PHOENIX
ENVIRONMENTAL SCIENCES

Alcoa of Australia Limited

Pinjarra Alumina Refinery Revised Proposal

Short-range endemic invertebrate fauna survey for the Huntly Mine – Myara North and Holyoake

Prepared for GHD Pty Ltd, on behalf of Alcoa of Australia Ltd

March 2025

Final



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EXECUTIVE SUMMARY

Alcoa of Australia Limited (Alcoa) is proposing to increase production at the Pinjarra Alumina Refinery by 5 per cent from 5.0 million tonnes per annum (Mtpa) to 5.25 Mtpa and extend the Huntly Bauxite Mine to the proposed Myara North and Holyoake mine regions (the Proposal). The Proposal is located in the Peel Region of Western Australia (WA), approximately 100 km southeast of Perth.

The Proposal will be assessed by the Environmental Protection Authority (EPA) under Part IV of the WA Environmental Protection Act 1986 (EP Act), and under the Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act) via the bilateral agreement. The Proposal will be assessed via a Public Environmental Review.

Phoenix Environmental Sciences Pty Ltd (Phoenix) was commissioned by GHD Pty Ltd, on behalf of Alcoa to undertake a short-range endemic (SRE) invertebrate survey for the Proposal.

The SRE survey was conducted within three main study areas relating to the two future mine regions, and previously mined areas that have been rehabilitated:

- Myara North study area (MNSA), 17,675.2 ha, located south-east of the town of Jarrahdale in the Shire of Serpentine Jarrahdale
- Holyoake study area (HSA), 10,456.9 ha, located east of town of Dwellingup in the Shire of Murray, and extending into the Shire of Boddington
- Rehabilitation study area (ReSA), 11,894.7 ha, comprising previously mined and subsequently rehabilitated land at the Huntly Mine site between 1973 and 2019.

Field surveys were conducted over two seasons, between July and November 2020. Survey sites for the MNSA and HSA (collectively referred to as the baseline study area) were pre-selected using aerial imagery and were chosen to represent the various habitats present and sample both potential impact and reference areas. Sites in the ReSA were selected to sample a range of rehabilitation age classes between 5 and 30 years. Three systematic survey methods were employed in the survey – wet pit trapping, active foraging and litter/soil sieving – at 72 sites across the study areas, 60 within the baseline study area and 12 within the ReSA (two of these also intersected a proposed conveyor corridor in the HSA).

SRE habitat mapping of the Myara North and Holyoake study areas was undertaken based on vegetation mapping prepared for the Proposal by Mattikse (Mattiske 2021) and taking into account habitat attributes relevant to SRE invertebrates. Each habitat was rated for its potential to support SREs (potential habitat rating; PHR) as High, Low or None.

Native vegetation represents 27,128.8 ha (96.4%) of the baseline study area, with the remainder cleared or rehabilitation. Ten SRE habitats were defined within the remnant vegetation of the baseline study area, which was dominated by Jarrah/Marri woodland/forest habitats on hill slopes (habitats 2, 4, 5 and 7). Habitat 4, Open forest to woodland of Jarrah/Marri on sandy-loam gravelly soils on mid-slopes and ridges, was most prominent in the MNSA and HSA, comprising 64.5% and 80.0% of the study areas respectively. Other habitats present included: seasonally wet woodlands or shrublands (*Melaleuca*, Flooded Gum, *Eucalyptus*) on valley floors and lower slopes, and granite outcrop associated heath/shrubland/woodland. High PHR habitats comprise of habitats which may support microhabitats and have soils that retain moisture (habitats 1, 2, 3, 5, 9, 10, and 13), while low PHR habitats are more widespread and generally don't have features that provide refugia (habitats 4, 7, and 11). Rehabilitation may provide some habitat for SREs and is considered a low PHR habitat (habitat 6).

Ten remnant habitats were present within the MNSA and seven SRE habitats were present in the HSA. Notable habitats that were absent from the HSA were habitat 1 (*Melaleuca* woodlands/shrublands), and 9 (*Eucalytpus* woodlands). Habitat 11 (Open wandoo woodland) and habitat 3 (granite associated vegetation) was minimal in the MNSA and HSA comprising less than 0.01%. Approximately 6,624.8 ha

(23.5%) of the study area has a high PHR, with 26.8% and 18.1% in the MNSA and HSA respectively. Rehabilitation was present in both study areas.

