Birds	Red-backed Kingfisher	<i>Todiramphus pyrrhopygius</i>	.	.	.
Birds	Sacred Kingfisher	<i>Todiramphus sanctus</i>	.	.	.
Birds	Collared Kingfisher	<i>Todiramphus chloris</i>	.	.	.
Birds	Rainbow Bee-eater	<i>Merops ornatus</i>	.	.	.
Birds	Dollarbird	<i>Eurystomus orientalis</i>	.	.	.
Birds	Rainbow Pitta	<i>Pitta iris</i>	.	.	.
Birds	Great Bowerbird	<i>Ptilonorhynchus nuchalis</i>	.	.	.
Birds	Red-backed Fairy-wren	<i>Malurus melanocephalus</i>	.	.	.
Birds	Weebill	<i>Smicronis brevirostris</i>	.	.	.

Group	Common Name	Scientific Name	NT Status	National Status	ID
Birds	Mangrove Gerygone	<i>Gerygone levigaster</i>	.	.	.
Birds	Large-billed Gerygone	<i>Gerygone magnirostris</i>	.	.	.
Birds	Green-backed Gerygone	<i>Gerygone chloronota</i>	.	.	.
Birds	White-throated Gerygone	<i>Gerygone albogularis</i>	.	.	.
Birds	Striated Pardalote	<i>Pardalotus striatus</i>	.	.	.
Birds	White-gaped Honeyeater	<i>Lichenostomus unicolor</i>	.	.	.
Birds	Yellow-throated Miner	<i>Manorina flavigula</i>	.	.	.
Birds	Bar-breasted Honeyeater	<i>Ramsayornis fasciatus</i>	.	.	.
Birds	Rufous-banded Honeyeater	<i>Conopophila albogularis</i>	.	.	.
Birds	Rufous-throated Honeyeater	<i>Conopophila rufogularis</i>	.	.	.
Birds	Dusky Honeyeater	<i>Myzomela obscura</i>	.	.	.
Birds	Red-headed Honeyeater	<i>Myzomela erythrocephala</i>	.	.	.
Birds	Banded Honeyeater	<i>Cissomela pectoralis</i>	.	.	.
Birds	Brown Honeyeater	<i>Lichmera indistincta</i>	.	.	.
Birds	White-throated Honeyeater	<i>Melithreptus albogularis</i>	.	.	.
Birds	Blue-faced Honeyeater	<i>Entomyzon cyanotis</i>	.	.	.
Birds	Helmeted Friarbird	<i>Philemon buceroides</i>	.	.	.
Birds	Silver-crowned Friarbird	<i>Philemon argenteiceps</i>	.	.	.
Birds	Little Friarbird	<i>Philemon citreogularis</i>	.	.	.
Birds	Grey-crowned Babbler	<i>Pomatostomus temporalis</i>	.	.	.
Birds	Black-faced Cuckoo-shrike	<i>Coracina novaehollandiae</i>	.	.	.
Birds	White-bellied Cuckoo-shrike	<i>Coracina papuensis</i>	.	.	.
Birds	Cicadabird	<i>Coracina tenuirostris</i>	.	.	.
Birds	White-winged Triller	<i>Lalage sueurii</i>	.	.	.
Birds	Varied Triller	<i>Lalage leucomela</i>	.	.	.
Birds	Mangrove Golden Whistler	<i>Pachycephala melanura</i>	.	.	.
Birds	Grey Whistler	<i>Pachycephala simplex</i>	.	.	.
Birds	Rufous Whistler	<i>Pachycephala rufiventris</i>	.	.	.
Birds	White-breasted Whistler	<i>Pachycephala lanioides</i>	.	.	.
Birds	Little Shrike-thrush	<i>Colluricincla megarhyncha</i>	.	.	.
Birds	Grey Shrike-thrush	<i>Colluricincla harmonica</i>	.	.	.
Birds	Australasian Figbird	<i>Sphecotheres vieilloti</i>	.	.	.
Birds	Yellow Oriole	<i>Oriolus flavocinctus</i>	.	.	.
Birds	Olive-backed Oriole	<i>Oriolus sagittatus</i>	.	.	.
Birds	White-breasted Woodswallow	<i>Artamus leucorhynchus</i>	.	.	.
Birds	White-browed Woodswallow	<i>Artamus superciliosus</i>	.	.	.
Birds	Black-faced Woodswallow	<i>Artamus cinereus</i>	.	.	.
Birds	Little Woodswallow	<i>Artamus minor</i>	.	.	.
Birds	Black Butcherbird	<i>Cracticus quoyi</i>	.	.	.
Birds	Pied Butcherbird	<i>Cracticus nigrogularis</i>	.	.	.
Birds	Spangled Drongo	<i>Dicrurus bracteatus</i>	.	.	.
Birds	Arafura Fantail	<i>Rhipidura dryas</i>	.	.	.
Birds	Grey Fantail	<i>Rhipidura albiscapa</i>	.	.	.
Birds	Mangrove Grey Fantail	<i>Rhipidura phasiana</i>	.	.	.
Birds	Northern Fantail	<i>Rhipidura rufiventris</i>	.	.	.
Birds	Willie Wagtail	<i>Rhipidura leucophrys</i>	.	.	.
Birds	Torresian Crow	<i>Corvus orru</i>	.	.	.
Birds	Broad-billed Flycatcher	<i>Myiagra ruficollis</i>	.	.	.
Birds	Leaden Flycatcher	<i>Myiagra rubecula</i>	.	.	.
Birds	Shining Flycatcher	<i>Myiagra alecto</i>	.	.	.
Birds	Restless Flycatcher	<i>Myiagra inquieta</i>	.	.	.
Birds	Magpie-lark	<i>Grallina cyanoleuca</i>	.	.	.
Birds	Jacky Winter	<i>Microeca fascinans</i>	.	.	.
Birds	Lemon-bellied Flycatcher	<i>Microeca flavigaster</i>	.	.	.
Birds	Mangrove Robin	<i>Peneoenanthe pulverulenta</i>	.	.	.
Birds	White-browed Robin	<i>Poecilodryas superciliosa</i>	.	.	.
Birds	Singing Bushlark	<i>Mirafra javanica</i>	.	.	.
Birds	Zitting Cisticola	<i>Cisticola juncidis</i>	.	.	.
Birds	Golden-headed Cisticola	<i>Cisticola exilis</i>	.	.	.
Birds	Australian Reed-Warbler	<i>Acrocephalus australis</i>	.	.	.
Birds	Oriental Reed-Warbler	<i>Acrocephalus orientalis</i>	.	.	.
Birds	Tawny Grassbird	<i>Megalurus timoriensis</i>	.	.	.
Birds	Brown Songlark	<i>Cincloramphus cruralis</i>	.	.	.
Birds	Yellow White-eye	<i>Zosterops luteus</i>	.	.	.
Birds	Barn Swallow	<i>Hirundo rustica</i>	.	.	.
Birds	Welcome Swallow	<i>Hirundo neoxena</i>	.	.	.
Birds	Fairy Martin	<i>Petrochelidon ariel</i>	.	.	.
Birds	Tree Martin	<i>Petrochelidon nigricans</i>	.	.	.
Birds	Mistletoebird	<i>Dicaeum hirundinaceum</i>	.	.	.
Birds	Zebra Finch	<i>Taeniopygia guttata</i>	.	.	.
Birds	Double-barred Finch	<i>Taeniopygia bichenovii</i>	.	.	.
Birds	Long-tailed Finch	<i>Poephila acuticauda</i>	.	.	.

Group	Common Name	Scientific Name	NT Status	National Status	ID
Birds	Masked Finch	<i>Poephila personata</i>	.	.	.
Birds	Crimson Finch	<i>Neochmia phaeton</i>	.	.	.
Birds	Star Finch	<i>Neochmia ruficauda</i>	.	.	.
Birds	Gouldian Finch	<i>Erythrura gouldiae</i>	EN	EN	176370
Birds	Yellow-rumped Mannikin	<i>Lonchura flaviprymna</i>	.	.	.
Birds	Chestnut-breasted Mannikin	<i>Lonchura castaneothorax</i>	.	.	.
Birds	Australasian Pipit	<i>Anthus novaeseelandiae</i>	.	.	.
Birds	Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	.	.	.
Birds	Grey Wagtail	<i>Motacilla cinerea</i>	.	.	.
Mammals	Echidna	<i>Tachyglossus aculeatus</i>	.	.	.
Mammals	Northern Quoll	<i>Dasyurus hallucatus</i>	CR	EN	176443
Mammals	Northern Brush-tailed Phascogale	<i>Phascogale pirata</i>	VU	.	177965
Mammals	Common Planigale	<i>Planigale maculata</i>	.	.	.
Mammals	Red-cheeked Dunnart	<i>Sminthopsis virginiae</i>	DD	.	.
Mammals	Northern Brown Bandicoot	<i>Isodon macrourus</i>	.	.	.
Mammals	Sugar Glider	<i>Petaurus breviceps</i>	.	.	.
Mammals	Common Brushtail Possum (northern)	<i>Trichosurus vulpecula arnhemensis</i>	.	.	.
Mammals	Agile Wallaby	<i>Macropus agilis</i>	N	.	223786
Mammals	Antilopine Wallaroo	<i>Macropus antilopinus</i>	.	.	.
Mammals	Northern Blossom Bat	<i>Macroglossus minimus</i>	.	.	.
Mammals	Black Flying-fox	<i>Pteropus alecto</i>	.	.	.
Mammals	Little Red Flying-fox	<i>Pteropus scapulatus</i>	.	.	.
Mammals	Ghost Bat	<i>Macroderma gigas</i>	.	.	.
Mammals	Dusky Leaf-nosed Bat	<i>Hipposideros ater</i>	.	.	.
Mammals	Orange Leaf-nosed bat	<i>Rhinonicteris aurantia</i>	.	.	.
Mammals	Bare-rumped Sheath-tailed Bat	<i>Saccolaimus saccolaimus</i>	.	CR	177111
Mammals	Common Sheath-tailed Bat	<i>Taphozous georgianus</i>	.	.	.
Mammals	Arnhem Sheath-tailed Bat	<i>Taphozous kapalgensis</i>	.	.	.
Mammals	Large Bent-winged Bat	<i>Miniopterus schreibersii</i>	.	.	.
Mammals	Lesser Long-eared Bat	<i>Nyctophilus geoffroyi</i>	.	.	.
Mammals	Pygmy Long-eared Bat	<i>Nyctophilus walkeri</i>	.	.	.
Mammals	Gould's Wattled Bat	<i>Chalinolobus gouldii</i>	.	.	.
Mammals	Hoary Wattled Bat	<i>Chalinolobus nigrogriseus</i>	.	.	.
Mammals	Large-footed Myotis	<i>Myotis macropus</i>	.	.	.
Mammals	Inland Broad-nosed Bat	<i>Scotorepens balstoni</i>	.	.	.
Mammals	Little Broad-nosed Bat	<i>Scotorepens greyii</i>	.	.	.
Mammals	Black-footed Tree-rat	<i>Mesembriomys gouldii</i>	.	.	.
Mammals	Delicate Mouse	<i>Pseudomys delicatulus</i>	.	.	.
Mammals	Water-rat	<i>Hydromys chrysogaster</i>	.	.	.
Mammals	Grassland Melomys	<i>Melomys burtoni</i>	.	.	.
Mammals	Dusky Rat	<i>Rattus colletti</i>	.	.	.
Mammals	Pale Field-rat	<i>Rattus tunneyi</i>	.	.	.
Mammals	Dingo / Wild dog	<i>Canis lupus</i>	N	.	183280
Mammals	Blue Whale	<i>Balaenoptera musculus</i>	DD	EN	233883
Mammals	Humpback Whale	<i>Megaptera novaeangliae</i>	DD	VU	280686

EX = Extinct EW = Extinct in the Wild ER= Extinct in the NT EN = Endangered

EN/VU = One Endangered subspecies/One Vulnerable subspecies

VU=Vulnerable

VU/- = One or more subspecies vulnerable EN/- = One or more subspecies endangered

More species info: Go to www.landmanager.org.au/view/index.aspx?id=#### where #### is the ID number from the tables above for the species of interest.

