

# 5 VALUES FOR CONSIDERATION IN THE EIS

Based on the research undertaken for this report, there are known and potential ecological values within the footprints of the Murrumujuk facilities, OHTL railway corridor and OHTL utilities corridor, as summarised below. These will require further surveys and/or consideration in the EIS.

## 5.1 OHTL railway corridor

## 5.1.1 Significant areas

The following protected and/or significant areas are relevant to the OHTL railway corridor footprint:

- Three **conservation parks/reserves** through Manton Dam Recreation Area, the edge of Litchfield National Park and within ~2 km of Kintore Caves Conservation Reserve.
- The **Arnhem Plateau Sandstone Shrubland Complex**, a Threatened Ecological Community listed as Endangered under the *EPBC Act*. The corridor intersects land classed as possibly supporting this in five locations north-west and north-east of Katherine.
- Yinberrie Hills **Site of Conservation Significance**, a key site for the Endangered Gouldian Finch. The corridor is directly adjacent to the Western Arnhem Plateau SOCS.

## 5.1.2 Significant vegetation

The OHTL railway corridor footprint is mapped as passing through, or adjacent to, the following significant vegetation types:

- Wetlands, most notably the Adelaide River floodplain and south towards Hayes Creek.
- **Riparian vegetation** along many of the 154 watercourses crossed by the corridor, typically increasing in extent for high-order creeks and rivers.
- Dry rainforest at one location near Katherine
- Two **sinkholes** within 100 m of the corridor.

There is also the potential for the corridor to intersect woodland or forest containing large hollow-bearing trees.

## 5.1.3 Threatened species

Physical disturbance within the OHTL railway corridor footprint will be localised and there is a substantial degree of flexibility as to where the towers can be placed. It is therefore assumed that threatened species with general habitat requirements and/or wide ranges cannot be significantly impacted upon by proposal activities. The threatened species 'likelihood of occurrence' assessment for the OHTL railway corridor therefore focussed on identifying species that have restricted ranges or localised core habitat requirements. On that basis, the OHTL railway corridor footprint passes through, or adjacent to, habitat mapped as having a high likelihood of supporting the following threatened species:

- Seven riparian species one raptor, two water monitors, one rat and three species of sawfish. In general, the larger the watercourse, the more extensive the habitat, and therefore the more likely that these species are present. Therefore, the Adelaide, Fergusson, Edith and Katherine Rivers represent the highest likelihood habitat.
- Three bat species, including a proximate cave that is a significant maternity site for Ghost Bats (*Macroderma gigas*).



- Gouldian Finch (*Erythrura gouldiae*) most notably breeding habitat around the Yinberrie Hills region
- Greater Bilby (Macrotis lagotis) at the southern end of the corridor.
- Three flora species in the northern end of the corridor *Typhonium praetermissum, Stylidium ensatum* and *Helicteres macrothrix*.

## 5.2 OHTL utilities corridor

#### 5.2.1 Significant areas

The following protected and/or significant areas are relevant to the OHTL utilities corridor footprint:

- Two **conservation parks/reserves** running just inside the eastern boundary of the Shoal Bay Coastal Reserve and transecting Black Jungle Conservation Reserve.
- Three **Sites of Conservation Significance** Shoal Bay, Howard sand plains and Adelaide River coastal floodplain.

#### 5.2.2 Significant vegetation

The OHTL utilities corridor footprint is mapped as passing through, or adjacent to, the following significant vegetation types:

- Wetlands, eight swamps intersect the corridor.
- Three drainage lines with riparian vegetation occur within the corridor
- Three patches of **rainforest** are also intersected. Two are these are riparian, and so coincide with the riparian vegetation mentioned above.
- There are 16 potential **sandsheet heath** communities intersecting the corridor; three of which were considered highly modified habitats and another two yet to be verified.
- Three locations are woodland containing large hollow-bearing trees.

Some of the wetland and rainforest communities are also groundwater-dependent ecosystems.

#### 5.2.3 Threatened species

Physical disturbance within the OHTL utilities corridor footprint will be localised and there is a substantial degree of flexibility as to where the towers can be placed. It is therefore assumed that threatened species with general habitat requirements and/or wide ranges cannot be significantly impacted upon by proposal activities. The threatened species 'likelihood of occurrence' assessment for the OHTL utilities corridor therefore focussed on identifying species that have restricted ranges or localised core habitat requirements. On that basis, the OHTL utilities corridor footprint passes through, or adjacent to, habitat mapped as having a high likelihood of supporting the following threatened species:

- Three sandsheet heath species the Howard River Toadlet (*Uperoleia daviesae*) and two small flora species *Utricularia dunstaniae* and *Cleome insolata*.
- Mertens' Water Monitor (Varanus mertensi) associated with watercourses.
- Bare-rumped Sheathtail Bat (*Saccolaimus saccolaimus nudicluniatus*), particularly areas with large hollow-bearing trees within the corridor that may be roost sites for this species.
- High density areas of Darwin Cycad (Cycas armstrongii).
- Three flora species:



- Typhonium praetermissum in certain woodland communities
- Stylidium ensatum along watercourses
- Darwin Palm (*Ptychosperma macarthurii*) in the Black Jungle region.

## 5.3 Murrumujuk

## 5.3.1 Significant areas

The Underground Cable Corridor and Land Sea Joint Station components of the Murrumujuk proposal footprint overlap with the Shoal Bay Site of Conservation Significance.

## 5.3.2 Significant vegetation

One wetland community occurs in the south-west corner of the Darwin Converter Site.

The coastline of Gunn Point is lined with mangroves and rainforest patches – the latter occurring along the coast immediately south of the Land Sea Joint Station. These forest patches may also contain large trees with hollows suitable for fauna.

## 5.3.3 Threatened species

Eleven threatened species have a reasonable likelihood of occurring within the Murrumujuk footprint:

- Areas of high-density Darwin Cycads were observed within the Murrumujuk facilities during field investigations.
- A significant subpopulation of *Typhonium praetermissum* is present immediately to the west of the Darwin Converter Site. Of the 578 known records, only 2 were within the Darwin Converter Site footprint, and approximately 10 are within the Underground Cable Corridor. Not all of the high likelihood habitat within the Darwin Converter Site has been surveyed.
- Yellow-spotted Monitors (*Varanus panoptes*) have been recently detected at six sites across the Gunn Point peninsula, including at a site 800 m north of the Land Sea Joint Station
- There are 8 threatened shorebirds that have been recorded within the Gunn Point area or adjacent to the Murrumujuk footprint, these are:
  - o Bar-tailed Godwit (western Alaskan subspecies) (Limosa lapponica baueri)
  - o Bar-tailed Godwit (northern subspecies) (Limosa lapponica menzbieri)
  - Curlew Sandpiper (*Calidris ferruginea*)
  - Far Eastern Curlew (*Numenius madagascariensis*)
  - o Great Knot (Calidris tenuirostris)
  - o Greater Sand Plover (Charadrius leschenaultii)
  - Lesser Sand Plover (*Charadrius mongolus*)
  - Red Knot (Calidris canutus)

## 5.3.4 Migratory species

There are 18 migratory shorebird species known from the Gunn Point Beach area – eight of which are threatened species. The area qualifies as important habitat for migratory species because there is a count of Greater Sand Plover that exceeds 0.1 % of the flyway population.



# 6 **REFERENCES**

- Aplin, K., Braithwaite, R. and Baverstock, P. (2008). Pale Field-rat: Rattus tunneyi. pp. 698-700 In: S. Van Dyck and R. Strahan, ed., *The Mammals of Australia*, 3rd ed. Sydney, NSW: Reed New Holland.
- Astrebla Ecological Services (Astrebla) (2017). *Project Sea Dragon Gunn Point Hatchery Flora Survey Report*. CO2 Australia Ltd. [unpublished].
- Aumann, T. and Baker-Gabb, D. (1991). *A Management Plan for the Red Goshawk*. RAOU Report 75, Melbourne, Vic: Royal Australasian Ornithologists Union.
- Baker, B., Price, O., Woinarski, J., Gold, S., Connors, G., Fisher, A. and Hempel, C. (2005). Northern Territory Bioregions – Assessment of Key Biodiversity Values and Threats. Palmerston, NT: Department of Natural Resources, Environment and the Arts, Northern Territory Government.
- Barrett, G., Silcocks, A., Barry, S., Cunningham, R. and Poulter, R. (2003). *The New Atlas of Australian Birds*. Melbourne, Vic: Royal Australian Ornithologists Union.
- Barrow, P, Duff, G, Liddle, D. and Russell-Smith, J. (1993). Threats to monsoon rainforest habitat in northern Australia: the case of *Ptychosperma bleeseri* Burret (Arecaceae). *Australian Journal of Ecology*, 18(1), pp.463-471.
- Blake, G. (2004). An Object-Orientated Approach to Mapping the Distribution of Sandstone Heath Vegetation on the Arnhem Plateau. Honours thesis. Darwin, NT: Charles Darwin University. [unpublished].
- Blakers M., Davies, S. and Reilly P. (1984). *The Atlas of Australian Birds,* Melbourne, Vic: Melbourne University Press.
- Brazill-Boast, J., Pryke, S., and Griffith, S. (2010). Nest-site utilisation and niche overlap in two sympatric, cavity-nesting finches. *Emu*, 110(2), pp. 170-177.
- Braithwaite, R. (1985). *The Kakadu fauna survey: an ecological survey of Kakadu National Park*. Canberra, ACT: Australian National Parks & Wildlife Service.
- Brock, J. (1995). *Remnant vegetation survey: Darwin to Palmerston region: a report to Greening Australia. NT.* Darwin, NT: Greening Australia.
- Brocklehurst P., Edmeades B. and Munns P. (2017). *Mangroves of the Darwin Region: Native Point to Adelaide River, Northern Territory, 1996-2016.* Palmerston, NT: Northern Territory Government.
- Bureau of Meteorology (2021). *Australian Hydrological Geospatial Fabric (Geofabric)*. [online] Available from: <u>Geofabric: Water Information: Bureau of Meteorology (bom.gov.au)</u>
- Chatto, R. (2003). *The distribution and status of shorebirds around the coast and coastal wetlands of the Northern Territory*. Technical Report 73. Darwin, NT: Parks and Wildlife Commission of the Northern Territory. [online] Available from: https://dtc.nt.gov.au/ data/assets/pdf file/0008/279917/2003 shorebirds rpt76.pdf
- Christian, K. (2004). Varanus mertensi. In: eds. Pianka et al. *Varanoid lizards of the world*. Bloomington, Indianapolis: Indiana University Press.
- Christian, C. and Stewart, G. (1968). Aerial surveys and integrated studies Methodology of integrated surveys. In: Toulouse Conference. Toulouse: UNESCO. http://unesdoc.unesco.org/images/0006/000674/067440mo.pdf
- Churchill, S. 2008. Australian Bats, 2nd ed. Sydney, NSW: Allen & Unwin.
- Corbett L., Andersen, A. and Muller, W. (2003). Terrestrial vertebrates. pp. 126–152 In: eds. Andersen, A., Cook, G. and Williams, R. *Fire in Tropical Savannas: The Kapalga Experiment*. New York, NY: Springer New York.

Terrestrial ecological assessment for the OHTL and Murrumujuk facilities



- Cowie, I. and Westaway, J. (2012). *Threatened species of the Northern Territory Stylidium ensatum*. Northern Territory Department of Environment and Natural Resources. [online] Available at: <u>https://nt.gov.au/\_\_\_data/assets/pdf\_file/0009/208494/stylidium-ensatum.pdf</u>
- Cuff, N. and Green, C. (2019). Threatened Species Distribution in the Greater Darwin Region Typhonium praetermissum. Population Status of Typhonium praetermissum. [unpublished].
- Czechura, G. (2001). The status and distribution of the Red Goshawk Erythrotriorchis radiatus on Cape York *Peninsula, Queensland.* Report to Birds Australia. [unpublished].
- Czechura G. and Hobson R. (2000). *The Red Goshawk Erythrotriorchis radiatus in northern Queensland: status and distribution.* Report to Queensland Parks and Wildlife Service. [unpublished].
- Debus, S. (1998). The Birds of Prey of Australia. Melbourne, Vic: Oxford University Press.
- Debus, S. and Czechura, G. (1988). Field identification of the Red Goshawk *Erythrotriorchis radiatus. Australian Bird Watcher*, 12(1), pp. 154-159.
- Department of Agriculture, Water and the Environment (2021). *Protected Matters Search Tool*. [online] Available from: <u>https://www.awe.gov.au/environment/epbc/protected-matters-search-tool</u>
- Department of the Environment (2015). EPBC Act Policy Statement 3.21 Industry guidelines for avoiding, assessing and mitigating impacts on EPBC Act listed migratory shorebird species. Canberra, ACT: Commonwealth of Australia. [online] Available from: <u>http://www.environment.gov.au/epbc/publications/shorebirds-guidelines</u>
- Department of the Environment (2021). *Macroderma gigas Species Profile and Threats Database*. [online] Available from: <u>http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon\_id=174</u> [Accessed 7 Oct 2021].
- Department of Environment and Natural Resources (DENR) (2018). *Sensitive Vegetation in the Northern Territory.* [online] Available from: <u>https://nt.gov.au/\_\_data/assets/pdf\_file/0014/204206/sensitive-vegetation-riparian-english.pdf.</u>
- Department of the Environment and Natural Resources (DENR) (2020). Land Clearing Guidelines. Darwin, Northern Territory.
- Department of Environment, Parks and Water Security (DEPWS) (2014). Sandsheet Heath Vegetation in the Darwin Region. NR Maps layer.
- Department of Environment, Parks and Water Security (DEPWS) (2021a). *Darwin Regional Weeds Strategy* 2021-2026. Darwin, Northern Territory. [online] Available at: https://depws.nt.gov.au/ data/assets/pdf file/0004/291514/darwin-regional-weeds-strategy.pdf
- Department of Environment, Parks and Water Security (DEPWS) (2021b). *Katherine Regional Weeds Strategy 2021-2026*. Darwin, Northern Territory. [online] Available at: <u>https://depws.nt.gov.au/\_\_\_data/assets/pdf\_file/0006/269286/Katherine-Regional-Weeds-Strategy-</u> <u>2021-2026.pdf</u>
- Department of Environment, Parks and Water Security (DEPWS) (2021c). *Land Clearing Guidelines. Northern Territory Planning Scheme.* [online] Available at: <u>https://nt.gov.au/\_\_\_\_\_\_data/assets/pdf\_\_\_\_\_\_file/0007/236815/land-clearing-guidelines.pdf</u>
- Department of Environment, Parks and Water Security (DEPWS) (2021d). *Tennant Creek Regional Weeds Strategy 2021-2026*. Darwin, Northern Territory. [online] Available at: <u>https://depws.nt.gov.au/\_\_\_data/assets/pdf\_file/0006/258099/tennant-creek-regional-weeds-</u> <u>strategy.pdf</u>

Sun Cable Pty Ltd

Terrestrial ecological assessment for the OHTL and Murrumujuk facilities



- Department of the Environment, Water Heritage and the Arts (DEWHA) (2013). *Matter of National Significance: Significant impact guidelines 1.1 EPBC Act 1999.* [online] Available at: <u>https://www.environment.gov.au/system/files/resources/25cdd612-df01-4f66-ae52-</u>81b591f1b3fc/files/arnhem-plateau-shrubland-complex-factsheet.pdf
- Department of Land Resource Management (DLRM) (n.d.). *Sinkholes*. Darwin, Northern Territory. [online] Available at: <u>https://denr.nt.gov.au/\_\_data/assets/pdf\_file/0004/269338/WaterResNT\_Factsheet-working\_Sinkholes.pdf</u>
- Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC) (2011). Survey guidelines for Australia's threatened mammals. EPBC Act survey guidelines 6.5. EPBC Act policy statement. Canberra, ACT: DSEWPAC. [online] Available from: http://www.environment.gov.au/epbc/publications/threatened-mammals.html.
- Dostine, P. (1998). *Gouldian Finch Recovery Plan Erythrura gouldiae*. Darwin, NT: Gouldian Finch Recovery Team and Parks & Wildlife Commission NT
- Dostine P. and Franklin D. (2002). A comparison of the diet of three finch species in the Yinberrie Hills area, Northern Territory. *Emu*, 102(1), pp. 159-164.
- Dostine P., Johnson G., Franklin D., Zhang, Y. and Hempel C. (2001). Seasonal use of savanna landscapes by the Gouldian finch, *Erythrura gouldiae*, in the Yinberrie Hills area, Northern Territory, *Wildlife Research* 28(1), pp. 445-458.
- Duff, G., Wightman, G. and Eamus, D. (1992). Conservation and Management of the Endangered Palm *Ptychosperma bleeseri*. In: eds. I. Moffatt and A. Webb, *Conservation and Development Issues in North Australia*. pp. 69-77. Darwin, NT: North Australia Research Unit.
- Duguid, A., Barnetson, J., Clifford, B., Pavey, C., Albrecht, D., Risler, J. and McNellie, M. (2005). Wetlands in the arid Northern Territory. A report to the Australian Government Department of the Environment and Heritage on the inventory and significance of wetlands in the arid NT. Alice Springs, NT: Northern Territory Government, Department of Natural Resources, Environment and the Arts. [online] Available from: <u>https://nt.gov.au/\_\_\_\_\_data/assets/pdf\_\_file/0018/262224/wetlands-in-the-arid-nt.pdf</u>
- EcOz Environmental Consultants (2015). *Flora and Fauna Assessment Noonamah Ridge EIS*. Internal Report for Intrapac Proposals Pty Ltd. [unpublished].
- Eamus, D., Froend R., Loomes, R., Hose, G. and Murray, B. (2006). A functional methodology for determining the groundwater regime needed to maintain the health of groundwater-dependent vegetation. *Australian Journal of Botany*, Vol. 54, pp. 97-114.
- Easey, D., Brocklehurst, P. and Emberg J. (2017). *Soil and Land Suitability Assessment for Irrigated Agriculture in the Gunn Point Area*. Agricultural Land Suitability Series, Technical Report 7/2017D, Darwin, NT: Department of Environment and Natural Resources.
- Easey, D, Lynch, B and Edmeades, B. (2020). *Mapping the Future Project Gunn Point. Soil and Land Resources of the Gunn Point area, Northern Territory.* Technical Report 7/2020. Darwin, NT: Department of Environment and Natural Resources.
- Fogarty, P., Lynch, B. and Wood, B. (1984). *The Land Resources of the Elizabeth, Darwin and Blackmore Rivers*. Winnellie, NT: Land Conservation Unit, Conservation Commission of the Northern Territory.
- Friend, G. and Braithwaite, R. (1986). Bat fauna of Kakadu National Park, Northern Territory. *Australian Mammalogy*, 9(1), pp. 43-52.
- Friend, G. and Taylor, J. (1985). Habitat preferences of small mammals in tropical open-forest of the Northern Territory. *Australian Journal of Ecology*, 10(1), pp. 173-185.



- Franklin, D., Burbidge, A. and Dostine, P. (1999). The harvest of wild birds for aviculture: an historical perspective on finch trapping in the Kimberley with special emphasis on the Gouldian Finch. *Australian Zoologist*, 31(1), pp. 92-109.
- Franklin, D., Whitehead, P., Pardon, G., Matthews, J., McMahon, P. and McIntyre, D. (2005). Geographic patterns and correlates of the decline of granivorous birds in northern Australia. *Wildlife Research*, 32(1), pp. 399-408.
- Fraser, F., Lawson V., Morrison S., Christophersen P., McGregor S. and Rawlinson M. (2003). Fire management experiment for the declining partridge pigeon, Kakadu National Park. *Ecological Management and Restoration* 4, 94–102.
- Garnett, S. and Crowley, G. (2000). *The Action Plan for Australian Birds 2000*. Canberra, ACT: Environment Australia and Birds Australia.
- Garnett, S., Szabo, J. and Dutson, G. (2011). *The Action Plan for Australian Birds 2010*. Collingwood, Vic: CSIRO Publishing.
- Harrison, L., McGuire, L., Ward, S., Fisher, A., Pavey, C., Fegan, M. and Lynch, B. (2009). An inventory of sites of international and national significance for biodiversity values in the Northern Territory. Darwin, NT: Department of Natural Resources, Environment, the Arts and Sport.
- Hempel, C.J. (2003). *The application of Landsat imagery to land cover mapping in the greater Darwin region.* Technical report number 74. Darwin, NT: Biodiversity Unit, Department of Infrastructure, Planning and Environment.
- Higgins, P.J. (1999). eds. Handbook of Australian, New Zealand and Antarctic Birds. Volume 4: Parrots to Dollarbird. Melbourne, Vic: Oxford University Press.
- Higgins, P. and Davies S. (1996). eds. *Handbook of Australian, New Zealand and Antarctic Birds. Volume Three: Snipe to Pigeons.* Melbourne, Vic: Oxford University Press.
- Higgins, P., Peter, J. and Cowling S. (2006). Boatbill to Starlings. In: eds. P. Higgins. *Handbook of Australian, New Zealand and Antarctic Birds Volume* 7. Melbourne, Vic: Oxford University Press.
- Hill, B. (2012). Threatened Species of the Northern Territory- Black-footed Tree-rat Mesembriomys gouldii. Northern Territory Department of Environment and Natural Resources. [online] Available at: https://nt.gov.au/ data/assets/pdf file/0018/205515/black-footet-tree-rat.pdf
- Hodgson, P. (1995). *Shoal Bay Micket Creek NT032*. Canberra, ACT: The Commonwealth of Australia, Department of Agriculture, Water and the Environment.
- Holmes, G. (1995). 'Survey of Gouldian Finch in Queensland During Dry Season of 1995 With Review of Distribution and Status', Report to Conservation Commission of the Northern Territory, Darwin. [unpublished].
- Holmes G, 1998, 'A review of the distribution, status and ecology of the Star Finch Neochmia ruficauda in Queensland', *Australian Bird Watcher*, 17, pp. 278-289.
- Holmes, J., Bisa, D., Hill, A. and Crase, B. (2007). *A Guide to the Threatened, Near Threatened and Data Deficient Plants in the Litchfield Shire of the Northern Territory*. Darwin, NT: WWF-Australia.
- Hutson, A., Mickleburgh, S. and Racey, P. (2001). *Microchiropteran Bats Global Status Survey and Conservation Action Plan*. IUCN/SSC Chiroptera Specialist Group, Gland, Switzerland and Cambridge, U.K.
- Jessop P. and King, D. (1997). *The Land Resources of New Crown Station*, NTG Technical Report No. TM96/18.
- Jones, D. (1988). Native Orchids of Australia. Reed, Sydney.

Terrestrial ecological assessment for the OHTL and Murrumujuk facilities



- Jones, D., Hopley, T. and Duffy, S. (2010). *Factsheet Crepidium marsupichilum. Australian Tropical Rainforest Orchids.* Centre for Australian National Biodiversity Research (CANBR), Australian Government.
- Kerrigan, R. and Cowie, I. (2007). Luisia teretifolia. In eds. J. Woinarski, C. Pavey, R. Kerrigan, I. Cowie and S Ward. *Lost from our Landscape: Threatened Species in the Northern Territory*. Palmerston, NT: Department of Natural Resources, Environment and the Arts, Northern Territory Government.
- Kerrigan, R. and Cowie, I. (2012). *Threatened Species of the Northern Territory Luisia corrugata*. Northern Territory Department of Environment and Natural Resources. [online] Available at: <a href="https://nt.gov.au/">https://nt.gov.au/</a> data/assets/pdf file/0005/208472/luisia-corrugata.pdf
- Kerrigan, R., Cowie, I. and Liddle, D. (2006). *Threatened Species of the Northern Territory Cycas armstrongii*. Department of Land Resource Management, Northern Territory Government.
- Liddle, D., Brook, B., Matthews, J., Taylor, S. and Caley, P. (2006). Threat and response: A decade of decline in a regionally endangered rainforest palm affected by fire and introduced animals. *Biological Conservation*, 132(1), pp. 362-375.
- Liddle, D., Russell-Smith, J., Brock, J., Leach, G. and Connors, G. (1994). Atlas of the vascular rainforest plants of the Northern Territory. *Flora of Australia Supplementary Series No. 3*. Canberra, ACT: Australian Biological Resources Study.
- Liddle, D., Taylor, S. and Larcombe, D. (1996). Population changes from 1990 to 1995 and management of the endangered rainforest palm Ptychosperma bleeseri Burret (Arecaceae). In eds. S Stephens and S Maxwell. *Back from the brink; refining the threatened species recovery process.* pp. 110-113. Sydney, NSW: Surrey Beatty & Sons.
- Liddle, D. (2009). Management program for Cycads in the Northern Territory of Australia 2009-2014. Darwin, NT: Northern Territory Department of Natural Resources, Environment, the Arts and Sport. [online] Available at: https://territorystories.nt.gov.au/10070/265358
- Lilleyman, A, Rogers, DI, Jackson, MV, Fuller, RA, O'Brien, G, and Garnett, ST. (2020). An artificial site provides valuable additional habitat to migratory shorebirds in a tropical harbour. *Pacific Conservation Biology*. doi: <u>https://doi.org/10.1071/PC19036</u>
- Lynch, B., Cuff, N. and Green, C, (2012). Summary of the Origin and Derivation of the 1:250,000 Land System Descriptions for the Northern Part of the Northern Territory, Draft. (2012). Palmerston, NT: Department of Land Resource Management, Land Resource Assessment Unit, Northern Territory Government. [online] Available at: <u>https://hdl.handle.net/10070/253063</u>
- Marchant, S. and Higgins, P. (eds.) (1990). *Handbook of Australian, New Zealand and Antarctic Birds: Volume 1 - Ratites to Ducks.* Melbourne, Vic: Oxford University Press.
- McKean, J., Bartlett, M.C and Perrins, C. (1975). New records from the Northern Territory. *Australian Bird Watcher*, 6(1), pp. 45-46.
- Metcalfe, K. (2007). *The Biological Diversity, Recovery from Disturbance and Rehabilitation of Mangroves in Darwin Harbour, Northern Territory*. PhD Thesis, Charles Darwin University, Darwin. Faculty of Education, Health & Science Charles. [online] Available at: https://ris.cdu.edu.au/ws/portal/iles/portal/22708496/Thesis CDU 6553 Metcalfe K.pdf
- Milne, D. (2012). *Threatened Species of the Northern Territory Northern Leaf-nosed Bat Hipposideros stenotis.* Northern Territory Department of Environment and Natural Resources. [online] Available at: <a href="https://nt.gov.au/">https://nt.gov.au/</a> data/assets/pdf\_file/0016/205513/northern-leafnosed-bat.pdf
- Milne, D., Jackling, F., Sidhu, M. and Appleton, B. (2009). Shedding new light on old species identifications: morphological and genetic evidence suggest a need for conservation status review of the critically endangered bat, Saccolaimus saccolaimus. *Wildlife Research* 36(1), pp. 496–508.

Sun Cable Pty Ltd Terrestrial ecological assessment for the OHTL and Murrumujuk facilities



- Milne, D. and Woinarski, J. (2006). *Threatened Species of the Northern Territory Bare-rumped Sheathtail Bat Saccolaimus saccolaimus*. Northern Territory Department of Environment and Natural Resources. [online] Available at: <u>https://nt.gov.au/\_\_\_data/assets/pdf\_file/0007/376117/bare-rumped-sheathtail-bat.pdf</u>
- Napier, D., Edmeades B. and Green C. (2020) *Mapping the Future proposal Gunn Point Vegetation Communities of the Gunn Point Area*. Technical Report 8/2020. Darwin, NT: Department of Environment and Natural Resources.
- Northern Territory Government (NTG) (2016). *Threatened Species of the Greater Darwin Region Stylidium ensatum*. [online] Available at: <u>https://nt.gov.au/\_\_data/assets/pdf\_\_file/0005/405536/stylidium-</u> <u>ensatum-mapped-distribution.pdf</u>
- Northern Territory Herbarium (NTH) (2021). FloraNT Northern Territory flora online. Department of Land Resource Management. [accessed 27 October 2020].
- Northern Territory Planning Commission (2020). *Proposed Updates to Litchfield Subregional Land Use Plan* - *Gunn Point Peninsula*. [online] Available at: https://planningcommission.nt.gov.au/ data/assets/pdf\_file/0006/909996/LSLUP-2020-V2\_1.pdf
- NSW National Parks and Wildlife Service (NPWS) (2003). *The Bioregions of New South Wales: their biodiversity, conservation and history.* NSW National Parks and Wildlife Service Hurstville. [online] Available at: <u>https://www.environment.nsw.gov.au/resources/nature/BioregionsContentsIntro.pdf</u>
- O'Malley, C. (2006). *National Recovery Plan for the Gouldian Finch (Erythrura gouldiae*). Palmerston, NT: WWF-Australia, Sydney and Parks and Wildlife NT, Department of Natural Resources, Environment and the Arts, NT Government.
- Palmer, C, and Smit, N. (2020). Mapping the Future Project Gunn Point. Marine and Coastal Biodiversity of Gunn Point Area. Technical Report 6/2020, Department of Environment and Natural Resources, Darwin, NT.
- Pavey, C., Fisher, A., McGuire, L, Natural Heritage Trust (Australia), Ward, S., Fegan, M. and Lynch, B. Adelaide River coastal floodplain. (2009a). Palmerston, NT: Department of Natural Resources, Environment, The Arts and Sport. Biodiversity Conservation Unit. Division of Environment, Heritage and the Arts, Northern Territory Government. [online] Available at: <u>https://hdl.handle.net/10070/534042</u> [Accessed 30 September 2021].
- Pavey, C., Fisher, A., McGuire, L., Natural Heritage Trust (Australia), Ward, S., Fegan, M. and Lynch, B. Howard sand plains. (2009b). Palmerston, NT: Department of Natural Resources, Environment, The Arts and Sport. Biodiversity Conservation Unit. Division of Environment, Heritage and the Arts. Northern Territory Government. [online] Available at: https://territorystories.nt.gov.au/10070/532096/0/0 [Accessed 1 October 2021].
- Pavey, C., Fisher, A., McGuire, L., Natural Heritage Trust (Australia), Fegan, M., Lynch, B., Harrison, L. and Ward, S. Shoal Bay. (2009c). Palmerston, NT: Department of Natural Resources, Environment, The Arts and Sport. Biodiversity Conservation Unit. Division of Environment, Heritage and the Arts. [online] Available at: <u>https://hdl.handle.net/10070/532080</u> [accessed 30 September 2021].
- Pavey, C., Fisher, A., McGuire, L., Natural Heritage Trust (Australia), Fegan, M., Lynch, B., Harrison, L. and Ward, S. Western Arnhem Plateau. (2009d). Palmerston, NT: Department of Natural Resources, Environment, The Arts and Sport. Biodiversity Conservation Unit. Division of Environment, Heritage and the Arts. [online] Available at: <u>https://hdl.handle.net/10070/254290</u>.
- Pavey, C., Fisher, A., McGuire, L., Natural Heritage Trust (Australia), Fegan, M., Lynch, B., Harrison, L. and Ward, S. *Yinberrie Hills*. (2009e). Palmerston, NT: Department of Natural Resources, Environment, The Arts and Sport. Biodiversity Conservation Unit. Division of Environment, Heritage and the Arts. [online] Available at: <u>https://hdl.handle.net/10070/254301</u>.