A total of 112 taxa from groups known to include SREs were collected in the field surveys and of these, 82 taxa (73%) from 19 families were classified as SREs, comprising:

- 11 confirmed SREs, represented by 10 millipedes and one scorpion
- five likely SREs, all represented by isopods
- 66 potential SREs, represented by
    - 33 taxa of mygalomorphs (trap-door spiders)
    - 11 species of isopods (slaters)
    - seven species of diplopods (millipedes)
    - seven species of opiliones (harvestmen spiders)
    - five species of land snail
    - one species of scorpion
    - two species of pseudoscorpions.

A total of 16 of the SRE taxa, from three SRE groups, are currently known only from sites in the baseline study area, mainly the MNSA:

- mygalomorph spiders
    - *Teyl* 'MYG864', recorded from three sites in the MNSA
    - *Teyl* 'MYG863', recorded from one site in the MNSA
    - *Proshermacha* 'Phoenix0028', recorded from two sites in the MNSA
    - *Proshermacha* 'Phoenix0024', recorded from one site in the MNSA
    - *Teyl* 'MYG860', recorded from one site in the MNSA
    - *Teyl* 'MYG865', recorded from one site within the MNSA
    - *Eucyrtops* 'Phoenix0030', recorded from one site in the MNSA
    - *Eucyrtops* 'Phoenix0032', recorded from three sites in the MNSA
- millipedes
    - *Antichiropus* 'dwellingup', recorded from six sites across the MNSA
    - *Antichiropus* 'jarrah', recorded from one site in the MNSA
    - *Antichiropus* 'mini', recorded from four sites across the MNSA and HSA
    - Dalodesmidae 'Phoenix0038', recorded from two sites in the MNSA
    - Polyzoniida 'Phoenix0040', recorded from one site in the MNSA
    - Polyzoniida 'Phoenix0041', recorded from two sites in the MNSA
    - Polyzoniida 'Phoenix0042', recorded from one site in the MNSA
- land snails
    - *Bothriembryon* cf. *indutus*, recorded from three sites in the MNSA.

Based on a review of site/habitat data and distribution of records, two of the above taxa, both millipedes are likely to be restricted:

- *Antichiropus* 'jarrah' was recorded from one site in habitat 4.
- Polyzoniida 'Phoenix0041' was only recorded from gully sites with granite outcrops present.

Eight species were collected from only a single site limiting comments about habitat preference and distribution; two of these were collected from potentially restrictive habitats (valley floors, along drainage lines, gullies with granite outcrops), while six were collected from the widespread habitat. The remaining eight SREs known only from the study area are unlikely to be highly restricted as the species was collected from both study areas, from a variety of habitat types and/or wider distribution may be inferred from records of another representative of the genus.

Twenty-eight taxa from nine groups known to include SREs were collected from the ReSA during the surveys. This included 17 taxa considered likely or potential SREs, with isopods, land snails, mygalomorphs, opiliones and a land snail making up the SRE collection. All SRE taxa from rehabilitation sites were also recorded from the baseline study area. The number of invertebrate taxa from SRE groups and number of SRE taxa collected at each site was variable between rehabilitation age, with a slight tendency towards higher numbers in the 10 and 30-year age classes but below the averages of the baseline sites.

Some overlap of SRE species was identified between the MNSA and HSA, and between the MNSA/HSA records from a nearby large-scale SRE survey or other desktop sources, indicating wider distributions than the baseline study area. However, the survey results suggest at least some SRE invertebrates have narrow habitat preferences and potentially highly restricted distributions.

Overall, the MNSA is of higher value for SREs than the HSA, with greater diversity and abundance of SRE habitat features. This position is supported by the collection of a higher number SRE species overall from the MNSA and higher number of SREs known only from this study area. It is considered that the MNSA is more likely to harbour SREs with highly restricted distributions than the HSA.