Species listed in the table above were recorded from all the grid cells (red/blue line) shown below that overlap East Arm Precinct

East Arm Precinct Pest and Potential Pest Animals

Animals with pest potential recorded in the bioregion(s) in which East Arm Precinct occurs. Occurrence based on Department of Natural Resources, Environment and The Arts databases.

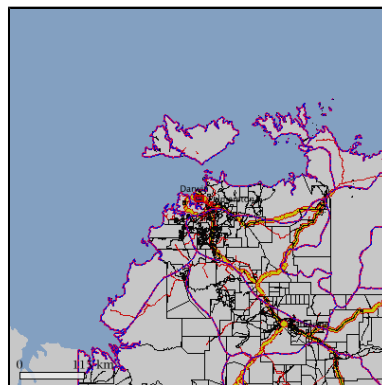
Common Name	Scientific Name	NT Status	National Status	ID
Cane Toad	<i>Chaunus marinus</i>	P	.	183252
Asian House Gecko	<i>Hemidactylus frenatus</i>	P	.	188964
Flower-pot Blind Snake	<i>Ramphotyphlops braminus</i>	P	.	189084
King Quail	<i>Excalfactoria chinensis</i>	P	.	450567
Rock Dove	<i>Columba livia</i>	P	.	183336
Red-tailed Black-Cockatoo	<i>Calyptorhynchus banksii</i>	N	.	223765
Sulphur-Crested Cockatoo	<i>Cacatua galerita</i>	N	.	223772
Common Starling	<i>Sturnus vulgaris</i>	P	.	188980
House Sparrow	<i>Passer domesticus</i>	P	.	183322
Eurasian Tree Sparrow	<i>Passer montanus</i>	P	.	450580
Agile Wallaby	<i>Macropus agilis</i>	N	.	223786
House Mouse	<i>Mus musculus</i>	P	.	187720
Black Rat	<i>Rattus rattus</i>	P	.	183236
Dingo / Wild dog	<i>Canis lupus</i>	N	.	183280
Cat	<i>Felis catus</i>	P	.	183259
Donkey	<i>Equus asinus</i>	P	.	183287
Horse	<i>Equus caballus</i>	P	.	183315
Pig	<i>Sus scrofa</i>	P	.	183329
Swamp Buffalo	<i>Bubalus bubalis</i>	P	.	183245
Cattle	<i>Bos indicus / Bos taurus</i>	P	.	183266

NT STATUS CODES:

P, Prohibited species (all exotic vertebrates except those listed as non-prohibited (www.landmanager.com.au/view/index.aspx?id=450509))
 Int, Introduced species (all non-prohibited vertebrates, and all other exotic species (www.landmanager.com.au/view/index.aspx?id=280771))
 N, Native species with pest potential.

More species info: Go to www.landmanager.org.au/view/index.aspx?id=####
 where #### is the ID number from the tables above for the species of interest.

Potential pest animals listed in the table above were recorded from the bioregions shown below (red/blue line) that overlap East Arm Precinct



Generated from NT Infonet (<http://www.infonet.cdu.edu.au/nrm>) Sat Feb 05 18:42:19 CST 2011

Soils and vegetation graphs and tables refer to area of soils and vegetation only. Fire graphs and tables refer to entire selected area including sea if present. Calculations are derived from map images or vector data, and should be taken as a guide only. Accuracy cannot be guaranteed. For small areas, figures should be rounded to the nearest whole number.

Appendix 2. Flora Data (Thomas 2011)

2.1 Flora Species Checklist

Family	Taxon	Common Name	L/F	Status	Veg. 1	Veg. 2	DA 3	Miscellaneous
ACANTHACEAE	<i>Avicennia marina</i> var. <i>eucalyptifolia</i> (Zipp.) N.C.Duke	Grey Mangrove	T		-	-	-	g l m c e C/A
ACANTHACEAE	<i>Hypoestes floribunda</i> R.Br.	Hypoestes	SH		g - - - - O	-	-	-
AMARANTHACEAE	<i>Tecticornia australasica</i> (Moq.) Paul G. Wilson	Grey Samphire	H		-	-	-	g - - - - U
ANACARDIACEAE	<i>Buchanania obovata</i> Engl.	Green Plum	T		-	g l m c - A	g l m - - C	-
APOCYNACEAE	<i>Marsdenia geminata</i> (R.Br.) P.I.Forst.	Marsdenia	V		g - - - - U	-	-	-
APOCYNACEAE	<i>Alyxia spicata</i> R.Br.	Chain Fruit	V		g l - - - C	-	g l - - - O	-
APOCYNACEAE	<i>Ichnocarpus frutescens</i> R.Br.	Black Creeper	V		g l - - - C	-	-	g - - - - O
APOCYNACEAE	<i>Wrightia saligna</i> (R.Br.) F.Muell. ex Benth.	Milk Bush	ST		-	g l m - - C	- l - - - U	-
ARECACEAE	<i>Livistona humilis</i> R.Br.	Sand Palm	ST		-	g l m c - C/A		-
BIGNONIACEAE	<i>Dolichandrone filiformis</i> (Fenzl) F.Muell.	Whistling Tree	ST		-	g l m - - C	g l m - - O	-
BORAGINACEAE	<i>Heliotropium ventricosum</i> R.Br.	White Lady Heliotrope	H		-	g - - - - O	-	-
CAESALPINIACEAE	<i>Peltophorum pterocarpum</i> (DC.) Backer ex K.Heyne	Yellow Flame Tree	T		g l m c e C	-	-	-
CANNABACEAE	<i>Trema tomentosa</i> (Roxb.) H.Hara	Poison Peach	ST		-	-	- l - - - U	-
CAPPARACEAE	<i>Capparis sepiaria</i> L.	Wild Orange	SH		- l - - - R	-	-	-
CHENOPODIACEAE	<i>Halosarcia halocnemoides</i> (Nees) Paul G. Wilson	Red glasswort	H		-	-	-	g - - - - O
COMBRETACEAE	<i>Lumnitzera racemosa</i> Willd.	White Flowered Black Mangrove	T		-	-	-	g l m c - C
COMMELINACEAE	<i>Commelina ensifolia</i> R.Br.	Scurvy grass	H		-	g - - - - U	-	-
COMMELINACEAE	<i>Murdannia graminea</i> (R.Br.) A.Bruckn.	Grass Lily	H		-	g - - - - O	-	-
CONVOLVULACEAE	<i>Ipomoea abrupta</i> R.Br.	Bush potato	V		g l - - - O	-	-	-
CONVOLVULACEAE	<i>Ipomoea quamoclit</i> L.	Cardinal Creeper	V		-	-	g l - - - C	-
CONVOLVULACEAE	<i>Jacquemontia paniculata</i> (Burm.f.) Hallier f.	Bindweed	V		g - - - - U	-	-	-
CYCADACEAE	<i>Cycas armstrongii</i> Miq.	Bulumara	Cycad	V	-	g l - - - O/C	-	-

Family	Taxon	Common Name	L/F	Status	Veg. 1	Veg. 2	DA 3	Miscellaneous
CYPERACEAE	<i>Fimbristylis dichotoma</i> Vahl	Common fringe-rush	H		-	g ---- C	-	-
CYPERACEAE	<i>Fimbristylis pauciflora</i> R.Br.	Finger Rush	H		-	g ---- C	-	-
DIOSCOREACEAE	<i>Dioscorea transversa</i> R.Br.	Native Yam	V		g l --- O	-	-	-
DROSERACEAE	<i>Drosera petiolaris</i> R.Br. ex DC.	Sundew	H		-	g ---- C	g ---- O	-
EUPHORBIACEAE	<i>Bridelia tomentosa</i> Blume	Pop-gun Seed	T		'- - m --U/O	-	-	-
EUPHORBIACEAE	<i>Excoecaria ovalis</i> Endl.	Blind your eye Mangrove	T		-	-	-	-- m c - O
EUPHORBIACEAE	<i>Flueggea virosa</i> (Roxb. ex Willd.) Voigt	White berry-bush	ST		'- l m -- U	-	-	-
EUPHORBIACEAE	<i>Glochidion xerocarpum</i> (O.Schwarz) Airy Shaw	Cheese Tree	T		- l m -- O	-	-	-
EUPHORBIACEAE	<i>Jatropha gossypifolia</i> * L.	Bellyache Bush	SH/ST	Class A	-	-	g ---- U	-
EUPHORBIACEAE	<i>Sebastiania chamaelea</i> (L.) Muell.Arg.	Sebastiania	SH		-	g l --- O/U	-	-
FABACEAE	<i>Erythrophleum chlorostachys</i> (F.Muell.) Baill.	Cooktown Ironwood	T		-	- l m c - O		-
FABACEAE	<i>Leucaena leucocephala</i> * (Lam.) de Wit	Lead Tree	ST		-	-	- l --- U	-
FABACEAE	<i>Acacia latescens</i> Benth.	Wattle	ST		-	- l m -- U	-	-
FABACEAE	<i>Acacia auriculiformis</i> A.Cunn. ex Benth.	Wattle	T		-	g l --- O	g l --- O	-
FABACEAE	<i>Acacia holosericea</i> A.Cunn. ex G.Don	Wattle	ST		-	g l m -- C/A	g l m -- C/A	-
FABACEAE	<i>Clitoria ternatea</i> * L.	Butterfly Pea	V		-	-	g l m -- U	-
FABACEAE	<i>Rhynchosia minima</i> (L.) DC.	Burn Mouth Vine	V		-	g ---- C	-	-
FABACEAE	<i>Stylosanthes scabra</i> Vogel	Shrubby Stylo	SH		-	-	g l --- U	-
FABACEAE	<i>Vigna lanceolata</i> Benth.	Mulgoa Bean	V		-	-	g ---- U	-
FLAGELLARIACEAE	<i>Flagellaria indica</i> L.	Whip Vine	V		g l --- C	-	g l --- C	-
LAMIACEAE	<i>Premna acuminata</i> R.Br.	Premna	SH/ST		- l m -- O	-	-	-
LAMIACEAE	<i>Vitex acuminata</i> R.Br.	Vitex	T		- l --- U	-	-	-
LAURACEAE	<i>Cassytha filiformis</i> L.	Dodder laurel	V		-	g l --- O	g l --- C	-
LECYTHIDACEAE	<i>Planchonia careya</i> (F.Muell.) Kunth	Cocky Apple	T		-	- l m -- O	-	-
LILIACEAE	<i>Protasparagus racemosus</i> (Willd.) Oberm.	Asparagus fern	V		g l --- O	-	-	-