- Price, O., Rankmore, B., Milne, D.J., Brock, C., Tynan, C., Kean, L. and Roger, L. (2005). Regional patterns of mammal abundance and their relationships to landscape variables in eucalypt woodlands near Darwin, northern Australia. *Wildlife Research*, 32(1), pp. 435-446.
- Rankmore, B. (2006). *Impacts of Habitat Fragmentation on the Vertebrate Fauna of the Tropical Savannas of Northern Australia; with Special Reference to Medium-sized Mammals*. PhD Thesis. Darwin, NT: Charles Darwin University.
- Rankmore, B. and Friend, G. (2008). Black-footed tree-rat *Mesembriomys gouldii*. pp. 591-593 In: S. Dyck and R. Strahan, ed., *The Mammals of Australia*, 3rd ed. Sydney, NSW: Reed New Holland.
- Richardson, S., Irvine, E., Froend, R., Boon, P., Barber, S. and B. Bonneville. (2011). *Australian groundwater-dependent ecosystem toolbox part 1: Assessment framework.* Waterlines Report 69. Canberra, ACT: Waterlines.
- Russell-Smith, J. (2000). Monsoon Vine Forest Distribution in the Northern Territory. Map layer in NR Maps.
- Russell-Smith. J. (1991). Classification, species richness, and environmental relations of monsoon rainforest vegetation in the Northern Territory, Australia. *Journal of Vegetation Science*, 2(1), pp. 259–78.
- Schodde, R. and Mason, I. (1999). *The Directory of Australian Birds: Passerines*. Melbourne, Vic: CSIRO Publishing.
- Schultz, T. and Doody, S. (2004). Varanus mitchelli. In: Pianka et al. (eds.). *Varanoid lizards of the world*. Bloomington, Indianapolis: Indiana University Press.
- Shine, R. (1986). Food habits, habitats and reproductive biology of four sympatric species of varanid lizards in tropical Australia. *Herpetologica*, 42(1), pp. 346-360.
- Staben, G. and Edmeades, B. (2017). Northern Territory Land Use Mapping for Biosecurity 2016. Technical Report 18/2017D. Darwin, NT: Department of Environment and Natural Resources, Northern Territory Government.
- Stevens, J., Pillans, R. & Salini, J. (2005). Conservation Assessment of Glyphis sp. A (Speartooth Shark), Glyphis sp. C (Northern River Shark), Pristis microdon (Freshwater Sawfish) and Pristis zijsron (Green Sawfish). Hobart, Tasmania: CSIRO Marine Research. [online] Available from: http://www.environment.gov.au/coasts/publications/pubs/assessment-glyphis.pdf.
- Stobo-Wilson, A., Murphy, B., Cremona, T. and Carthew, S. (2019). Contrasting patterns of decline in two arboreal marsupials from Northern Australia. *Biodiversity and Conservation*, 28(11), pp. 2951-2965.
- Stokeld, D., Leiper, I., Cuff, N., Cowie, I., Lewis, D. and Einoder, L. (2020). *Mapping the Future proposal -Gunn Point Biodiversity Assessment of the Gunn Point Area*. Technical Report 4/2020. Darwin, NT: Department of Environment and Natural Resources, Northern Territory Government.
- Storr, G. (1977). Birds of the Northern Territory. Perth, WA: Western Australian Museum.
- Sun Cable (2021). Notice of Significant Variation. Australia-ASEAN Power Link Proposal. [online] Available at: <u>https://ntepa.nt.gov.au/\_\_data/assets/pdf\_file/0005/1036283/significant-variation-main-report-sun-</u> <u>cable.pdf</u>
- Thorburn, D., Peverell, S, Stevens, S, Last, J. and Rowland, A. (2003). *Status of freshwater and estuarine elasmobranchs in Northern Australia*. Report to Natural Heritage Trust, Canberra. [unpublished].
- Threatened Species Scientific Committee (TSSC) (2016). *Approved Conservation Advice for Macroderma gigas (ghost bat)*. Canberra, ACT: Department of the Environment. [online] Available from: <u>http://www.environment.gov.au/biodiversity/threatened/species/pubs/174-conservation-advice-05052016.pdf</u>
- Threatened Species Scientific Committee (TSSC) (2021). Conservation Advice Trichosurus vulpecula arnhemensis Northern Brushtail Possum. Canberra, ACT: Department of Agriculture, Water and the

Sun Cable Pty Ltd Terrestrial ecological assessment for the OHTL and Murrumujuk facilities



Environment. [online] Available from:

http://www.environment.gov.au/biodiversity/threatened/species/pubs/83091-conservation-advice-11052021.pdf.

- Tidemann, S. (1996). Causes of the decline of the Gouldian Finch *Erythrura gouldiae*. *Biological Conservation International*, 6(1), pp. 49-61.
- Tidemann S., Lawson C., Elvish, R., Boyden J. and Elvish J. (1999). *Breeding biology of the gouldian finch Erythrura gouldiae, an endangered finch of northern Australia. Emu,* 99(1), pp. 191-199.
- Tidemann S. and Woinarski J. (1994). *Moult characteristics and breeding seasons of Gouldian Erythrura gouldiae, Masked Poephila personata and Long-tailed Finches P. acuticauda in savannah woodland in the Northern Territory, Emu*, 94(1), pp. 46-52.
- Ward, S., Woinarski, J., Griffiths, T. and McKay, L. (2006). *Threatened Species of the Northern Territory -Mertens Water Monitor - Varanus mertensi*. Northern Territory Department of Environment and Natural Resources. [online] Available from: <u>https://nt.gov.au/\_\_\_\_\_data/assets/pdf\_\_file/0018/206460/mertens-</u> water-monitor.pdf
- Ward, S., Woinarski, J., Griffiths, T. and McKay, L. (2012). Threatened Species of the Northern Territory Yellow-Spotted Monitor, Northern Sand Goanna, Floodplain Monitor Varanus panoptes. [online] Available from: <u>https://nt.gov.au/\_\_\_data/assets/pdf\_file/0006/206466/floodplain-monitor.pdf</u> [Accessed 2 Dec 2019].
- Weed Management Branch, Northern Territory Government (WMB). (2015). *Northern Territory Weed Data Collection Manual*. Darwin, NT: Northern Territory Government of Australia
- Woinarski, J. (2000). The conservation status of rodents in the monsoonal tropics of the Northern Territory. *Wildlife Research*, 27(1), pp. 421-435.
- Woinarski, J. (2006). *Threatened Species of the Northern Territory Red Goshawk Erythrotriorchis radiatus*. Northern Territory Department of Environment and Natural Resources. [online] Available from: <u>https://nt.gov.au/\_\_\_\_\_data/assets/pdf\_\_file/0018/206352/red-goshawk.pdf</u>
- Woinarski, J., Armstrong, M., Brennan, K., Fisher, A., Griffiths, A., Hill, B., Milne, D.J., Palmer, C., Ward, S., Watson, M., Winderlich, S. and Young, S. (2010). Monitoring indicates rapid and severe decline of native small mammals in Kakadu National Park, northern Australia. *Wildlife Research* 37(1), pp. 116-126.
- Woinarski, J., Brennan, K., Cowie, I., Kerrigan, R. and Hempel, C. (2003). *Biodiversity conservation on the Tiwi islands, Northern Territory. Part 1. Plants and environments.* Darwin, NT: Department of Infrastructure Planning and Environment. [online] Available from: <a href="https://denr.nt.gov.au/\_\_\_data/assets/pdf\_file/0005/296627/2003WoinarskiJ-BrennanK-Cowiel-KerriganR-HempleC.pdf.pdf">https://denr.nt.gov.au/\_\_\_data/assets/pdf\_file/0005/296627/2003WoinarskiJ-BrennanK-Cowiel-KerriganR-HempleC.pdf.pdf</a>
- Woinarski, J., Burbidge, A. and Harrison, P. (2014). *The Action Plan for Australian Mammals 2012*. Collingwood, Vic: CSIRO Publishing, pp. 125-514.
- Woinarski, J., Pavey, C., Kerrigan, R., Cowie, I. and Ward, S. (eds) (2007). *Lost from Our Landscape: Threatened Species of the Northern Territory*. NT, Darwin: Northern Territory Government.
- Woinarski, J., Risler, J. and Kean, L. (2004). The response of vegetation and vertebrate fauna to 23 years of fire exclusion in a tropical Eucalyptus open forest, Northern Territory, Australia. *Austral Ecology*, 29(1), pp. 156–176.
- Woinarski J. and Tidemann S. (1991). The bird fauna of a deciduous woodland in the wet-dry tropics of northern Australia', *Wildlife Research*, 18(1), pp. 479-500.

Sun Cable Pty Ltd Terrestrial ecological assessment for the OHTL and Murrumujuk facilities



Woinarski, J. and Westaway, J. (2008). Hollow formation in the Eucalyptus miniata – E. tetrodonta open forests and savanna woodlands of tropical northern Australia. Final report to Land and Water Australia. Darwin, NT: Department of Natural Resources, Environment, The Arts and Sport. [online] Available from: <u>https://denr.nt.gov.au/\_\_data/assets/pdf\_file/0004/296671/2008WoinarskiJ-C-Z-andWestawayJ.pdf.pdf</u>

Worthington Wilmer, J. (2012). Ghost Bat *Macroderma gigas*. pp. 382-383 In: eds. Curtis, L. et al. *Queensland's Threatened Animals*. Canberra, ACT: CSIRO Publishing.



## APPENDIX A THREATENED SPECIES 'LIKELIHOOD OF OCCURRENCE' ASSESSMENT

#### Species status key

- **EX** = Extinct
- **CR** = Critically Endangered
- **EN** = Near Threatened
- VU = Vulnerable
- **NT** = Near Threatened
- **DD** = Data Deficient
- LC = Least Concern
- - = not listed



Species	Status			Likelihood of occurrence assessment			
	Cth	NT	Habitat and distribution	OHTL railway corridor	OHTL utilities corridor		
BIRDS							
White-throated Grasswren Amytornis woodwardi	VU	VU	<ul> <li>Habitat: Confined to hummock grasslands, sometimes with open shrubland or woodland overstorey, mixed among dense boulder fields or sandstone pavements (Schodde 1982; Noske 1992) and escarpment drainage lines.</li> <li>Distribution: NT only – patchily distributed from Nitmiluk National Park to western Arnhem Land (Noske 1992).</li> </ul>	<ul> <li>LOW</li> <li>Outside of known distribution – all records are east of the footprint.</li> </ul>	<ul><li>NONE</li><li>Outside of known distribution.</li><li>No suitable habitat.</li></ul>		
	1	-	2). The status and ecology of the white-throated grass-wren Amytornis woodwardi. Emu, Vol. 92, p 982). The fairy-wrens - A monograph of the Maluridae. Landsdowne Editions, Melbourne.	p. 39-51.			
Yellow Chat (Alligator River subspecies) Epthianura crocea tunneyi	EN	EN	<b>Habitat:</b> Grassy floodplain depressions and channels, concentrating around refugial waterholes at the end of the dry season (Armstrong 2004). <b>Distribution:</b> Top End of the NT, where restricted to a small number of sites in the floodplains from the Adelaide River to the East Alligator River (Woinarski and Armstrong 2006).	<ul> <li>LOW</li> <li>Potential habitat within the footprint.</li> <li>Outside of known distribution – all records are east of the footprint.</li> </ul>	<ul> <li>LOW</li> <li>Potential habitat within the footprint.</li> <li>Outside of known distribution – all records are east of the footprint.</li> </ul>		
	Armstrong, M. (2004). The yellow chat Epthianura crocea tunneyi in Kakadu National Park. Report to Parks Australia (North), NT Department of Infrastructure Planning and Environment, Darwin. Woinarski, J. and Armstrong, M. (2006). Threatened Species of the Northern Territory - Yellow Chat (Alligator River subspecies) - Epthianura crocea tunneyi. Northern Territory Department of Environment and Natural Resources. [online] Available at: <a href="https://nt.gov.au/data/assets/pdf_file/0019/206344/yellow-chat.PDF">https://nt.gov.au/data/assets/pdf_file/0019/206344/yellow-chat.PDF</a> Schodde, R. and Mason, I. (1999). The Directory of Australian Birds: Passerines. CSIRO Publishing, Melbourne.						
Red Goshawk Erythrotriorchis radiatus	VU	VU	<ul> <li>Habitat: Prefers tall, open Eucalypt forest and riparian areas. Nests in large trees, frequently the tallest and most massive in a tall stand, nest trees are invariably within 1 km of permanent water (Debus and Czechura 1988; Aumann and Baker-Gabb 1991). Rarely breeds in areas with fragmented native vegetation (Aumann and Baker-Gabb 1991; Czechura 2001). Home range of up to 200 km<sup>2</sup> (Czechura and Hobson 2000).</li> <li>Distribution: Solitary and secretive hawk that is sparsely distributed across much of northern Australia, from the Kimberley in WA to southeastern Qld. Within this range, generally confined to taller forests characteristic of higher rainfall coastal and sub-coastal areas (Debus 1998), but there are some isolated records of wandering birds from central Australia (Woinarski 2006).</li> </ul>	<ul> <li>MEDIUM</li> <li>Suitable foraging habitat within north and central sections of the footprint.</li> <li>Suitable nesting habitat along major rivers crossed by the footprint.</li> <li>Naturally sparse distribution and very large territories.</li> </ul>	<ul> <li>LOW</li> <li>Suitable foraging habitat within the footprint.</li> <li>No preferred nesting habitat because no major rivers.</li> <li>Very few records for the greater Darwin region.</li> </ul>		
	Aumann, T. and Baker-Gabb, D. (1991). A Management Plan for the Red Goshawk. RAOU Report 75, Royal Australasian Ornithologists Union, Melbourne. Czechura G. and Hobson R. (2000). The Red Goshawk Erythrotriorchis radiatus in northern Queensland: status and distribution. Report to Queensland Parks and Wildlife Service. [unpublished]. Czechura G. (2001). The status and distribution of the Red Goshawk Erythrotriorchis radiatus on Cape York Peninsula, Queensland. Report to Birds Australia. [unpublished]. Debus, S. and Czechura, G. (1988). Field identification of the Red Goshawk <i>Erythrotriorchis radiatus</i> . <i>Australian Bird Watcher</i> , Vol. 12, pp. 154-159. Debus, S. (1998). <i>The Birds of Prey of Australia</i> . Oxford University Press, Melbourne. Woinarski, J. (2006). <i>Threatened Species of the Northern Territory - Red Goshawk - Erythrotriorchis radiatus</i> . Northern Territory Department of Environment and Natural Resources. [online] Available at:						



		https:/	/nt.gov.au/data/assets/pdf_file/0018/206352/red-goshawk.pdf				
Gouldian Finch Erythrura gouldiae	EN	VU	<ul> <li>Habitat: Prefers areas with an adequate supply of seed from annual and perennial grasses (especially <i>Sorghum</i>), a nearby source of surface water and – in the breeding season – unburnt, hollow-bearing Eucalyptus trees (especially <i>E. tintinnans, E. brevifolia</i> and <i>E. leucophloia</i>) (Tidemann 1996; O'Malley 2006).</li> <li>Distribution: Patchily distributed across northern Australia from the Kimberley to north-central Qld (Dostine 1998; Franklin et al. 1999; Barrett et al. 2003; Franklin et al. 2005). In the NT, most known breeding populations occur in the Top End. Non-breeding birds disperse widely (Garnett et al. 2011), greatly increasing the possible range of this species.</li> </ul>	<ul> <li>HIGH</li> <li>Suitable foraging habitat within northern and central sections of the footprint.</li> <li>Suitable breeding habitat and proximate records to the footprint, especially in the Yinberrie Hills region.</li> </ul>	<ul> <li>LOW</li> <li>Suitable foraging habitat within the footprint.</li> <li>No breeding habitat within the footprint</li> <li>Very few records for the greater Darwin region.</li> </ul>		
	<ul> <li>Barrett, G., Silcocks, A., Barry, S., Cunningham, R. and Poulter, R. (2003). <i>The New Atlas of Australian Birds</i>. Royal Australian Ornithologists Union, Melbourne, Victoria.</li> <li>Dostine, P. (1998). <i>Gouldian Finch Recovery Plan Erythrura gouldiae</i>. Gouldian Finch Recovery Team and Parks &amp; Wildlife Commission NT, Darwin.</li> <li>Franklin, D.C., Burbidge, A.H. and Dostine, P.L. (1999). The harvest of wild birds for aviculture: an historical perspective on finch trapping in the Kimberley with special emphasis on the Gouldian Finch. <i>Australian Zoologist</i>, Vol. 31, pp. 92-109.</li> <li>Franklin, D.C., Whitehead, P.J., Pardon, G., Matthews, J., McMahon, P. and McIntyre, D. (2005). Geographic patterns and correlates of the decline of granivorous birds in northern Australia. <i>Wildlife Research</i>, Vol. 32, pp. 399-408.</li> <li>Garnett, S., Szabo, J. and Dutson, G. (2011). The Action Plan for Australian Birds 2010. Collingwood, Vic: CSIRO Publishing.</li> <li>O'Malley, C. (2006). <i>National Recovery Plan for the Gouldian Finch (Erythrura gouldiae</i>). Palmerston, NT: WWF-Australia, Sydney and Parks and Wildlife NT, Department of Natural Resources, Environment and the Arts, NT Government.</li> <li>Tidemann, S. (1996). Causes of the decline of the Gouldian Finch <i>Erythrura gouldiae</i>. <i>Biological Conservation International</i>, 6(1), pp. 49-61.</li> </ul>						
<b>Grey Falcon</b> Falco hypoleucos	-	VU	<ul> <li>Habitat: A generally solitary desert falcon that occurs in areas of lightly-timbered lowland plains, typically on inland drainage systems, where the average annual rainfall is less than 500 mm (Ward 2012).</li> <li>Distribution: Sparsely distributed through much of the arid and semi-arid regions of Australia but has been recorded from all mainland states and territories. In the NT, the majority of records are from the southern half, but there are records all the way up to Darwin (Ward 2012). A study of breeding records from 2003 to 2011 documented 38 breeding events – all within the hottest climate classes of Australia – with the northern-most record occurring south of Daly Waters (Schoenjahn 2013).</li> </ul>	<ul> <li>LOW</li> <li>Suitable foraging habitat within the southern section of the footprint.</li> <li>Naturally sparse distribution.</li> <li>Would only occur along most of the footprint as a vagrant.</li> </ul>	<ul> <li><b>LOW</b></li> <li>Only occurs in the region as a vagrant.</li> </ul>		
	Schoenjahn, J. (2013), A hot environment and one type of prey: investigating why the Grey Falcon (Falco hypoleucos) is Australia's rarest falcon, <i>Emu</i> , Vol. 113, pp. 19-25. Ward, S. (2012). <i>Threatened Species of the Northern Territory - Grey Falcon - Falco hypoleucos</i> . Northern Territory Department of Environment and Natural Resources. [online] Available at: https://nt.gov.au/						
Crested Shrike-tit (northern subspecies) Falcunculus frontatus whitei	VU	-	<ul> <li>Habitat: Recorded in eight different woodland types in northern Australia, mainly those dominated by <i>Eucalyptus miniata, E. tetrodonta</i> or <i>E. bleeseri</i> (Robinson and Woinarski 1992). Nests have been found in the canopy of <i>E. tectifica, C. grandifolia</i> and <i>C. latifolia</i> at &gt;12 m above the ground in open woodland habitat (Ward et al. 2009).</li> <li>Distribution: North-western Australia from the Kimberley in WA, across the Top End of the NT to Borroloola (TSSC 2016). In the NT, recorded in very low densities in many isolated sub-populations (Garnett &amp; Crowley</li> </ul>	<ul> <li>MEDIUM</li> <li>Suitable habitat within central section of the footprint.</li> <li>Not commonly reported and so may be naturally rare.</li> </ul>	<ul> <li>NONE</li> <li>No records in the greater Darwin region.</li> </ul>		



	Robins Threat Ward,	son, D. a ened Sp EPBC S., Bergl	<ul> <li>2000) between north-east Arnhem Land and semi-arid Victoria River District. Scarcity of records suggests that populations are at very low density (Woinarski 2004). Not known to have disappeared from any area where recorded historically (TSSC 2016).</li> <li>a Crowley, G. (2000). The Action Plan for Australian Birds 2000. Canberra, ACT: Environment Austra ind Woinarski, J.C.Z. (1992). 'A review of records of the Northern Shrike-tit <i>Falcunculus frontatus whi</i> eccies Scientific Committee (2016). <i>Approved Conservation Advice for Falcunculus frontatus whitei</i> - c Act from 02-May-2016. Available at: <u>http://www.environment.gov.au/biodiversity/threatened/species</u> hout, M. and Baker, B. (2009). Notes on the form and habitat of nests of the Northern Shrike-tit. <i>Nor</i> 2004). <i>National multi-species Recovery Plan for the Partridge Pigeon Jeastern subspecies] Geophap</i></li> </ul>	itei in north-western Australia'. South Australia crested shrike-tit (northern). Canberra: Depar s/pubs/26013-conservation-advice-05052016. thern Territory Naturalist, 21(1), pp. 54-60.	tment of the Environment. In effect under the odf			
	, riona	maske	ed owl [north Australian mainland subspecies] Tyto novaehollandiae kimberli; and masked owl [Tiwi astructure Planning and Environment.					
Christmas Frigatebird Fregata andrewsi	EN	-	<ul> <li>Habitat: Inhabits tropical waters of the Indian Ocean. Nests in tall trees, also sometimes on the slope of the inland cliff or higher up on the terraces (Gibson-Hill 1947).</li> <li>Distribution: Breeds only on Christmas Island. In non-breeding season, disperses mostly to south-east Asia and Indian Ocean (Marchant et al. 1990). The few NT records are of small numbers of birds seen in during the wet season over the Darwin coastline – usually during north-westerly winds (including McKean et al. 1975).</li> </ul>	<ul> <li>NONE</li> <li>Only occurs in the NT as a vagrant along the coast.</li> </ul>	<ul> <li>NONE</li> <li>Only occurs in the NT as a vagrant along the coast.</li> </ul>			
	Gibson-Hill, C. (1947). Notes on the birds of Christmas Island. Bulletin of the Raffles Museum, 18(1), pp. 87-165. Marchant, S. and Higgins, P. (eds.) (1990). Handbook of Australian, New Zealand and Antarctic Birds: Volume 1 - Ratites to Ducks. Melbourne, Vic: Oxford University Press. McKean, J., Bartlett, M.C and Perrins, C. (1975). New records from the Northern Territory. Australian Bird Watcher, 6(1), pp. 45-46.							
Partridge Pigeon (eastern subspecies) Geophaps smithii smithii	VU	VU	<ul> <li>Habitat: Open forests and woodlands with an understorey of grasses (Woinarski 2006). Prefers woodland dominated by <i>Eucalyptus tetrodonta</i> and <i>E. miniata</i> (Braithwaite 1985; Garnett et al. 2011; Higgins &amp; Davies 1996). According to Fraser (2001), favour a structurally-patchy savanna understorey at a relatively intricate scale. In all seasons, prefer to feed in areas that have an open ground layer (e.g. following fire); however, more likely to nest where there is dense vegetation cover. Require the seeds of certain perennial grasses and sedges that are available early in the wet season when seed is otherwise scarce, particular the perennial grass species <i>Alloteropsis semialata</i> and <i>Chrysopogon</i>. The presence of these grasses may be crucial for survival at this time (Fraser 2001). Largely sedentary; however, can travel distances of 5 to 10 km in the wet season on search of food and water resources (Fraser 2001). Home ranges vary seasonally between 8 – 31 hectares Fraser (2001).</li> <li>Distribution: Historically, across the Top End (from Kununurra in WA to Borroloola in the NT). Since early 20<sup>th</sup> century a severe range contraction</li> </ul>	HIGH • Suitable habitat within central, and especially northern, sections of the footprint.	<ul> <li>HIGH</li> <li>Suitable habitat crossed by the footprint.</li> <li>Few records for Gunn Point, but many recent records at southern end of the footprint, including within the Noonamah Ridge site.</li> <li>Not recorded in recent Gunn Point survey (Stokeld et al. 2020).</li> </ul>			
			from the western, eastern and southern parts of the former distribution (Higgins & Davies 1996; Woinarski et al. 2007). Currently, distribution is limited to sub-coastal NT from Yinberrie Hill in the south, Litchfield NP in					