Family	Taxon	Common Name	L/F	Status	Veg. 1	Veg. 2	DA 3	Miscellaneous
LOGANIACEAE	<i>Strychnos lucida</i> R.Br.	Strychnine Tree	T		g l m -- O	-	-	
LYTHRACEAE	<i>Sonneratia alba</i> Sm. in B.Rees	Pornupan Mangrove	T		-	-	-	g l m c - A
MALVACEAE	<i>Brachychiton paradoxus</i> Schott & Endl.	Red Flowered Kurrajong	ST		-	-	- l --- R	-
MALVACEAE	<i>Sterculia quadrifida</i> R.Br.	Peanut Tree	T		-- m c - U	-	-	-
MALVACEAE	<i>Waltheria indica</i> L.	Waltheria	SH		-	g l --- O	-	-
MALVACEAE	<i>Hibiscus meraukensis</i> Hochr.	Merauke hibiscus	SH		-	-	g l --- U	-
MALVACEAE	<i>Hibiscus tiliaceus</i> L.	Beach Hibiscus	T		-- m c - O	-	-- m c - U/O	-
MALVACEAE	<i>Sida cordifolia</i> * L.	Flannel weed	SH	Class B	-	-	g ---- U	-
MORACEAE	<i>Ficus aculeata</i> Miq.	Sandpaper Fig	T		-	- l m -- U	-	-
MYRTACEAE	<i>Calytrix exstipulata</i> DC.	Turkey Bush	SH/ST		-	- l --- U	-	-
MYRTACEAE	<i>Corymbia latifolia</i> (F.Muell.) K.D.Hill & L.A.S.Johnson	Round-leaved Bloodwood	T		-	-- m c - C	-	-
MYRTACEAE	<i>Corymbia polycarpa</i> (F.Muell.) K.D.Hill & L.A.S.Johnson	Long-fruited bloodwood	T		-	-- m c e C	- l m -- U	-
MYRTACEAE	<i>Eucalyptus tetradonta</i> F.Muell.	Darwin Stringybark	T		-	- l m c - C	-	-
MYRTACEAE	<i>Melaleuca leucadendra</i> (L.) L.	Weeping paperbark	T		g l m c - C	g l m c - C	g l m c - C	-
MYRTACEAE	<i>Melaleuca viridiflora</i> Sol. ex Gaertn.	Broad-leaved Paperbark	T		-	g l m c - C	g l m c - C	-
MYRTACEAE	<i>Osbornia octodonta</i> F.Muell.	Myrtle Mangrove	SH		-	-	-	g l m -- C
MYRTACEAE	<i>Syzygium eucalyptoides</i> subsp. <i>bleeseri</i> (O.Schwarz) B.Hyland	Bush Apple	T		-	g l m -- O/C	-	-
OLACACEAE	<i>Olax imbricata</i> Roxb.	Olax	V		g l --- O	-	-	-
OLEACEAE	<i>Jasminum didymum</i> G.Forst.	Native Jasmine	V		g l --- O	-	-	-
OPILIACEAE	<i>Opilia amentacea</i> Roxb.	Opilia	V		g l m -- O	-	-	-
PANDANACEAE	<i>Pandanus spiralis</i> R.Br.	Screw Palm	T		-	g l m c - C/A	g l m -- C	-
PASSIFLORACEAE	<i>Passiflora foetida</i> L.	Stinking Passion Flower	V		-	-	g l --- A	-
PHYLLANTHACEAE	<i>Antidesma ghesaembilla</i> Gaertn.	Antidesma	T		- l m -- O	-	-	-
PHYLLANTHACEAE	<i>Phyllanthus virgatus</i> G.Forst.	Phyllanthus	H		-	g ---- O	-	-
PICRODENDRACEAE	<i>Petalostigma quadriloculare</i> F.Muell.	Witchetty Bush	SH/ST		-	g l --- C	-	-

Family	Taxon	Common Name	L/F	Status	Veg. 1	Veg. 2	DA 3	Miscellaneous
PLUMBAGINACEAE	<i>Aegialitis annulata</i> R.Br.	Club Mangrove	SH		-	-	-	g - - - O
POACEAE	<i>Alloteropsis semialata</i> (R.Br.) Hitchc.	Cockatoo Grass	H		-	g - - - - O	g - - - - U	-
POACEAE	<i>Andropogon gayanus</i> * Kunth	Gamba Grass	H	Class A	-	-	g - - - - C/A	-
POACEAE	<i>Ectrosia leporina</i> R.Br.	Haresfoot Grass	H		-	g - - - - O	-	-
POACEAE	<i>Eragrostis</i> sp.		H		-	-	g - - - - O	-
POACEAE	<i>Eriachne avenacea</i> R.Br.	Wanderrie Grass	H		-	g - - - - O/C	-	-
POACEAE	<i>Eriachne burkittii</i> Jansen	Wanderrie Grass	H		-	-	g - - - - C	-
POACEAE	<i>Eriachne schultzi</i> F.Muell.	Wanderrie Grass	H		-	g - - - - C	-	-
POACEAE	<i>Eulalia mackinalayi</i> (F.Muell. ex Benth.) Kuntze	Brown silky top	H		-	g - - - - O	g - - - - U/O	-
POACEAE	<i>Lepturus repens</i> (G.Forst.) R.Br.	Stalky grass	H		-	g - - - - C	-	-
POACEAE	<i>Melinis repens</i> * (Willd.) Zizka	Red natal grass	H		g - - - - U	-	g - - - - O	-
POACEAE	<i>Mnesithea rottboellioides</i> (R.Br.) de Koning & Sosef	Northern Cane Grass	H		-	g - - - - O	g - - - - U	-
POACEAE	<i>Pennisetum polystachion</i> * (L.) Schult.	Mission Grass	H	Class B	-	-	g - - - - O	-
POACEAE	<i>Sorghum timorense</i> (Kunth) Buse in de Vriese	Downs Sorghum	H		-	g - - - - A	g - - - - A	-
PROTEACEAE	<i>Grevillea pteridifolia</i> Knight	Golden parrot tree	ST		-	- m - - O	- m - - C	-
PROTEACEAE	<i>Hakea arborescens</i> R.Br.	Common Hakea	ST		-	- m - - O	-	-
PTERIDACEAE	<i>Cheilanthes fragillima</i> F.Muell.	Cheilanthes	F		-	-	g - - - - R ?	-
RHAMNACEAE	<i>Alphitonia excelsa</i> (A.Cunn. ex Fenzl) Reissek ex Benth.	Red Ash	T		-	- - - - U	- - - - O	-
RHAMNACEAE	<i>Ziziphus oenopolia</i> Mill.	Small-Fruited Jujube	ST		- m - - U	-	-	-
RHIZOPHORACEAE	<i>Bruguiera exaristata</i> Ding Hou	Ribbed Orange Mangrove	T		-	-	-	- m c - C
RHIZOPHORACEAE	<i>Ceriops australis</i> (C.T.White) Ballment, T.J.Sm. & J.A.Stoddart	Spurred Mangrove	T		-	-	-	g - - - A
RHIZOPHORACEAE	<i>Rhizophora stylosa</i> Griff.	Small Stilt Root Mangrove	T		-	-	-	g m c - A
RUBIACEAE	<i>Spermacoce calliantha</i> Harwood	Spermacoce	H		-	g - - - - O	-	-
SALICACEAE	<i>Flacourtia territorialis</i> Airy Shaw	Flacourtia	ST		g - - - O	-	-	-
SAPINDACEAE	<i>Allophylus cobbe</i> (L.) Raeusch.	Tit-berry	T		g m c - C	-	-	-

Family	Taxon	Common Name	L/F	Status	Veg. 1	Veg. 2	DA 3	Miscellaneous
SAPINDACEAE	<i>Dodonaea platyptera</i> F.Muell.	Native Hop Bush	ST		g l m c - C	-	-	-
SAPOTACEAE	<i>Mimusops elengi</i> L.	Bullet-wood Tree	T		-- m -- O	-	-	-
SMILACACEAE	<i>Smilax australis</i> R.Br.	Austral Smilax	V		-	g l --- U	-	-
VERBENACEAE	<i>Lantana camara</i> * L.	Lantana	SH	Class B	-	-	- l --- U	-
VITACEAE	<i>Ampelocissus acetosa</i> (F.Muell.) Planch.	Wild grape	V		g l --- C/A	g l --- C/A	g l --- C/A	-
VITACEAE	<i>Cayratia acris</i> (F.Muell.) Domin	Hairy water vine	V		g l --- C	-	g l --- U	-
VITACEAE	<i>Cayratia trifolia</i> (L.) Domin	Three-leaf Cayratia	V		g l --- O	-	-	-
XYRIDACEAE	<i>Xyris oligantha</i> Steud.	Yellow-eye	H		-	g ---- U	-	-

Key to Flora Species List:**Veg. 1** = Vegetation Association 1**Veg. 2** = Vegetation Association 2**DA 3** = Disturbed & regrowth areas**Miscellaneous** = Miscellaneous Flora species predominately associated with tidal conditions**Presence/Absence in Strata and Height Levels**

Presence or absence of a species at each of five strata levels (ground-lower-mid-canopy-emergent) in a community

- = Not Present in Strata

g = Ground Stratum**l** = Lower stratum**m** = Midstratum**c** = Canopy**e** = emergent**Relative Abundance Ratings****R** = Rare (< 5 plants) **U** = Uncommon (6 -10 Plants) **O** = Occasional (11-20 plants) **C** = Common (21-30 plants)**A** = Abundant (>31 plants)**L/F = Life Form****T** = Tree **SH** = Shrub **ST** = Small Tree **V** = Vine **H** = Herb **F** = Fern**Status****V** = Vulnerable (*Territory Parks and Wildlife Conservation Act 1996*)**Class A or B** = Declared species (*Weeds Management Act 2001*)**Descriptive Superscripts**

* = Naturalised or Pest plant

Appendix 3 Fauna Data

3.1 Fauna Species: Local Records

3.2 Fauna Species List: 2010 – 2011 Survey

3.3 EMS Wader Count Data 2010 – 2011

3.4 Estbergs (2011) Wader Count Data 2009 – 2010

Appendix 3.1 Existing Fauna Species Records

Common Name	Scientific Name	Museum Data Searches (OZCAM)	Charles Darwin NP (NTPWC 2003)	Acer Vaughn 1993 Birds Overhead	Acer Vaughn 1993 Birds Woodland	Acer Vaughn 1993 Birds Mangrove	Acer Vaughn 1993 Birds Mudflat/ Reef	Acer Vaughn 1993 Other Vertebrate
Amphibians								
Marbled Frog	<i>Limnodynastes convexiusculus</i>	X	X					
Bilingual Froglet	<i>Crinia bilinguala</i>		X					
Giant Frog	<i>Cyclorana australis</i>		X					
Common Tree Frog	<i>Litoria caerulea</i>		X					
Javelin Frog	<i>Litoria microbelos</i>		X					
Striped Rocket Frog	<i>Litoria nasuta</i>		X					
Red-eyed Tree Frog	<i>Litoria rothii</i>		X					
Purple Tree Frog	<i>Litoria rubella</i>	X	X					
Tornier's Frog	<i>Litoria tornieri</i>		X					
Total	9	2	9	0	0	0	0	0
Reptiles								
Northern Dtella	<i>Gehyra australis</i>	X	X					
House Gecko	<i>Hemidactylus frenatus</i>	X	X					
Bynoe's Gecko	<i>Heteronotia binoei</i>	X	X					X
	<i>Diplodactylus ciliaris</i>	X						
Zigzag Velvet Gecko	<i>Oedura rhombifer</i>	X	X					
Friiled Lizard	<i>Chlamydosaurus kingii</i>		X					
Two-lined Dragon	<i>Diporiphora bilineata</i>	X	X					
Swamplands Lashtail	<i>Amphibolurus temporalis</i>	X	X					
Yellow-spotted Monitor	<i>Varanus panoptes</i>	X	X					X
Spotted Tree Monitor	<i>Varanus scalaris</i>	X	X					
Mitchell's Water Monitor	<i>Varanus mitchelli</i>	X						
Northern Delma	<i>Delma borea</i>		X					
Burton's Legless Lizard	<i>Lialis burtonis</i>	X	X					
Metallic Snake-eyed Skink	<i>Cryptoblepharus metallicus</i>	X	X					X
	<i>Carlia amax</i>	X						
Slender Rainbow-skink	<i>Carlia gracilis</i>	X	X					X
Shaded-litter Rainbow-skink	<i>Carlia munda</i>		X					X
Red-sided Rainbow-skink	<i>Carlia rufilatus</i>	X						X
	<i>Carlia triacantha</i>	X						
Northern Ctenotus	<i>Ctenotus borealis</i>		X					
	<i>Ctenotus storri</i>	X						
Port Essington Ctenotus	<i>Ctenotus essingtonii</i>	X	X					
Hill's Ctenotus	<i>Ctenotus hilli</i>	X	X					
	<i>Eremiascincus douglasi</i>	X						
	<i>Menetia alanae</i>	X						