			the west and (western) Arnhem Land in the east (Garnett et al. 2011).					
	Braithwaite, R. (1985). The Kakadu fauna survey: an ecological survey of Kakadu National Park. Canberra, ACT: Australian National Parks & Wildlife Service.							
	Fraser, F. (2000). Species profile: Partridge Pigeon Geophaps smithii. Northern Territory Naturalist 16, 38-39. Fraser, F., Lawson V., Morrison S., Christophersen P., McGregor S. and Rawlinson M. (2003). Fire management experiment for the declining partridge pigeon, Kakadu National Park. Ecological Management and							
	Garne		ration 4, 94–102. abo, J. and Dutson, G. (2011). <i>The Action Plan for Australian Birds 2010</i> . Collingwood, Vic: CSIRO F	Publishing				
			abo, 5. and Duson, 6. (2011). The Action Flam for Australian Birds 2010. Comingwood, vic. Concernation of I Davies S. (1996). eds. Handbook of Australian, New Zealand and Antarctic Birds. Volume Three: S	-	ersity Press			
	1 00	rski, J. (2	2006). Threatened Species of the Northern Territory - Partridge Pigeon (eastern subspecies) - Geopl able from: <u>https://nt.gov.au/data/assets/pdf_file/0003/206355/partridge-pigeon.pdf</u>		-			
	Woina	rski, J., I	Pavey, C., Kerrigan, R., Cowie, I. and Ward, S. (eds) (2007). Lost from Our Landscape: Threatened S	Species of the Northern Territory. NT, Darwin:	Northern Territory Government.			
Painted Honeyeater Grantiella picta	VU	VU	<ul> <li>Habitat: Acacia and Eucalyptus-dominated woodlands and open forest, preferring habitats with more mature trees that host more mistletoe.</li> <li>Breeding times and seasonal movements (south to north) likely governed by the fruiting of mistletoe (Garnett et al. 2011).</li> <li>Distribution: Across eastern and northern parts of the country – but nowhere very numerous (Ward 2012). Many birds move after breeding to semi-arid regions such as north-eastern SA, central and western Qld, and central NT (TSSC 2015). Few NT records – most from the Barkly Tablelands – but no evidence of a breeding population in the NT, and the records are likely irregular visitors from south-eastern Australia (Ward</li> </ul>	<ul> <li>Possible as a vagrant in the southern section of the footprint.</li> </ul>	• Not known from the bioregion.			
	Garne	 tt, S., Sz	2012). abo, J. and Dutson, G. (2011). The Action Plan for Australian Birds 2010. Collingwood, Vic: CSIRO F	Publishing.				
	Threat	ened Sp from: S. (2012	2). Threatened Species of the Northern Territory – Painted Honeyeater - Grantiella picta. Northern Te	ed Honeyeater). Canberra, ACT: Department of				
	Threat	ened Sp from: S. (2012	<ul> <li>ado, J. and Dutson, G. (2011). The Action Plan for Australian Birds 2010. Collingwood, Vic: CSIRO f eccies Scientific Committee (TSSC) (2015). Approved Conservation Advice for Grantiella picta (Painti http://www.environment.gov.au/biodiversity/threatened/species/pubs/470-conservation-advice.pdf</li> <li>2). Threatened Species of the Northern Territory – Painted Honeyeater - Grantiella picta. Northern Ter //nt.gov.au/data/assets/pdf_file/0009/373554/painted-honeyeater.pdf</li> <li>Habitat: Occupies woodland, shrubland and scrub and favours areas with shrubby understorey. Strongly associated with mallee in most parts of its range. In arid Australia, occupies mulga scrub, either pure stands or</li> </ul>	ed Honeyeater). Canberra, ACT: Department of				
<b>Malleefowl</b> Leipoa ocellata	Threat Ward,	from: S. (2012 https:	<ul> <li>abo, J. and Dutson, G. (2011). The Action Plan for Australian Birds 2010. Collingwood, Vic: CSIRO f becies Scientific Committee (TSSC) (2015). Approved Conservation Advice for Grantiella picta (Painti http://www.environment.gov.au/biodiversity/threatened/species/pubs/470-conservation-advice.pdf</li> <li>2). Threatened Species of the Northern Territory – Painted Honeyeater - Grantiella picta. Northern Territory – data/assets/pdf file/0009/373554/painted-honeyeater.pdf</li> <li>Habitat: Occupies woodland, shrubland and scrub and favours areas with shrubby understorey. Strongly associated with mallee in most parts</li> </ul>	ed Honeyeater). Canberra, ACT: Department of erritory Department of Environment and Natura NONE • Footprint is outside of known	I Resources. [online] Available from:			
	Threat Ward, VU Bensh Pavey	emesh, , C. (2000	<ul> <li>abo, J. and Dutson, G. (2011). The Action Plan for Australian Birds 2010. Collingwood, Vic: CSIRO F eecies Scientific Committee (TSSC) (2015). Approved Conservation Advice for Grantiella picta (Paintu http://www.environment.gov.au/biodiversity/threatened/species/pubs/470-conservation-advice.pdf</li> <li>Threatened Species of the Northern Territory – Painted Honeyeater - Grantiella picta. Northern Ter/ http://www.environment.gov.au/biodiversity/threatened/species/pubs/470-conservation-advice.pdf</li> <li>Habitat: Occupies woodland, shrubland and scrub and favours areas with shrubby understorey. Strongly associated with mallee in most parts of its range. In arid Australia, occupies mulga scrub, either pure stands or mixed with mallee (Pavey 2006).</li> <li>Distribution: In the NT, has been recorded mostly west of the Stuart Highway and south of the Tanami Desert, with no records since the early 1960's (Benshemesh 2000). Storr (1977) located nine records from the south-west corner of the NT, from the Petermann Range in the extreme south-west, north across the MacDonnell Ranges as far as Central Mount Wedge.</li> <li>J. (2000). National Recovery Plan for the Malleefowl. Adelaide, SA: National Parks and Wildlife Soutt 16). Threatened Species of the Northern Territory – Malleefowl - Leipoa ocellata. Northern Territory D //nt.gov.au/</li></ul>	need Honeyeater). Canberra, ACT: Department of erritory Department of Environment and Natura NONE • Footprint is outside of known distribution.	I Resources. [online] Available from:          NONE         • Not known from the bioregion.			
Leipoa ocellata	Threat Ward, VU Bensh Pavey	emesh, , C. (2000	<ul> <li>abo, J. and Dutson, G. (2011). The Action Plan for Australian Birds 2010. Collingwood, Vic: CSIRO F eccies Scientific Committee (TSSC) (2015). Approved Conservation Advice for Grantiella picta (Painti http://www.environment.gov.au/biodiversity/threatened/species/pubs/470-conservation-advice.pdf</li> <li>Threatened Species of the Northern Territory – Painted Honeyeater - Grantiella picta. Northern Territory – Value data/assets/pdf file/0009/373554/painted-honeyeater.pdf</li> <li>Habitat: Occupies woodland, shrubland and scrub and favours areas with shrubby understorey. Strongly associated with mallee in most parts of its range. In arid Australia, occupies mulga scrub, either pure stands or mixed with mallee (Pavey 2006).</li> <li>Distribution: In the NT, has been recorded mostly west of the Stuart Highway and south of the Tanami Desert, with no records since the early 1960's (Benshemesh 2000). Storr (1977) located nine records from the south-west corner of the NT, from the Petermann Range in the extreme south-west, north across the MacDonnell Ranges as far as Central Mount Wedge.</li> <li>J. (2000). National Recovery Plan for the Malleefowl. Adelaide, SA: National Parks and Wildlife Soutt (ht.gov.au/</li></ul>	erritory Department of Environment and Natura NONE • Footprint is outside of known distribution. h Australia. Department of Environment and Natural Resour	I Resources. [online] Available from:          NONE         • Not known from the bioregion.         rces. [online] Available from:			
	Threat Ward, VU Bensh Pavey	emesh, , C. (2000	<ul> <li>abo, J. and Dutson, G. (2011). The Action Plan for Australian Birds 2010. Collingwood, Vic: CSIRO F eecies Scientific Committee (TSSC) (2015). Approved Conservation Advice for Grantiella picta (Paintu http://www.environment.gov.au/biodiversity/threatened/species/pubs/470-conservation-advice.pdf</li> <li>Threatened Species of the Northern Territory – Painted Honeyeater - Grantiella picta. Northern Ter/ http://www.environment.gov.au/biodiversity/threatened/species/pubs/470-conservation-advice.pdf</li> <li>Habitat: Occupies woodland, shrubland and scrub and favours areas with shrubby understorey. Strongly associated with mallee in most parts of its range. In arid Australia, occupies mulga scrub, either pure stands or mixed with mallee (Pavey 2006).</li> <li>Distribution: In the NT, has been recorded mostly west of the Stuart Highway and south of the Tanami Desert, with no records since the early 1960's (Benshemesh 2000). Storr (1977) located nine records from the south-west corner of the NT, from the Petermann Range in the extreme south-west, north across the MacDonnell Ranges as far as Central Mount Wedge.</li> <li>J. (2000). National Recovery Plan for the Malleefowl. Adelaide, SA: National Parks and Wildlife Soutt 16). Threatened Species of the Northern Territory – Malleefowl - Leipoa ocellata. Northern Territory D //nt.gov.au/</li></ul>	need Honeyeater). Canberra, ACT: Department of erritory Department of Environment and Natura NONE • Footprint is outside of known distribution.	I Resources. [online] Available from:          NONE         • Not known from the bioregion.			

Sun Cable Pty Ltd Terrestrial ecological assessment for the OHTL and Murrumujuk facilities



western ubspecies) Aalurus coronatus oronatus			Doorn & Low Choy 2009). Also known from <i>Pandanus aquaticus</i> habitat (van Doorn & Low Choy 2009). Generally confined to riparian habitats. <b>Distribution:</b> Occurs from the central Kimberly in WA to Victoria River in the NT. Within this range, almost entirely restricted to a narrow band around well-defined river channels. The extinction of the Ord River population in WA has isolated the Victoria River system populations from those in the Kimberley by 250 km, a distance which the subspecies would be unable to traverse (Skroblin et al. 2014).	distribution.				
	Skrobl	lin, A., Co 251-25	Ind Low Choy, J. (2009). A description of the primary habitat of the Purple-crowned Fairy-wren Male	<i>is coronatus coronatus</i> ), a declining riparian pas				
light Parrot Pezoporus Peccidentalis	EN	CR	<ul> <li>Habitat: Flat spinifex (<i>Triodia</i> spp.) grasslands in stony or sandy environments; and samphire and chenopod shrublands – including genera such as <i>Atriplex, Bassia</i> and <i>Maireana</i> – on floodplains and claypans, and on the margins of salt lakes, creeks or other sources of water (from a variety of sources cited in DoE 2021).</li> <li>Distribution: Extremely sparsely distributed through central arid regions. In the NT sightings were made up to 1923 in the Alice Springs region (Whitlock 1924). Presumed extinct until recently rediscovered in western Qld and north-western WA.</li> </ul>	<ul> <li>LOW</li> <li>Potential habitat in the southern section of the footprint.</li> <li>Naturally sparse distribution.</li> <li>No recent proximate records.</li> <li>Field surveys in this area indicate that potential habitat areas do not have mature stands of spinifex (<i>Triodia</i> spp.) and as such, habitat suitability is low.</li> </ul>	NONE • Not known from the bioregion.			
	Department of the Environment (2021). <i>Pezoporus occidentalis. Species Profile and Threats Database.</i> [online] Available from: <u>http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=59350.</u>							
	Whitlo	ck, F. (19	124). Journey to central Australia in search of the night parrot. <i>Emu</i> , 23(1), pp. 248-281.					
Princess Parrot Polytelis Ilexandrae	VU	VU	<ul> <li>Habitat: Swales between desert sand dunes with a shrub layer and scattered trees (Pavey 2006).</li> <li>Distribution: Confined to arid regions of WA, the NT and SA (Barrett et al. 2003; Blakers et al. 1984; Higgins 1999). There have been unconfirmed reports of the species from western Queensland (Britton 1992; Higgins 1999). Highly nomadic and, as noted in DoE (2021), 'is an irregular visitor (sometimes at intervals of more than 20 years) to most sites in its range and its movements are largely unknown. For these reasons, it is not possible or practical to provide an estimate of the number of locations at which the species occurs.'</li> </ul>	<ul> <li>LOW</li> <li>Suitable habitat in the southern section of the footprint; however, field surveys indicate that potential nesting trees are not present.</li> <li>Proximate, undated records near Newcastle Waters and Elliott, representing the northernmost records in the NT.</li> <li>Nomadic across its range. Very rarely in region, more frequently observed in the western desert region.</li> </ul>	• Not known from the bioregion.			
_	Barret	t, G., Silc	reasons, it is not possible or practical to provide an estimate of the	Elliott, northei Nomac rarely i observ region.	representing the rnmost records in the NT. dic across its range. Very in region, more frequently ved in the western desert			



	Blakers M., Davies, S., and Reilly P. (1984). <i>The Atlas of Australian Birds</i> , Melbourne, Victoria: Melbourne University Press. Britton, P. (1992). The Queensland Ornithological Society Bird Report, <i>Sunbird</i> , 22(1), pp. 51-83.							
	Higgin	<u>bin/sp</u> s, P.J. (1 , C. (2006	the Environment (2021). Polytelis alexandrae. Species Profile and Threats Database. Department or <u>rat/public/publicspecies.pl?taxon_id=758</u> 999). eds. Handbook of Australian, New Zealand and Antarctic Birds. Volume 4: Parrots to Dollarbi 6). Threatened Species of the Northern Territory - Princess Parrot - Polytelis alexandrae. Northern <sup>-</sup> //nt.gov.au/data/assets/pdf_file/0017/206360/princess-parrot.pdf	rd. Melbourne, Vic: Oxford University Press.				
Masked Owl (northern subspecies) Tyto novaehollandiae kimberli	VU	VU	<ul> <li>Habitat: Mainly in <i>Eucalyptus</i> tall open forests (especially those dominated by <i>Eucalyptus miniata</i> and <i>E. tetrodonta</i>), but also roosts in monsoon rainforests and forages in more open vegetation types, including grasslands (Woinarski &amp; Ward 2012). Usually nests in tree hollows, within patches of closed forest (Garnett et al. 2011). Little else known about the subspecies, but the species in general is resident in pairs within a territory up to 3,000 hectares (Debus 2009). Nest in large hollows with an entrance more than 20 cm wide and that is greater than 10 m above the ground (Debus 2009). Breeding poorly known, but thought to occur between March and October (DEWHA 2010).</li> <li>Distribution: Poorly known, with few records from across a broad range in northern Australia. In the NT, records from the Top End, Kakadu, Coburg Peninsula (majority of records) and south-west Gulf country (Woinarski &amp; Ward 2012).</li> </ul>	<ul> <li>MEDIUM</li> <li>Suitable habitat within northern and central sections of the footprint.</li> <li>Not commonly reported and so may be naturally rare.</li> </ul>	<ul> <li>MEDIUM</li> <li>Suitable habitat along the footprint.</li> <li>Recent record from Gunn Point region</li> <li>Not commonly reported and so may be naturally rare.</li> </ul>			
	Garnett, S., Szabo, J. and Dutson, G. (2011). The Action Plan for Australian Birds 2010. Collingwood, Vic: CSIRO Publishing.         Woinarski, J. and Ward, S. (2012). Threatened Species of the Northern Territory - Masked Owl (north Australian mainland subspecies) - Tyto novaehollandiae kimberli. Northern Territory Department of Environment and Natural Resources. [online] Available from: <a href="https://nt.gov.au/">https://nt.gov.au/</a> data/assets/word_doc/0008/373553/masked-owl-mainland-top-end.docx							
MIGRATORY SHOREBIRDS Red Knot Great Knot Bar-tailed Godwit (2 subspecies) Eastern Curlew Asian Dowitcher Greater Sand Plover Lesser Sand Plover Curlew Sandpiper	-	VU	<ul> <li>Habitat: Coastal and estuarine areas with tidal mudflats. May roost during high tide on nearby beaches. May also be found at near-coastal swamps and lakes (apart from Red and Great Knot)</li> <li>Distribution: Mostly widespread around the northern Australian coast, less common in the south, with few inland records. Eastern Curlew is uncommon across Australia while Asian Dowitcher is rare. Every year these species breed in the northern hemisphere in the summer, and migrate to Australia for the southern hemisphere (austral) summer. Some birds, primarily juveniles, remain in Australia during the winter.</li> <li>[Information above summarised from Chatto (2003), DoE (2015) and Garnett et al. (2011)].</li> </ul>	<ul> <li>NONE</li> <li>The footprint does not intersect any significant coastal, near coastal or inland wetland habitat.</li> </ul>	<ul> <li>NONE</li> <li>The footprint does not intersect any significant coastal, near coastal or inland wetland habitat.</li> </ul>			
	Chatto, R. (2003). <i>The distribution and status of shorebirds around the coast and coastal wetlands of the Northern Territory</i> . Technical Report 73. Darwin, NT: Parks and Wildlife Commission of the Northern Territory. [online] Available from: https://dtc.nt.gov.au/data/assets/pdf_file/0008/279917/2003_shorebirds_rpt76.pdf Department of the Environment (2015). <i>EPBC Act Policy Statement</i> 3.21 - <i>Industry guidelines for avoiding, assessing and mitigating impacts on EPBC Act listed migratory shorebird species</i> . Canberra, ACT: Commonwealth of Australia. [online] Available from: http://www.environment.gov.au/epbc/publications/shorebirds-guidelines Garnett, S., Szabo, J. and Dutson, G. (2011). The Action Plan for Australian Birds 2010. Collingwood, Vic: CSIRO Publishing.							
Australian Painted Snipe	EN	VU	<b>Habitat:</b> Fringes of permanent and temporary wetlands, swamps and inundated grasslands (Taylor et al. 2013).	<ul><li>LOW</li><li>Possible as a vagrant across</li></ul>	<b>LOW</b> • Possible as a vagrant across the			



Rostratula (benghalensis) australis			<b>Distribution:</b> Nomadic and scattered across Australia with no predictable occurrence (Rogers 2001), but could occur at any wetland or inundated grassland across its distribution, including nearly all of the NT and Qld (Garnett et al. 2011).	<ul><li>the footprint.</li><li>Only suitable habitat would be wetlands.</li><li>Rarely reported in the NT.</li></ul>	<ul><li>footprint.</li><li>Only suitable habitat would be wetlands.</li><li>Rarely reported in the NT.</li></ul>
	Roger	s, D. (200 , R., Chat	abo, J. and Dutson, G. (2011). <i>The Action Plan for Australian Birds 2010</i> . Collingwood, Vic: CSIRO 01). Painted Snipe. <i>Wingspan</i> , 11(4), pp. 6-7. tto, R. and Woinarski, J. (2013). <i>Threatened Species of the Northern Territory - Australian pained s</i> rces. [online] Available from: <u>https://nt.gov.au/data/assets/pdf_file/0018/206361/australian-painte</u>	Publishing . nipe - Rostratula australis. Northern Territory D	
MAMMALS (TERRE	STRI	AL)			
Fawn Antechinus Antechinus bellus	Friend Friend Threat Watso	New Y , G. and <sup>–</sup> , G. (1988 ened Spe <u>http://v</u> n, M. and rski, J., R	Taylor, J. (1985). Habitat preferences of small mammals in tropical open-forest of the Northern Terr 5). Ecological studies of a population of <i>Antechinus bellus</i> (Marsupalia: Dasyuridae) in tropical Aust ecies Scientific Committee (2015). <i>Approved Conservation Advice for Antechinus bellus – Fawn An</i> <u>www.environment.gov.au/biodiversity/threatened/species/pubs/344-conservation-advice-2015123.p</u> d Calaby, J. (2008). Fawn Antechinus: <i>Antechinus bellus</i> . In: S. Van Dyck and Strahan, R. ed. <i>The I</i> tisler, J. and Kean, L. (2004). The response of vegetation and vertebrate fauna to 23 years of fire ex-	ritory. Australian Journal of Ecology, 10(1), pp. tralia. Australian Wildlife Research, 12(2), pp. 1 techinus. Canberra, ACT: Department of the E df Mammals of Australia, 3rd ed. Sydney, NSW: F	173-185. 51-162. nvironment. [online] Available from: Reed New Holland.
Brush-tailed Rabbit-rat Conilurus penicillatus	VU	pp. 15 <sup>6</sup> EN	<ul> <li>Habitat: Largely restricted to mixed <i>Eucalypt</i> open forest and woodland, or on dunes with <i>Casuarina</i> – seeming to prefer habitats that are not burnt annually, that have an understorey of predominantly perennial grasses and a sparse-to-moderate middle storey (Firth et al. 2006; Firth 2007; Kemper &amp; Firth 2008).</li> <li>Distribution: Formerly widespread across northern Australia, but has declined extensively from Qld and lower rainfall areas of the Kimberley in WA and the Top End in the NT. No recent records from much of the historically-recorded NT range between near the mouth of Victoria River (in the west) and Sir Edward Pellew island group (in east). Most recently known from Cobourg Peninsula, Tiwi Islands, Groote Eylandt and a small area within Kakadu National Park (Woinarski &amp; Hill 2012).</li> </ul>	LOW • Likely to be extinct within the regions traversed by the footprint.	LOW • Likely to be extinct within the regions traversed by the footprint.
	Davies		.A. McCarthy, R.S. Firth, J.C. Woinarski, G.R. Gillespie, A.N. Andersen, H.M. Geyle, E. Nicholson & on of a threatened rodent in northern Australia. Diversity and Distributions. 23(3):272-283.	& B.P. Murphy (2017). Top-down control of spe	cies distributions: feral cats driving the regional



	Depar	tment of statem	Sustainability, Environment, Water, Population and Communities (DSEWPaC) (2011). Survey guide ent. Canberra, ACT: DSEWPAC. [online] Available from: http://www.environment.gov.au/epbc/publi	elines for Australia's threatened mammals. EPB ications/threatened-mammals.html.	C Act survey guidelines 6.5. EPBC Act policy
Brush-tailed Mulgara Dasycercus blythi	-	VU	<ul> <li>Habitat: A range of vegetation types, but prefer mature hummock grasslands of spinifex, especially <i>Triodia basedowii</i> and <i>T. pungens</i> (Pavey et al. Woinarski 2006; Masters et. al. 2003). Digs burrows between sand dunes (Woolley 2008).</li> <li>Distribution: Because most previous records did not distinguish between the two species of mulgara now recognised, there is ambiguity about the distribution of both species. <i>D. blythi</i> known from at least the Western and Simpson Deserts, with confirmed records in the NT from Haast Bluff, Uluru, Papunya, Tanami Desert, Illamurta, Charlotte Waters and Crown Point (Pavey et al. 2006).</li> </ul>	<ul> <li>LOW</li> <li>Suitable habitat within the footprint.</li> <li>Outside of known distribution – northernmost NT record is approximately 100 km south of the southern end of the footprint.</li> </ul>	• Not known from the bioregion.
	Pavey	, C., Cole [online	12). Crest-tailed Mulgara <i>Dasycercus cristicauda</i> (Krefft, 1867). In: Curtis et al. (eds.). <i>Queensland</i> e, J. and Woinarski, J.C.Z. (2006). <i>Threatened Species of the Northern Territory - Brush-tailed Mulg</i> e] Available at: <u>https://nt.gov.au/data/assets/pdf_file/0014/205511/brush-tailed-mulgara.pdf</u> 2008). Brush-tailed Mulgara <i>Dasycercus blythi</i> , in Van Dyck, S & Strahan R (eds), <i>The Mammals o</i>	gara - Dasycercus blythi. Northern Territory Dep	
Crest-tailed Mulgara	-	VU	<b>Habitat:</b> Prefers sand dune habitats that are vegetated with cane grass and spinifex (Masters 1997).	NONE  Outside of known distribution –	• Not known from the bioregion.
Dasycercus cristicauda			<b>Distribution:</b> Due to considerable taxonomic confusion the exact distribution of this species and <i>D. blythi</i> is not well known in the NT. The majority of the records are from the southern Simpson Desert with confirmed historical records from Charlotte Waters and Crown Point in the NT (Pavey et al. 2006).	northernmost NT record is approximately 400 km south of the southern end of the footprint.	
		, C., Cole	997). <i>Interim recovery plan for Ampurta Dasycercus hillieri</i> . Report to ANCA Endangered Species Pr e, J. and Woinarski, J.C.Z. (2006). <i>Threatened Species of the Northern Territory - Crest-tailed Mulg</i> urces. [online] Available at: <u>https://nt.gov.au/data/assets/pdf_file/0015/205512/crest-tailed-mulgar</u>	ara - Dasycercus cristicauda. Northern Territory	Department of Environment and Natural
Western Quoll Dasyurus geoffroii	VU	EX	<ul> <li>Habitat: In central Australia, occurred throughout a range of habitats (Pavey 2006).</li> <li>Distribution: Historically occurred throughout the arid interior of Australia including southern NT, now restricted to the south-west of WA (Pavey 2006). Considered extinct in the NT since the 1960's.</li> </ul>	• Considered extinct in the NT.	• Not known from the bioregion.
	Pavey		6). Threatened Species of the Northern Territory - Western Quoll, Chuditch - Dasyurus geoffroii. No //nt.gov.au/data/assets/pdf_file/0018/205470/western-quoll.pdf	orthern Territory Department of Environment an	d Natural Resources. [online] Available at:
Northern Quoll Dasyurus hallucatus	EN	CR	<ul> <li>Habitat: Wide range of habitats, but since the arrival of Cane Toads generally restricted to the most suitable habitats which are rocky upland areas with numerous crevices and rock piles (Van Dam et al. 2002).</li> <li>Prime habitat in the NT consists of rocky sandstone escarpments and outliers (Braithwaite &amp; Griffiths 1994). Home range varies from 35 to 100 ha (Oakwood 2002). Breeding occurs in May and June, with male die-off occurring shortly afterwards (Oakwood 2000).</li> <li>Distribution: Historically occurred in the NT from Borroloola in the southeast as far west as the NT/WA border (Woinarski et al. 2007), extending</li> </ul>	<ul> <li>LOW</li> <li>Suitable habitat within northern and central sections of the footprint.</li> <li>Dramatic range contraction post-Cane Toad invasion, such that now is rarely recorded.</li> </ul>	<ul> <li>LOW</li> <li>Suitable habitat along the footprint.</li> <li>Dramatic range contraction post- Cane Toad invasion, such that now is rarely recorded. Not recorded in recent Gunn Point survey (Stokeld et al. 2020).</li> </ul>



	Oakwo Oakwo Van D	ood, M. (2 ood, M. (2 am, R.A., rski, J.C.2	into the Kimberley and Pilbara regions of WA. Dramatic range contraction and population crash associated with Cane Toad invasion. Now occurs across northern Australia in five regional populations – including the Top End in the NT. <i>N.</i> and Griffiths, A.D. (1994). Demographic variation and range contraction in the Northern Quoll, <i>Da</i> 2000). Reproduction and demography of the northern quoll, <i>Dasyurus hallucatus</i> , in the Iowland sav 2002). Spatial and social organization of a carnivorous marsupial, <i>Dasyurus hallucatus</i> . <i>Journal of Z</i> , Walden, D.J. and Begg, G.W. (2002). <i>A preliminary risk assessment of cane toads in Kakadu Natio</i> Z., Rankmore, B.R., Fisher, A. and Milne, D. (2007). <i>The natural occurrence of northern quolls Dasy</i> <i>by cane toads Buto marinus</i> . Report to Natural Heritage Trust.	anna of northern Australia. <i>Australian Journal o</i> oology, London. 257:237-248. onal Park. Supervising Scientist Report 164, Da	of Zoology. 48:519-539. arwin, Northern Territory.			
Northern Brush- tailed Phascogale Phascogale pirata	VU	EN	<ul> <li>Habitat: No detailed studies, but ecology is probably similar to that reported for phascogales in southern Australia (Rhind 1998). Most records are from tall open forests dominated by <i>Eucalyptus miniata</i> and <i>E. tetrodonta</i> (Rhind et al. 2008). Brush-tailed Phascogales are primarily arboreal and seldom feed on the ground.</li> <li>Distribution: Probably occurs naturally in low densities (Woinarski et al. 2014). Very few records exist; reported from West Island, east Arnhem Land, Coburg Peninsula, Kakadu, Litchfield and the Tiwi Islands. In the last 10 years only recorded from Kakadu, Coburg Peninsula and the Tiwi Islands, despite many extensive wildlife surveys across regions of the Top End during that time (Woinarski et al. 2014).</li> </ul>	<ul> <li>LOW</li> <li>Suitable habitat within northern section of the footprint.</li> <li>No recent records.</li> <li>Dramatic range contraction, such that now is rarely recorded.</li> </ul>	<ul> <li>LOW</li> <li>Suitable habitat within footprint.</li> <li>No recent records.</li> <li>Dramatic range contraction, such that now is rarely recorded.</li> </ul>			
	Rhind, S.G. (1998). <i>Ecology of the brush-tailed phascogale in jarrah forest of south-western Australia</i> . PhD thesis, Murdoch University, Perth, Western Australia. Rhind, S.G., Woinarski, J. and Aplin, K.P. (2008). Brush-tailed Phascogale. In: Van Dyck, S. and Strahan, R. (eds). <i>The Mammals of Australia</i> . Reed New Holland, Chatswood, NSW. Woinarski, J., Burbidge, A. and Harrison, P. (2014). <i>The Action Plan for Australian Mammals 2012</i> . Collingwood, Vic: CSIRO Publishing, pp. 125-127.							
Arnhem Leaf- nosed Bat Hipposideros inornatus	EN	VU	<b>Habitat:</b> Caves or abandoned mine sites in cool draughty areas, close to water (Churchill 2008; Corbett & Richards 2002). Reported as foraging in riparian areas and in Eucalypt tall open forests (Woinarski & Milne 2015). <b>Distribution:</b> Restricted to the NT and only known to occur on the western Arnhem Land sandstone massif (Deaf Adder Gorge and upper South Alligator River area) and from one site – Tolmer Falls – in Litchfield National Park (McKean & Hertog 1979) where population appears to be disappearing (Woinarski & Milne 2015).	<ul><li><b>LOW</b></li><li>Footprint is outside known distribution.</li><li>No recent proximate records.</li></ul>	<ul> <li><b>LOW</b></li> <li>Footprint is outside known distribution.</li> <li>No proximate records.</li> </ul>			
	Churchill, S. 2008. Australian Bats, 2nd ed. Sydney, NSW: Allen & Unwin. Corbett, L. and Richards, G. (2002). Bat survey: Gunlom land trust area. Report to Parks Australia North, EWL Sciences, Darwin. McKean, J.L. and Hertog, A.L. (1979). Extension of range in the horseshoe bat. Northern Territory Naturalist, Vol. 1, p. 5. Woinarski, D. and Milne, D. (2015). Threatened Species of the Northern Territory – Arnhem Leaf-nosed Bat – Hipposideros inornata. Northern Territory Department of Environment and Natural Resources. [online] Available at: https://nt.gov.au/ data/assets/pdf file/0018/205524/arnhem-leaf-nosed-bat.pdf							
Northern Leaf- nosed Bat Hipposideros stenotis	-	VU	<b>Habitat:</b> Prefers rocky outcrops. Often found in shallow caves, boulder piles and old mine sites. It is an obligate cave rooster, most caves being small, shallow overhangs or splits in sandstone cliffs (Churchill 2008). Forages in a wide range of habitats including monsoon vine thickets, woodlands and open grasslands (Milne 2012).	<b>HIGH</b> • Suitable foraging habitat within the footprint. Possibly roosts sites adjacent to footprint.	<ul> <li>LOW</li> <li>Suitable foraging habitat within the footprint.</li> <li>No records for the greater Darwin</li> </ul>			