Common Name	Scientific Name	Museum Data Searches (OZCAM)	Charles Darwin NP (NTPWC 2003)	Acer Vaughn 1993 Birds Overhead	Acer Vaughn 1993 Birds Woodland	Acer Vaughn 1993 Birds Mangrove	Acer Vaughn 1993 Birds Mudflat/ Reef	Acer Vaughn 1993 Other Vertebrate
Storr's Snake-eyed Skink	<i>Morethia storri</i>	X	X					
Common blue-tongue Lizard	<i>Tiliqua scincoides</i>							X
	<i>Ramphotyphlops unguirostris</i>	X						
	<i>Ramphotyphlops braminus</i>	X						
	<i>Ramphotyphlops toveli</i>	X						
Bockadam	<i>Cerberus rynchops</i>	X						
Children's Python	<i>Antaresia childreni</i>	X						
Carpet Python	<i>Morelia spilota</i>	X						
Common Tree Snake	<i>Dendrelaphis punctulata</i>		X					
	<i>Furina ornata</i>	X						
	<i>Furina diadema</i>	X						
Western Brown Snake	<i>Pseudonaja nuchalis</i>	X						
Mulga Snake	<i>Pseudechis australis</i>		X					
Total	38	31	20	0	0	0	0	7
Birds								
Orange-footed Scrubfowl	<i>Megapodius reinwardt</i>	X	X					
Brown Quail	<i>Coturnix ypsilophora</i>	X	X		X			
Radjah Shelduck	<i>Tadorna radjah</i>	X	X					
Pacific Black Duck	<i>Anas superciliosa</i>	X						
Green Pygmy-goose	<i>Nettapus pulchellus</i>	X						
Magpie Goose	<i>Anseranas semipalmata</i>	X						
Peaceful Dove	<i>Geopelia striata</i>	X	X		X			
Bar-shouldered Dove	<i>Geopelia humeralis</i>	X	X		X	X		
Pied Imperial-Pigeon	<i>Ducula bicolor</i>		X					
Rose-crowned Fruit-dove	<i>Ptilinopus regina</i>	X						
Common Bronzewing	<i>Phaps chalcoptera</i>				X			
Flock Bronzewing	<i>Phaps histrionica</i>							
Tawny Frogmouth	<i>Podargus strigoides</i>		X					
Large-tailed Nightjar	<i>Caprimulgus macrurus</i>		X					
Fork-tailed Swift	<i>Apus pacificus</i>		X					
Australasian Darter	<i>Anhinga novaehollandiae</i>		X					
Little Pied Cormorant	<i>Microcarbo melanoleucos</i>	X						
Australian Pelican	<i>Pelecanus conspicillatus</i>		X					
Black-necked Stork	<i>Ephippiorhynchus asiaticus</i>		X	X				
Eastern Great Egret	<i>Ardea modesta</i>		X					
Pied Heron	<i>Egretta picata</i>			X				
Great-billed Heron	<i>Ardea sumatrana</i>	X	X					
Intermediate Egret	<i>Ardea intermedia</i>		X					
Little Egret	<i>Egretta garzetta</i>		X					

Common Name	Scientific Name	Museum Data Searches (OZCAM)	Charles Darwin NP (NTPWC 2003)	Acer Vaughn 1993 Birds Overhead	Acer Vaughn 1993 Birds Woodland	Acer Vaughn 1993 Birds Mangrove	Acer Vaughn 1993 Birds Mudflat/ Reef	Acer Vaughn 1993 Other Vertebrate
Eastern Reef Egret	<i>Egretta sacra</i>		X	X				
White-faced Heron	<i>Egretta novaehollandiae</i>		X					
Striated Heron	<i>Butorides striata</i>		X					
Black Bittern	<i>Ixobrychus flavicollis</i>	X						
Australian White Ibis	<i>Threskiornis molucca</i>	X	X				X	
Eastern Osprey	<i>Pandion cristatus</i>		X					
Brown Goshawk	<i>Accipiter fasciatus</i>		X					
Pacific Baza	<i>Aviceda subcristata</i>	X	X					
Black Kite	<i>Milvus migrans</i>	X	X	X				
Whistling Kite	<i>Haliastur sphenurus</i>	X	X	X				
Brahminy Kite	<i>Haliastur indus</i>		X	X				
White-bellied Sea-Eagle	<i>Haliaeetus leucogaster</i>	X	X	X				
Brown Falcon	<i>Falco berigora</i>		X					
White-browed Crake	<i>Porzana cinerea</i>	X						
Chestnut Rail	<i>Eulabeornis castaneiventris</i>	X	X					
Bush Stone-curlew	<i>Burhinus grallarius</i>	X	X					
Beach Stone-curlew	<i>Esacus neglectus</i>		X				X	
Australian Pied Oystercatcher	<i>Haematopus longirostris</i>	X					X	
Masked Lapwing	<i>Vanellus miles</i>		X					
Oriental Plover	<i>Charadrius veredus</i>	X						
Lesser Sand Plover	<i>Charadrius mongolus</i>						X	
Greater Sand Plover	<i>Charadrius leschenaultii</i>	X	X					
Bar-tailed Godwit	<i>Limosa lapponica</i>		X					
Little Curlew	<i>Numenius minutus</i>	X						
Whimbrel	<i>Numenius phaeopus</i>		X				X	
Eastern Curlew	<i>Numenius madagascariensis</i>		X				X	
Terek Sandpiper	<i>Xenus cinereus</i>	X						
Common Sandpiper	<i>Actitis hypoleucos</i>		X					
Grey-tailed Tattler	<i>Tringa brevipes</i>		X				X	
Sharp-tailed Sandpiper	<i>Calidris acuminata</i>		X					
Great Knot	<i>Calidris tenuirostris</i>	X						
Asian Dowitcher	<i>Limnodromus semipalmatus</i>	X						
Red-necked Phalarope	<i>Phalaropus lobatus</i>	X						
Australian Pratincole	<i>Stiltia isabella</i>	X						
Common Noddy	<i>Anous stolidus</i>	X						
Gull-billed Tern	<i>Gelochelidon nilotica</i>		X					
Little Tern	<i>Sternula albifrons</i>	X			X			
Bridled Tern	<i>Onychoprion anaethetus</i>	X						
Sooty Tern	<i>Onychoprion fuscata</i>	X						

Common Name	Scientific Name	Museum Data Searches (OZCAM)	Charles Darwin NP (NTPWC 2003)	Acer Vaughn 1993 Birds Overhead	Acer Vaughn 1993 Birds Woodland	Acer Vaughn 1993 Birds Mangrove	Acer Vaughn 1993 Birds Mudflat/ Reef	Acer Vaughn 1993 Other Vertebrate
Crested Tern	<i>Thalasseus bergii</i>	X						
Silver Gull	<i>Chroicocephalus novaehollandiae</i>		X		X			
Little Corella	<i>Cacatua sanguinea</i>		X					
Sulphur-crested Cockatoo	<i>Cacatua galerita</i>		X					
Galah	<i>Eolophus roseicapillus</i>		X					
Red-tailed Black Cockatoo	<i>Calyptorhynchus banksii</i>		X					
Rainbow Lorikeet	<i>Trichoglossus haematodus</i>	X	X					
Varied Lorikeet	<i>Psittuteutes versicolor</i>		X					
Northern Rosella	<i>Platycercus venustus</i>	X						
Red-winged Parrot	<i>Aprosmictus erythropterus</i>	X	X		X			
Pheasant Coucal	<i>Centropus phasianinus</i>		X					
Oriental Cuckoo	<i>Cuculus saturatus</i>	X						
Brush Cuckoo	<i>Cacomantis variolosus</i>		X					
Pallid Cuckoo	<i>Cuculus pallidus</i>	X						
Little Bronze-Cuckoo	<i>Chalcites minutillus</i>		X					
Eastern Koel	<i>Eudynamys orientalis</i>	X	X					
Barking Owl	<i>Ninox connivens</i>	X						
Southern Boobook	<i>Ninox novaeseelandiae</i>		X					
Azure Kingfisher	<i>Ceyx azureus</i>	X	X					
Red-backed Kingfisher	<i>Todiramphus pyrrhopygius</i>		X					
Blue-winged Kookaburra	<i>Dacelo leachii</i>	X	X		X			
Forest Kingfisher	<i>Todiramphus macleayii</i>	X	X		X			
Sacred Kingfisher	<i>Todiramphus sanctus</i>	X	X		X	X		
Collared Kingfisher	<i>Todiramphus chloris</i>	X	X		X	X		
Rainbow Pitta	<i>Pitta iris</i>	X						
Rainbow Bee-eater	<i>Merops ornatus</i>		X		X			
Dollarbird	<i>Eurystomus orientalis</i>	X	X					
Great Bowerbird	<i>Ptilonorhynchus nuchalis</i>		X		X			
Red-backed Fairy-wren	<i>Malurus melanocephalus</i>		X					
Weebill	<i>Smicrarnis brevirostris</i>		X		X			
Green-backed Gerygone	<i>Gerygone chloronota</i>	X	X		X			
Mangrove Gerygone	<i>Gerygone levigaster</i>		X			X		
Large-billed Gerygone	<i>Gerygone magnirostris</i>	X	X					
Striated Pardalote	<i>Pardalotus striatus</i>		X		X			
Brown Honeyeater	<i>Lichmera indistincta</i>	X	X		X	X		
Dusky Honeyeater	<i>Myzomela obscura</i>		X		X			
Red-headed Honeyeater	<i>Myzomela erythrocephala</i>		X		X	X		
White-gaped Honeyeater	<i>Lichenostomus unicolor</i>		X		X			
White-throated Honeyeater	<i>Melithreptus albigularis</i>		X		X			

Common Name	Scientific Name	Museum Data Searches (OZCAM)	Charles Darwin NP (NTPWC 2003)	Acer Vaughn 1993 Birds Overhead	Acer Vaughn 1993 Birds Woodland	Acer Vaughn 1993 Birds Mangrove	Acer Vaughn 1993 Birds Mudflat/ Reef	Acer Vaughn 1993 Other Vertebrate
Little Friarbird	<i>Philemon citreogularis</i>		X		X			
Helmeted Friarbird	<i>Philemon buceroides</i>	X	X			X		
Silver-crowned Friarbird	<i>Philemon argenticeps</i>	X	X					
Blue-faced Honeyeater	<i>Entomyzon cyanotis</i>		X					
Rufous-banded Honeyeater	<i>Conopophila albobularis</i>	X	X		X			
White-bellied Cuckoo-shrike	<i>Coracina papuensis</i>		X		X			
Black-faced Cuckoo-shrike	<i>Coracina novaehollandiae</i>		X		X			
Cicadabird	<i>Coracina tenuirostris</i>		X					
Varied Triller	<i>Lalage leucomela</i>		X		X			
White-winged Triller	<i>Lalage sueurii</i>		X		X			
Grey Whistler	<i>Pachycephala simplex</i>	X	X					
Mangrove Golden Whistler	<i>Pachycephala melanura</i>		X			X		
Little Shrike-thrush	<i>Colluricincla megarhyncha</i>	X	X					
Yellow Oriole	<i>Oriolus flavocinctus</i>		X					
Olive-backed Oriole	<i>Oriolus sagittatus</i>		X					
Australasian Figbird	<i>Sphecotheres vieilloti</i>	X	X		X			
Black-faced Woodswallow	<i>Artamus cinereus</i>		X					
White-breasted Woodswallow	<i>Artamus leucorhynchus</i>		X					
Black Butcherbird	<i>Cracticus quoyi</i>	X	X		X			
Pied Butcherbird	<i>Cracticus nigrogularis</i>		X					
Spangled Drongo	<i>Dicrurus bracteatus</i>	X	X					
Mangrove Grey Fantail	<i>Rhipidura phasiana</i>		X					
Arafura Fantail	<i>Rhipidura dryas</i>		X					
Northern Fantail	<i>Rhipidura rufiventris</i>		X		X			
Willie Wagtail	<i>Rhipidura leucophrys</i>		X					
Torresian Crow	<i>Corvus orru</i>				X			
Magpie-lark	<i>Grallina cyanoleuca</i>		X		X			
Shining Flycatcher	<i>Myiagra alecto</i>	X	X					
Leaden Flycatcher	<i>Myiagra rubecula</i>		X					
Restless Flycatcher	<i>Myiagra inquieta</i>	X						
Broad-billed Flycatcher	<i>Myiagra ruficollis</i>		X					
Mangrove Robin	<i>Peneonanthe pulverulenta</i>	X	X					
Lemon-bellied Flycatcher	<i>Microeca flavigaster</i>		X		X			
Golden-headed Cisticola	<i>Cisticola exilis</i>		X		X			
Yellow White-eye	<i>Zosterops luteus</i>		X		X	X		
Fairy Martin	<i>Petrochelidon ariel</i>	X		X				
Tree Martin	<i>Petrochelidon nigricans</i>		X					
Mistletoebird	<i>Dicaeum hirundinaceum</i>	X	X		X			

Common Name	Scientific Name	Museum Data Searches (OZCAM)	Charles Darwin NP (NTPWC 2003)	Acer Vaughn 1993 Birds Overhead	Acer Vaughn 1993 Birds Woodland	Acer Vaughn 1993 Birds Mangrove	Acer Vaughn 1993 Birds Mudflat/ Reef	Acer Vaughn 1993 Other Vertebrate
Eurasian Tree Sparrow	<i>Passer montanus</i>	X						
Crimson Finch	<i>Neochmia phaeton</i>		X					
Double-barred Finch	<i>Taeniopygia bichenovii</i>		X		X			
Long-tailed Finch	<i>Poephila acuticauda</i>	X	X					
Chestnut-breasted Mannikin	<i>Lonchura castaneothorax</i>		X					
Total	145	66	112	8	37	9	7	0
Mammals								
Northern Quoll	<i>Dasyurus hallucatus</i>	X	X					X
Red-cheeked Dunnart	<i>Sminthopsis virginiae</i>		X					
Northern Brown Bandicoot	<i>Isodon macrourus</i>	X	X					X
Common Brushtail Possum	<i>Trichosurus vulpecula</i>	X	X					X
Agile Wallaby	<i>macropus agilis</i>		X					X
Antilopine Wallaroo	<i>Macropus antilopinus</i>	X						X
Black Flying-fox	<i>Pteropus alecto</i>		X					
Little Red Flying-fox	<i>Pteropus scapulatus</i>		X					
Northern Blossom Bat	<i>Macroglossus minimus</i>	X						
Hoary Wattled Bat	<i>Chalinolobus nigrogriseus</i>		X					
Northern Bentwing-bat	<i>Miniopterus orianae</i>	X	X					
Large-footed Myotis	<i>Myotis macropus</i>		X					
Grassland Melomys	<i>Melomys burtoni</i>		X					X
Water Rat	<i>Hydromys chrysogaster</i>	X	X					
Black-footed Tree Rat	<i>Mesembriomys gouldii</i>		X					
House Mouse	<i>Mus musculus</i>		X					
Black Rat	<i>Rattus rattus</i>	X	X					
Dusky Rat	<i>Rattus colletti</i>	X						
Feral Cat	<i>Felis catus</i>	X	X					X
Dingo	<i>Canis lupus dingo</i>		X					
Feral Pig	<i>Sus scrofa</i>	X						X
Total	21	11	17	0	0	0	0	8

3.2 Fauna Species List: 2010 – 2011 Survey

Common Name	Scientific Name	S1 MVF	S2 OW/R	S3 Mang	S4 OW	Area 1 Rail Loop	Area 2/3	Area 4 Tidal	Bleesers Ck	Pond B	Pond D	Pond K	Rail Pond	Catalina Is	South Shell Is	Total
Amphibians																
Marbled Frog	<i>Limnodynastes convexiusculus</i>				6											6
Giant Frog	<i>Cyclorana australis</i>				10											10
Northern Dwarf Tree Frog	<i>Litoria bicolor</i>		1		3											4
Common Tree Frog	<i>Litoria caerulea</i>	6	1		1											8
Striped Rocket Frog	<i>Litoria nasuta</i>		3		3											6
Red-eyed Tree Frog	<i>Litoria rothii</i>									2						2
Purple Tree Frog	<i>Litoria rubella</i>	3	8	1	3											15
Cane Toad	<i>Rhinella marina</i>	6	5		4											15
Total	8	15	18	1	30	0	0	0	0	2	0	0	0	0	0	66
Reptiles																
Northern Dtella	<i>Gehyra australis</i>				1											1
House Gecko	<i>Hemidactylus frenatus</i>	4	1	5	8											18
Bynoe's Gecko	<i>Heteronotia binoei</i>		1		1											2
Zigzag Velvet Gecko	<i>Oedura rhombifer</i>		1													1
Swamplands Lashtail	<i>Amphibolurus temporalis</i>	1	1	2	1											5
Mitchell's Water Monitor	<i>Varanus mitchelli</i>			1												1
Metallic Snake-eyed Skink	<i>Cryptoblepharus metallicus</i>	4			2											6
Slender Rainbow-skink	<i>Carlia gracilis</i>				1											1
Shaded-litter Rainbow-skink	<i>Carlia munda</i>				5											5
Red-sided Rainbow-skink	<i>Carlia rufilatus</i>	1	2		2											5
Northern Ctenotus	<i>Ctenotus borealis</i>			1												1
Slate-grey Snake	<i>Stegonotus cucullatus</i>		1													1
Total	12	10	7	9	21	0	0	0	0	0	0	0	0	0	0	47

Common Name	Scientific Name	S1 MVF	S2 OW/R	S3 Mang	S4 OW	Area 1 Rail Loop	Area 2/3	Area 4 Tidal	Bleesers Ck	Pond B	Pond D	Pond K	Rail Pond	Catalina Is	South Shell Is	Total
Birds																
Brown Quail	<i>Coturnix ypsilophora</i>		6		5							2				13
Wandering Whistling-Duck	<i>Dendrocygna arcuata</i>									10						10
Radjah Shelduck	<i>Tadorna radjah</i>									15	8	29				52
Green Pygmy-goose	<i>Nettapus pulchellus</i>									1						1
Grey Teal	<i>Anas gracilis</i>									1						1
Pacific Black Duck	<i>Anas superciliosa</i>									14	4					18
Peaceful Dove	<i>Geopelia striata</i>				3											3
Bar-shouldered Dove	<i>Geopelia humeralis</i>	11	1	1	8											21
Pied Imperial-Pigeon	<i>Ducula bicolor</i>								5							5
Tawny Frogmouth	<i>Podargus strigoides</i>		3													3
Large-tailed Nightjar	<i>Caprimulgus macrurus</i>	1		2												3
Australian Pelican	<i>Pelecanus conspicillatus</i>					1		2	6	22	103	31				165
Black-necked Stork	<i>Ephippiorhynchus asiaticus</i>						1		1		3					5
Eastern Great Egret	<i>Ardea modesta</i>			1		4	2	1		1						9
Pied Heron	<i>Egretta picata</i>					1										1
Intermediate Egret	<i>Ardea intermedia</i>						1	1						2	2	6
Little Egret	<i>Egretta garzetta</i>					6	1	5				2				14
Eastern Reef Egret	<i>Egretta sacra</i>					2	2	2	2					10	1	19
Striated Heron	<i>Butorides striata</i>					1	2	1	2							6
Australian White Ibis	<i>Threskiornis molucca</i>					5										5
Royal Spoonbill	<i>Platalea regia</i>					1				17	8					26
Eastern Osprey	<i>Pandion cristatus</i>						2								1	3
Black Kite	<i>Milvus migrans</i>				1											1
Brahminy Kite	<i>Haliastur indus</i>	1		3		1	1		1		1					8
White-bellied Sea-Eagle	<i>Haliaeetus leucogaster</i>					1			1		2			1		5

Common Name	Scientific Name	S1 MVF	S2 OW/R	S3 Mang	S4 OW	Area 1 Rail Loop	Area 2/3	Area 4 Tidal	Bleesers Ck	Pond B	Pond D	Pond K	Rail Pond	Catalina Is	South Shell Is	Total
Buff-banded Rail	<i>Gallirallus philippensis</i>										1					1
Chestnut Rail	<i>Eulabeornis castaneoventris</i>	3	1	2		2			1							9
Bush Stone-curlew	<i>Burhinus grallarius</i>			1	1											2
Beach Stone-curlew	<i>Esacus neglectus</i>													1		1
Australian Pied Oystercatcher	<i>Haematopus longirostris</i>										3					3
Black-winged Stilt	<i>Himantopus himantopus</i>									69	54	20				143
Masked Lapwing	<i>Vanellus miles</i>					5	2			6	4	10	2			29
Grey Plover	<i>Pluvialis squatarola</i>					6					6					12
Red-capped Plover	<i>Charadrius ruficapillus</i>										9	14				23
Lesser Sand Plover	<i>Charadrius mongolus</i>					6		10			320	2				338
Greater Sand Plover	<i>Charadrius leschenaultii</i>					13			3		276	16				308
Black-tailed Godwit	<i>Limosa limosa</i>											39				39
Bar-tailed Godwit	<i>Limosa lapponica</i>								1			27				28
Little Curlew	<i>Numenius minutus</i>					4										4
Whimbrel	<i>Numenius phaeopus</i>					10		2			4					16
Far Eastern Curlew	<i>Numenius madagascariensis</i>	1		1		7		2	1		123					135
Marsh Sandpiper	<i>Tringa stagnatilis</i>					8		8		11	315	23				365
Common Greenshank	<i>Tringa nebularia</i>			1		1	1		2	1	51					57
Terek Sandpiper	<i>Xenus cinereus</i>					5	17	10	35							67
Common Sandpiper	<i>Actitis hypoleucos</i>	1		1		8	12	5	26	1	1				1	56
Grey-tailed Tattler	<i>Tringa brevipes</i>					1		25	21						1	48
Great Knot	<i>Calidris tenuirostris</i>										20	1				21
Red-necked Stint	<i>Calidris ruficollis</i>							4		31	112	34				181
Sharp-tailed Sandpiper	<i>Calidris acuminata</i>					2		6		3	249	1				261
Curlew Sandpiper	<i>Calidris ferruginea</i>							2		10	46	6				64
Gull-billed Tern	<i>Gelochelidon nilotica</i>						4				43					47

Common Name	Scientific Name	S1 MVF	S2 OW/R	S3 Mang	S4 OW	Area 1 Rail Loop	Area 2/3	Area 4 Tidal	Bleesers Ck	Pond B	Pond D	Pond K	Rail Pond	Catalina Is	South Shell Is	Total
Crested Tern	<i>Thalasseus bergii</i>										7					7
Common Tern	<i>Sterna hirundo</i>								10		5					15
Little Tern	<i>Sternula albifrons</i>						6		13		20					39
Bridled Tern	<i>Onychoprion anaethetus</i>						2									2
Whiskered Tern	<i>Chlidonias hybrida</i>										135					135
White-winged Black Tern	<i>Chlidonias leucopterus</i>						10				215					225
Silver Gull	<i>Chroicocephalus novaehollandiae</i>							2		20	11					33
Little Corella	<i>Cacatua sanguinea</i>		20	12												32
Rainbow Lorikeet	<i>Trichoglossus haematodus</i>				51											51
Red-winged Parrot	<i>Aprosmictus erythropterus</i>				4											4
Pheasant Coucal	<i>Centropus phasianinus</i>			1	5											6
Brush Cuckoo	<i>Cacomantis variolosus</i>	1	2						1							4
Little Bronze-Cuckoo	<i>Chalcites minutillus</i>	2	1													3
Eastern Koel	<i>Eudynamys orientalis</i>				1											1
Barking Owl	<i>Ninox connivens</i>		1													1
Blue-winged Kookaburra	<i>Dacelo leachii</i>				1											1
Forest Kingfisher	<i>Todiramphus macleayii</i>		1	1	5											7
Sacred Kingfisher	<i>Todiramphus sanctus</i>				1											1
Collared Kingfisher	<i>Todiramphus chloris</i>				1	7	1		6					2		17
Rainbow Bee-eater	<i>Merops ornatus</i>	23	3	2	3											31
Great Bowerbird	<i>Ptilonorhynchus nuchalis</i>	4														4
Red-backed Fairy-wren	<i>Malurus melanocephalus</i>		3		2											5
Green-backed Gerygone	<i>Gerygone chloronota</i>	3	3	4	1											11
Mangrove Gerygone	<i>Gerygone levigaster</i>	6	3	3	1	1										14
Brown Honeyeater	<i>Lichmera indistincta</i>	5	35	6	8											54
Dusky Honeyeater	<i>Myzomela obscura</i>		1		2											3