			<b>Distribution:</b> In the NT – recorded in few locations. Often associated with and found in close proximity to rocky outcrops and escarpment country (Milne et al. 2005). Recorded throughout parts of the Kimberley, WA and in the Mt Isa region of north-western Qld. (Woinarski et al. 2014).	• Recent (2015) record near Pine Creek ~1.5 km from the footprint.	region.			
		D. (2012	008) Australian Bats. 2nd edition. Allen & Unwin, Crows Nest NSW. 2). Threatened Species of the Northern Territory - Northern Leaf-nosed Bat - Hipposideros stenotis. I /nt.gov.au/ data/assets/pdf_file/0016/205513/northern-leafnosed-bat.pdf	Northern Territory Department of Environment a	and Natural Resources. [online] Available at:			
		D.J., Arn 906-9	nstrong, M., Fisher, A., Flores, T. and Pavey, C.R. (2005) Structure and environmental relationships		ustralian savannas. <i>Austral Ecology,</i> Vol. 30, pp.			
<b>Ghost Bat</b> <i>Macroderma gigas</i>	VU	-	<ul> <li>Habitat: Ranging from the arid Pilbara of WA to tropical savanna woodlands and north Qld. rainforests (TSSC 2016). Permanent roost sites are generally deep natural caves or disused mines (TSSC 2016). Move between a number of caves seasonally or as dictated by weather conditions, and require a range of cave sites (Hutson et al. 2001). Most breeding sites are caves with multiple entrances (TSSC 2016).</li> <li>Distribution: Geographically-disjunct colonies occur in the Pilbara and Kimberley in WA, NT north of approximately 17° latitude (including Elcho Island and Groote Eylandt), the Gulf of Carpentaria, eastern Qld from Cape York to near Rockhampton, and western Qld (including Riversleigh and Camooweal districts) (TSSC 2016). Distribution likely influenced by the availability of suitable caves and mines for roost sites (Ward &amp; Milne 2016). Only 14 breeding sites known (Worthington Wilmer 2012). Disperse widely when not breeding (TSSC 2016). In arid Australia, including southern NT until the early 1960's (Ward &amp; Milne 2016).</li> </ul>	<ul> <li>HIGH</li> <li>Suitable foraging habitat within the footprint.</li> <li>Known maternity site close to footprint south of Pine Creek.</li> </ul>	<ul> <li>LOW</li> <li>Suitable foraging habitat within the footprint.</li> <li>Very few records for the greater Darwin region.</li> </ul>			
	Hutson, A., Mickleburgh, S. and Racey, P. (2001). Microchiropteran Bats - Global Status Survey and Conservation Action Plan. IUCN/SSC Chiroptera Specialist Group, Gland, Switzerland and Cambridge, U.K. Milne, D. and Ward, S. (2016). Threatened Species of the Northern Territory – Ghost Bat - Macroderma gigas. Northern Territory Department of Environment and Natural Resource. [online] Available from: <a href="https://nt.gov.au/">https://nt.gov.au/</a> data/assets/pdf file/0010/376138/ghost-bat.pdf Threatened Species Scientific Committee (2016). Approved Conservation Advice for Macroderma gigas (ghost bat). Canberra: Department of the Environment. Available from: <a href="http://www.environment.gov.au/biodiversity/threatened/species/pubs/174-conservation-advice-05052016.pdf">http://www.environment.gov.au/biodiversity/threatened/species/pubs/174-conservation-advice-05052016.pdf</a> Worthington Wilmer, J. (2012). Ghost Bat Macroderma gigas. pp. 382-383 In: eds. Curtis et al. Queensland's Threatened Animals. Canberra, ACT: CSIRO.							
Bare-rumped Sheathtail Bat Saccolaimus saccolaimus (nudicluniatus)	VU	-	<ul> <li>Habitat: In the NT, specimens have been collected from Pandanus woodland fringing the sedgelands of the South Alligator River, and Eucalypt tall open forests (Friend &amp; Braithwaite 1986; Churchill 2008) with more recent records from Howard Springs (Milne et al 2009). Most records occur within near-coastal habitats with one recent exception (Jasper Gorge) 150 km inland (Woinarski et al. 2014).</li> <li>Distribution: Widely distributed from India through south-east Asia to the Solomon Islands including north-eastern Qld and the NT. The north-eastern Australian population is described as the subspecies <i>S. s. nudicluniatus</i>, although it is not clear whether this should be applied to NT populations (Milne &amp; Woinarski 2006).</li> </ul>	<ul> <li>MEDIUM</li> <li>Suitable habitat within the northern section of the footprint.</li> <li>Recent records in the Greater Darwin area.</li> <li>Not commonly reported and so may be naturally rare.</li> </ul>	<ul> <li>MEDIUM</li> <li>Suitable habitat within the footprint.</li> <li>Recent records in the Greater Darwin area.</li> <li>Not commonly reported and so may be naturally rare.</li> </ul>			



	<ul> <li>Churchill, S. 2008. Australian Bats, 2nd ed. Sydney, NSW: Allen &amp; Unwin.</li> <li>Friend, G.R. and Braithwaite, R.W. (1986). Bat fauna of Kakadu National Park, Northern Territory. Australian Mammalogy, Vol. 9, pp. 43-52.</li> <li>Milne, D., Jackling, F., Sidhu, M. and Appleton, B. (2009). Shedding new light on old species identifications: morphological and genetic evidence suggest a need for conservation status review of the critically endangered bat, Saccolaimus saccolaimus. Wildlife Research 36(1), pp. 496–508.</li> <li>Milne, D. and Woinarski, J. (2006). Threatened Species of the Northern Territory - Bare-rumped Sheathtail Bat - Saccolaimus saccolaimus. Northern Territory Department of Environment and Natural Resources. [online] Available at: <a href="https://nt.gov.au/">https://nt.gov.au/</a> data/assets/pdf file/0007/376117/bare-rumped-sheathtail-bat.pdf</li> <li>Woinarski, J., Burbidge, A. and Harrison, P. (2014). The Action Plan for Australian Mammals 2012. CSIRO Publishing: pp. 511-514.</li> </ul>							
Golden Bandicoot Isoodon auratus (auratus)	VU	EN	<ul> <li>Habitat: Mainly in heathland and shrubland on sandstone sheets, avoiding vegetation with greater tree cover (Palmer et al. 2012; Southgate et al. 1996).</li> <li>Distribution: Formerly across most of northern, central and western Australia (across a broad range of habitats), but now only recorded population on mainland Australia is within the Kimberley. In the NT, confined to the offshore islands of Arnhem Land. The only records from mainland NT are from the north-east corner of Arnhem Land between 1950 and 1980 (Palmer et al. 2012). Now extinct on the mainland except in a few locations in the north-west Kimberley (TSSC 2015).</li> </ul>	NONE  • Considered extinct in the NT.	• Considered extinct in the NT.			
	South	Palmer, C., Woinarski, J. and Hill, B. (2012). Threatened Species of the Northern Territory - Golden Bandicoot - Isoodon auratus. Northern Territory Department of Environment and Natural Resources. [online] Available at: <a href="https://nt.gov.au/data/assets/pdf_file/0017/205505/golden-bandicoot.pdf">https://nt.gov.au/data/assets/pdf_file/0017/205505/golden-bandicoot.pdf</a> Southgate, R., Palmer, C., Adams, C., Masters, M., Triggs, B. and Woinarski, J. (1996). Population and habitat characteristics of the Golden Bandicoot (Isoodon auratus) on Marchinbar Island, Northern Territory. Wildlife Research, Vol. 23, pp. 647-664.         Threatened Species Scientific Committee (TSSC) (2015). Approved Conservation Advice for Isoodon auratus auratus (golden bandicoot (mainland)). Canberra: Department of the Environment. [online] Available at: http://www.environment.gov.au/biodiversity/threatened/species/pubs/66665-conservation-advice-01102015.pdf						
<b>Greater Bilby</b> <i>Macrotis lagotis</i>	VU	VU	<ul> <li>Habitat: In the NT, occurs in hummock grasslands on sandy soils with a preference for palaeo-drainage lines (Southgate 1990). Has large foraging area and will move home range in search for food (Johnson 2008).</li> <li>Distribution: Historically widespread in arid Australia. Currently confined to arid WA, the Tanami Desert in the NT and south-western Qld (Woinarski et al. 2014).</li> </ul>	<ul> <li>HIGH</li> <li>Suitable habitat within southern section of the footprint.</li> <li>Recent proximate records around Murranji Station, Elliott and Newcastle Waters.</li> </ul>	• Not known from the bioregion.			
	Johnson, K.A. (2008). Bilby <i>Macrotis lagotis</i> . In: Van Dyck, S. and Strahan, R. (eds.). <i>Mammals of Australia</i> . Third Edition. Reed New Holland, Queensland Government, Queensland Museum: pp. 191-193. Southgate, R. (1990). Habitat and diet of the greater bilby <i>Macrotis lagotis</i> Reid (Marsupalia: Peramelidae). In: Seebeck et al. (eds.). <i>Bandicoots and Bilbies</i> . Surrey Beatty & Sons, Sydney, NSW. Woinarski, J., Burbidge, A. and Harrison, P. (2014). <i>The Action Plan for Australian Mammals 2012</i> . Collingwood, Vic: CSIRO Publishing, pp. 203-205.							
Brush-tailed Rabbit-Rat Conilurus penicillatus	VU	EN	<ul> <li>Habitat: Largely restricted to mixed <i>Eucalypt</i> open forest and woodland, or on dunes with <i>Casuarina</i> – seeming to prefer habitats that are not burnt annually, that have an understorey of predominantly perennial grasses and a sparse-to-moderate middle storey (Firth et al. 2006; Firth 2007; Kemper &amp; Firth 2008).</li> <li>Distribution: Formerly widespread across northern Australia, but has declined extensively from Qld and lower rainfall areas of the Kimberley in WA and the Top End in the NT. No recent records from much of the historically-recorded NT range between near the mouth of Victoria River</li> </ul>	<ul> <li>LOW</li> <li>Suitable habitat within the footprint.</li> <li>Significant range contraction – footprint is now outside revised distribution.</li> <li>No recent proximate records.</li> </ul>	<ul> <li>LOW</li> <li>Suitable habitat within the footprint.</li> <li>Significant range contraction.</li> <li>No recent proximate records.</li> </ul>			



			(in the west) and Sir Edward Pellew Island group (in east). Most recently known from Cobourg Peninsula, Tiwi Islands, Groote Eylandt and a small area within Kakadu National Park (Woinarski & Hill 2012).					
	<ul> <li>Firth, R.S.C. (2007). Ecology and conservation status of the brush-tailed rabbit-rat Conilurus penicillatus. PhD thesis, Charles Darwin University, Darwin, Northern Territory.</li> <li>Firth, R.S.C., Woinarski, J.C.Z. and Noske, R.A. (2006). Home range and den characteristics of the brush-tailed rabbit-rat Conilurus penicillatus in the monsoonal tropics of the Northern Territory, Australia. <i>Wildlife Research</i>, Vol. 33, pp. 397-408.</li> <li>Kemper, C.M. and Firth, R.S.C. (2008). Brush-tailed Rabbit-rat. In: Van Dyck, S. and Strahan, R. (eds). <i>The Mammals of Australia</i>. Reed New Holland, Chatswood, NSW.</li> <li>Woinarski, J.C.Z. and Hill, B. (2012). <i>Threatened Species of the Northern Territory - Brush-tailed rabbit-rat, Brush-tailed tree-rat - Conilurus penicillatus</i>. Northern Territory Department of Environment and Natural Resources. [online] Available at: <a href="https://nt.gov.au/">https://nt.gov.au/</a> data/assets/pdf file/0016/205504/brush-tailed-rabbit-rat.pdf</li> </ul>							
Black-footed Tree-rat (Kimberley and mainland NT subspecies) Mesembriomys gouldii gouldii	EN Hill, B.		<ul> <li>Habitat: Woodlands and open forests with large trees and a moderately diverse mid-storey in near-coastal areas. Generally, require fruit and seed resources including <i>Pandanus</i> fruits, and fruiting trees and shrubs (Rankmore 2006). Shelters in tree hollows and occasionally <i>Pandanus</i> (Hill 2012). Thought to be more prevalent in woodlands with infrequent and low intensity fires (Price et al. 2005).</li> <li>Distribution: Top End of NT, Kimberley region of WA and Cape York Peninsula south to Townsville in Qld. (Hill 2012). Has remained relatively abundant in the Darwin rural area and there are some recent records from Gunn Point (Price et al. 2005), the Lee Point Area and Middle Arm.</li> </ul>	<ul> <li>HIGH</li> <li>Suitable habitat within northern section of the footprint.</li> <li>Recent proximate records.</li> </ul>	<ul> <li>MEDIUM</li> <li>Suitable habitat within the footprint.</li> <li>Only recorded once during recent Gunn Point survey (Stokeld et al. 2020).</li> <li>Some recent records in southern end of the footprint.</li> </ul>			
	<ul> <li>https://nt.gov.au/data/assets/pdf_file/0018/205515/black-footet-tree-rat.pdf</li> <li>Price, O., Rankmore, B., Milne, D.J., Brock, C., Tynan, C., Kean, L. and Roger, L. (2005). Regional patterns of mammal abundance and their relationships to landscape variables in eucalypt woodlands near Darwin, northern Australia. <i>Wildlife Research</i>, 32(1), pp. 435-446.</li> <li>Rankmore, B. (2006). <i>Impacts of Habitat Fragmentation on the Vertebrate Fauna of the Tropical Savannas of Northern Australia; with Special Reference to Medium-sized Mammals</i>. PhD Thesis. Darwin, NT: Charles Darwin University.</li> </ul>							
Golden-backed Tree-rat Mesembriomys macrurus	-	CR	<ul> <li>Habitat: In the NT, little known of the ecology apart that all three records were from riverine vegetation. In the Kimberley, known to occur in open Eucalypt forests with tussock grass understorey, rainforest patches, sandstone screes, beaches, and black soil plains (Woinarski et al. 2012).</li> <li>Distribution: Historically, known to have occurred in three localities in the NT (Parker 1973) with no new records in the last 30 years. In 1993, reportedly spotted in Kakadu National Park; however, further surveys of suitable habitats in the NT failed to locate the species (Lee 1995). Now only known to occur in some areas of the north-western Kimberley and associated offshore islands (Palmer et al. 2003).</li> </ul>	<ul> <li>NONE</li> <li>No recent records.</li> <li>Likely to be extinct in the NT.</li> </ul>	<ul> <li>NONE</li> <li>No recent records.</li> <li>Likely to be extinct in the NT.</li> </ul>			
	<ul> <li>Lee, A.K. (1995). <i>The Action Plan for Australian Rodents</i>. Australian Nature Conservation Agency, Endangered Species Program, Canberra.</li> <li>Palmer, C., Taylor, R. and Burbidge, A. (2003). <i>Recovery plan for the Golden Bandicoot Isoodon auratus and golden-backed tree-rat Mesembriomys macrurus 2004-2009</i>. Northern Territory Department of Infrastructure Planning and Environment, Darwin.</li> <li>Parker, S.A. (1973). An annotated checklist of the native land mammals of the Northern Territory. <i>Records of the South Australian Museum</i>, Vol. 16, pp. 1-57.</li> <li>Woinarski, J.C.Z., Palmer, C. and Hill, B. (2012). <i>Threatened Species of the Northern Territory - Golden-backed tree-rat - Mesembriomys macrurus</i>. Northern Territory Department of Environment and Natural Resources. [online] Available at: https://nt.gov.au/ data/assets/pdf file/0006/20547/6/golden-backed-tree-rat.pdf</li> </ul>							
Dusky Hopping-			<b>Habitat:</b> Variety of sandy environments that are characterised by the presence of consolidated dunes and perennial vegetation (Moseby et al.	NONE	NONE			



Mouse	VU	EN	1999). Most sites are close to lakes or drainage lines.	The footprint is outside of	Not known from the bioregion.
Notomys fuscus			<b>Distribution:</b> Eastern Lake Eyre Basin within the Simpson-Strzelecki Dunefields bioregion in SA and Qld (Pavey 2006). Not recorded in the NT since 1939 from in sand dunes on Maryvale Station and Andado Station. Earlier records detected at Charlotte Waters (Pavey 2006).	known distribution.	
	Pavey	, C. (200 <u>https:/</u>	andle, R. and Adams, M. (1999). Distribution, habitat and conservation status of the rare dusky hop 6). <i>Threatened species of the Northern Territory - Dusky Hopping-Mouse - Notomys fuscus</i> . Northe //nt.gov.au/ data/assets/pdf file/0018/205506/dusky-hoppingmouse.pdf Burbidge, A. and Harrison, P. (2014). <i>The Action Plan for Australian Mammals 2012</i> . CSIRO Publist	rn Territory Department of Environment and Na	
Southern Marsupial Mole Notoryctes typhlops	-	VU	<ul> <li>Habitat: Sandy deserts mostly associated with dunes, sandy plains and river flats (Pavey 2015).</li> <li>Distribution: Central WA, northern SA and southern NT. Seems to be confined to the southern and western sections of the NT (Benshemesh &amp; Schultz 2008) where has been found as far north as Barrow Creek (Pavey 2015).</li> </ul>	<ul> <li>NONE</li> <li>The footprint is outside of known distribution.</li> </ul>	<ul> <li>NONE</li> <li>Not known from the bioregion.</li> </ul>
		<u>https:/</u> emesh, J	5). Threatened Species of the Northern Territory - Southern Marsupial Mole - Notoryctes typhlops. //nt.gov.au/		
Nabarlek (Top End subspecies) Petrogale concinna canescens	CR	EN	<ul> <li>Habitat: Isolated and rocky areas consisting of both sandstone and granite escarpments (Churchill 1997; Telfer et al. 2008). Shelters in caves and crevices during the day (Churchill 1997) and may move from these to forage in adjacent flat areas (Sanson et al. 1985).</li> <li>Distribution: Restricted to the Top End of the NT in scattered populations from sandstone cliffs bordering the Arafura Swamp (Arnhem Land) in the east, to the Daly River catchment in the west (Ward &amp; Woinarski 2012).</li> </ul>	<ul> <li>LOW</li> <li>Suitable habitat in northern section of the footprint.</li> <li>Scattered populations across the NT.</li> <li>No recent proximate records.</li> </ul>	<ul> <li>NONE</li> <li>No suitable habitat in the footprint.</li> <li>No recent proximate records.</li> </ul>
	Sanso Telfer,	308. n, G.D., I W.R., G S. and W	997). Habitat use, distribution and conservation status of the Nabarlek, <i>Petrogale concinna</i> , and syn Nelson, J. and Fell, P. (1985). Ecology of <i>Peradorcas concinna</i> in Arnhem Land in a wet and a dry riffiths, A.D. and Bowman, D.M.J.S. (2008). The habitat requirements of four sympatric rock-dwellin Voinarski, J. (2012). <i>Threatened Species of the Northern Territory - Nabarlek - Petrogale concinna</i> . //nt.gov.au/	season. Proceedings of the Ecological Society Ig macropods of the Australian monsoon tropic	of Australia, Vol. 13, pp. 65-72. s. Austral Ecology, Vol. 33, pp. 1033-1044.
Black-footed Rock-wallaby (McDonnell Ranges race) Petrogale lateralis	VU	-	<ul> <li>Habitat: Upland rocky areas with associated steep slopes (Pavey 2006).</li> <li>Heavily weathered outcrops, caves, cliffs and rock piles provide suitable habitat as daytime shelter (Woinarski et.al. 2014).</li> <li>Distribution: In the NT, mostly found in the MacDonnell Ranges, but also occurs throughout the arid southern end of the NT (Pavey 2006) and may be found in the Davenport and Murchison Ranges.</li> </ul>	<ul> <li>NONE</li> <li>The footprint is outside of known distribution.</li> </ul>	<ul><li>NONE</li><li>Not known from the bioregion.</li></ul>
	Pavey		6). Threatened Species of the Northern Territory - Black-footed Rock-Wallaby - Petrogale lateralis. bs://nt.gov.au/data/assets/pdffile/0003/376122/black-footed-rock-wallaby.pdf	Northern Territory Department of Environment	and Natural Resources. [online] Available



	Woina	ırski, J., E	Burbidge, A. and Harrison, P. (2014). The Action Plan for Australian Mammals 2012. Collingwood, V	ic: CSIRO Publishing, pp. 403-405.		
Pale Field-rat Rattus tunneyi	-	VU	<ul> <li>Habitat: Historically occurred in a wide range of habitats, but now primarily in dense vegetation along creeks (Aplin et al. 2008). Fire regime seems to have little effect on population numbers; instead, the level of groundwater irrigating the riparian system and, to a lesser extent, current rainfall have a much stronger influence (Braithwaite &amp; Griffiths 1996).</li> <li>Distribution: Higher rainfall areas of northern Australia, extending from Kimberley in WA to south-eastern Qld, including the Top End of the NT (Cole &amp; Woinarski 2002, Braithwaite &amp; Griffiths 1996). Previously widespread and patchily abundant, particularly in the north-west of the Top End, the Pale Field-rat appears to have declined in lower rainfall areas (Woinarski 2000).</li> </ul>	<ul> <li>MEDIUM</li> <li>Suitable habitat within northern section of the footprint.</li> <li>Recent records adjacent to footprint.</li> </ul>	<ul> <li>LOW</li> <li>Suitable habitat along the footprint</li> <li>Not recorded in recent Gunn Point survey (Stokeld et al. 2020).</li> <li>No recent records in the region.</li> </ul>	
	Braith Cole,	waite, R. J. and We	hwaite, R. and Baverstock, P. (2008). Pale Field-rat: <i>Rattus tunneyi</i> . In: Van Dyck, S. and Strahan, and Griffiths, A. (1996). The paradox of <i>Rattus tunneyi</i> : endangerment of a native pest. <i>Wildlife Res</i> oinarksi, J. (2002). <i>Field Guide to the Rodents and Dasyurids of the Northern Territory</i> . Surrey Beat 2000). The conservation status of rodents in the monsoonal tropics of the Northern Territory. <i>Wildlife</i>	search, Vol. 23, pp. 1-21. ty & Sons, Chipping Norton, NSW.	n). Reed New Holland, Sydney, NSW.	
Common Brushtail Possum (Central Australian subspecies) Trichosurus vulpecula vulpecula	-	EN	<ul> <li>Habitat: In Central Australia, riverine habitat that is close to rocky outcrops and moist gullies within the ranges or rocky slopes (Kerle et al. 1992). Habitat occurs on various geological substrates but is characterised by a diverse association of fire-sensitive plant species (Pavey and Ward 2012).</li> <li>Distribution: Occurs in isolated populations in southern NT. Most common in the southern NT within the MacDonald Ranges (Pavey and Ward 2012). Formerly had a much more extensive distribution in the NT. Common throughout much of the continent, including SA, Victoria, NSW, southern and south-western Qld, and much of WA (Pavey &amp; Ward 2012).</li> </ul>	<ul> <li>NONE</li> <li>No suitable habitat within the footprint.</li> </ul>	NONE <ul> <li>Not known from the bioregion.</li> </ul>	
	<ul> <li>Kerle, J., Foulkes, J., Kimber, R. and Papenfus, D. (1992). The decline of the brushtail possum, <i>Trichosurus vulpecula</i> (Kerr 1798), in arid Australia. <i>Rangelands Journal</i>, Vol. 14, pp. 107-127.</li> <li>Pavey, C. and Ward, S. (2012). <i>Threatened Species of the Northern Territory - Common Brushtail Possum - Trichosurus vulpecula vulpecula</i>. Northern Territory Department of Environment and Natural Resources. [online] Available at: <a href="https://nt.gov.au/">https://nt.gov.au/</a> data/assets/pdf file/0019/205525/common-brushtail-possum.pdf</li> <li>Woinarski, J.C.Z. (2004). In a land with few possums, even the common are rare: ecology, conservation and management of possums in the Northern Territory. In: Goldingay, R. and Jackson, S. (eds.). <i>The biology of Australian possums and gliding possums</i>. Surrey Beatty &amp; Sons, Sydney: pp.51-62.</li> </ul>					
Northern Brushtail Possum (Northern Australian subspecies) Trichosurus vulpecula subsp.	VU	-	<ul> <li>Habitat: Occurs in a variety of habitats including coastal beaches, floodplains, grasslands, and woodlands. Mainly inhabits tall Eucalypt open forests with large hollow-bearing trees, particularly where the understorey includes fleshy fruit-bearing shrubs (TSSC 2021).</li> <li>Distribution: Discontinuously occurs from the Gulf of Carpentaria hinterland near Borroloola, NT to the Kimberley in WA (Morris et al. 2012). Most of the population occurs in the NT and is declining, largely from frequent bushfires and feral cat predation (Stobo-Wilson et al. 2019).</li> </ul>	<ul> <li>HIGH</li> <li>Suitable habitat within the footprint.</li> </ul>	<ul> <li>HIGH</li> <li>Suitable habitat within the footprint.</li> <li>Recorded at 26% of sites in the recent Gunn Point survey</li> </ul>	
arnhemensis	Threat	tened Sp	A., Murphy, B., Cremona, T. and Carthew, S. (2019). Contrasting patterns of decline in two arboreal ecies Scientific Committee (TSSC) (2021). <i>Conservation Advice Trichosurus vulpecula arnhemensi</i> online] Available from: http://www.environment.gov.au/biodiversity/threatened/species/pubs/83091-c	s Northern Brushtail Possum. Canberra, ACT: I		



False Water Rat			Habitat: Utilises both intertidal and freshwater habitats, with most	NONE	LOW
Xeromys myoides	VU	_	records from mangrove forests, saltmarsh, sedgelands, clay pans and freshwater <i>Melaleuca</i> wetlands (DoE 2021).	<ul> <li>No suitable habitat within the footprint.</li> </ul>	<ul> <li>No suitable habitat in the footprint.</li> <li>No recent proximate records.</li> </ul>
			<b>Distribution:</b> Three regions of coastal Australia: the NT, central south Qld and south-east Qld (DoE 2021). In the NT, known only from coastal Top End with ten records at six sites – South Alligator River in 1903, Daly River floodplain in 1972, two sites on the Tomkinson River in 1975, Melville Island in 1975 and Glyde River floodplain in 1998 and 1999 (Cole & Woinarski 2002, Woinarski 2006).		
	Depart	tment of t <u>http://\</u> rski, J.C.	binarksi, J. (2002). Field Guide to the Rodents and Dasyurids of the Northern Territory. Surrey Beat he Environment (2021). Xeromys myoides - Water Mouse, False Water Rat, Yirrkoo. Species Profi www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=66 Z. (2006). Threatened Species of the Northern Territory - False water-rat, Water mouse - Xeromys ble at: https://nt.gov.au/ data/assets/pdf_file/0008/376136/false-water-rat.pdf	le and Threats Database. [online] Available from	
Central Rock-rat	+	Availa	Habitat: High altitude (>1200m), rugged quartzite peaks in the	NONE	NONE
Zyzomys pedunculatus	EN	EN	MacDonnell Ranges (McDonald 2012). <b>Distribution:</b> Historically widespread in the arid regions of the NT and WA (Baynes & Johnson 1996). Rediscovered in the MacDonnell Ranges at a few sites (McDonald 2012).	No suitable habitat within the footprint.	Not known from the bioregion.
REPTILES (TERRE		nald, P. (2 <u>https:/</u>	ing Central Australia: Society, the Environment and the 1894 Horn Expedition. Surrey Beatty and S 2012). Threatened Species of the Northern Territory - Central Rock Rat - Zyzomys pedunculatus. N /nt.gov.au/data/assets/pdf_file/0013/205510/central-rock-rat.pdf		nd Natural Resources. [online] Available at:
Plains Death	T		Habitat: Floodplains in the Top End and cracking soil plains inland	HIGH	LOW
Adder Acanthophis hawkei					
Acanthophis	VU	VU	(Webb et al. 2002). <b>Distribution</b> : Habitat mapping suggests the potential geographic range extends from western Qld, across the sub-coastal north of the NT to the north-eastern Kimberley of WA. Fragmented populations occur in the Mitchell Grass Downs of western Qld, the Barkly Tablelands on the NT/Qld border and east of Darwin (Fogg Dam) in the NT (TSSC 2012; Wuster et al. 2005). Susceptible to ingesting toxic Cane Toads (Phillips et al. 2009).	<ul> <li>Suitable habitat within the footprint.</li> <li>Recent records near footprint at Daly Waters.</li> </ul>	<ul> <li>No suitable habitat within the footprint.</li> </ul>
Acanthophis		s, B.L., G	(Webb et al. 2002). <b>Distribution</b> : Habitat mapping suggests the potential geographic range extends from western Qld, across the sub-coastal north of the NT to the north-eastern Kimberley of WA. Fragmented populations occur in the Mitchell Grass Downs of western Qld, the Barkly Tablelands on the NT/Qld border and east of Darwin (Fogg Dam) in the NT (TSSC 2012; Wuster et al. 2005). Susceptible to ingesting toxic Cane Toads (Phillips et al. 2009). reenlees, M.J., Brown, G.P. and Shine R (2010). Predator behaviour and morphology mediates the	footprint. • Recent records near footprint at Daly Waters.	footprint.
Acanthophis	Phillips	s, B.L., G Vol. 1: J.K., Ch	(Webb et al. 2002). <b>Distribution</b> : Habitat mapping suggests the potential geographic range extends from western Qld, across the sub-coastal north of the NT to the north-eastern Kimberley of WA. Fragmented populations occur in the Mitchell Grass Downs of western Qld, the Barkly Tablelands on the NT/Qld border and east of Darwin (Fogg Dam) in the NT (TSSC 2012; Wuster et al. 2005). Susceptible to ingesting toxic Cane Toads (Phillips et al. 2009).	footprint.  • Recent records near footprint at Daly Waters.  impact of an invasive species: cane toads and	footprint. death adders in Australia. Animal Conservation,
Acanthophis	Phillips Webb,	s, B.L., G Vol. 1; J.K., Ch <i>Herpe</i> r, W., Du	<ul> <li>(Webb et al. 2002).</li> <li><b>Distribution</b>: Habitat mapping suggests the potential geographic range extends from western Qld, across the sub-coastal north of the NT to the north-eastern Kimberley of WA. Fragmented populations occur in the Mitchell Grass Downs of western Qld, the Barkly Tablelands on the NT/Qld border and east of Darwin (Fogg Dam) in the NT (TSSC 2012; Wuster et al. 2005). Susceptible to ingesting toxic Cane Toads (Phillips et al. 2009).</li> <li>reenlees, M.J., Brown, G.P. and Shine R (2010). Predator behaviour and morphology mediates the 3, pp. 53-59.</li> <li>ristian, K.A. and Fisher, P. (2002). Fast growth and early maturation in a viviparous sit-and-wait pre-</li> </ul>	footprint.  • Recent records near footprint at Daly Waters.  • impact of an invasive species: cane toads and dator, the northern death adder ( <i>Acanthophis p</i> ans-Torresian phylogeographic relationships in t	footprint. death adders in Australia. <i>Animal Conservation</i> , <i>raelongus</i> ) from tropical Australia. <i>Journal of</i>