Common Name	Scientific Name	S1 MVF	S2 OW/R	S3 Mang	S4 OW	Area 1 Rail Loop	Area 2/3	Area 4 Tidal	Bleesers Ck	Pond B	Pond D	Pond K	Rail Pond	Catalina Is	South Shell Is	Total
Red-headed Honeyeater	<i>Myzomela erythrocephala</i>	18	26	29	8	4										85
White-gaped Honeyeater	<i>Lichenostomus unicolor</i>	5	6	3	7									1		22
White-throated Honeyeater	<i>Melithreptus albogularis</i>	1	4		17											22
Blue-faced Honeyeater	<i>Entomyzon cyanotis</i>				1											1
Little Friarbird	<i>Philemon citreogularis</i>		3													3
Helmeted Friarbird	<i>Philemon buceroides</i>	1	2						1							4
Silver-crowned Friarbird	<i>Philemon argenticeps</i>	2	4		7											13
Bar-breasted Honeyeater	<i>Ramsayornis fasciatus</i>				1											1
Rufous-banded Honeyeater	<i>Conopophila albogularis</i>	3	5		6											14
Rufous-throated Honeyeater	<i>Conopophila rufogularis</i>	3	2		2	1			1							9
White-bellied Cuckoo-shrike	<i>Coracina papuensis</i>	6	5		1											12
Cicadabird	<i>Coracina tenuirostris</i>			1												1
Varied Triller	<i>Lalage leucomela</i>	1	3	2												6
Grey Whistler	<i>Pachycephala simplex</i>	2	3	3	4											12
Little Shrike-thrush	<i>Colluricincla megarhyncha</i>			8												8
Yellow Oriole	<i>Oriolus flavocinctus</i>	4	1	1	2				2							10
Olive-backed Oriole	<i>Oriolus sagittatus</i>		1													1
Australasian Figbird	<i>Sphecotheres vieilloti</i>								2							2
White-breasted Woodswallow	<i>Artamus leucorhynchus</i>	2	2		1											5
Black Butcherbird	<i>Cracticus quoyi</i>	4		1	3											8
Northern Fantail	<i>Rhipidura rufiventris</i>	3	7													10
Torresian Crow	<i>Corvus orru</i>				1											1
Magpie-lark	<i>Grallina cyanoleuca</i>		2	3	4	2	4									15
Shining Flycatcher	<i>Myiagra alecto</i>	2	1	4												7
Mangrove Robin	<i>Peneonanthe pulverulenta</i>		5	7												12
Golden-headed Cisticola	<i>Cisticola exilis</i>		1		8											9

Common Name	Scientific Name	S1 MVF	S2 OW/R	S3 Mang	S4 OW	Area 1 Rail Loop	Area 2/3	Area 4 Tidal	Bleesers Ck	Pond B	Pond D	Pond K	Rail Pond	Catalina Is	South Shell Is	Total
Yellow White-eye	<i>Zosterops luteus</i>	9	8	6	2				2					2		29
Crimson Finch	<i>Neochmia phaeton</i>		2		2											4
Double-barred Finch	<i>Taeniopygia bichenovii</i>	9	10	1												20
Long-tailed Finch	<i>Poephila acuticauda</i>		4													4
Chestnut-breasted Mannikin	<i>Lonchura castaneothorax</i>				4											4
Australasian Pipit	<i>Anthus novaeseelandiae</i>											1				1
Total	109	137	191	111	185	116	71	88	146	233	2159	258	2	19	6	3722
Mammals																
Red-cheeked Dunnart	<i>Sminthopsis virginiae</i>	1 (RC)														1
Northern Brown Bandicoot	<i>Isodon macrourus</i>		1(HS)													1
Black Flying-fox	<i>Pteropus alecto</i>				2											2
Little Red Flying-fox	<i>Pteropus scapulatus</i>				14											14
Yellow-bellied Sheath-tail-bat*	<i>Saccolaimus flaviventris</i>		A													
Northern Freetail-bat	<i>Chaerephon jobensis</i>	A	A		A											
Mangrove Freetail-bat	<i>Mormopterus (loriae) cobourgiana</i>	A	A	A	A											
Long-eared Bat*	<i>Nyctophilus sp.</i>			A	A											
Hoary Wattled Bat/Broadnosed Bat*	<i>Chalinolobus nigrogriseus/ Scotorepens sp</i>		A	A	A											
Large-footed Myotis	<i>Myotis macropus</i>	A														
Northern Pipistrelle	<i>Pipistrellus westralis</i>	A		A												
Little Cave Bat	<i>Vespadelus caurinus</i>	A														
Grassland Melomys	<i>Melomys burtoni</i>		1	3												4
Dingo	<i>Canis lupus dingo</i>		1	2												3
Indo-Pacific Hump-backed Dolphin	<i>Sousa chinensis</i>								6							6
Total	15	0	2	5	16	0	0	0	6	0	0	0	0	0	0	31

* Could not be identified to species level/probable identification. MVF = Monsoon vine forest; OW/R = open woodland/regrowth; Mang = Mangrove and saltpan habitat; OW = Open woodland. RC = Remote camera; HS = Hair sample from Hair Funnel; A = Anabat recording.

3.3 EMS Wader Count Data 2010 – 2011

Common Name	Scientific Name	EMS WC 11/11/2010	EMS WC 12/11/2010	EMS WC 16/11/2010	EMS WC 18/11/2010	EMS WC 22/11/2010	EMS WC 24/11/2010	EMS WC 16/01/2011	Total
Wandering Whistling-Duck	<i>Dendrocygna arcuata</i>					8			10
Radjah Shelduck	<i>Tadorna radjah</i>		12		14	9	17		52
Green Pygmy-goose	<i>Nettapus pulchellus</i>							1	1
Grey Teal	<i>Anas gracilis</i>					1			5
Pacific Black Duck	<i>Anas superciliosa</i>		2		1	4	7		24
Australian Pelican	<i>Pelecanus conspicillatus</i>		10	40	15	38	27	33	163
Black-necked Stork	<i>Ephippiorhynchus asiaticus</i>		1		1			3	5
Eastern Great Egret	<i>Ardea modesta</i>		1	1	3	1	1		7
Intermediate Egret	<i>Ardea intermedia</i>	2			1				3
Pied Heron	<i>Egretta picata</i>				1				1
Little Egret	<i>Egretta garzetta</i>				3	4	2		9
Eastern Reef Egret	<i>Egretta sacra</i>	12	1		2		1		16
Striated Heron	<i>Butorides striata</i>	2	2		1				5
Australian White Ibis	<i>Threskiornis molucca</i>			1		2	2		5
Royal Spoonbill	<i>Platalea regia</i>		1	8	8	4	5		26
Eastern Osprey	<i>Pandion cristatus</i>					1	1		2
Brahminy Kite	<i>Haliastur indus</i>	1	1				2		4
White-bellied Sea-Eagle	<i>Haliaeetus leucogaster</i>	1						3	4
Buff-banded Rail	<i>Gallirallus philippensis</i>					1			1
Chestnut Rail	<i>Eulabeornis castaneiventris</i>		1			1		1	3
Beach Stone-curlew	<i>Esacus neglectus</i>	1							1
Australian Pied Oystercatcher	<i>Haematopus longirostris</i>					3			3
Black-winged Stilt	<i>Himantopus himantopus</i>		16		18	60	28	13	143
Masked Lapwing	<i>Vanellus miles</i>		4	2	6	4	9	4	29
Grey Plover	<i>Pluvialis squatarola</i>			6			6		12
Red-capped Plover	<i>Charadrius ruficapillus</i>		3	7	2		9	2	23

Common Name	Scientific Name	EMS WC 11/11/2010	EMS WC 12/11/2010	EMS WC 16/11/2010	EMS WC 18/11/2010	EMS WC 22/11/2010	EMS WC 24/11/2010	EMS WC 16/01/2011	Total
Lesser Sand Plover	<i>Charadrius mongolus</i>		2	4		302	20		328
Greater Sand Plover	<i>Charadrius leschenaultii</i>			54	4	210	37	3	308
Black-tailed Godwit	<i>Limosa limosa</i>		2	6	8		23		39
Bar-tailed Godwit	<i>Limosa lapponica</i>		2	1	3		21	1	28
Little Curlew	<i>Numenius minutus</i>			4					4
Whimbrel	<i>Numenius phaeopus</i>		2	8		2	2		14
Eastern Curlew	<i>Numenius madagascariensis</i>		3	99		28		1	131
Marsh Sandpiper	<i>Tringa stagnatilis</i>			1	3	263	88	2	357
Common Greenshank	<i>Tringa nebularia</i>	1	20	15	1	10	2	7	56
Terek Sandpiper	<i>Xenus cinereus</i>	52			5				57
Common Sandpiper	<i>Actitis hypoleucos</i>	14	1		9	1		23	48
Grey-tailed Tattler	<i>Tringa brevipes</i>	15			1			6	7
Great Knot	<i>Calidris tenuirostris</i>			20			1		21
Red-necked Stint	<i>Calidris ruficollis</i>		30	26		30	89	2	177
Sharp-tailed Sandpiper	<i>Calidris acuminata</i>		10	3		200	34	7	255
Curlew Sandpiper	<i>Calidris ferruginea</i>		14	3		22	23		62
Gull-billed Tern	<i>Gelochelidon nilotica</i>		4	5		26	9	3	47
Crested Tern	<i>Thalasseus bergii</i>					5		2	7
Common Tern	<i>Sterna hirundo</i>	10					5		15
Little Tern	<i>Sternula albifrons</i>	8				10	10	11	39
Bridled Tern	<i>Onychoprion anaethetus</i>							2	2
Whiskered Tern	<i>Chlidonias hybrida</i>			20		40	65	10	135
White-winged Black Tern	<i>Chlidonias leucopterus</i>			150		25	20	30	225
Silver Gull	<i>Chroicocephalus novaehollandiae</i>					18	13		31
Total		119	145	484	110	1333	579	170	2950
Total Species	50	12	24	23	22	31	31	23	

3.4 Estbergs (2011) Wader Count Data 2009 – 2010

* Where Estbergs presents an estimated range for count numbers, the lowest estimate in the range has been used.


Common Name	Scientific Name	Estbergs 30-12-2009	Estbergs 09-01-2010	Estbergs 06-02-2010	Estbergs 27-03-2010	Estbergs 17-04-2010	Estbergs 10-07-2010	Estbergs 28-10-2010	Estbergs 29-11-2010	Total
Wandering Whistling-Duck	<i>Dendrocygna arcuata</i>	2	2		269	151				424
Radjah Shelduck	<i>Tadorna radjah</i>			2	17	8		8	11	46
Pacific Black Duck	<i>Anas superciliosa</i>	3					2	10	9	24
Australian Pelican	<i>Pelecanus conspicillatus</i>	18	29			3	39	28	35	152
Black-necked Stork	<i>Ephippiorhynchus asiaticus</i>	1	1	2	2			1		7
Eastern Great Egret	<i>Ardea modesta</i>	1						1		2
Pied Heron	<i>Egretta picata</i>	2					19			21
Little Egret	<i>Egretta garzetta</i>		3	1	1	1	10		3	19
Eastern Reef Egret	<i>Egretta sacra</i>		2					1	2	5
Striated Heron	<i>Butorides striata</i>			1						1
Royal Spoonbill	<i>Platalea regia</i>	1			3	5		5	11	25
Eastern Osprey	<i>Pandion cristatus</i>						1	1		2
Whistling Kite	<i>Haliastur sphenurus</i>							2		2
Brahminy Kite	<i>Haliastur indus</i>	1				1	1	2		5
Australian Pied Oystercatcher	<i>Haematopus longirostris</i>	2	2	2	2				2	10
Black-winged Stilt	<i>Himantopus himantopus</i>	2	7	5	11	47	26		41	139
Pratincole sp							2			2
Masked Lapwing	<i>Vanellus miles</i>		2	5	15	10	22	8	6	68
Grey Plover	<i>Pluvialis squatarola</i>	17						1	3	21
Pacific Golden Plover	<i>Pluvialis fulva</i>	12		1						13
Oriental Plover	<i>Charadrius veredus</i>								1	1
Red-capped Plover	<i>Charadrius ruficapillus</i>	5	3	4	20	21	43	28	12	136
Lesser Sand Plover	<i>Charadrius mongolus</i>	7							6	13


Common Name	Scientific Name	Estbergs 30-12-2009	Estbergs 09-01-2010	Estbergs 06-02-2010	Estbergs 27-03-2010	Estbergs 17-04-2010	Estbergs 10-07-2010	Estbergs 28-10-2010	Estbergs 29-11-2010	Total
Greater Sand Plover	<i>Charadrius leschenaultii</i>	70	3	1					61	135
Unident Small Plover		10								10
Unident Large Plover		7								7
Black-tailed Godwit	<i>Limosa limosa</i>					7		20	11	38
Bar-tailed Godwit	<i>Limosa lapponica</i>	11				1			11	23
Whimbrel	<i>Numenius phaeopus</i>	45					24		8	77
Far Eastern Curlew	<i>Numenius madagascariensis</i>	120	1	5	101	1	43		9	280
Marsh Sandpiper	<i>Tringa stagnatilis</i>	2	2	3		1	2			10
Common Greenshank	<i>Tringa nebularia</i>	16	24	1	31	5	22	20	6	125
Wood Sandpiper	<i>Tringa glareola</i>		1							1
Terek Sandpiper	<i>Xenus cinereus</i>									0
Common Sandpiper	<i>Actitis hypoleucos</i>		2			1				3
Grey-tailed Tattler	<i>Tringa brevipes</i>	2		1	1		24		19	47
Sanderling	<i>Calidris alba</i>			1						1
Great Knot	<i>Calidris tenuirostris</i>							51	6	57
Red Knot	<i>Calidris canutus</i>	8	6			150				164
Red-necked Stint	<i>Calidris ruficollis</i>	45	3		47	12		14	18	139
Sharp-tailed Sandpiper	<i>Calidris acuminata</i>	25	5	13	22	13	8	8	34	128
Curlew Sandpiper	<i>Calidris ferruginea</i>	2						2		4
Unidentified small wader		30								30
Gull-billed Tern	<i>Gelochelidon nilotica</i>	65			2		7	4	7	85
Crested Tern	<i>Thalasseus bergii</i>									0
Common Tern	<i>Sterna hirundo</i>									0
Little Tern	<i>Sternula albifrons</i>	90			1		2			93
Bridled Tern	<i>Onychoprion anaethetus</i>									0
Whiskered Tern	<i>Chlidonias hybrida</i>	45	25	2				57	62	191


Common Name	Scientific Name	Estbergs 30-12-2009	Estbergs 09-01-2010	Estbergs 06-02-2010	Estbergs 27-03-2010	Estbergs 17-04-2010	Estbergs 10-07-2010	Estbergs 28-10-2010	Estbergs 29-11-2010	Total
White-winged Black Tern	<i>Chlidonias leucopterus</i>		25							25
Silver Gull	<i>Chroicocephalus novaehollandiae</i>	40			2		9	9	33	93
Total		707	148	50	547	438	306	281	427	2904
Total Species		47	32	20	17	18	19	22	26	


Appendix 4 Systematic Fauna Site 50m Quadrat Habitat Data

Impact categories: 0 = no visible impact in quadrat -> 5 = major impact affecting all of quadrat

Site Area Rail spur: Area 1		Fauna Site Number 1	
UTM Grid 52 L	Northing 706438	Easting 8620251	
			
<p>Dominant Vegetation: Monsoon vine forest (MVF), adjacent mangroves</p> <p>Topography: Low rise and adjacent mud/saline flats</p> <p>Aspect: North</p> <p>Slope: 5°</p> <p>Perm Water: 50 – 500m (tidal creek)</p> <p>Current Water: 50 – 500m (drain)</p> <p>Patch size: <1 ha (MVF)</p> <p>Disturbance: 2</p> <p>Fire Impact: 1</p> <p>Last Fire: 2+ years ago</p> <p>Pig Damage: 0</p> <p>Weeds: 2</p>		<p>Rock Cover:</p> <p>Pebbles < 0.6cm = 2-10%</p> <p>Small rocks 6-20cm = <2%</p> <p>Soil texture: Clay-loam, mangrove mud</p> <p>Soil depth: >40cm</p> <p>Ground Cover:</p> <p>Annual Grass 60%</p> <p>Litter 30%</p> <p>Bare ground 10%</p> <p>Logs > 5cm Intersecting 200m quadrat perimeter: 2</p> <p>Hollows: None observed</p> <p>Woody Debris: Moderate</p> <p>Flowering: Low (occasional <i>Peltophorum pterocarpum</i>)</p>	
<p>Comments: Very small monsoon vine forest remnant adjoining extensive area of mangrove forest. The Monsoon Vine Forest (MVF) remnant shows signs of previous disturbance. Adjacent to railway line (photo: Garry Thomas).</p>			

Site Area Rail spur: Area 1		Fauna Site Number 2
UTM Grid 52 L	Northing 707832	Easting 8620863
		
<p>Dominant Vegetation: Mixed open woodland remnants and regrowth, adjacent mangroves</p> <p>Topography: Low rise and adjacent mud/saline flats</p> <p>Aspect: North</p> <p>Slope: 3°</p> <p>Perm Water: 50 – 500m (tidal creek)</p> <p>Current Water: 50 – 500m (drain)</p> <p>Patch size: <1 ha (open woodland)</p> <p>Disturbance: 2</p> <p>Fire Impact: 1</p> <p>Last Fire: last year</p> <p>Pig Damage: 0</p> <p>Weeds: 2</p>		<p>Rock Cover:</p> <p>Pebbles < 0.6cm = 2-10%</p> <p>Small rocks 6-20cm = <2%</p> <p>Soil texture: Clay-loam, mangrove mud</p> <p>Soil depth: >40cm</p> <p>Ground Cover:</p> <p>Annual Grass 90%</p> <p>Bare ground 10%</p> <p>Logs > 5cm Intersecting 200m quadrat perimeter: 4</p> <p>Hollows: Few</p> <p>Woody Debris: Low</p> <p>Flowering: Low (occasional <i>M. viridiflora</i>, <i>Grevillea pteridifolia</i>)</p>
<p>Comments: Small open woodland remnant adjacent to rail yards, adjoining extensive area of mangrove forest. Sediment deposition, clearing for site drainage, adjacent to existing railway line and yards</p>		

Site Area Rail spur: Area 1		Fauna Site Number 3
UTM Grid 52 L	Northing 708434	Easting 8621070
		
<p>Dominant Vegetation: <i>Ceriops australis</i>/<i>Avicennia marina</i> low closed forest</p> <p>Topography: Tidal flat</p> <p>Aspect: North</p> <p>Slope: 1°</p> <p>Perm Water: 50 – 500m (tidal creek)</p> <p>Current Water: 50 – 500m (drain)</p> <p>Patch size: >5km</p> <p>Disturbance: 1</p> <p>Fire Impact: 1</p> <p>Last Fire: Long unburnt</p> <p>Pig Damage: 0</p> <p>Weeds: 0</p>		<p>Rock Cover: 0%</p> <p>Soil texture: Mangrove mud</p> <p>Soil depth: >40cm</p> <p>Ground Cover: Bare ground 100%</p> <p>Logs > 5cm Intersecting 200m quadrat perimeter: 4</p> <p>Hollows: Few in senescent mangroves</p> <p>Woody Debris: Moderate</p> <p>Flowering: Low (Occasional <i>Ceriops</i> sp)</p>
<p>Comments: Site located in habitat adjoining extensive area of mangrove forest. Sediment deposition, drainage, adjacent to existing railway yards</p>		

Site Area Area 4		Fauna Site Number 4	
UTM Grid 52 L	Northing 708589	Easting 8619560	
			
<p>Dominant Vegetation: Mixed open woodland, adjacent mangroves</p> <p>Topography: Low rise and adjacent mud/saline flats</p> <p>Aspect: West</p> <p>Slope: 3°</p> <p>Perm Water: 50 – 500m (tidal creek)</p> <p>Current Water: 50 – 500m (drain)</p> <p>Patch size: 1-5 ha (open woodland)</p> <p>Disturbance: 2</p> <p>Fire Impact: 1</p> <p>Last Fire: last year</p> <p>Pig Damage: 0</p> <p>Weeds: 2</p>		<p>Rock Cover:</p> <p>Small rocks 6-20cm = <2%</p> <p>Soil texture: Clay-loam, mangrove mud</p> <p>Soil depth: >40cm</p> <p>Ground Cover:</p> <p>Annual Grass 95%</p> <p>Bare ground 5%</p> <p>Logs > 5cm Intersecting 200m quadrat perimeter: 6</p> <p>Hollows: Few</p> <p>Woody Debris: Low</p> <p>Flowering: Low (occasional <i>M. viridiflora</i>)</p>	
<p>Comments: Mixed open woodland remnant adjoining extensive area of mangrove forest. Area to the north has recently been filled. Sediment deposition, clearing for site drainage.</p>			

Appendix 5 Plates



Plate 1

Vegetation Community 1:
Monsoon Vine Forest (photo:
Garry Thomas)



Plate 2

Vegetation Community 2: L-MH
Mixed Species OW/W (photo:
Garry Thomas)



Plate 3

Vegetation Community 3:
Disturbed Areas with Regrowth
(photo: Garry Thomas)



Plate 4

Cycas armstrongii (Vulnerable
TPWC Act 2000), Area 4



Plate 5

Common Tree Frog (*Litoria
caerulea*), Area 4



Plate 6

Mitchell's Water Monitor
(*Varanus mitchelli*) trapped at
S3



Plate 7

Mangrove Robin
(*Peneonanthe pulverulenta*),
Site 3



Plate 8

Eastern Osprey (*Pandion
cristatus*), perched on a rock
wall, Area 2/3

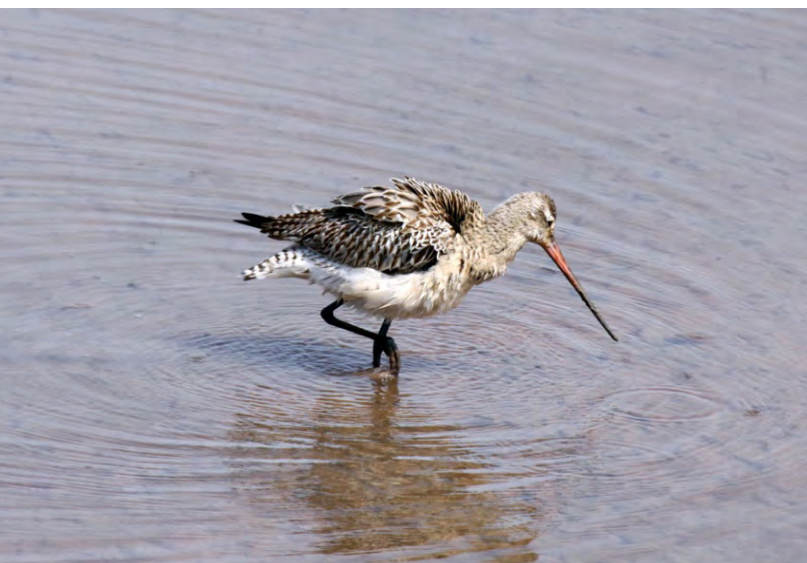


Plate 9

Bar-tailed Godwit (*Limosa lapponica*) feeding
in Pond K, EAW



Plate 10

Chestnut Rail (*Eulabeornis castaneiventris*) photographed by remote camera, Site 3