Arnhem Land			Habitat: Prefers sandstone outcrops, typically with extensive fissures and	LOW	NONE	
<b>Skink</b> Bellatorias obiri	EN	EN	cave systems (Sadlier 1990). <b>Distribution:</b> Restricted to the Western Arnhem Land plateau and outliers (e.g. Jabiluka), where it is patchily distributed (Armstrong & Dudley 2004).	<ul> <li>No proximate records.</li> <li>Not recorded west of Nitmiluk NP.</li> </ul>	<ul> <li>Footprint is outside of known distribution.</li> </ul>	
		-	and Dudley, A. (2004). <i>The Arnhem Land Egernia Egernia obiri in Kakadu National Park</i> . Report to 1990). A new species of scincid lizard from western Arnhem Land, Northern Territory. <i>The Beagle</i> , V		structure Planning and Environment, Darwin.	
Great Desert Skink Liopholis kintorei	VU	VU	<ul> <li>Habitat: Generally occurs in tall open shrubland, hummock grasslands and on red sandplains and sand ridges (Cogger et al. 1993). However, in some locations (e.g. the Gibson Desert) found on sandplains with fine gravel.</li> <li>Distribution: Originally within a broad range extending from the desert parts of south-western NT, eastern interior of WA and north-western SA (Cogger et al. 1993). Currently known from seven populations (McAlpin 2001), three of which occur in the NT –the Tanami Desert, Uluru-Kata Tjuta National Park and the Yulara lease lands.</li> </ul>	<ul> <li>NONE</li> <li>Outside of known distribution – northernmost record for this species is at Tennant Creek, 170 km south of the footprint.</li> </ul>	NONE <ul> <li>Not known from the bioregion.</li> </ul>	
		in, S. (20	imeron, E., Sadlier, R. and Eggler, P. (1993). <i>The Action Plan for Australian Reptiles</i> . Australian Nat )01). <i>The Recovery Plan for the Great Desert Skink (Egernia kintorei) 2001-2011</i> . Arid Lands Enviro www.environment.gov.au/system/files/resources/2e5e895a-e176-409e-80c3-34d63a80fac5/files/gre	nment Centre. [online] Available at:		
Yellow-snouted Gecko Lucasium Doccultum	EN	VU	<ul> <li>Habitat: Prefers areas with well-developed leaf litter and grasses (King et al. 1982; Johansen 2006) in open forests dominated by <i>Eucalyptus miniata</i> and <i>E. tetrodonta</i>. Commonly found in sandy red-loam substrates. Has been recorded in areas consisting of moderate to sparse Gamba grass (Beggs et al. 2012).</li> <li>Distribution: Endemic to the NT with known populations from north-west of Kakadu National Park and Wildman Reserve (King et al. 1982).</li> </ul>	<ul> <li><b>LOW</b></li> <li>Footprint is outside known distribution.</li> </ul>	<ul> <li><b>LOW</b></li> <li>Footprint is outside known distribution.</li> </ul>	
	<ul> <li>Beggs, K., Armstrong, M., Woinarski, J. and Ward, S. (2012). Threatened Species of the Northern Territory - Yellow-Snouted Gecko - Lucasium occultum. Northern Territory Department of Environment and Natural Resources. [online] Available at: <a href="https://nt.gov.au/data/assets/pdf_file/0007/206458/yellow-snouted-gecko.pdf">https://nt.gov.au/data/assets/pdf_file/0007/206458/yellow-snouted-gecko.pdf</a></li> <li>Johansen, T. (2006). The yellow-snouted gecko (Diplodactylus occultus), a little known endemic species of northern Australia. Report to NT Department of Natural Resources Environment and the Arts.</li> <li>King, M., Braithwaite, R.W. and Wombey, J.C. (1982). A new species of Diplodactylus (Reptillia: Gekkonidae) from the Alligator Rivers region - Northern Territory. Transactions of the Royal Society of South Australia, Vol. 106, pp. 15-18.</li> </ul>					
<b>Oenpelli Python</b> Simalia (Morelia) oenpelliensis	-	VU	<ul> <li>Habitat: Shelters in cracks, caves and crevices of rugged sandstone escarpments and gorges; or in large shady trees. Within this environment, reported from monsoon rainforest patches, riparian areas, woodlands, open heathlands and bare rock pavements (Woinarski &amp; Ward 2012).</li> <li>Distribution: Restricted to the sandstone massif of Western Arnhem Land in the NT. Reported in the upper catchments of the Cadell, also in the South and East Alligator River systems (Woinarski &amp; Ward 2012).</li> </ul>	<ul> <li>NONE</li> <li>Footprint is outside known distribution.</li> </ul>	<ul> <li>NONE</li> <li>Footprint is outside known distribution.</li> </ul>	
	Woina		nd Ward, S. (2012). Threatened Species of the Northern Territory - Oenpelli Python - Morelia oenpe ps://nt.gov.au/data/assets/pdf_file/0008/206459/oenpelli-python.pdf	elliensis. Northern Territory Department of Env	ironment and Natural Resources. [online] Availa	
Mertens' Water			Habitat: Semi-aquatic, occupying edges of freshwater watercourses and	HIGH	HIGH	



Monitor	-	VU	lagoons, but seldom seen far from water (Christian 2004).	Suitable habitat within northern	<ul> <li>Suitable habitat within the</li> </ul>
Varanus mertensi			<b>Distribution:</b> Across far northern Australia from the western Cape York Peninsula in Qld to the Kimberley in WA (Christian 2004). Widespread in the NT, occupying all of the Top End river systems (Ward et al. 2006). Few records for the Darwin region. The more common water monitor in greater Darwin (outside of Darwin suburbs and coastal area). Susceptible to ingesting toxic Cane Toads resulting in reduced abundance (Griffiths & McKay 2007).	and central sections of the footprint. • Recent proximate records.	<ul><li>footprint.</li><li>Not recorded in recent Gunn Point survey (Stokeld et al. 2020).</li><li>Recent records in southern end of footprint.</li></ul>
			2004). Varanus mertensi. In: Pianka et al. (eds.). Varanoid lizards of the world. Bloomington, Indiana		
		S., Woin	and McKay (2007). Cane toads reduce the abundance and site occupancy of Merten's water monit narski, J., Griffiths, T. and McKay, L. (2006). <i>Threatened Species of the Northern Territory - Mertens</i> urces. [online] Available at: <u>https://nt.gov.au/data/assets/pdf_file/0018/206460/mertens-water-mo</u>	s Water Monitor - Varanus mertensi. Northern T	
Mitchell's Water			Habitat: Semi-aquatic and often arboreal, inhabiting margins of	HIGH	LOW
<b>Monitor</b> Varanus mitchelli	-	VU	freshwater watercourses, swamps and lagoons (Shine 1986). <b>Distribution:</b> Top End of the NT and Kimberley in WA (Schultz & Doody 2004). In the NT, recorded in most catchments flowing into the Timor Sea, Arafura Sea and the Gulf of Carpentaria (Ward 2012). The more common water monitor in Darwin suburbs and coastal area. Susceptible	<ul> <li>Suitable habitat within northern and central sections of the footprint.</li> <li>Recent proximate records.</li> </ul>	<ul> <li>Suitable habitat in the footprint.</li> <li>No recent proximate records.</li> <li>Not recorded in recent Gunn Point survey (Stokeld et al. 2020).</li> </ul>
	Deadu		to ingesting toxic Cane Toads resulting in reduced abundance (Doody et al. 2009).		ice Animel Concernation Vol. 12 nr. 46.52
	Schult Shine,	z, T. and R. (1986 S. (2012		ngton, Indianapolis: Indiana University Press. Dical Australia. <i>Herpetologica,</i> 42(1), pp. 346-36	0.
Floodplain	Schult Shine,	z, T. and R. (1986 S. (2012	al. 2009).         ireen, B., Rhind, D., Castellano, C., Sims, R. and Robinson, T. (2009). Population-level declines in A         d Doody, S. (2004). Varanus mitchelli. In: Pianka et al. (eds.). Varanoid lizards of the world. Bloomin         6). Food habits, habitats and reproductive biology of four sympatric species of varanid lizards in trop         2). Threatened Species of the Northern Territory - Mitchell's Water Monitor - Varanus mitchelli. North         //nt.gov.au/data/assets/pdf_file/0019/206461/mitchells-water-monitor.pdf         Habitat:       Broad range of habitats from coastal beaches to savannah	ngton, Indianapolis: Indiana University Press. Dical Australia. <i>Herpetologica,</i> 42(1), pp. 346-36	0.
Floodplain Monitor Varanus panoptes	Schult Shine, Ward,	z, T. and R. (1986 S. (2012 <u>https:/</u> VU	al. 2009).         irreen, B., Rhind, D., Castellano, C., Sims, R. and Robinson, T. (2009). Population-level declines in A         d Doody, S. (2004). Varanus mitchelli. In: Pianka et al. (eds.). Varanoid lizards of the world. Bloomin         6). Food habits, habitats and reproductive biology of four sympatric species of varanid lizards in trop         2). Threatened Species of the Northern Territory - Mitchell's Water Monitor - Varanus mitchelli. North         //nt.gov.au/data/assets/pdf_file/0019/206461/mitchells-water-monitor.pdf         Habitat:       Broad range of habitats from coastal beaches to savannah         woodlands (Christian 2004).       Also common throughout floodplains         grasslands and a variety of native woodlands (Ward et al. 2012).         Distribution:       Across northern Australia from the Kimberley in WA to         Cape York Peninsula, and southwards through most of Qld. In the NT,         recorded across most of the Top End and the Gulf Region (Christian 2004).         Youth, Highly susceptible to Cane Toad poisoning (Ujvari & Madsen 2009), and has experienced significant declines (Doody et al. 2009).	ngton, Indianapolis: Indiana University Press. Dical Australia. <i>Herpetologica</i> , 42(1), pp. 346-36 hern Territory Department of Environment and N MEDIUM • Suitable habitat throughout the footprint. • Uncommon within range post- Cane Toad invasion.	0. latural Resources. [online] Available at:
Monitor	Schult Shine, Ward, -	z, T. and R. (1986 S. (2012 <u>https:/</u> VU	al. 2009).         ireen, B., Rhind, D., Castellano, C., Sims, R. and Robinson, T. (2009). Population-level declines in A         d Doody, S. (2004). Varanus mitchelli. In: Pianka et al. (eds.). Varanoid lizards of the world. Bloomin         6). Food habits, habitats and reproductive biology of four sympatric species of varanid lizards in trop         2). Threatened Species of the Northern Territory - Mitchell's Water Monitor - Varanus mitchelli. North         //nt.gov.au/data/assets/pdf_file/0019/206461/mitchells-water-monitor.pdf         Habitat:       Broad range of habitats from coastal beaches to savannah         woodlands (Christian 2004).       Also common throughout floodplains         grasslands and a variety of native woodlands (Ward et al. 2012).         Distribution:       Across northern Australia from the Kimberley in WA to         Cape York Peninsula, and southwards through most of Qld. In the NT,         recorded across most of the Top End and the Gulf Region (Christian 2004).         2004).       Highly susceptible to Cane Toad poisoning (Ujvari & Madsen 2009), and has experienced significant declines (Doody et al. 2009).	agton, Indianapolis: Indiana University Press. Dical Australia. <i>Herpetologica</i> , 42(1), pp. 346-36 hern Territory Department of Environment and N MEDIUM • Suitable habitat throughout the footprint. • Uncommon within range post- Cane Toad invasion.	<ul> <li>0. Natural Resources. [online] Available at:</li> <li>HIGH <ul> <li>Suitable habitat within the footprint.</li> <li>Recorded six times in recent Gunn Point survey (Stokeld et al. 2020), including proximate to the footprint.</li> <li>Uncommon within range post-Cane Toad invasion.</li> </ul> </li> </ul>
Monitor	Schult Shine, Ward, - Christi Doody	z, T. and R. (1986 S. (2012 <u>https:/</u> VU an, K. (2 , J.S., Gi	al. 2009).         irreen, B., Rhind, D., Castellano, C., Sims, R. and Robinson, T. (2009). Population-level declines in A         d Doody, S. (2004). Varanus mitchelli. In: Pianka et al. (eds.). Varanoid lizards of the world. Bloomin         6). Food habits, habitats and reproductive biology of four sympatric species of varanid lizards in trop         2). Threatened Species of the Northern Territory - Mitchell's Water Monitor - Varanus mitchelli. North         //nt.gov.au/data/assets/pdf_file/0019/206461/mitchells-water-monitor.pdf         Habitat:       Broad range of habitats from coastal beaches to savannah         woodlands (Christian 2004). Also common throughout floodplains         grasslands and a variety of native woodlands (Ward et al. 2012).         Distribution:       Across northern Australia from the Kimberley in WA to         Cape York Peninsula, and southwards through most of Qld. In the NT,         recorded across most of the Top End and the Gulf Region (Christian 2004). Highly susceptible to Cane Toad poisoning (Ujvari & Madsen 2009), and has experienced significant declines (Doody et al. 2009).         2004). Varanus mertensi. In: Pianka et al. (eds.). Varanoid lizards of the world. Bloomington, Indiana recen, B., Rhind, D., Castellano, C., Sims, R. and Robinson, T. (2009). Population-level declines in A	agton, Indianapolis: Indiana University Press. Dical Australia. <i>Herpetologica</i> , 42(1), pp. 346-36 hern Territory Department of Environment and N MEDIUM • Suitable habitat throughout the footprint. • Uncommon within range post- Cane Toad invasion.	<ul> <li>0. Natural Resources. [online] Available at:</li> <li>HIGH <ul> <li>Suitable habitat within the footprint.</li> <li>Recorded six times in recent Gunn Point survey (Stokeld et al. 2020), including proximate to the footprint.</li> <li>Uncommon within range post-Cane Toad invasion.</li> </ul> </li> <li>State Conservation, Vol. 12, pp. 46-53.</li> </ul>
Monitor	Schult Shine, Ward, - Christi Doody Ujvari,	z, T. and R. (1986 S. (2012 <u>https:/</u> VU an, K. (2 , J.S., Gr B. & Ma S., Woin	al. 2009).         ireen, B., Rhind, D., Castellano, C., Sims, R. and Robinson, T. (2009). Population-level declines in A         d Doody, S. (2004). Varanus mitchelli. In: Pianka et al. (eds.). Varanoid lizards of the world. Bloomin         6). Food habits, habitats and reproductive biology of four sympatric species of varanid lizards in trop         2). Threatened Species of the Northern Territory - Mitchell's Water Monitor - Varanus mitchelli. North         //nt.gov.au/data/assets/pdf_file/0019/206461/mitchells-water-monitor.pdf         Habitat:       Broad range of habitats from coastal beaches to savannah         woodlands (Christian 2004).       Also common throughout floodplains         grasslands and a variety of native woodlands (Ward et al. 2012).         Distribution:       Across northern Australia from the Kimberley in WA to         Cape York Peninsula, and southwards through most of Qld. In the NT,         recorded across most of the Top End and the Gulf Region (Christian 2004).         2004).       Highly susceptible to Cane Toad poisoning (Ujvari & Madsen 2009), and has experienced significant declines (Doody et al. 2009).	agton, Indianapolis: Indiana University Press. Dical Australia. <i>Herpetologica</i> , 42(1), pp. 346-36 hern Territory Department of Environment and N MEDIUM • Suitable habitat throughout the footprint. • Uncommon within range post- Cane Toad invasion.	<ul> <li>0.</li> <li>Natural Resources. [online] Available at:</li> <li>HIGH <ul> <li>Suitable habitat within the footprint.</li> <li>Recorded six times in recent Gunn Point survey (Stokeld et al. 2020), including proximate to the footprint.</li> <li>Uncommon within range post-Cane Toad invasion.</li> </ul> </li> <li>cties. Animal Conservation, Vol. 12, pp. 46-53. on and Biology, Vol. 4, pp. 248-251.</li> </ul>
Monitor	Schult Shine, Ward, - Christi Doody Ujvari,	z, T. and R. (1986 S. (2012 <u>https:/</u> VU an, K. (2 , J.S., Gr B. & Ma S., Woin	<ul> <li>al. 2009).</li> <li>areen, B., Rhind, D., Castellano, C., Sims, R. and Robinson, T. (2009). Population-level declines in <i>A</i> d Doody, S. (2004). Varanus mitchelli. In: Pianka et al. (eds.). <i>Varanoid lizards of the world</i>. Bloomin 6). Food habits, habitats and reproductive biology of four sympatric species of varanid lizards in trop 2). <i>Threatened Species of the Northern Territory - Mitchell's Water Monitor - Varanus mitchelli</i>. North <i>I</i>/Int.gov.au/data/assets/pdf_file/0019/206461/mitchells-water-monitor.pdf</li> <li>Habitat: Broad range of habitats from coastal beaches to savannah woodlands (Christian 2004). Also common throughout floodplains grasslands and a variety of native woodlands (Ward et al. 2012).</li> <li>Distribution: Across northern Australia from the Kimberley in WA to Cape York Peninsula, and southwards through most of Qld. In the NT, recorded across most of the Top End and the Gulf Region (Christian 2004). Highly susceptible to Cane Toad poisoning (Ujvari &amp; Madsen 2009), and has experienced significant declines (Doody et al. 2009).</li> <li>2004). Varanus mertensi. In: Pianka et al. (eds.). Varanoid lizards of the world. Bloomington, Indiana adsen, T. (2009). Increased mortality of naïve varanid lizards after the invasion of non-native cane to harski, J., Griffiths, T. &amp; McKay, L. (2012). <i>Threatened Species of the Northern Territory - Yellow Sp</i></li> </ul>	agton, Indianapolis: Indiana University Press. Dical Australia. <i>Herpetologica</i> , 42(1), pp. 346-36 hern Territory Department of Environment and N MEDIUM • Suitable habitat throughout the footprint. • Uncommon within range post- Cane Toad invasion.	<ul> <li>0.</li> <li>Natural Resources. [online] Available at:</li> <li>HIGH <ul> <li>Suitable habitat within the footprint.</li> <li>Recorded six times in recent Gunn Point survey (Stokeld et al. 2020), including proximate to the footprint.</li> <li>Uncommon within range post-Cane Toad invasion.</li> </ul> </li> <li>cties. Animal Conservation, Vol. 12, pp. 46-53. on and Biology, Vol. 4, pp. 248-251.</li> </ul>



<b>Toadlet</b> Uperoleia daviesae	-	VU	sandsheet heathland associated with drainage systems. Suitable habitat consists of shallowly inundated seepage areas with sedges and herbs on sandy substrates (Ward et al. 2012). Habitat may be reliant on a perched aquifer overlying a lateritic or clay layer, which is influenced by rainfall inputs and localised drainage. <b>Distribution</b> : Endemic to the Darwin region in the northern NT. Confined to sandsheet heathlands in the Howard and Elizabeth River catchments (Ward et al. 2012).	<ul> <li>No suitable habitat within the footprint.</li> </ul>	<ul> <li>Suitable sandsheet habitat within the footprint.</li> <li>Recent records in the direct vicinity of the footprint.</li> </ul>		
FISH	Ward		ng, S. and Hill, B. (2012). Threatened Species of the Northern Territory - Howard River Toadlet – Up e] Available at: <u>https://nt.gov.au/data/assets/pdf_file/0003/205527/howard-river-toadlet.PDF</u>	peroleia daviesae. Northern Territory Departme	ent of Environment and Natural Resources.		
Northern River Shark Glyphis garricki	EN	EN	Habitat:Little is known of the ecology, probably restricted to shallow, brackish reaches of large rivers (Ward & Larson 2012).Distribution:In Australia, there are few records, including in the NT from the Adelaide, East and South Alligator River systems. Also known from the Kimberley coast and King Sound in WA (Thorburn & Morgan 2004; Compagno et al. 2008). NT distribution does not extend into the Gulf of Carpentaria.	MEDIUM • Known from the Adelaide River which intersects the footprint, although not as far upstream as where the OHTL crosses the river.	<ul> <li>LOW</li> <li>Marginally-suitable habitat in the footprint where it crosses Elizabeth River.</li> <li>Not reported from the Elizabeth River.</li> </ul>		
	Compagno, L.J.V., White, W.T. and Last, P.R. (2008). <i>Glyphis garricki</i> sp. nov., a new species of river shark (Carcharhiniformes: Carcharhinidae) from northern Australia and Papua New Guinea, with a redescription of Glyphis glyphis (Müller & Henle, 1839). In: Last et al. (eds.). <i>Descriptions of New Australian Chondrichthyans</i> . CSIRO Marine and Atmospheric Research Paper, 022: pp. 203-226. Thorburn, D.C. and Morgan, D.L. (2004). The northern river shark, <i>Glyphis</i> sp. C (Carcharhinae) discovered in Western Australia. <i>Zootaxa</i> , Vol. 685, pp. 1-8. Ward, S. and Larson, H. (2012). <i>Threatened Species of the Northern Territory – Northern River Shark – Glyphis garricki</i> . Northern Territory Department of Environment and Natural Resources. [online] Available at: <a href="https://nt.gov.au/">https://nt.gov.au/</a> data/assets/pdf file/0005/206384/northernr-river-shark.pdf						
Speartooth Shark Glyphis glyphis	CR	VU	<ul> <li>Habitat: Tropical fresh water and marine environments (Bradshaw et al. 2008). May be restricted to low salinity environments such as freshwater or brackish areas of rivers (DoE 2021).</li> <li>Distribution: Papua New Guinea and Northern Australia. Considered to be very rare in Australia as few specimens have been collected (Cavanagh et al. 2003). Three distinct geographical locations in the NT and northern Qld (DoE 2021). In the NT, recorded in the Alligator River region across to Adelaide River, and the Bizant River (Ward and Larson 2012).</li> </ul>	<ul> <li>MEDIUM</li> <li>Known from the Adelaide River which intersects the footprint, although not as far upstream as where the OHTL crosses the river.</li> </ul>	<ul> <li>LOW</li> <li>Marginally-suitable habitat in the footprint where it crosses Elizabeth River.</li> <li>Not reported from the Elizabeth River.</li> </ul>		
	<ul> <li>Bradshaw, C.J.A., Fitzpatrick, B.M., Steinberg, C.C., Brook, B.W. and Meekan, M.G. (2008). Decline in whale shark size and abundance at Ningaloo Reef over the past decade: the world's largest fish is getting smaller. <i>Biological Conservation</i>, Vol. 141, pp. 1894–1905.</li> <li>Cavanagh, R., Kyne, P., Fowler, S., Musick, J. and Bennett, M. (eds.) (2003). <i>The Conservation Status of Australian Chondrichthyans</i>. Report of the IUCN Shark Specialist Group Australia and Oceania Red List Workshop. The University of Queensland, School of Biomedical Sciences, Brisbane, Australia.</li> <li>Department of the Environment (2021). <i>Glyphis glyphis</i> - <i>Speartooth Shark</i>. Species Profile and Threats Database, Department of the Environment, Canberra. [online] Available at: <a href="http://www.environment.gov.au/cgl-bin/sprat/public/publicspecies.pl?taxon_id=82453">http://www.environment.gov.au/cgl-bin/sprat/public/publicspecies.pl?taxon_id=82453</a></li> <li>Ward, S. and Larson, H. (2012). <i>Threatened Species of the Northern Territory - Speartooth Shark - Glyphis glyphis</i>. Northern Territory Department of Environment and Natural Resources. [online] Available at: </li></ul>						



Pristis clavata	VU	VU	waters following the wet season (Peverell 2005). <b>Distribution:</b> Indonesia, South-East Asia and northern Australia (Cavanagh et al. 2003). In the NT, known to occur around Darwin (including Buffalo Creek and Rapid Creek), in Kakadu National Park (Alligator River), Keep River and Victoria River (Thorburn et al. 2003).	intersect the footprint.	footprint where it crosses Elizabeth River. • Not reported from the Elizabeth River.			
	Pever	Work ell, S.C.	Kyne, P., Fowler, S., Musick, J. and Bennett, M. (eds.) (2003). <i>The Conservation Status of Australia</i> shop. The University of Queensland, School of Biomedical Sciences, Brisbane, Australia. (2005). Distribution of sawfishes (Pristidae) in the Queensland Gulf of Carpentaria, Australia, with m Peverell, S, Stevens, S, Last, J. and Rowland, A. (2003). <i>Status of freshwater and estuarine elasmo</i>	otes on their ecology. Environmental Biology of	f Fishes, Vol. 73, pp. 391-402.			
Freshwater or Largetooth Sawfish Pristis pristis	Pever	ell, S.C.	<ul> <li>Habitat: Tropical marine and estuarine habitats, entering estuarine or fresh waters to breed during the wet season and moving into marine waters following the wet season (Peverell 2005). Of the four <i>Pristis</i> species reported to occur in Australia, is the one most often associated with freshwater, and has been recorded several hundred kilometres upstream (Thorburn et al. 2003).</li> <li>Distribution: Circumtropical, with distinct populations in the eastern Atlantic, western Atlantic, eastern Pacific and Indo-West Pacific – including northern Australia (TSSC 2014). In the NT, reported in Adelaide, Victoria, Daly, East and South Alligator, Goomadeer, Roper, McArthur, Wearyan and Robinson Rivers (TSSC 2014). May potentially occur in all large rivers of northern Australia from the Fitzroy River, WA, to the western side of Cape York Peninsula, Qld (DoE 2018).</li> <li>The Environment (DoE) (2018). <i>Pristis pristis in Species Profile and Threats Database</i>, Department (2005). Distribution of sawfishes (Pristidae) in the Queensland Gulf of Carpentaria, Australia, with mediate Scientific Committee (2014). <i>Approved Conservation Advice - Pristis pristis (largetooth sawfishes</i>)</li> </ul>	otes on their ecology. Environmental Biology of	f Fishes, Vol. 73, pp. 391-402.			
Creen Soufieh		[onlin	e] Available at: http://www.environment.gov.au/biodiversity/threatened/species/pubs/60756-conserv		NONE			
Green Sawfish Pristis zijsron	VU	VU	<ul> <li>Habitat: Tropical waters – including marine inshore waters, river mouths, estuaries and lagoons – but not freshwater (Thorburn et al. 2003). Enters estuarine to breed during the wet season and moves back into marine waters following the wet season (Peverell 2005).</li> <li>Distribution: Northern Australia, South-East Asia and the Indian Ocean (Cavenagh et al. 2003). Most frequently encountered of the sawfish species in Australian waters (Last &amp; Stevens 1994). Most commonly known from the Gulf of Carpentaria (Stevens et al. 2005). In the NT specimens have only been collected from Buffalo Creek in Darwin (Stirrat et al. 2006).</li> </ul>	Not known from any rivers that intersect the footprint	<ul> <li>No suitable habitat in the footprint.</li> </ul>			
		Cavanagh, R., Kyne, P., Fowler, S., Musick, J. and Bennett, M. (eds.) (2003). The Conservation Status of Australian Chondrichthyans. Report of the IUCN Shark Specialist Group Australia and Oceania Red List Workshop. The University of Queensland, School of Biomedical Sciences, Brisbane, Australia.						
	Last, P.R. and Stevens, J.D. (1994). Sharks and Rays of Australia. CSIRO, Melbourne. Peverell, S.C. (2005). Distribution of sawfishes (Pristidae) in the Queensland Gulf of Carpentaria, Australia, with notes on their ecology. <i>Environmental Biology of Fishes</i> , Vol. 73, pp. 391-402 Stirrat, S., Larson, H. and Woinarski, J. (2006). <i>Threatened Species of the Northern Territory - Green Sawfish - Pristis zijsron</i> . Northern Territory Department of Environment and Natural Resources. [online] Available at: <a href="https://nt.gov.au/">https://nt.gov.au/</a> data/assets/pdf_file/0006/206394/green-sawfish.pdf							



	Thorb	urn, D., P	Peverell, S, Stevens, S, Last, J. and Rowland, A. (2003). Status of freshwater and estuarine elasmout	branchs in Northern Australia. Report to Natural	Heritage Trust, Canberra. [unpublished].	
Lorentz Grunter Pingalla lorentzi	-	VU	<ul> <li>Habitat: Small and large pools with rock and sand substrates, usually in open unshaded sections of streams and in water temperatures between 25°C and 30°C (Allen et al. 2002).</li> <li>Distribution: Rare in Australia, more widespread in PNG. In the NT, only known from the Finniss River near Rum Jungle (Stirrat et al. 2006).</li> </ul>	<ul> <li>NONE</li> <li>Restricted to Finniss River which does not intersect with the footprint.</li> </ul>	<ul> <li>NONE</li> <li>Restricted to Finniss River which does not intersect with the footprint.</li> </ul>	
		, S., Woir	dgley, S.H. and Allen, M. (2002). <i>Field Guide to Freshwater Fishes of Australia</i> . Western Australian harski, J.C.Z. and Larson, H. (2006). <i>Threatened Species of the Northern Territory – Lorentz Grunte</i> P] Available at: <u>https://nt.gov.au/data/assets/pdf_file/0020/206390/lorentz-grunter.pdf</u>		ent of Environment and Natural Resources.	
INVERTEBRATES						
Atlas Moth Attacus wardi	-	VU	Habitat: Coastal monsoon vine forest, where the larval stages feed on the plant <i>Croton habrophyllus</i> at the edges of the forest (Lane et al. 2010). Distribution: The Top End of the NT, with records from Tiwi and Melville Islands, Darwin, Black Point and Cobourg Peninsula. Also records from Lesuer Island in WA (Braby & Nielsen 2011).	<ul> <li>NONE</li> <li>No suitable habitat within the footprint.</li> </ul>	<ul> <li>NONE</li> <li>No suitable habitat within the footprint.</li> </ul>	
		608.	d Nielsen, J. (2011). Review of the conservation status of the Atlas Moth, <i>Attacus wardi</i> Rothschild, n, G. and Weir, R.P. (2010). The life history of <i>Attacus wardi</i> Rothschild (Lepidoptera: Saturniidae) f			
Spencer's Land Snail Bothriembryon spenceri	-	VU	<ul> <li>Habitat: Found in leaf litter, under fig trees and/or rocky areas. During unfavourable periods it buries into the soil (Wilson et al. 2006).</li> <li>Distribution: Largely restricted to the Krichauff and Chewings Ranges west of Alice Springs, notably occurring in Palm Valley (Solem 1988). First collected and described in the Horn Expedition of 1894.</li> </ul>	<ul> <li>NONE</li> <li>Outside of known distribution – only known from significantly south of the footprint.</li> </ul>	• Not known from the bioregion.	
		n, C., Woi	8). Non-camaenid land snails of the Kimberley and Northern Territory, Australia. I. Systematics, affi inarski, J., Kessner, V. and Braby, M. (2006). <i>Threatened Species of the Northern Territory - Spenc</i> al Resources. [online] Available at: <u>https://nt.gov.au/data/assets/pdf_file/0015/206520/bothriembr</u>	ers Land Snail - Bothriembryon spenceri. North		
Alice Springs Squat Snail Semotrachia euzyga	EN	EN	<ul> <li>Habitat: Restricted to areas in and around fig trees. Lives in rocky litter under figs, adults commonly aestivate sealed to rocks (Solem 1993).</li> <li>Distribution: Endemic to the NT. Recent museum collections have extended its known range slightly. It is highly restricted, with locations including about 1 km<sup>2</sup> along the Todd River in Alice Springs, on nearby Choritza Hill, and Mt Gillen less than 8 km away (Ward et al. 2006).</li> </ul>	<ul> <li>NONE</li> <li>Outside of known distribution – only known from significantly south of the footprint.</li> </ul>	• Not known from the bioregion.	
	Solem, A. (1993). Camaenid land snails from Western and central Australia (Mollusca: Pulmonata: Camaenidae) - VI Taxa from the Red Centre. Records of the Western Australian Museum Supplement 43, pp. 983-1459. Ward, S., Kessner, V., Braby, M. and Woinarski, J. (2006). Threatened Species of the Northern Territory - Land Snail - Semotrachia euzyga. Northern Territory Department of Environment and Natural Resources. [online] Available at: https://nt.gov.au/data/assets/pdf_file/0017/206513/semotrachia-euzyga.pdf					
Victoria's Land Snail Setobaudinia	-	VU	<ul> <li>Habitat: Found in leaf litter at the base of large limestone boulders in a marshy sink. Also recorded buried in soil in open <i>Eucalyptus</i> woodlands (Solem 1985).</li> <li>Distribution: Reported in and around limestone sinkholes in Katherine</li> </ul>	<ul> <li>LOW</li> <li>Suitable habitat within the footprint.</li> <li>Relatively nearby records &lt;5 km</li> </ul>	<ul> <li>NONE</li> <li>Not known from the greater Darwin region.</li> </ul>	



		region. Possibly naturally extremely restricted in range.	from footprint near Katherine and <2km from footprint near Nitmiluk. • Range is highly restricted.			
	Austra	alian Museum Supplement 20, pp. 707-981.				
Wilson				ern Territory Department of Environment and		
VU	VU	<ul> <li>Habitat: Upper to lower slopes with various aspects in stony, skeletal or sandy soils on sandstone or laterite substrates with <i>Eucalyptus miniata</i> and <i>E. tetrodonta</i> (NTH 2021). Several sites are on the slopes of a tertiary plateau remnant; others are on ridge slopes (Cowie &amp; Kerrigan 2012). Flowers recorded between Jan-Sept, and fruits from Jan-Mar and Jul-Oct (Holmes et al. 2007).</li> <li>Distribution: Endemic to the NT, collected from two roadside localities along 25 km of the Stuart Highway; near Emerald Springs and Hayes Creek (Dunlop et al. 1995). Some targeted searches have been conducted and considerable survey has been conducted in the wider region, suggesting that existing records reflect this species' restricted distribution and abundance (Cowie &amp; Kerrigan 2012).</li> </ul>	<ul> <li>LOW</li> <li>Suitable habitat within the footprint.</li> <li>Record ~1.5 km from footprint near Pine Creek.</li> <li>Considerable survey has been conducted in the wider region, suggesting that existing records reflect this species' restricted distribution and abundance.</li> </ul>	<ul> <li>LOW</li> <li>Suitable habitat in the footprint.</li> <li>No recent proximate records.</li> </ul>		
<ul> <li>Cowie, I. and Kerrigan, R. (2012). Threatened Species of the Northern Territory - Acacia praetermissa. Northern Territory Department of Environment and Natural Resources. [online] Available at: <a href="https://nt.gov.au/">https://nt.gov.au/</a> data/assets/pdf file/0018/208404/acacia-praetermissa.pdf</li> <li>Dunlop, CR., Leach, GJ. and Cowie, ID. (1995). Flora of the Darwin Region. Vol 2. Conservation Commission of the Northern Territory, Darwin.</li> <li>Holmes, J., Bisa, D., Hill, A. and Crase, B. (2007). A Guide to the Threatened, Near Threatened and Data Deficient Plants in the Litchfield Shire of the Northern Territory. Darwin, NT: WWF-Australia.</li> </ul>						
CR	-	<ul> <li>Habitat: Restricted to foot-slope sites with more open vegetation on deeper, coarser sandy soils, mostly along a specific, distinct geological boundary (Cowie 2014).</li> <li>Distribution: Endemic to the NT; found south of Darwin, near Elizabeth River at Virginia, and its tributary – Amy's Creek (Cowie 2014). Few</li> </ul>	<ul> <li>LOW</li> <li>Suitable habitat within the footprint.</li> <li>No high likelihood modelled habitat or nearby records.</li> </ul>	<ul> <li><b>LOW</b></li> <li>Footprint outside of accepted distribution.</li> </ul>		
Cowie		species. Extent of occurrence is 7.6 km <sup>2</sup> , with a high degree of confidence as it occurs within one of the most heavily-surveyed areas in the NT (Cowie 2014). <i>Threatened Species of the Northern Territory - Atalaya brevialata.</i> Northern Territory Department	t of Environment and Natural Resources. [onlin	ne] Available at:		
	<u>https:/</u>			1		
-	VU	clay plains. Recorded in bluebush swamps and riparian woodlands dominated by <i>Eucalyptus camaldulensis</i> (Nano et al. 2012).	Footprint is outside of known distribution.	<ul><li>NONE</li><li>Not known from the bioregion.</li></ul>		
	VU VU Cowie, Dunlop Holme Northe	Austra         Wilson, C., Wo         Natur         VU         VU         Cowie, I. and H         https://docs/pice/site         Dunlop, CR., L         Holmes, J., Bis         Northern Territ         CR         Cowie, I. (2014         https://docs/pice/site	Australian Museum Supplement 20, pp. 707-981.         Wilson, C., Woinarski, J., Kessner, V. and Braby, M. (2006). Threatened Species of the Northern Territory - Victori Natural Resources. [online] Available at: https://nt.gov.au/data/assets/pdf_file/0007/206539/setobaudin         VU       VU       Habitat: Upper to lower slopes with various aspects in stony, skeletal or sandy soils on sandstone or laterite substrates with <i>Eucalyptus miniata</i> and <i>E. tetrodonta</i> (NTH 2021). Several sites are on the slopes of a tertiary plateau remnant; others are on ridge slopes (Cowie & Kerrigan 2012). Flowers recorded between Jan-Sept, and fruits from Jan-Mar and Jul-Oct (Holmes et al. 2007).         Distribution: Endemic to the NT, collected from two roadside localities along 25 km of the Stuart Highway; near Emerald Springs and Hayes Creek (Dunlop et al. 1995). Some targeted searches have been conducted and considerable survey has been conducted in the wider region, suggesting that existing records reflect this species' restricted distribution and abundance (Cowie & Kerrigan 2012).         Cowie, I. and Kerrigan, R. (2012). Threatened Species of the Northern Territory - Acade praetermissa. Northern T https://nt.gov.au/	Solen, A. (1985). Cameenid land snails from Western and central Australia (Mollusca: Pulmonata: Cameenidee) - V Remaining Kimberley genera and addend a Australian Museum Supplement 20, pp. 707-981.           Wison, C., Woinarski, J., Kessner, V. and Braby, M. (2006). Threatened Species of the Northern Territory - Victoria's Land Snail Setobaudinia victoriana. Norther Natural Resources. [online] Available at: <u>https://nl.gov.au/atalasestry.off</u> file/0007/206538/setobaudinia-victoriana.         Control State S		



			Tablelands to central western Qld. In the NT, rare and only found in five locations in the central-eastern area (Nano et al. 2012). More records identified in that area in 2016 by EcOz.		
	Nano,		gan, R. and Albrecht, D. (2012). Threatened Species of the Northern Territory - Austrobryonia argill irces. <u>https://nt.gov.au/data/assets/pdf_file/0017/208412/austrobryonia-argillicola.pdf</u>	icola - I. Telford (Cucurbitaceae). Northern Terr	itory Department of Environment and Natural
<b>a shrub</b> Clausena excavata	CR	CR	<ul> <li>Habitat: Collected from two small monsoonal vine thickets situated on limestone (karst) geology. One population was found in outcropping limestone and the other on the border of a sink hole (Westaway &amp; Cowie 2012).</li> <li>Distribution: Thought to be endemic to the NT – highly restricted and known only from a small area on Tipperary Station, 5 km north-west of Mt Burrell in the Daly Basin bioregion (Westaway &amp; Cowie 2012).</li> </ul>	<ul> <li>NONE</li> <li>Restricted range, with no proximate records to the footprint.</li> </ul>	NONE <ul> <li>Not known from the bioregion.</li> </ul>
	Westa		nd Cowie, I. (2012). Threatened Species of the Northern Territory - Clausena sp. Tipperary. Northe /nt.gov.au/ data/assets/pdf file/0004/208426/clausena-tipperary.pdf	rn Territory Department of Environment and Na	atural Resources.
a herb Cleome insolata	Northe	[online ern Territo way, J. a	<ul> <li>Habitat: Inundated sedge land growing on silty loam with coverage of laterite gravels in close proximity to a river catchment (Short 2010). Low open woodlands with <i>Grevillea pteridifolia, Melaleuca viridiflora, M. nervosa, Verticordia cunninghamii</i> and <i>Pandanus</i> over <i>Dapsilanthus, Eriachne burkittii, Sorghum</i> and <i>Alloteropsis;</i> on seasonally waterlogged sandy soils. Flowering Jan-Apr (NTH 2021).</li> <li>Distribution: Endemic to the NT, known from a population located near Humpty Doo, three populations in Lloyd Creek; from the Noonamah - Amys Creek area; Wishart Rd; near Shoal Bay and in the Darwin rural area (Westaway &amp; Cowie 2012; EcOz records). A species-specific survey has not been carried out (Westaway &amp; Cowie 2012).</li> <li>10). New species of <i>Cleome</i> L. (Cleomaceae) from the Northern Territory, Australia. <i>The Beagle</i>, Re available at: <a href="https://dtc.nt.gov.au/">https://dtc.nt.gov.au/</a> data/assets/pdf file/0011/254954/Short.pdf</li> <li>Dry Herbarium (NTH). (2020). FloraNT - Northern Territory flora online. Department of Land Resource of Cleome L. (2012). Threatened Species of the Northern Territory - <i>Cleome insolata</i>. Northern Territory - <i>Cleome insolata</i>. Northern Territory - <i>Cleome insolata</i>. Northern Territory - <i>Cleome insolata</i>.</li> </ul>	rce Management.	
an arabid		https:/	/nt.gov.au/ data/assets/pdf_file/0006/208428/cleome-insolata.pdf	NONE	LOW
an orchid Crepidium marsupichila	-	VU	<ul> <li>Habitat: Prefers protected shady areas and moist soils rich in leaf litter along the margins of coastal dry monsoon rainforest and littoral rainforest (Kerrigan &amp; Cowie 2006, FloraNT).</li> <li>Distribution: An Australian endemic with known populations from northeastern Qld and the NT. In the NT, only known from one locality, Gunn Point (Kerrigan &amp; Cowie 2006). Limited amount of recent survey in the area, though extensive surveys in the 1980's of rainforest areas failed to find the species (Kerrigan &amp; Cowie 2006).</li> </ul>	Restricted range, with no proximate records to the footprint.	<ul> <li>No suitable dry coastal rainforest within the footprint Recorded only from Gunn Point, but much further north than the footprint</li> </ul>
	Kerrig	an, R. an <u>https:/</u>	d Cowie, I. (2006). Threatened Species of the Northern Territory - Malaxis marsupichila. Northern /nt.gov.au/data/assets/pdf_file/0007/208690/malaxis-marsupichila.pdf	Territory Department of Environment and Natur	ral Resources.
Darwin Cycad			<b>Habitat:</b> Open grassy woodland where adequate drainage appears to be a limiting factor (Kerrigan et al. 2006). Prime habitat has deep loamy soil	HIGH	HIGH



Cycas armstrongii	-	VU	(Liddle 2009). Separate male and female plants, with males flowering in August, and females from March-Nov (Holmes et al. 2007) <b>Distribution:</b> Restricted to the Top End of the NT – from Gunn Point to Hayes Creek, west to within 50km of the coastline and east to the Wildman River catchment (Kerrigan et al. 2006). Also on the Tiwi Islands and Cobourg Peninsula.	<ul> <li>Suitable habitat within the footprint north of Litchfield.</li> <li>Confirmed in the northern end of the footprint.</li> <li>Many proximate records.</li> </ul>	<ul> <li>Suitable habitat along most of the footprint.</li> <li>Many recent records along the footprint.</li> </ul>
	Kerrig	an, R., Co <u>https://</u> D. (2009	a, D., Hill, A. and Crase, B. (2007). A Guide to the Threatened, Near Threatened and Data Deficien owie, I. and Liddle, D. (2006). Threatened Species of the Northern Territory - Cycas armstrongii. N /nt.gov.au/data/assets/pdf_file/0017/208430/cycas-armstrongii.pdf 9). Management program for Cycads in the Northern Territory of Australia 2009-2014. Darwin, NT: 1 ble at: https://territorystories.nt.gov.au/10070/265358	lorthern Territory Department of Environment a	nd Natural Resources.
a ground orchid Dienia montana	-	VU	<ul> <li>Habitat: Wet (spring-fed) rainforest (Kerrigan et al. 2013).</li> <li>Distribution: Northern Qld, and one population in the NT, near Munmarlary in Kakadu National Park. A targeted search in 2003 failed to record any plants at this locality (Kerrigan et al. 2013).</li> </ul>	<b>NONE</b> Restricted range, with no proximate records to the footprint.	<b>NONE</b> Restricted range, with no proximate records to the footprint.
	Kerrig	an, R., Co https://	owie, I. and Ward S. (2013). <i>Threatened Species of the Northern Territory - Dienia montana</i> . North /nt.gov.au/data/assets/pdffile/0007/208474/dienia-montana-malaxis-latifolia.pdf	hern Territory Department of Environment and N	latural Resources.
Dwarf Desert Spike-rush Eleocharis papillosa	VU	VU	<ul> <li>Habitat: Ephemeral wetlands in freshwater and semi-saline swamps. In the NT, recorded growing amongst Coolabah (<i>Eucalyptus coolabah</i>), Samphire (<i>Halosarcia spp.</i>), Northern Bluebush (<i>Chenopodium auricomum</i>) and <i>Eragrostis spp.</i> including Swamp Cane grass (<i>E. australasica</i>) (DoE 2021).</li> <li>Distribution: WA, SA and NT. Known from eight locations in the NT ranging from the Tanami Desert to the Southern Finke bioregion across to the edge of the Simpson Desert. These sites occur on Aboriginal free hold land (Lander River, Rabbit Flat, Lake Mackay); pastoral lease (three stations); and crown land (Ilparpa swamp) (Duguid et al. 2006). Likely to be naturally rare. An extensive survey of wetlands in 2000 and 2001, in apparently ideal conditions, only found one new population (Duguid et al. 2002).</li> </ul>	NONE Outside known distribution – nearest record is 300 km south of the footprint.	NONE Not known from the bioregion.
		http://v	Ine Environment (2021). Electraris papillosa. Species Profile and Threats Database. Department o <u>www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=2519</u> rigan, R. and Albrecht, D. (2006). Threatened Species of the Northern Territory - Dwarf Desert Spik Irces. <u>https://nt.gov.au/data/assets/pdf_file/0020/208433/eleocharis-papillosa.pdf</u>		
<b>a sedge</b> Eleocharis retroflexa	VU	-	<ul> <li>Habitat: On plateaux, in the margins of seasonal swamps and watercourses with <i>Melaleuca</i>, <i>Eucalyptus</i> and <i>Corymbia</i> species and grasses (Cowie &amp; Kerrigan 2006).</li> <li>Distribution: Northern Qld near Cairns and in the NT in Nitmiluk National Park near Katherine (TSSC 2008).</li> </ul>	<b>NONE</b> Restricted range, with no proximate records to the footprint.	NONE Not known from the bioregion.
	Cowie		errigan, R. (2006). Threatened Species of the Northern Territory - Eleocharis retroflexa. Northern T /nt.gov.au/ data/assets/pdf file/0010/376264/eleocharis-retroflexa.pdf	erritory Department of Environment and Natura	Resources.
	Threat	ened Spe	ecies Scientific Committee (2008). Commonwealth Conservation Advice on Eleocharis retroflexa. D	epartment of the Environment, Water, Heritage	and the Arts. Available from:



		http://v	vww.environment.gov.au/biodiversity/threatened/species/pubs/23672-conservation-advice.pdf				
<b>Native Walnut</b> Endiandra limnophila	-	VU	<ul> <li>Habitat: Well-developed spring-fed rainforests on swampy or very wet substrates along creek margins (Kerrigan &amp; Cowie 2006).</li> <li>Distribution: Endemic to Australia – far north of Cape York Peninsula in Qld, and the Tiwi Islands and Channel point in the NT (Kerrigan &amp; Cowie 2006). In the NT, recorded at approximately 22 locations with no more than 6 individuals at any one locality (Liddle et al. 1994). Extensive survey of the Tiwi Islands in 2000-02 yielded no further populations (Woinarski et al. 2003).</li> </ul>	<ul> <li>NONE</li> <li>Restricted range, with no proximate records to the footprint.</li> </ul>	<ul> <li>NONE</li> <li>Footprint is outside of known distribution.</li> </ul>		
	<ul> <li>Kerrigan, R. and Cowie, I. (2006). Threatened Species of the Northern Territory - Endiandra limnophila. Northern Territory Department of Environment and Natural Resources. <a href="https://nt.gov.au/data/assets/pdf_file/0003/208434/endiandra-limnophila.pdf">https://nt.gov.au/data/assets/pdf_file/0003/208434/endiandra-limnophila.pdf</a> </li> <li>Liddle, D., Russell-Smith, J., Brock, J., Leach, G. and Connors, G. (1994). Atlas of the vascular rainforest plants of the Northern Territory. Flora of Australia Supplementary Series No. 3. Canberra, ACT: Australian Biological Resources Study.</li> <li>Woinarski, J., Brennan, K., Cowie, I., Kerrigan, R., and Hempel, C. (2003). Biodiversity conservation on the Tiwi islands, Northern Territory. Part 1. Plants and environments. Department of Infrastructure Planning and Environment, Darwin.</li> </ul>						
Narrow-leaf Climbing Pandan Freycinetia excelsa	-	VU	<ul> <li>Habitat: Wet lowland rainforest and spring-fed rainforests in sandstone gullies (Kerrigan &amp; Cowie 2006).</li> <li>Distribution: Known from Papua New Guinea, coastal Qld, and in the NT from seven locations between Bathurst Island and the Arafura Swamp (Kerrigan &amp; Cowie 2006).</li> </ul>	<b>NONE</b> Restricted range, with no proximate records to the footprint.	<b>NONE</b> Restricted range, with no proximate records to the footprint.		
	Kerriga	an, R. and <u>https://</u>	d Cowie, I. (2006). Threatened Species of the Northern Territory - Freycinetia excelsa. Darwin, NT: (nt.gov.au/data/assets/pdf_file/0018/208440/freycinetia-excelsa.pdf	Department of Environment and Natural Resou	rces. [online] Available at:		
<b>a herb</b> Goodenia quadrifida	VU	-	<ul> <li>Habitat: Ecology not well known. Recorded growing in grassland on the upper parts of estuarine floodplains on poorly-drained grey clays or silty soils (Cowie &amp; Kerrigan 2006). Grows on cracking clay soils on plains (NTH 2021). Flowering and fruiting from March to May (Cowie &amp; Kerrigan 2006).</li> <li>Distribution: Endemic to the Top End of the NT. Rare. Known from the upper Adelaide River and Hardies Creek (a tributary of the Mary River) (Cowie &amp; Kerrigan 2006).</li> </ul>	<ul> <li>Localised occurrences, with no proximate records to the footprint.</li> </ul>	<ul> <li>Localised occurrences, with no proximate records to the footprint.</li> </ul>		
	Cowie, I. and Kerrigan, R. (2006). Threatened Species of the Northern Territory - Goodenia quadrifida. Northern Territory Department of Environment and Natural Resources. [online] Available at: https://nt.gov.au/data/assets/pdf_file/0006/376269/goodenia-quadrifida.pdf Northern Territory Herbarium (NTH). (2020). FloraNT - Northern Territory flora online. Department of Land Resource Management.						
a ground orchid Habenaria rumphii	-	EN	<ul> <li>Habitat: Occurs in open forest and woodland, on poorly-drained sites which are partly inundated during the wet season. One NT collection was from a sandplain adjacent to the edge of a spring jungle. Known in NT from the upper Howard River, south-east of Darwin, Litchfield NP and in the Wildman River area. Flowers and fruits in Feb (NTH 2021).</li> <li>Distribution: Known from the northern parts of Australia, Papua New Guinea, and South-East Asia. In the NT, only known from three disparate locations – Licthfield NP, Wildman NP and the Howard River sand-plain (upper Howard River catchment) (Kerrigan &amp; Cowie 2006) despite</li> </ul>	<ul> <li>Possibly suitable habitat within the footprint.</li> <li>Localised occurrences, with no proximate records to the footprint.</li> </ul>	<ul> <li><b>LOW</b></li> <li>Possibly suitable habitat within the footprint.</li> <li>Localised occurrences, with no proximate records to the footprint.</li> </ul>		



		considerable survey effort in potentially-suitable habitat.				
Holmes, J., Bisa, D., Hill, A. and Crase, B. (2007). A Guide to the Threatened, Near Threatened and Data Deficient Plants in the Litchfield Shire of the Northern Territory. Darwin, NT: WWF-Australia. Kerrigan, R. and Cowie, I. (2006). Threatened species of the Northern Territory - Habenaria rumphii. Northern Territory Department of Environment and Natural Resources. https://nt.gov.au/						
EN	EN	<ul> <li>Habitat: Woodland dominated by <i>Eucalyptus tectifica, E. tetrodonta</i> and <i>E. miniata</i> on sandy loam and rocky siltstone slopes or granitic rocks (Cowie et al. 2012). Absent from the laterite country predominant in the region (DoE 2021).</li> <li>Distribution: Restricted to the Top End of the NT where only three populations known – Mt Bundey, Batchelor/Glenluckie Creek and Lake Bennett (DoE 2021). While it is possible that extensive targeted searches may uncover additional subpopulations, there is a high degree of confidence in the broader distributional data (Cowie et al. 2012).</li> </ul>	<ul> <li>HIGH</li> <li>High likelihood habitat modelled within the footprint in patches from Pine Creek to Acacia Hills.</li> </ul>	LOW • Small area of suitable habitat modelled within the footprint in Lloyd Creek, but no suitable habitat observed at that site during field surveys.		
	<u>https:/</u> ment of t	/nt.gov.au/data/assets/pdf_file/0005/208445/helicteres-macrothrix.pdf the Environment (2021). <i>Helicteres macrothrix</i> . Species Profile and Threats Database, Department				
-	VU	<ul> <li>Habitat: Sandy scree among sandstone escarpments (Westaway &amp; Cowie 2012).</li> <li>Distribution: Known only from one location at Mount Brockman on the central western escarpment on the Arnhem land plateau. This population is located within the Kakadu National Park south of Jabiru (Westaway &amp; Cowie 2012). High level of general survey in the area suggests that substantial increases are unlikely (Westaway &amp; Cowie 2012).</li> </ul>	<ul> <li>NONE</li> <li>Restricted range, with no proximate records to the footprint.</li> </ul>	<ul> <li>NONE</li> <li>Restricted range, with no proximate records to the footprint.</li> </ul>		
Westaway, J. and Cowie, I. (2012). Threatened Species of the Northern Territory - Hibbertia tricornis. Northern Territory Department of Environment and Natural Resources. https://nt.gov.au/data/assets/pdffile/0019/208450/hibbertia-tricornis.pdf						
VU	VU	<ul> <li>Habitat: Sandstone cliffs, in gullies and on broken sandstone (Kerrigan &amp; Cowie 2006).</li> <li>Distribution: Endemic to the NT, with restricted population in the Mt Brockman area to the west of Arnhem Land (Kerrigan &amp; Cowie 2006).</li> <li>Considered adequately surveyed (Kerrigan &amp; Cowie 2006).</li> </ul>	<ul> <li>NONE</li> <li>Restricted range, with no proximate records to the footprint.</li> </ul>	<ul> <li>NONE</li> <li>Restricted range, with no proximate records to the footprint.</li> </ul>		
Kerrigan, R. and Cowie, I. (2006). Threatened Species of the Northern Territory - Hibiscus brennanii. Northern Territory Department of Environment and Natural Resources. https://nt.gov.au/ data/assets/pdf_file/0003/208452/hibiscus-brennanii.pdf						
-	VU	<ul> <li>Habitat: Associated with shrubland on sandy kaolinite clay on ledges around the escarpment of a tertiary plateau (Cowie &amp; Westaway 2012).</li> <li>Distribution: Endemic to the NT; found on the edges of a gorge on the eroding western margin of the Marrawal Plateau at Bloomfield Springs in southern Kakadu National Park (Cowie &amp; Westaway 2012). An intensive survey of adjoining Nitmiluk National Park in 1999- 2001 failed to find additional subpopulations (Cowie &amp; Westaway 2012).</li> </ul>	<ul> <li>NONE</li> <li>Restricted range, with no proximate records to the footprint.</li> </ul>	<ul> <li>NONE</li> <li>Restricted range, with no proximate records to the footprint.</li> </ul>		
	Kerriga EN Cowie Depart - Westa VU Kerriga	Kerrigan, R. an         EN         EN         EN         Cowie, I., Kerright         Department of bin/sp         -         VU         Westaway, J. a         https://         VU         VU         Kerrigan, R. an         https://	<ul> <li>Holmes, J., Bisa, D., Hill, A. and Crase, B. (2007). A Guide to the Threatened, Near Threatened and Data Deficient Kerrigan, R. and Cowie, I. (2006). Threatened species of the Northerm Territory - Habenaria rumphil. Northerm Territory and _ data/assets/pdf. file/0004/208444/habenaria-rumphil.pdf</li> <li>Habitat: Woodland dominated by <i>Eucalyptus tectifica, E. tetrodonta</i> and <i>E. miniata</i> on sandy loam and rocky siltstone slopes or granitic rocks (Cowie et al. 2012). Absent from the laterite country predominant in the region (DoE 2021). Distribution: Restricted to the Top End of the NT where only three populations known – Mt Bundey, Batchelor/Glenluckie Creek and Lake Bennett (DoE 2021). While it is possible that extensive targeted searches may uncover additional subpopulations, there is a high degree of confidence in the broader distributional data (Cowie et al. 2012).</li> <li>Cowie, I., Kerrigan, R. and Stuckey, B. (2012). Threatened species of the Northern Territory - Helicteres Sp. Gleni https://nt.gov.au/_data/assets/pdf. file/0005/208445/helicteres-macrothrix.pdf</li> <li>Department of the Environment (2021). <i>Helicteres macrothrix</i>. Species Profile and Threats Database, Department bin/spra/bublic/publicspecies.pt?txon id=86586</li> <li>VU</li> <li>VU</li> <li>Distribution: Known only from one location at Mount Brockman on the central western escarpment on the Arnhem land plateau. This population is located within the Kakadu National Park south of Jabiru (Westaway &amp; Cowie 2012). High level of general survey in the area suggests that substantial increases are unlikely (Westaway &amp; Cowie 2012).</li> <li>Westaway, J. and Cowie, I. (2012). Threatened Species of the Northern Territory - Hibbertia tricornis. Northern Terhtps://nt.gov.au/_data/assets/pdf_file/0019/208450/hibbertia-tricornis.pdf</li> <li>VU</li> <li>VU</li> <li>Habitat: Sandstone cliffs, in gullies and on broken sandstone (Kerrigan &amp; Cowie 2006). Considered adequately surveyed (Kerrigan &amp; Cowi</li></ul>	Holmes, J., Bisa, D., Hill, A. and Crase, B. (2007). A Guide to the Threatened, Near Threatened and Data Deficient Plants in the Litchfield Shire of the Northern Territory - Habenaia rumphil. Northern Territory Department of Environment and Natural R         Kerrigan, R. and Cowie, I. (2006). Threatened species of the Northern Territory - Habenaia rumphil. Northern Territory Department of Environment and Natural R         EN       Habitat: Woodland dominated by Eucalyptus tectifica, E. tetrodonta and E. minitato en sandy loam and rocky siltstone slopes or granitic rocks (Cowie et al. 2012). Absent from the laterite country predominant in the region (DoE 2021).       Habitat: Woodland dominated by Eucalyptus tectifica, E. tetrodonta and E. minitato en sandy beam and rocky siltstone slopes or granitic rocks (Cowie et al. 2012). Absent from the laterite country predominant in the region (DoE 2021). While it is possible that extensive targeted searches may uncover additional subpopulations, there is a high degree of confidence in the broader distributional data (Cowie et al. 2012).       HIGH       • High likelihood habitat modelled the high degree of confidence in the broader distributional data (Cowie et al. 2012).         Cowie, I. Kerrigan, R. and Stuckey, B. (2012). Threatened spectas of the Northern Territory - Helicteres Sp. Gleniuckie Creek. Northern Territory Department of the Environment, Australian Government, Ca bihisgraduule/public/bublicgueses.plf2xxxxx       NONE         - VU       Habitat: Sandy scree among sandstone escarpments (Westaway & Cowie 2012).       NONE       • Restricted range, with no proximate records to the footprint.         VU       VU       Habitat: Sandstone clifts, in guilles and on broken sandstone (Kerrigan & Cowie 2006).		