Plate 11

Australian Pelican (*Pelecanus conspicillatus*) Pond B, EAW



Plate 12

Sharp-tailed Sandpiper (*Calidris acuminata*), Pond D

Appendix 6 Climate Data Darwin Airport, November 2010 and January 2011

Darwin, Northern Territory

November 2010 Daily Weather Observations



Australian Government
Bureau of Meteorology

Date	Day	Temps		Rain mm	Evap mm	Sun hours	Max wind gust			9am						3pm					
		Min	Max				Dirn	Spd	Time	Temp	RH	Cld	Dirn	Spd	MSLP	Temp	RH	Cld	Dirn	Spd	MSLP
		°C	°C					km/h	local	°C	%	eighths		km/h	hPa	°C	%	eighths		km/h	hPa
1	Mo	23.2	32.8	0.2	4.6	9.0	NE	48	13:18	28.2	70	7	ESE	22	1010.0	30.0	60	7	NNE	22	1005.6
2	Tu	23.3	25.6	14.2	6.4	0.0	E	35	00:06	25.6	83	7	SSE	15	1011.7	24.4	89	7	SE	22	1009.1
3	We	20.6	31.0	2.6	2.2	6.5	SE	35	09:34	23.4	62	7	SE	24	1013.1	30.7	52	7	ESE	13	1009.4
4	Th	23.2	34.2	0	5.4	12.0	ESE	37	13:27	28.5	59	1	ESE	15	1011.9	32.9	35	4	SSE	13	1007.7
5	Fr	25.1	32.7	0	7.0	8.5	NNW	31	12:48	28.8	75	6	SE	4	1010.4	29.4	59	7	NW	19	1007.2
6	Sa	23.6	33.0	0	5.6	7.5	W	31	12:16	29.1	75	2	SE	7	1011.3	28.9	60	7	WSW	4	1007.8
7	Su	23.6	33.1	0	5.2	11.5	WNW	33	15:19	29.3	77	4	NNE	11	1011.6	32.4	52	3	NW	22	1008.0
8	Mo	24.3	34.1	0	7.2	11.0	NNE	52	15:49	30.2	70	2	NW	6	1011.8	33.3	44	1	WNW	28	1008.5
9	Tu	25.1	34.1	0	7.0	10.4	NW	33	16:27	31.0	65	4	NW	9	1013.2	32.7	53	2	NW	19	1010.2
10	We	25.3	32.3	0	6.8	7.2	W	37	13:28	30.0	66	4	ENE	11	1012.8	29.0	75	5	NNW	13	1008.5
11	Th	25.3	32.7	8.4	5.8	10.8	WNW	33	13:47	29.5	76	5	SSE	7	1011.6	31.9	59	4	WNW	22	1007.2
12	Fr	27.5	33.7	0	9.0	11.4	WNW	37	17:34	30.2	64	4	NNW	17	1009.9	32.9	50	2	WNW	19	1006.5
13	Sa	26.8	33.6	0.4	7.4	12.3	NW	39	15:19	30.4	65	6	W	17	1010.0	32.5	57	2	NW	28	1007.7
14	Su	25.7	33.7	0	8.6	9.7	NE	41	21:05	30.2	70	6	SSW	13	1012.2	32.7	58	5	WNW	22	1008.4
15	Mo	23.4	33.5	15.4	7.8	9.1	WNW	33	14:31	29.8	71	3	SSE	2	1011.2	32.3	60	5	WNW	26	1007.0
16	Tu	26.1	33.2	3.4	5.6	7.3	ESE	50	15:19	29.6	80	7	ENE	9	1009.1	31.8	62	6	WNW	24	1006.2
17	We	23.3	33.7	12.2	7.0	2.6	S	59	12:15	29.0	83	7	SSE	7	1009.3	24.6	95	8	WSW	6	1007.6
18	Th	23.4	33.6	56.0	7.4	8.3	SSE	56	17:28	30.0	65	7	S	7	1010.1	32.8	55	7	WNW	22	1006.4
19	Fr	23.7	33.2	21.8	10.0	7.2	ESE	28	06:42	26.3	82	8	E	15	1009.6	32.3	58	7	WNW	15	1006.0
20	Sa	25.1	34.3	0	4.8	9.2	ENE	48	07:57	27.0	70	6	NE	33	1010.0	32.3	49	7	NW	13	1005.4
21	Su	25.4	33.2	0	6.8	9.9	N	31	15:12	30.8	60	7	SW	4	1009.2	31.8	62	7	N	22	1005.5
22	Mo	25.9	33.7	0	4.6	7.6	N	52	14:16	30.4	72	7	E	6	1008.5	27.4	81	7	NNE	9	1005.5
23	Tu	25.8	33.6	6.6	4.8	8.4	SSW	44	16:36	30.8	64	5	N	6	1009.5	32.8	58	6	WNW	20	1005.5
24	We	25.8	34.2	0	5.8	9.3	NW	33	14:15	30.8	68	7	SSE	9	1009.6	33.7	58	4	NNW	15	1006.3
25	Th	26.6	33.7	0	5.8	6.6	ESE	43	14:08	31.3	70	4	NNW	9	1009.0	28.3	83	7	NW	11	1005.9
26	Fr	25.1	33.8	1.8	5.8	6.7	NW	33	15:01	28.5	66	7	ESE	6	1008.6	33.2	58	7	WNW	20	1004.7
27	Sa	26.5	33.5	0	5.4	5.9	WNW	35	17:51	30.9	67	5	NNW	9	1008.5	31.2	64	7	SW	17	1004.9
28	Su	24.7	32.8	7.6	6.2	4.7	N	28	15:31	28.5	78	7	E	2	1008.5	30.4	69	7	N	15	1005.9
29	Mo	25.6	30.8	0	4.2	2.4	SW	52	11:00	30.4	78	7	ESE	11	1007.7	25.0	98	7	SE	19	1005.9
30	Tu	22.7	34.0	57.6	8.4	9.3	E	33	10:12	28.9	76	5	E	19	1006.6	33.1	49	6	NE	11	1003.0
Statistics for November 2010																					
Mean		24.7	33.0		6.3	8.1				29.2	70	5		11	1010.2	30.9	62	5		17	1006.8
Lowest		20.6	25.6		2.2	0.0				23.4	59	1	#	2	1006.6	24.4	35	1	WSW	4	1003.0
Highest		27.5	34.3	57.6	10.0	12.3	S	59		31.3	83	8	NE	33	1013.2	33.7	98	8	#	28	1010.2
Total				208.2	188.6	242.3															

Observations were drawn from Darwin Airport (station 014015)

IDCJDW8014.201011 Prepared at 13:47 GMT on 3 Feb 2011
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<http://www.bom.gov.au/climate/dwo/IDCJDW0000.pdf>

Darwin, Northern Territory

January 2011 Daily Weather Observations



Australian Government
Bureau of Meteorology

Date	Day	Temps		Rain mm	Evap mm	Sun hours	Max wind gust			9am						3pm					
		Min	Max				Dirn	Spd	Time	Temp	RH	Cld	Dirn	Spd	MSLP	Temp	RH	Cld	Dirn	Spd	MSLP
		°C	°C					km/h	local	°C	%	eighths		km/h	hPa	°C	%	eighths		km/h	hPa
1	Sa	24.9	32.6	0	3.8	6.0	N	61	14:30	29.1	75	7	SSE	11	1007.6	23.5	95	7	N	24	1005.6
2	Su	23.0	31.9	30.8	5.6	6.1	NW	31	16:20	25.9	85	7	E	9	1008.6	30.2	63	7	WNW	20	1004.8
3	Mo	25.8	32.7	0	5.2	3.6	ESE	46	13:59	28.8	80	6	S	11	1006.7	24.3	96	8	E	9	1005.4
4	Tu	23.6	32.0	38.6	5.2	7.8	NNW	35	17:50	29.4	75	6	NW	19	1007.3	31.6	65	7	NW	24	1004.5
5	We	25.1	32.1	0.2	5.6	7.9	NW	33	14:59	30.2	73	7	NW	17	1006.8	31.9	66	2	NW	24	1004.0
6	Th	26.0	31.1	1.6	6.6	0.4	NW	46	22:31	26.3	90	7	NNW	6	1007.3	24.8	95	8	SW	19	1005.5
7	Fr	24.5	27.9	25.4	2.2	0.0	NW	48	14:53	25.4	91	8	WSW	11	1005.6	27.2	81	7	NW	39	1003.3
8	Sa	24.0	30.1	38.8	5.8	1.1	WNW	57	12:24	25.7	94	8	WNW	19	1004.2	28.4	75	8	NW	33	1002.3
9	Su	25.5	31.3	5.0	3.4	5.6	W	50	20:03	29.7	74	7	WNW	30	1004.9	30.7	68	7	WNW	30	1002.5
10	Mo	24.6	29.6	13.4	6.4	0.2	W	67	05:38	27.3	84	8	W	17	1002.7	28.3	79	8	WNW	30	1000.1
11	Tu	22.7	30.0	73.6	10.4	0.1	W	67	05:38	24.1	98	7	ENE	11	1001.6	26.4	89	8	NNW	15	997.8
12	We	23.0	31.5	43.2	7.6	3.9	WNW	89	01:56	26.9	84	8	NW	39	1000.7	30.4	73	7	WNW	39	998.9
13	Th	24.9	31.4	13.0	7.0	4.8	W	57	12:44	27.7	85	7	W	24	1004.4	30.5	70	6	W	31	1002.1
14	Fr	24.6	31.2	3.6	5.0	7.4	WNW	52	05:28	28.8	74	7	WNW	30	1005.5	30.2	72	7	W	26	1002.8
15	Sa	23.6	30.4	24.2	4.6	1.1	WSW	43	00:26	27.3	88	7	W	13	1004.7	27.2	92	7	WSW	9	1001.6
16	Su	22.9	29.8	61.8	7.4	0.1	SW	31	15:29	23.4	98	8	S	13	1005.0	26.9	82	8	WSW	20	1002.3
17	Mo	23.3	30.9	3.2	1.6	5.8	SW	57	12:17	29.7	73	6	WNW	26	1006.2	29.4	79	7	W	17	1004.2
18	Tu	23.7	28.8	25.4	5.6	0.1	W	54	09:02	26.0	92	8	W	13	1006.5	27.0	87	8	W	22	1003.9
19	We	24.8	30.6	13.6	3.0	4.4	NW	48	08:37	25.7	87	8	NW	24	1005.9	30.3	73	7	W	30	1003.5
20	Th	24.8	31.8	7.2	3.2	6.3	WNW	44	13:41	28.0	84	7	NW	19	1006.0	29.9	76	7	WNW	19	1003.9
21	Fr	24.2	29.1	9.0	7.2	0.0	NW	57	17:20	26.6	89	8	NNW	11	1006.9	27.1	79	8	NNW	20	1004.9
22	Sa	23.2	29.3	37.8	4.8	0.0	W	76	20:36	26.7	85	7	W	15	1007.3	28.1	79	8	NW	15	1005.5
23	Su	23.5	29.9	37.2	6.0	2.8	W	59	17:05	25.6	94	7	WNW	17	1006.3	28.7	78	7	NW	26	1003.8
24	Mo	23.9	29.7	36.2	5.6	0.9	WNW	50	11:38	25.8	93	8	N	19	1005.7	24.6	97	8	WNW	13	1004.7
25	Tu	24.3	31.3	22.0	2.6	2.2	N	41	16:53	25.2	95	8	W	4	1008.7	30.0	73	7	NNW	15	1006.4
26	We	22.6	31.4	22.0	5.2	4.1	WSW	52	02:40	24.5	89	7	E	7	1011.2	30.6	62	7	SW	11	1008.9
27	Th	24.5	34.2	0	2.8	9.7	SE	48	16:40	28.4	79	4	SW	24	1009.4	34.0	56	3	WNW	22	1005.1
28	Fr	24.1	32.7	4.6	7.0	11.0	NNE	31	14:53	28.6	78	6	N	9	1007.6	32.1	53	6	NNE	20	1005.1
29	Sa	24.8	33.2	0	7.2	12.0	NNW	30	15:18	29.0	74	1	S	9	1009.1	31.9	63	3	NNW	17	1005.9
30	Su	25.2	32.6	0	5.2	11.1	WNW	37	15:27	28.9	76	4	WNW	13	1008.0	31.9	67	6	NW	26	1005.0
31	Mo	23.1	32.0	14.2	6.2	8.2	NE	52	04:02	25.5	86	7	ESE	13	1007.6	31.3	63	7	NNW	17	1003.7
Statistics for January 2011																					
Mean		24.2	31.1		5.3	4.3				27.1	84	6		16	1006.3	29.0	75	6		22	1003.8
Lowest		22.6	27.9		1.6	0.0				23.4	73	1	W	4	1000.7	23.5	53	2	#	9	997.8
Highest		26.0	34.2	73.6	10.4	12.0	WNW	89		30.2	98	8	NW	39	1011.2	34.0	97	8	#	39	1008.9
Total				605.6	165.0	134.7															

Observations were drawn from Darwin Airport (station 014015)

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