		<u>https:/</u>	/nt.gov.au/data/assets/pdf_file/0009/208494/stylidium-ensatum.pdf			
<b>Pink Myrtle</b> Lithomyrtus linariifolia	-	VU	<ul> <li>Habitat: Heaths or eucalypt woodlands on sandstone, in sandy or skeletal soils, often along the margins of <i>Allosyncarpia ternata</i> forest and almost always growing amongst <i>Triodia microstachya</i> (Kerrigan &amp; Cowie 2006).</li> <li>Distribution: Endemic to the NT; found within Kakadu National Park and Arnhem Land (Kerrigan &amp; Cowie 2006). Considered adequately surveyed.</li> </ul>	<ul> <li>NONE</li> <li>Restricted range, with no proximate records to the footprint.</li> </ul>	<ul> <li>NONE</li> <li>Restricted range, with no proximate records to the footprint.</li> </ul>	
		an, R. an	004). <i>Kakadu Threatened Flora Report</i> . Volume 2. Results of a threatened flora survey 2004. NT De d Cowie, I. (2006). <i>Threatened Species of the Northern Territory - Lithomyrtus linariifolia</i> . Northern //nt.gov.au/data/assets/pdf_file/0003/208470/lithomyrtus-linariifolia.pdf			
Luisia Orchid Luisia corrugata	-	VU	<ul> <li>Habitat: An epiphyte that commonly grows on trees with scaly bark and prefers the areas of bright light (non-shaded area). Hosts trees include <i>Syzygium spp., Sterculia quadrifida, Barringtonia acutangula, Canarium australianum</i> and <i>Vitex spp.</i> (FloraNT). Within the NT, collected from the margins of monsoon rainforests. Elsewhere, more common in coastal and near coastal habitats (Kerrigan &amp; Cowie 2012).</li> <li>Distribution: Appears to be endemic to the NT with known populations from Melville Island and the mainland (Bankers Jungle and Crocodile Creek in Black Jungle Conservation Reserve) (Kerrigan &amp; Cowie 2012). It is likely that the existing collections accurately reflect the abundance and distribution of this species (Kerrigan &amp; Cowie 2012).</li> </ul>	<b>NONE</b> Restricted range, with no proximate records to the footprint.	<ul> <li>From field work, it was noted that there are some suitable host plants within the footprint, but in vegetation with a closed canopy (i.e. shaded) that does not constitute suitable habitat</li> <li>Recent proximate records to the footprint.</li> </ul>	
	Kerrig	an, R. an <u>https:/</u>	d Cowie, I. (2012). Threatened Species of the Northern Territory - Luisia corrugata. Northern Territ /nt.gov.au/ data/assets/pdf_file/0005/208472/luisia-corrugata.pdf	ory Department of Environment and Natural Re	sources.	
Arrowleaf Monochoria Monochoria hastata	-	VU	<ul> <li>Habitat: Grows in floating mat vegetation in permanent to near-permanent back-swamps, drainage channels and billabongs (Kerrigan &amp; Cowie 2006). Inflorescence of 25-60 flowers occurs from March-June, and capsule fruits from April-June (Holmes et al. 2007).</li> <li>Distribution: New Guinea, India, Sri Lanka, South-East Asia. In Australia, only found in the NT on the floodplains of the Finniss, Reynolds and Wildman Rivers (Kerrigan &amp; Cowie 2006). There is a negative collection bias associated with the swampy habitat in which this species occurs. However, extensive coverage of floodplains in the Kakadu region detected this species at only one location in that region (Wildman River). Furthermore, it is considered that the extensive surveys of the Top End floodplain communities (Wilson et al. 1991) during the 1990s would have detected this species more often had it been more common or widespread (Kerrigan &amp; Cowie 2006).</li> </ul>	NONE Localised occurrences, with no proximate records to the footprint.	NONE Restricted range, with no proximate records to the footprint.	
	<ul> <li>Holmes, J., Bisa, D., Hill, A. and Crase, B. (2007). A Guide to the Threatened, Near Threatened and Data Deficient Plants in the Litchfield Shire of the Northern Territory. Darwin, NT: WWF-Australia.</li> <li>Kerrigan, R. and Cowie, I. (2006). Threatened Species of the Northern Territory - Monochoria hastate. Northern Territory Department of Environment and Natural Resources. <a href="https://nt.gov.au/_data/assets/pdf_file/0003/208479/monochoria-hastata.pdf">https://nt.gov.au/_data/assets/pdf_file/0003/208479/monochoria-hastata.pdf</a></li> <li>Wilson, B.A., Brocklehurst, P.S. and Whitehead, P.J. (1991). Classification, distribution and environmental relationships of coastal floodplain vegetation, Northern Territory, Australia. Technical Report 91/2.</li> </ul>					



		Conse	ervation Commission of the Northern Territory, Darwin.				
Darwin Palm Ptychosperma macarthurii	-	EN	<ul> <li>Habitat: Dense rainforests fed from lowland springs at the edges of tropical riverine floodplains. Common in deep organic loamy clay substrates without humus development (Liddle et al. 2006). Flowers occur from May-Dec, and fruits from Aug-Sept and Nov-Dec (Holmes et al. 2007).</li> <li>Distribution: Known from the NT, Cape York Peninsula and Papua New Guinea. Within the NT, known from eight locations on the western margin of the Adelaide River Floodplain (Liddle et al. 2006). Survey effort is not documented, but is unlikely that additional, undetected subpopulations exist in the Gun Point study area (Stokeld et al. 2020).</li> </ul>	LOW • Localised occurrences, with all records to the east of the footprint. No modelled habitat within the footprint.	HIGH  • Suitable habitat within the footprint. Recent proximate records to the footprint.		
		, D., Broc	a, D., Hill, A. and Crase, B. (2007). A Guide to the Threatened, Near Threatened and Data Deficient ok, B., Matthews, J., Taylor, S. and Caley, P. (2006). Threat and response: A decade of decline in a ervation, 132(1), pp. 362-375.		-		
Desert Quandong Santalum acuminatum	-	VU	<ul> <li>Habitat: Dune swales, along creeks, on plains and low rises, and rarely on hills. Typically occurs where the soils are sandy or loamy, sometimes with limestone or sandstone shallowly below the soil surface (Nano et al. 2012).</li> <li>Distribution: Known from all Australian mainland areas. In the NT, occurs west and south-west of Alice Springs (Nano et al. 2012).</li> </ul>	<ul> <li>NONE</li> <li>Outside of known distribution.</li> <li>No records north of Alice Springs.</li> </ul>	• Not known from the bioregion.		
	Nano,	Nano, C., Kerrigan, R., Albrecht, D. and Latz, P. (2012). <i>Threatened Species of the Northern Territory - Santalum acuminatum</i> . Northern Territory Department of Environment and Natural Resources. https://nt.gov.au/data/assets/pdffile/0004/208489/santalum-acuminatum.pdf					
a shrub / tree Schoutenia ovata	-	EN	<ul> <li>Habitat: Monsoonal vine thicket on both granite and limestone outcrops. Predominant on south-facing slopes within the Mt Bundey region (Cowie &amp; Kerrigan 2012).</li> <li>Distribution: Occurs in three disjunct populations in the NT – two located at Mt Bundey and Mt Goyder and one near Tipperary Station (Liddle et al. 1994). The general habitat has been sufficiently well sampled across the Top End to indicate that its apparently highly restricted distribution in the NT is accurate (Cowie &amp; Kerrigan 2012).</li> </ul>	<ul> <li>NONE</li> <li>Restricted range, with no proximate records to the footprint.</li> </ul>	<ul> <li>NONE</li> <li>Restricted range, with no proximate records to the footprint.</li> </ul>		
	Cowie, I. and Kerrigan, R. (2012). Threatened Species of the Northern Territory - Schoutenia ovata. Northern Territory Department of Environment and Natural Resources. <a href="https://nt.gov.au/">https://nt.gov.au/</a> data/assets/pdf file/0006/208491/schoutenia-ovata.pdf Liddle, D., Russell-Smith, J., Brock, J., Leach, G. and Connors, G. (1994). Atlas of the vascular rainforest plants of the Northern Territory. <i>Flora of Australia Supplementary Series No.</i> 3. Canberra, ACT: Australian Biological Resources Study.						
a perennial grass Sporobolus latzii	-	VU	<ul> <li>Habitat: Clay soil on the edge of a Coolabah-fringed seasonal swamp and associated with <i>Cullen cinereum</i> and <i>Leptochloa fusca</i> (Albrecht et al. 2012).</li> <li>Distribution: Endemic to the NT; known only from the Wakaya Desert – east of the Davenport Ranges and south of the Barkly Tablelands. The region is relatively poorly sampled (Albrecht et al. 2012). A return visit to the type locality in 2009 to target identification of the species (as part of the Wonarah Phosphate Proposal environmental approvals) did not</li> </ul>	<b>NONE</b> Restricted range, with no proximate records to the footprint.	NONE Not known from bioregion.		



			record it as present, perhaps due to a broad-scale fire that occurred in 2007.			
	Albrec	ht, D., La <u>https:/</u>	atz, P. and Westaway, J. (2012). <i>Threatened Species of the Northern Territory - Sporobolus latzii</i> . N /nt.gov.au/data/assets/pdf_file/0007/208492/sporobolus-latzii.pdf	lorthern Territory Department of Environment a	nd Natural Resources. [online] Available at:	
a trigger plant Stylidium ensatum	EN	EN	<ul> <li>Habitat: Margins of drainage areas in damp heavy clay or peaty soil (Cowie &amp; Westaway 2012). Occurs with sedges (e.g. <i>Fimbristylis furva</i>), perennial grasses such as <i>Eriachne burkittii</i>, herbs such as <i>Burmannia</i> spp. and shrubs such as <i>Osbeckia</i> spp. and scattered <i>Banksia dentata</i> (TSSC 2016). Associated with <i>Melaleuca viridiflora</i> and <i>Lophostemon lactifluus</i> (Holmes et al. 2007). Sites occupied are poorly drained sandy or loamy flats that are seasonally inundated and are damp well into the Dry season (June-Aug) (TSSC 2016). Flowering and fruiting June and July (Holmes et al. 2007; Cowie &amp; Westaway 2012).</li> <li>Distribution: Known from three localities – Shoal Bay, Girraween Rd, Hayes Creek. Other historical collections recorded; however, the exact locality for these collections is unknown. Populations at Girraween Rd. and Hayes Creek still exist based on NT Herbarium surveys in recent years. Only additional subpopulation has been located on Koolpinyah Station near Gunn Point Rd., despite several flora and biodiversity surveys in the Darwin region over the last ten years (but no systematic survey of potentially suitable habitat at an appropriate time of year). Substantial areas of potentially-suitable habitat south from Darwin towards Hayes Creek that are relatively poorly surveyed and it is likely that additional subpopulations exist (Cowie &amp; Westaway 2012).</li> </ul>	<ul> <li>HIGH</li> <li>Suitable habitat within footprint.</li> <li>Intersects modelled high likelihood habitat in patches from around Adelaide River to Acacia Hills.</li> </ul>	HIGH <ul> <li>Suitable habitat within footprint.</li> <li>Intersects modelled high likelihood habitat in patches within Gunn Point.</li> </ul>	
	<ul> <li>Cowie, I. and Westaway, J. (2012). Threatened species of the Northern Territory - Stylidium ensatum. Northern Territory Department of Environment and Natural Resources. [online] Available at: <a href="https://nt.gov.au/_data/assets/pdf_file/0009/208494/stylidium-ensatum.pdf">https://nt.gov.au/_data/assets/pdf_file/0009/208494/stylidium-ensatum.pdf</a> Holmes, J., Bisa, D., Hill, A. and Crase, B. (2007). <i>A Guide to the Threatened, Near Threatened and Data Deficient Plants in the Litchfield Shire of the Northern Territory</i>. Darwin, NT: WWF-Australia. Threatened Species Scientific Committee. 2016. Conservation Advice. Stylidium ensatum. Department of the Environment, Canberra.</li> </ul>					
<b>a herb</b> Typhonium praetermissum		VU	Habitat:       Open woodland including relatively unshaded areas in red brown clay and shallow or gravelly lateritic soil (Cowie & Westaway 2012).         Distribution:       Endemic to the NT. Previous recorded at six locations in the Darwin/Litchfield area – Virginia, Karama, the Palmerston escarpment, Mandorah and Humpty Doo (Cowie & Westaway 2012).         Two new sub-populations recorded in Lloyd Creek (EcOz records).       Low number of fertile collections thought to be due to the species seasonality rather than its abundance.         Targeted surveys have been undertaken in the Darwin region and additional sub-populations have been identified at both Gunn Point and the southern extent of Cox Peninsular (Green, Cuff 2016)	<ul> <li>HIGH</li> <li>Suitable habitat within greater Darwin section of footprint.</li> <li>Footprint intersects high likelihood modelled habitat in patches north from around Acacia Hills.</li> <li>Recent proximate records.</li> </ul>	<ul> <li>HIGH</li> <li>Suitable habitat within most of footprint.</li> <li>Footprint intersects multiple high likelihood modelled habitat.</li> <li>Recent proximate records.</li> </ul>	
		<u>https:/</u>	Vestaway, J. (2012). <i>Threatened species of the Northern Territory - Typhonium praetermissum</i> . Nor //nt.gov.au/data/assets/pdf_file/0017/208502/typhonium-praetermissum.pdf Cuff, N. Threatened Species Distribution in the Greater Darwin Region – Typhonium praetermissum			



<b>a herb</b> <i>Typhonium</i> sp. Sandover	-	VU	<ul> <li>Habitat: Among the species-rich understorey along Red Gum creek lines (Albrecht &amp; Westaway 2012).</li> <li>Distribution: Considered endemic to the Burt Bioregion near Utopia in the NT. This population is very small (Albrecht &amp; Westaway 2012). Although there has been limited searches for the species, it is conspicuous and distinctive (albeit only periodically when conditions are suitable) and traditional owners who were very familiar with the species were not aware of other populations. A pattern of short range endemism is common in the genus in the NT. The western section of the land trust where the Typhonium occurs is not a highly sampled area, and there</li> </ul>	<b>NONE</b> Restricted range, with no proximate records to the footprint.	NONE Not known from the bioregion.
		<u>https://</u> d, A., Bar and H	remains an element of data deficiency with the possibility of further subpopulations being located (Albrecht & Westaway 2012). d Westaway, J. (2012). Threatened species of the Northern Territory - <i>Typhonium sp. Sandover</i> . No /nt.gov.au/	arid Northern Territory. A report to the Australiar	n Government Department of the Environment
a harb		https:/	/nt.gov.au/ data/assets/pdf file/0018/262224/wetlands-in-the-arid-nt.pdf	NONE	LOW
a herb Typhonium taylori	EN	EN	<ul> <li>Habitat: Seasonally-saturated sandy substrate in nutrient-deficient grass/sedge land (Kerrigan &amp; Cowie 2006).</li> <li>Distribution: Endemic to the NT, with the only known population from the edge of the Howard River floodplain (Kerrigan &amp; Cowie 2006).</li> <li>Targeted survey for this species in the Howard River Floodplain as part of a biodiversity assessment survey (Cowie 2002) did not relocate or uncover any additional populations of this species. Considered adequately surveyed, based on the strong survey effort in the area and the high profile of this genus amongst collectors. While more populations may exist, the paucity of collections of this species is considered to accurately reflect its very restricted distribution and abundance (Kerrigan &amp; Cowie 2006).</li> </ul>	NONE Restricted range, with no proximate records to the footprint	LOW • Potentially-suitable habitat along the footprint. Restricted range, with no proximate records to the footprint.
		an, R. an	02). Preliminary report on a survey of Utricularia (Lentibulariaceae) in the Howard River – Shoal Ba d Cowie, I. (2006). Threatened species of the Northern Territory - Typhonium taylori. Northern Terri /nt.gov.au/		
<b>a bladderwort</b> Utricularia dunstaniae	-	VU	<ul> <li>Habitat: 'Sandsheet heath' type habitats with wet sand, often in shallow water, in paperbark (<i>Melaleuca nervosa</i>) woodland or Feather-flower (<i>Verticordia</i>) shrub land. Occurs in slightly wetter micro-habitats than other sympatric <i>Utricularia</i> species, frequently where water is percolating from the ground (Kerrigan &amp; Cowie 2012).</li> <li>Distribution: Endemic to Australia, known from WA and the NT – where known from nine locations. Locations near Darwin are Noonamah, Howard Springs and the Howard River floodplain. Other sub-populations on the Cobourg Peninsula, near Murgenella and near Finniss River (Kerrigan &amp; Cowie 2012). As apparently suitable habitat within the extent of occurrence remains unsurveyed, it is likely that additional,</li> </ul>	<ul> <li>No suitable habitat within the footprint.</li> </ul>	<ul> <li>MEDIUM</li> <li>Suitable sandsheet habitat within the footprint.</li> <li>Recent records proximate to the footprint.</li> </ul>



			undiscovered subpopulations exist (Kerrigan & Cowie 2012).				
	Kerrigan, R. and Cowie, I. (2012). Threatened Species of the Northern Territory - Utricularia dunstaniae. Northern Territory Department of Environment and Natural Resources. https://nt.gov.au/data/assets/pdf_file/0020/208505/utricularia-dunstaniae.pdf						
a bladderwort Utricularia singeriana	-	VU	<ul> <li>Habitat: Borders of seasonally-inundated grassland (Cowie &amp; Kerrigan 2012) and low open woodland (Holmes et al. 2005). Dominant associated plants include <i>Eriachne burkittii, Sorghum spp., Pseudopogonatherum spp.</i> and sedges (Cowie &amp; Kerrigan 2012). Also recorded growing near granite outcrops (Holmes et al. 2005). Often in shallow water (to 2 cm deep) on moist sandy or sandy loamy substrates (Holmes et al. 2005). Flowering between March and May, and fruiting begin in May (Cowie &amp; Kerrigan 2012).</li> <li>Distribution: Endemic to the NT with known populations from five locations between Darwin and Katherine – the nearest Darwin being Finn Rd in Weddell. Other sites are the Edith River area, near the Finniss River, and the Marrawal Plateau east of Pine Creek. Port Darwin population (early 1900's record) no longer in existence (Kerrigan &amp; Cowie 2012). As much apparently suitable habitat within the extent of occurrence remains unsurveyed, it is likely that additional undiscovered sub-populations exist (Kerrigan &amp; Cowie 2012).</li> </ul>	NONE • No suitable habitat within the footprint.	• No suitable habitat within the footprint.		
	Cowie	https:/	errigan, R. (2012). <i>Threatened Species of the Northern Territory - Utricularia singeriana.</i> Northern T /nt.gov.au/ data/assets/pdf_file/0003/208506/utricularia-singeriana.pdf	1	1		
a shrub / sapling Xylopia monosperma	EN	EN	<ul> <li>Habitat: Around natural springs and wet rainforest areas (Kerrigan &amp; Cowie 2006).</li> <li>Distribution: Thought to be endemic to the NT; only known from five localities across the Tiwi Islands, two on Bathurst and three on Melville Islands (Kerrigan &amp; Cowie 2006). Considered adequately surveyed, based on extensive surveys on the Tiwi Islands and is relatively visible when present (Kerrigan &amp; Cowie 2006).</li> </ul>	<ul> <li>NONE</li> <li>Listed in the EIS Terms of Reference, this species only occurs on the Tiwi Islands.</li> </ul>	<ul> <li>NONE</li> <li>Listed in the EIS Terms of Reference, this species only occurs on the Tiwi Islands.</li> </ul>		
			Kerrigan, R. and Cowie, I. (2006). <i>Threatened Species of the Northern Territory - Xylopia sp. Mel</i> https://nt.gov.au/data/assets/pdf_file/0005/208508/xylopia.pdf [Accessed 1 May 2018].	<i>ville Island</i> . Northern Territory Department of E	nvironment and Natural Resources.		
a ground orchid Zeuxine oblonga	-	VU	<ul> <li>Habitat: Grows in clusters in dark and moist situations in wet rainforest or in wet peaty areas near streams (Jones 1988).</li> <li>Distribution: Qld, NSW and in the NT, where known from five widely-spaced locations south and south-west of Darwin, from Keep River near the WA border to south-west of Adelaide River (Liddle et al. 1994). Not collected since 1992, despite efforts to relocate the Keep River population in 2000 and 2001 (Kerrigan &amp; Cowie 2006). There is a negative collection bias associated with this species due to its ephemeral nature.</li> </ul>	LOW • Localised occurrences, with all records to the west of the footprint.	NONE <ul> <li>Restricted range, with no proximate records to the footprint</li> </ul>		
	Kerriga	an, R. an <u>https:/</u>	3). Native Orchids of Australia. Reed, Sydney. d Cowie, I. (2006). Threatened Species of the Northern Territory – Zeuxine oblonga. Northern Terri /nt.gov.au/ data/assets/pdf file/0008/208691/zeuxine-oblonga.pdf sell-Smith, J., Brock, J., Leach, G. and Connors, G. (1994). Atlas of the vascular rainforest plants of				



Australian Biological Resources Study.



#### APPENDIX B PROTECTED MATTERS SEARCH TOOL



Australian Government

Department of Agriculture, Water and the Environment

# **EPBC** Act Protected Matters Report

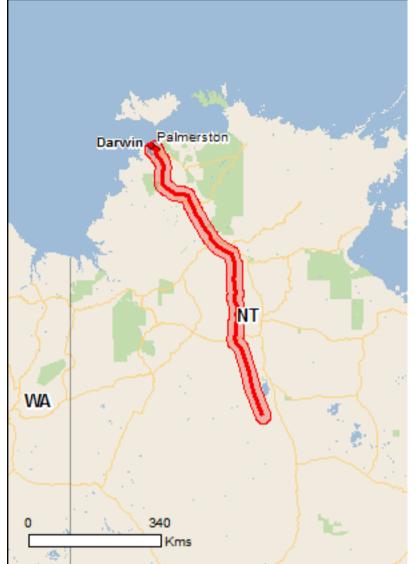
This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

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

Information is available about <u>Environment Assessments</u> and the EPBC Act including significance guidelines, forms and application process details.

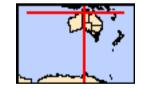
Report created: 20/11/20 16:10:41

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



This map may contain data which are ©Commonwealth of Australia (Geoscience Australia), ©PSMA 2015

Coordinates Buffer: 20.0Km



# Summary

## Matters of National Environmental Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the <u>Administrative Guidelines on Significance</u>.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	1
Listed Threatened Species:	55
Listed Migratory Species:	70

## Other Matters Protected by the EPBC Act

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

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

A <u>permit</u> may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Land:	37
Commonwealth Heritage Places:	8
Listed Marine Species:	110
Whales and Other Cetaceans:	12
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None

### **Extra Information**

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

State and Territory Reserves:	22
Regional Forest Agreements:	None
Invasive Species:	38
Nationally Important Wetlands:	5
Key Ecological Features (Marine)	None

# Details

## Matters of National Environmental Significance

Wetlands of International Importance (Ramsar)	[Resource Information]
Name	Proximity
Kakadu national park	10 - 20km upstream

[Resource Information]

## Listed Threatened Ecological Communities

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

		Ŧ (D
Name	Status	Type of Presence
Arnhem Plateau Sandstone Shrubland Complex	Endangered	Community likely to occur within area
Listed Threatened Species		[Resource Information]
Name	Status	Type of Presence
Birds		
Amytornis woodwardi		
White-throated Grasswren, Yirlinkirrkirr [564]	Vulnerable	Species or species habitat likely to occur within area
Calidris canutus		
Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris tenuirostris		
Great Knot [862]	Critically Endangered	Roosting known to occur within area
Charadrius leschenaultii		
Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Roosting known to occur within area
<u>Charadrius mongolus</u> Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur
	Enddigorod	within area
Epthianura crocea tunneyi		
Alligator Rivers Yellow Chat, Yellow Chat (Alligator Rivers) [67089]	Endangered	Species or species habitat likely to occur within area
Erythrotriorchis radiatus		
Red Goshawk [942]	Vulnerable	Species or species habitat known to occur within area
Erythrura gouldiae		
Gouldian Finch [413]	Endangered	Species or species habitat known to occur within area
Falco hypoleucos		
Grey Falcon [929]	Vulnerable	Species or species habitat known to occur within area
Falcunculus frontatus whitei		
Crested Shrike-tit (northern), Northern Shrike-tit [26013]	Vulnerable	Species or species habitat known to occur

Name	Status	Type of Presence
		within area
Geophaps smithii smithii Partridge Pigeon (eastern) [64441]	Vulnerable	Species or species habitat known to occur within area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat may occur within area
Limosa lapponica baueri Bar-tailed Godwit (baueri), Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat may occur within area
Limosa lapponica menzbieri Northern Siberian Bar-tailed Godwit, Bar-tailed Godwit (menzbieri) [86432]	Critically Endangered	Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Pezoporus occidentalis Night Parrot [59350]	Endangered	Species or species habitat may occur within area
Polytelis alexandrae Princess Parrot, Alexandra's Parrot [758]	Vulnerable	Species or species habitat may occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area
Tyto novaehollandiae kimberli Masked Owl (northern) [26048]	Vulnerable	Species or species habitat known to occur within area
Mammals		
<u>Antechinus bellus</u> Fawn Antechinus [344]	Vulnerable	Species or species habitat known to occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat may occur within area
Conilurus penicillatus Brush-tailed Rabbit-rat, Brush-tailed Tree-rat, Pakooma [132]	Vulnerable	Species or species habitat may occur within area
<u>Dasyurus hallucatus</u> Northern Quoll, Digul [Gogo-Yimidir], Wijingadda [Dambimangari], Wiminji [Martu] [331]	Endangered	Species or species habitat known to occur within area
Hipposideros inornatus Arnhem Leaf-nosed Bat [86675]	Endangered	Species or species habitat known to occur within area
<u>Macroderma gigas</u> Ghost Bat [174]	Vulnerable	Breeding known to occur within area
Macrotis lagotis Greater Bilby [282]	Vulnerable	Species or species habitat known to occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Species or species habitat may occur within area
Mesembriomys gouldii gouldii Black-footed Tree-rat (Kimberley and mainland Northern Territory), Djintamoonga, Manbul [87618]	Endangered	Species or species habitat known to occur within area

Name	Status	Type of Presence
Petrogale concinna canescens Nabarlek (Top End) [87606]	Endangered	Species or species habitat known to occur within area
Phascogale pirata Northern Brush-tailed Phascogale [82954]	Vulnerable	Species or species habitat known to occur within area
Saccolaimus saccolaimus nudicluniatus Bare-rumped Sheath-tailed Bat, Bare-rumped Sheathtail Bat [66889]	Vulnerable	Species or species habitat known to occur within area
Xeromys myoides Water Mouse, False Water Rat, Yirrkoo [66]	Vulnerable	Species or species habitat likely to occur within area
Plants		
Acacia praetermissa a shrub [14840]	Vulnerable	Species or species habitat likely to occur within area
<u>Atalaya brevialata</u> [86125]	Critically Endangered	Species or species habitat known to occur within area
<u>Goodenia quadrifida</u> [56035]	Vulnerable	Species or species habitat known to occur within area
Helicteres macrothrix [86586]	Endangered	Species or species habitat known to occur within area
<u>Stylidium ensatum</u> a triggerplant [86366]	Endangered	Species or species habitat known to occur within area
Typhonium taylori a herb [65904]	Endangered	Species or species habitat likely to occur within area
<u>Xylopia monosperma</u> a shrub [82030]	Endangered	Species or species habitat may occur within area
Reptiles		
Acanthophis hawkei		
Plains Death Adder [83821]	Vulnerable	Species or species habitat known to occur within area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
<u>Chelonia mydas</u> Green Turtle [1765]	Vulnerable	Breeding known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area
Elseya lavarackorum Gulf Snapping Turtle [67197]	Endangered	Species or species habitat may occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area
Lepidochelys olivacea Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Breeding known to occur within area
Natator depressus Flatback Turtle [59257] 546-000-840-260-001-AP0P-3, Page 147 of 165	Vulnerable	Breeding known to occur

Name	Status	Type of Presence
		within area
Sharks		
<u>Carcharodon carcharias</u> White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat may occur within area
<u>Glyphis garricki</u> Northern River Shark, New Guinea River Shark [82454]	Endangered	Species or species habitat known to occur within area
<u>Glyphis glyphis</u> Speartooth Shark [82453]	Critically Endangered	Species or species habitat known to occur within area
Pristis clavata Dwarf Sawfish, Queensland Sawfish [68447]	Vulnerable	Species or species habitat known to occur within area
Pristis pristis Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat known to occur within area
<u>Pristis zijsron</u> Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Species or species habitat known to occur within area
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Listed Migratory Species		[Resource Information]
* Species is listed under a different scientific name on	the EPBC Act - Threatene	
Name	Threatened	Type of Presence
Migratory Marine Birds		
Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area
<u>Apus pacificus</u> Fork-tailed Swift [678]		Species or species habitat likely to occur within area
<u>Calonectris leucomelas</u> Streaked Shearwater [1077]		Species or species habitat

Fregata ariel

Lesser Frigatebird, Least Frigatebird [1012]

<u>Fregata minor</u> Great Frigatebird, Greater Frigatebird [1013]

Sternula albifrons Little Tern [82849]

Migratory Marine Species <u>Anoxypristis cuspidata</u> Narrow Sawfish, Knifetooth Sawfish [68448]

Balaenoptera edeni Bryde's Whale [35]

Balaenoptera musculus Blue Whale [36]

Endangered

necies or species habitat

Species or species habitat may occur within area

Species or species habitat known to occur within area

Species or species habitat known to occur within area

Species or species habitat may occur within area

Species or species habitat known to occur within area

Species or species habitat

may occur within area

H366646-000-840-260-001-AP0P-3, Page 148 of 165

Name	Threatened	Type of Presence
Carcharhinus longimanus Oceanic Whitetip Shark [84108]		Species or species habitat may occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat may occur within area
<u>Caretta caretta</u> Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
<u>Chelonia mydas</u> Green Turtle [1765]	Vulnerable	Breeding known to occur within area
Crocodylus porosus Salt-water Crocodile, Estuarine Crocodile [1774]		Species or species habitat likely to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area
Dugong dugon Dugong [28]		Species or species habitat known to occur within area
<u>Eretmochelys imbricata</u> Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area
Lepidochelys olivacea Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Breeding known to occur within area
<u>Manta alfredi</u> Reef Manta Ray, Coastal Manta Ray, Inshore Manta Ray, Prince Alfred's Ray, Resident Manta Ray [84994]		Species or species habitat may occur within area
Manta birostris Giant Manta Ray, Chevron Manta Ray, Pacific Manta Ray, Pelagic Manta Ray, Oceanic Manta Ray [84995]		Species or species habitat may occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Species or species habitat may occur within area

Natator depressus Flatback Turtle [59257]

Orcaella heinsohni Australian Snubfin Dolphin [81322]

Orcinus orca Killer Whale, Orca [46]

Pristis clavata Dwarf Sawfish, Queensland Sawfish [68447]

#### Pristis pristis

Freshwater Sawfish, Largetooth Sawfish, River Vulnerable Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756] Pristis zijsron Green Sawfish, Dindagubba, Narrowsnout Sawfish Vulnerable [68442]

#### Rhincodon typus

Whale Shark [66680]

Vulnerable

Vulnerable

Breeding known to occur within area

Species or species habitat known to occur within area

Species or species habitat may occur within area

Species or species habitat known to occur within area

Species or species habitat known to occur within area

Species or species habitat known to occur within area

Vulnerable

Species or species habitat may occur within area

Name	Threatened	Type of Presence
Sousa chinensis Indo-Pacific Humpback Dolphin [50]		Breeding known to occur within area
Tursiops aduncus (Arafura/Timor Sea populations) Spotted Bottlenose Dolphin (Arafura/Timor Sea populations) [78900]		Species or species habitat known to occur within area
Migratory Terrestrial Species		
<u>Cecropis daurica</u> Red-rumped Swallow [80610]		Species or species habitat known to occur within area
<u>Cuculus optatus</u> Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat known to occur within area
<u>Hirundo rustica</u> Barn Swallow [662]		Species or species habitat known to occur within area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat known to occur within area
<u>Motacilla flava</u> Yellow Wagtail [644]		Species or species habitat known to occur within area
<u>Rhipidura rufifrons</u> Rufous Fantail [592]		Species or species habitat known to occur within area
Migratory Wetlands Species		
Acrocephalus orientalis Oriental Reed-Warbler [59570]		Species or species habitat may occur within area
<u>Actitis hypoleucos</u> Common Sandpiper [59309]		Species or species habitat known to occur within area
Arenaria interpres Ruddy Turnstone [872]		Roosting known to occur

Calidris acuminata

within area

Calidris acuminata		
Sharp-tailed Sandpiper [874]		Roosting known to occur within area
Calidris alba		
Sanderling [875]		Roosting known to occur within area
Calidris canutus		
Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
		KIOWII to occur within area
Calidris melanotos		
Pectoral Sandpiper [858]		Species or species habitat
		known to occur within area
Calidris ruficollis		
Red-necked Stint [860]		Roosting known to occur
		within area
Calidris subminuta		
Long-toed Stint [861]		Roosting known to occur within area
Calidris tenuirostris		
Great Knot [862]	Critically Endangered	Roosting known to occur within area

Name	Threatened	Type of Presence
Charadrius dubius		
Little Ringed Plover [896]		Roosting known to occur
		within area
Charadrius leschenaultii		
Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Roosting known to occur
		within area
Charadrius mongolus		
Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
Charadrius veredus		within area
Oriental Plover, Oriental Dotterel [882]		Roosting known to occur
Onental Flover, Onental Dotterer [002]		within area
Gallinago megala		Within area
Swinhoe's Snipe [864]		Roosting known to occur
		within area
Gallinago stenura		
Pin-tailed Snipe [841]		Roosting likely to occur
		within area
<u>Glareola maldivarum</u>		
Oriental Pratincole [840]		Roosting known to occur
		within area
Limicola falcinellus		
Broad-billed Sandpiper [842]		Roosting known to occur
		within area
Limnodromus semipalmatus		
Asian Dowitcher [843]		Roosting known to occur within area
Limosa lapponica		within area
Bar-tailed Godwit [844]		Species or species habitat
		known to occur within area
<u>Limosa limosa</u>		
Black-tailed Godwit [845]		Roosting known to occur
		within area
Numenius madagascariensis		
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat
		known to occur within area
Numenius minutus		
Little Curlew, Little Whimbrel [848]		Roosting known to occur
		within area
Numenius phaeopus		
Whimbrel [849]		Roosting known to occur
		within area

Pandion haliaetus

Osprey [952]

Pluvialis fulva Pacific Golden Plover [25545]

Pluvialis squatarola Grey Plover [865]

Tringa brevipes Grey-tailed Tattler [851]

Tringa glareola Wood Sandpiper [829]

Tringa incana Wandering Tattler [831]

Tringa nebularia Common Greenshank, Greenshank [832]

Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]

Xenus cinereus Terek Sandpiper [59300] Breeding known to occur within area

Roosting known to occur within area

Species or species habitat known to occur within area

Roosting known to occur within area

Roosting known to occur within area

## Other Matters Protected by the EPBC Act

#### Commonwealth Land

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

#### Name

Commonwealth Land -Commonwealth Land - Australian Customs Service Commonwealth Land - Australian Government Solicitor Commonwealth Land - Department of Administrative Services Commonwealth Land - Department of Community Services & Health Commonwealth Land - Department of Immigration Local Government & Ethnic Affairs Commonwealth Land - Department of Transport & Regional Development Commonwealth Land - Deputy Crown Solicitor Commonwealth Land - Director of Property Services Defence Estate Commonwealth Land - National Transmission Agency Defence - AUSTRALIAN ARMY BAND - DARWIN **Defence - BERRIMAH ONE** Defence - DARWIN - AP10 RADAR SITE - LEE POINT Defence - DARWIN - AP3 RECEIVING STATION - LEE POINT Defence - DARWIN - TRANSMITTING STATION '11 MILE' **Defence - DARWIN RELOCATIONS CENTRE** Defence - DARWIN RIVER GRAVEL QUARRY Defence - DEFENCE FORCE CAREERS REFERENCE CENTRE Defence - Esanda Builidng Defence - HMAS COONAWARRA (Berrimah) **Defence - JINDARE STATION RADAR SITE** Defence - KANGAROO FLATS TRAINING AREA **Defence - KOWANDI NORTH COMMUNICATION STATION** Defence - KOWANDI SOUTH REPEATING STATION Defence - LARRAKEYAH BARRACKS Defence - LEANYER BOMBING RANGE **Defence - MANBULLOO STATION** Defence - Patrol Boat Base (DARWIN NAVAL BASE) **Defence - RAAF BASE DARWIN Defence - RAAF BASE TINDAL** Defence - ROBERTSON BARRACKS (Waler Barracks) **Defence - SHOAL BAY RECEIVING STATION Defence - STOKES HILL OIL FUEL INSTALLATION Defence - TINDAL - ILS OUTER MARKER** 

[Resource Information]

#### Defence - TINDAL REMOTE RECEIVING SITE KING RIVER Defence - WINNELLIE ONE Defence - WINNELLIE TWO

Commonwealth Heritage Places		[Resource Information]
Name	State	Status
Historic		
Adelaide River War Cemetery	NT	Listed place
Larrakeyah Barracks Headquarters Building	NT	Listed place
Larrakeyah Barracks Precinct	NT	Listed place
<u>Larrakeyah Barracks Sergeants Mess</u>	NT	Listed place
RAAF Base Commanding Officers Residence	NT	Listed place
RAAF Base Precinct	NT	Listed place
RAAF Base Tropical Housing Type 2	NT	Listed place
RAAF Base Tropical Housing Type 3	NT	Listed place
Listed Marine Species		[Resource Information]
* Species is listed under a different scientific name o	n the EPBC Act - Threatened	d Species list.
Name	Threatened	Type of Presence
Birds		
Acrocephalus orientalis		
Oriental Reed-Warbler [59570]		Species or species habitat may occur within area

H366646-000-840-260-001-AP0P-3, Page 152 of 165

Name	Threatened	Type of Presence
<u>Actitis hypoleucos</u> Common Sandpiper [59309]		Species or species habitat known to occur within area
Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area
<u>Anseranas semipalmata</u> Magpie Goose [978]		Species or species habitat may occur within area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
<u>Ardea alba</u> Great Egret, White Egret [59541]		Breeding known to occur within area
<u>Ardea ibis</u> Cattle Egret [59542]		Breeding likely to occur within area
Arenaria interpres Ruddy Turnstone [872]		Roosting known to occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Roosting known to occur within area
<u>Calidris alba</u> Sanderling [875]		Roosting known to occur within area
<u>Calidris canutus</u> Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
<u>Calidris ferruginea</u> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
<u>Calidris melanotos</u> Pectoral Sandpiper [858]		Species or species habitat known to occur within area
<u>Calidris ruficollis</u> Red-necked Stint [860]		Roosting known to occur within area
Calidris subminuta Long-toed Stint [861]		Roosting known to occur within area
<u>Calidris tenuirostris</u> Great Knot [862]	Critically Endangered	Roosting known to occur within area
Calonectris leucomelas Streaked Shearwater [1077]		Species or species habitat known to occur within area
<u>Charadrius dubius</u> Little Ringed Plover [896]		Roosting known to occur within area
<u>Charadrius leschenaultii</u> Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Roosting known to occur within area
<u>Charadrius mongolus</u> Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
<u>Charadrius ruficapillus</u> Red-capped Plover [881]		Roosting known to occur
<u>Charadrius veredus</u> Oriental Plover, Oriental Dotterel [882]		within area Roosting known to occur
		within area

Name	Threatened	Type of Presence
<u>Chrysococcyx osculans</u> Black-eared Cuckoo [705]		Species or species habitat known to occur within area
<u>Fregata ariel</u> Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat
Fregata minor		known to occur within area
Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat known to occur within area
<u>Gallinago megala</u> Swinhoe's Snipe [864]		Roosting known to occur
		within area
<u>Gallinago stenura</u> Pin-tailed Snipe [841]		Roosting likely to occur
Glareola maldivarum		within area
Oriental Pratincole [840]		Roosting known to occur within area
<u>Haliaeetus leucogaster</u> White-bellied Sea-Eagle [943]		Species or species habitat
		known to occur within area
Heteroscelus brevipes		
Grey-tailed Tattler [59311]		Roosting known to occur within area
<u>Heteroscelus incanus</u> Wandering Tattler [59547]		Roosting known to occur within area
<u>Himantopus himantopus</u> Pied Stilt, Black-winged Stilt [870]		Roosting known to occur
		within area
<u>Hirundo daurica</u> Red-rumped Swallow [59480]		Species or species habitat known to occur within area
Hirundo rustica		
Barn Swallow [662]		Species or species habitat known to occur within area
Limicola falcinellus		
Broad-billed Sandpiper [842]		Roosting known to occur

Roosting known to occur within area

Limnodromus semipalmatus Asian Dowitcher [843]

Limosa lapponica Bar-tailed Godwit [844]

Limosa limosa Black-tailed Godwit [845]

Merops ornatus Rainbow Bee-eater [670]

Motacilla cinerea Grey Wagtail [642]

Motacilla flava Yellow Wagtail [644]

Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]

Roosting known to occur within area

Species or species habitat known to occur within area

Roosting known to occur within area

Species or species habitat may occur within area

Species or species habitat known to occur within area

Species or species habitat known to occur within area

Critically Endangered

Species or species habitat known to occur within area

Name	Threatened	Type of Presence
Numenius minutus		
Little Curlew, Little Whimbrel [848]		Roosting known to occur within area
Numenius phaeopus		
Whimbrel [849]		Roosting known to occur within area
Pandion haliaetus		
Osprey [952]		Breeding known to occur within area
Pluvialis fulva		
Pacific Golden Plover [25545]		Roosting known to occur within area
Pluvialis squatarola		
Grey Plover [865]		Roosting known to occur within area
Rhipidura rufifrons		
Rufous Fantail [592]		Species or species habitat known to occur within area
Rostratula benghalensis (sensu lato)		
Painted Snipe [889]	Endangered*	Species or species habitat
	Endangered	known to occur within area
Sterna albifrons		
Little Tern [813]		Species or species habitat may occur within area
Otiltia iaaballa		
Stiltia isabella		
Australian Pratincole [818]		Roosting known to occur within area
Tringa glareola		within area
Wood Sandpiper [829]		Roosting known to occur
		within area
<u>Tringa nebularia</u>		
Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area
Tringa stagnatilis		
<u>Tringa stagnatilis</u> Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur
אמושוי טמועטייטי, בוגוב טובפוושומות נסטט		within area
Xenus cinereus		
Terek Sandpiper [59300]		Roosting known to occur within area
Fish		
Campichthys tricarinatus		

Campichthys tricarinatus

Three-keel Pipefish [66192]

#### Choeroichthys brachysoma

Pacific Short-bodied Pipefish, Short-bodied Pipefish [66194]

<u>Choeroichthys suillus</u> Pig-snouted Pipefish [66198]

#### Corythoichthys amplexus

Fijian Banded Pipefish, Brown-banded Pipefish [66199]

#### Corythoichthys flavofasciatus

Reticulate Pipefish, Yellow-banded Pipefish, Network Pipefish [66200]

Corythoichthys haematopterus Reef-top Pipefish [66201]

Doryrhamphus excisus Bluestripe Pipefish, Indian Blue-stripe Pipefish, Pacific Blue-stripe Pipefish [66211] Species or species habitat may occur within area

Name	Threatened	Type of Presence
Doryrhamphus janssi		
Cleaner Pipefish, Janss' Pipefish [66212]		Species or species habitat may occur within area
Festucalex cinctus		
Girdled Pipefish [66214]		Species or species habitat may occur within area
Halicampus brocki		
Brock's Pipefish [66219]		Species or species habitat may occur within area
Halicampus gravi		
Mud Pipefish, Gray's Pipefish [66221]		Species or species habitat may occur within area
Halicampus spinirostris		
Spiny-snout Pipefish [66225]		Species or species habitat may occur within area
Haliichthys taeniophorus		
Ribboned Pipehorse, Ribboned Seadragon [66226]		Species or species habitat may occur within area
Hippichthys cyanospilos		
Blue-speckled Pipefish, Blue-spotted Pipefish [66228]		Species or species habitat may occur within area
Hippichthys parvicarinatus		
Short-keel Pipefish, Short-keeled Pipefish [66230]		Species or species habitat may occur within area
Hippichthys penicillus		
Beady Pipefish, Steep-nosed Pipefish [66231]		Species or species habitat may occur within area
Hippocampus histrix		
Spiny Seahorse, Thorny Seahorse [66236]		Species or species habitat may occur within area
<u>Hippocampus kuda</u>		
Spotted Seahorse, Yellow Seahorse [66237]		Species or species habitat may occur within area

Hippocampus planifrons Flat-face Seahorse [66238]

Species or species habitat may occur within area

Hippocampus spinosissimus Hedgehog Seahorse [66239]

Micrognathus micronotopterus Tidepool Pipefish [66255]

Solegnathus hardwickii Pallid Pipehorse, Hardwick's Pipehorse [66272]

Solegnathus lettiensis Gunther's Pipehorse, Indonesian Pipefish [66273]

Solenostomus cyanopterus Robust Ghostpipefish, Blue-finned Ghost Pipefish, [66183]

#### Syngnathoides biaculeatus

Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]

Species or species habitat may occur within area

Name	Threatened	Type of Presence
Trachyrhamphus bicoarctatus Bentstick Pipefish, Bend Stick Pipefish, Short-tailed Pipefish [66280]		Species or species habitat may occur within area
Trachyrhamphus longirostris Straightstick Pipefish, Long-nosed Pipefish, Straight Stick Pipefish [66281]		Species or species habitat may occur within area
Mammals		
Dugong dugon Dugong [28]		Species or species habitat known to occur within area
Reptiles		
Acalyptophis peronii Horned Seasnake [1114]		Species or species habitat may occur within area
<u>Aipysurus duboisii</u>		
Dubois' Seasnake [1116]		Species or species habitat may occur within area
Aipysurus eydouxii Spine-tailed Seasnake [1117]		Species or species habitat may occur within area
<u>Aipysurus laevis</u> Olive Seasnake [1120]		Species or species habitat may occur within area
Astrotia stokesii Stokes' Seasnake [1122]		Species or species habitat may occur within area
<u>Caretta caretta</u> Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
<u>Chelonia mydas</u> Green Turtle [1765]	Vulnerable	Breeding known to occur within area
Crocodylus johnstoni Freshwater Crocodile, Johnston's Crocodile, Johnston's River Crocodile [1773]		Species or species habitat may occur within area

Crocodylus porosus Salt-water Crocodile, Estuarine Crocodile [1774]

Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]

Disteira kingii Spectacled Seasnake [1123]

Disteira major Olive-headed Seasnake [1124]

Enhydrina schistosa Beaked Seasnake [1126]

Eretmochelys imbricata Hawksbill Turtle [1766]

Hydrelaps darwiniensis Black-ringed Seasnake [1100] Endangered

Species or species habitat likely to occur within area

Breeding likely to occur within area

Species or species habitat may occur within area

Species or species habitat may occur within area

Species or species habitat may occur within area

Vulnerable

Species or species habitat known to occur within area

Species or species habitat may occur within area

Name	Threatened	Type of Presence
Hydrophis atriceps		
Black-headed Seasnake [1101]		Species or species habitat may occur within area
<u>Hydrophis coggeri</u>		
Slender-necked Seasnake [25925]		Species or species habitat may occur within area
Hydrophis elegans		
Elegant Seasnake [1104]		Species or species habitat may occur within area
Hydrophis inornatus		
Plain Seasnake [1107]		Species or species habitat may occur within area
Hydrophis mcdowelli		
null [25926]		Species or species habitat may occur within area
Hydrophis ornatus		
Spotted Seasnake, Ornate Reef Seasnake [1111]		Species or species habitat may occur within area
Hydrophis pacificus		
Large-headed Seasnake, Pacific Seasnake [1112]		Species or species habitat may occur within area
Lapemis hardwickii		
Spine-bellied Seasnake [1113]		Species or species habitat may occur within area
Lepidochelys olivacea		
Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Breeding known to occur within area
Natator depressus		
Flatback Turtle [59257]	Vulnerable	Breeding known to occur within area
Parahydrophis mertoni		
Northern Mangrove Seasnake [1090]		Species or species habitat may occur within area
Pelamis platurus		

Yellow-bellied Seasnake [1091]

# Species or species habitat may occur within area

Whales and other Cetaceans		[Resource Information]
Name	Status	Type of Presence
Mammals		
Balaenoptera edeni		
Bryde's Whale [35]		Species or species habitat may occur within area
Balaenoptera musculus		
Blue Whale [36]	Endangered	Species or species habitat may occur within area
Delphinus delphis		
Common Dophin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
Grampus griseus		
Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
Megaptera novaeangliae		
Humpback Whale [38]	Vulnerable	Species or species habitat may occur within area
Orcaella brevirostris		
Irrawaddy Dolphin [45]		Species or species habitat known to occur

Name	Status	Type of Presence
		within area
Orcinus orca		
Killer Whale, Orca [46]		Species or species habitat may occur within area
Sousa chinensis		
Indo-Pacific Humpback Dolphin [50]		Breeding known to occur within area
Stenella attenuata		
Spotted Dolphin, Pantropical Spotted Dolphin [51]		Species or species habitat may occur within area
Tursiops aduncus		
Indian Ocean Bottlenose Dolphin, Spotted Bottlenos Dolphin [68418]	se	Species or species habitat likely to occur within area
Tursiops aduncus (Arafura/Timor Sea populations)		
Spotted Bottlenose Dolphin (Arafura/Timor Sea		Species or species habitat
populations) [78900]		known to occur within area
Tursiops truncatus s. str.		
Bottlenose Dolphin [68417]		Species or species habitat may occur within area

## Extra Information

State and Territory Reserves	[Resource Information]
Name	State
Adelaide River Foreshore	NT
Blackmore River	NT
Buffalo Creek	NT
Casuarina	NT
Channel Island	NT
Charles Darwin	NT
Cutta Cutta Caves	NT
George Brown Darwin	NT
Holmes Jungle	NT

Howard Springs	NT
Howard Springs	NT
Kintore Caves	NT
Knuckey Lagoons	NT
Lake Woods	NT
Litchfield	NT
Manton Dam Recreation Area	NT
Nitmiluk	NT
Shoal Bay	NT
Territory Wildlife Park / Berry Springs	NT
Territory Wildlife Park / Berry Springs	NT
Tree Point Conservation Area	NT
Umbrawarra Gorge	NT

#### **Invasive Species**

[Resource Information]

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resouces Audit, 2001.

Name	Status	Type of Presence
Birds		

Name	Status	Type of Presence
Acridotheres tristis		
Common Myna, Indian Myna [387]		Species or species habitat likely to occur within area
Columba livia		
Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
Passer domesticus		
House Sparrow [405]		Species or species habitat likely to occur within area
Passer montanus		
Eurasian Tree Sparrow [406]		Species or species habitat likely to occur within area
Sturnus vulgaris		
Common Starling [389]		Species or species habitat likely to occur within area
Frogs		
Rhinella marina Cane Toad [83218]		Species or species habitat known to occur within area
Mammals		
Bos taurus		
Domestic Cattle [16]		Species or species habitat likely to occur within area
Bubalus bubalis		
Water Buffalo, Swamp Buffalo [1]		Species or species habitat likely to occur within area
Camelus dromedarius		
Dromedary, Camel [7]		Species or species habitat likely to occur within area
Canis lupus familiaris		
Domestic Dog [82654]		Species or species habitat likely to occur within area
Equus asinus		
		<b>O</b> mentary and the life (

Species or species habitat likely to occur within area

Equus caballus Horse [5]

Donkey, Ass [4]

Felis catus Cat, House Cat, Domestic Cat [19]

Mus musculus House Mouse [120]

Rattus rattus Black Rat, Ship Rat [84]

Sus scrofa Pig [6]

#### **Plants**

Acacia nilotica subsp. indica Prickly Acacia [6196]

Andropogon gayanus Gamba Grass [66895]

H366646-000-840-260-001-AP0P-3, Page 160 of 165

Species or species habitat likely to occur within area

Species or species habitat likely to occur within area

Species or species habitat likely to occur within area

Species or species habitat likely to occur within area

Species or species habitat likely to occur within area

Species or species habitat may occur within area

Species or species

Name	Status	Type of Presence
Appapa dabra		habitat likely to occur within area
Annona glabra Pond Apple, Pond-apple Tree, Alligator Apple, Bullock's Heart, Cherimoya, Monkey Apple, Bobwood, Corkwood [6311] Brachiaria mutica		Species or species habitat may occur within area
Para Grass [5879]		Species or species habitat likely to occur within area
Cabomba caroliniana Cabomba, Fanwort, Carolina Watershield, Fish Grass, Washington Grass, Watershield, Carolina Fanwort, Common Cabomba [5171] Cenchrus ciliaris		Species or species habitat likely to occur within area
Buffel-grass, Black Buffel-grass [20213]		Species or species habitat likely to occur within area
Dolichandra unguis-cati Cat's Claw Vine, Yellow Trumpet Vine, Cat's Claw Creeper, Funnel Creeper [85119]		Species or species habitat likely to occur within area
Eichhornia crassipes Water Hyacinth, Water Orchid, Nile Lily [13466]		Species or species habitat likely to occur within area
Hymenachne amplexicaulis		
Hymenachne, Olive Hymenachne, Water Stargrass, West Indian Grass, West Indian Marsh Grass [31754]		Species or species habitat likely to occur within area
Jatropha gossypifolia		
Cotton-leaved Physic-Nut, Bellyache Bush, Cotton-leaf Physic Nut, Cotton-leaf Jatropha, Black Physic Nut [7507] Lantana camara		Species or species habitat likely to occur within area
Lantana, Common Lantana, Kamara Lantana, Large- leaf Lantana, Pink Flowered Lantana, Red Flowered Lantana, Red-Flowered Sage, White Sage, Wild Sage [10892] Mimosa pigra		Species or species habitat likely to occur within area
Mimosa, Giant Mimosa, Giant Sensitive Plant, ThornySensitive Plant, Black Mimosa, Catclaw Mimosa, Bashful Plant [11223] Parkinsonia aculeata		Species or species habitat likely to occur within area
Parkinsonia, Jerusalem Thorn, Jelly Bean Tree, Horse Bean [12301]		Species or species habitat likely to occur within area

Bean [12501]

Parthenium hysterophorus Parthenium Weed, Bitter Weed, Carrot Grass, False Ragweed [19566]

Pennisetum polystachyon Mission Grass, Perennial Mission Grass, Missiongrass, Feathery Pennisetum, Feather Pennisetum, Thin Napier Grass, West Indian Pennisetum, Blue Buffel Grass [21194] Sagittaria platyphylla Delta Arrowhead, Arrowhead, Slender Arrowhead [68483]

Salvinia molesta Salvinia, Giant Salvinia, Aquarium Watermoss, Kariba Weed [13665]

Tamarix aphylla Athel Pine, Athel Tree, Tamarisk, Athel Tamarisk, Athel Tamarix, Desert Tamarisk, Flowering Cypress, Salt Cedar [16018] Vachellia nilotica Prickly Acacia, Blackthorn, Prickly Mimosa, Black Piquant, Babul [84351] Species or species habitat may occur within area

Species or species habitat likely to occur within area

Species or species habitat likely to occur within area

Species or species habitat likely to occur within area

Species or species habitat likely to occur within area

Species or species habitat likely to occur within area

#### Reptiles

Name	Status	Type of Presence
Hemidactylus frenatus		
Asian House Gecko [1708]		Species or species habitat likely to occur within area
Lepidodactylus lugubris		
Mourning Gecko [1712]		Species or species habitat likely to occur within area
Ramphotyphlops braminus		
Flowerpot Blind Snake, Brahminy Blind Snake, Cacing Besi [1258]		Species or species habitat known to occur within area

Nationally Important Wetlands	[Resource Information]
Name	State
Adelaide River Floodplain System	NT
Lake Woods	NT
<u>Mount Bundey Training Area - Mary River Floodplain</u>	NT
Port Darwin	NT
Shoal Bay - Micket Creek	NT

H366646-000-840-260-001-AP0P-3, Page 162 of 165

# Caveat

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

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

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

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

Threatened, migratory and marine species distributions have been derived through a variety of methods. Where distributions are well known and if time permits, maps are derived using either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc) together with point locations and described habitat; or environmental modelling (MAXENT or BIOCLIM habitat modelling) using point locations and environmental data layers.

Where very little information is available for species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc). In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More reliable distribution mapping methods are used to update these distributions as time permits.

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

- migratory and
- marine

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

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

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

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

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

# Coordinates

-12.487346 130.881318,-12.457846 130.947236,-12.506116 130.955476,-12.527567 130.980195,-12.5651 130.966462,-12.599948 130.980195,-12.645512 131.010407,-12.658911 131.037873,-12.709823 131.087312,-12.776796 131.106538,-12.814293 131.12851,-12.878561 131.142243,-12.929428 131.134004,-12.966903 131.117524,-13.047186 131.112031,-13.111394 131.103791,-13.234412 131.103791,-13.335989 131.191682,-13.349351 131.24112,-13.448209 131.375703,-13.466907 131.425141,-13.488275 131.598176,-13.520322 131.688813,-13.667153 131.765718,-13.717855 131.776704,-13.76321 131.809663,-13.837894 131.850862,-13.845895 131.848115,-13.917887 131.883821,-14.000516 131.930512,-14.171012 132.037629,-14.26686 132.092561,-14.415875 132.207917,-14.469071 132.218904,-14.639211 132.378205,-14.76673 132.592439,-14.814531 132.702302,-15.026849 132.773713,-15.19125 132.76822,-15.339632 132.784699,-15.366117 132.757234,-15.472026 132.773713,-15.577881 132.773713,-15.662526 132.801179,-15.725986 132.806672,-15.757709 132.779206,-15.852848 132.784699,-15.98491 132.823152,-16.116886 132.834138,-16.169651 132.817658,-16.206579 132.828645,-16.322592 132.823152,-16.359491 132.795686,-16.406922 132.801179,-16.612323 132.817658,-16.664954 132.784699,-16.780693 132.795686,-16.901617 132.922029,-17.45267 133.103303,-17.855723 133.207673,-18.398655 133.438386

# Acknowledgements

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

-Office of Environment and Heritage, New South Wales -Department of Environment and Primary Industries, Victoria -Department of Primary Industries, Parks, Water and Environment, Tasmania -Department of Environment, Water and Natural Resources, South Australia -Department of Land and Resource Management, Northern Territory -Department of Environmental and Heritage Protection, Queensland -Department of Parks and Wildlife, Western Australia -Environment and Planning Directorate, ACT -Birdlife Australia -Australian Bird and Bat Banding Scheme -Australian National Wildlife Collection -Natural history museums of Australia -Museum Victoria -Australian Museum -South Australian Museum -Queensland Museum -Online Zoological Collections of Australian Museums -Queensland Herbarium -National Herbarium of NSW -Royal Botanic Gardens and National Herbarium of Victoria -Tasmanian Herbarium -State Herbarium of South Australia -Northern Territory Herbarium -Western Australian Herbarium -Australian National Herbarium, Canberra -University of New England -Ocean Biogeographic Information System -Australian Government, Department of Defence Forestry Corporation, NSW -Geoscience Australia -CSIRO -Australian Tropical Herbarium, Cairns -eBird Australia -Australian Government – Australian Antarctic Data Centre -Museum and Art Gallery of the Northern Territory -Australian Government National Environmental Science Program -Australian Institute of Marine Science

-American Museum of Natural History

-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania

-Tasmanian Museum and Art Gallery, Hobart, Tasmania

-Other groups and individuals

-Reef Life Survey Australia

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

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

© Commonwealth of Australia Department of Agriculture Water and the Environment GPO Box 858 Canberra City ACT 2601 Australia +61 2 6274 1111



# **EcOz Environmental Consultants**

EcOz Pty Ltd. ABN 81 143 989 039

Level 1, 70 Cavenagh St, GPO Box 381, Darwin, NT 0801 **T:** +61 8 8981 1100 **E:** ecoz@ecoz.com.au

www.ecoz.com.au