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ABBREVIATIONS

ABARES	Australian Bureau of Agricultural and Resource Economics and Sciences
BC Act	*Biodiversity and Conservation Act 2016*
BoM	Bureau of Meteorology
CD	Conservation dependent
COI	Cytochrome oxidase subunit 1
CR	Critically endangered
DBCA	Department of Biodiversity, Conservation and Attractions
DNA	Deoxyribonucleic acid
EIA	Environmental impact assessment
EN	Endangered
EP Act	*Environmental Protection Act 1986*
EPA	Environmental Protection Authority
EPBC Act	*Environmental Protection, Biodiversity and Conservation Act 1999*
ESA	Environmentally sensitive area
H-CC	Holyoake conveyor corridor
H-HR	Holyoake haul road
H-MA	Holyoake mining area
HSA	Holyoake study area
IBRA	Interim biogeographic regionalisation for Australia
JAF	Jarrah forest bioregion
JAF01	Northern Jarrah forest subregion
MN-CC	Myara North conveyor corridor
MNES	Matters of national environmental significance
MN-HR	Myara North haul road
MN-MA	Myara North mining area
MNSA	Myara North study area
PEC	Priority ecological community
Phoenix	Phoenix Environmental Sciences
PHR	Potential habitat rating
ReSA	Rehabilitation study area
SP	Specially protected
SRE	Short-range endemic
VU	Vulnerable
WA	Western Australia
WAM/WA Museum	Western Australian Museum

1 INTRODUCTION

Alcoa of Australia Limited (Alcoa) is proposing to increase production at the Pinjarra Alumina Refinery by 5 per cent from 5.0 million tonnes per annum (Mtpa) to 5.25 Mtpa and extend the Huntly Bauxite Mine to the proposed Myara North and Holyoake mine regions (the Proposal).

The Huntly Mine is located predominantly within the Shires of Murray, Serpentine-Jarrahdale and Boddington within the Peel Region of Western Australia. The Myara North mine area is south east of the town of Jarrahdale, and the Holyoake mine area is east of Dwellingup (Figure 1-1).

The Proposal will be assessed by the Environmental Protection Authority (EPA) under Part IV of the *WA Environmental Protection Act 1986* (EP Act), and under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) via the bilateral agreement. The Proposal will be assessed via a Public Environmental Review.

Phoenix Environmental Sciences Pty Ltd (Phoenix) was commissioned by GHD Pty Ltd, on behalf of Alcoa to undertake a short-range endemic (SRE) invertebrate survey for the Proposal. This report presents the results of the SRE survey conducted for the Proposal.

1.1 BACKGROUND

Alcoa was granted approval to mine bauxite within mineral lease 1SA (ML1SA) under the *Alumina Refinery Agreement Act 1961*. The Huntly Bauxite Mine (the mine) has operated since 1976 in ML1SA and includes several mining regions.

The Pinjarra Alumina Refinery (the Refinery) was commissioned in 1972, after approval to develop the Refinery was granted under the *Alumina Refinery (Pinjarra) Agreement Act 1969*. The Refinery is now subject to approvals under Part IV of the *Environmental Protection Act 1986* (EP Act, including ministerial Statement (MS) 646 (Minister for the Environment 2004).

Alcoa is seeking approval for the Proposal to provide certainty for future mining and refining operations. The Proposal comprises the following components:

- an increase in alumina production at the Refinery by 5% from 5.0 million tonnes per annum (Mtpa) to 5.25 Mtpa
- an increase in the rate of mining at the mine within mineral lease 1SA (ML1SA) to supply up to 2.5 Mtpa of bauxite for export.

The Proposal includes two future mine regions which were the focus of this study (Figure 1-1):

- Myara North, south east of the town of Jarrahdale in the Shire of Serpentine Jarrahdale
- Holyoake, east of Dwellingup in the Shire of Murray, and extending into the Shire of Boddington.

The Proposal will be subject to a Public Environmental Review (PER) under State and Commonwealth environmental legislation.

1.2 SCOPE OF WORK

The scope of work for the SRE invertebrate survey was as follows:

- complete a desktop review of all available data including SRE fauna databases, literature such as previous locally relevant survey reports, and geospatial information
- conduct a Level 2 field survey for SRE taxa over two seasons (autumn/winter and spring)

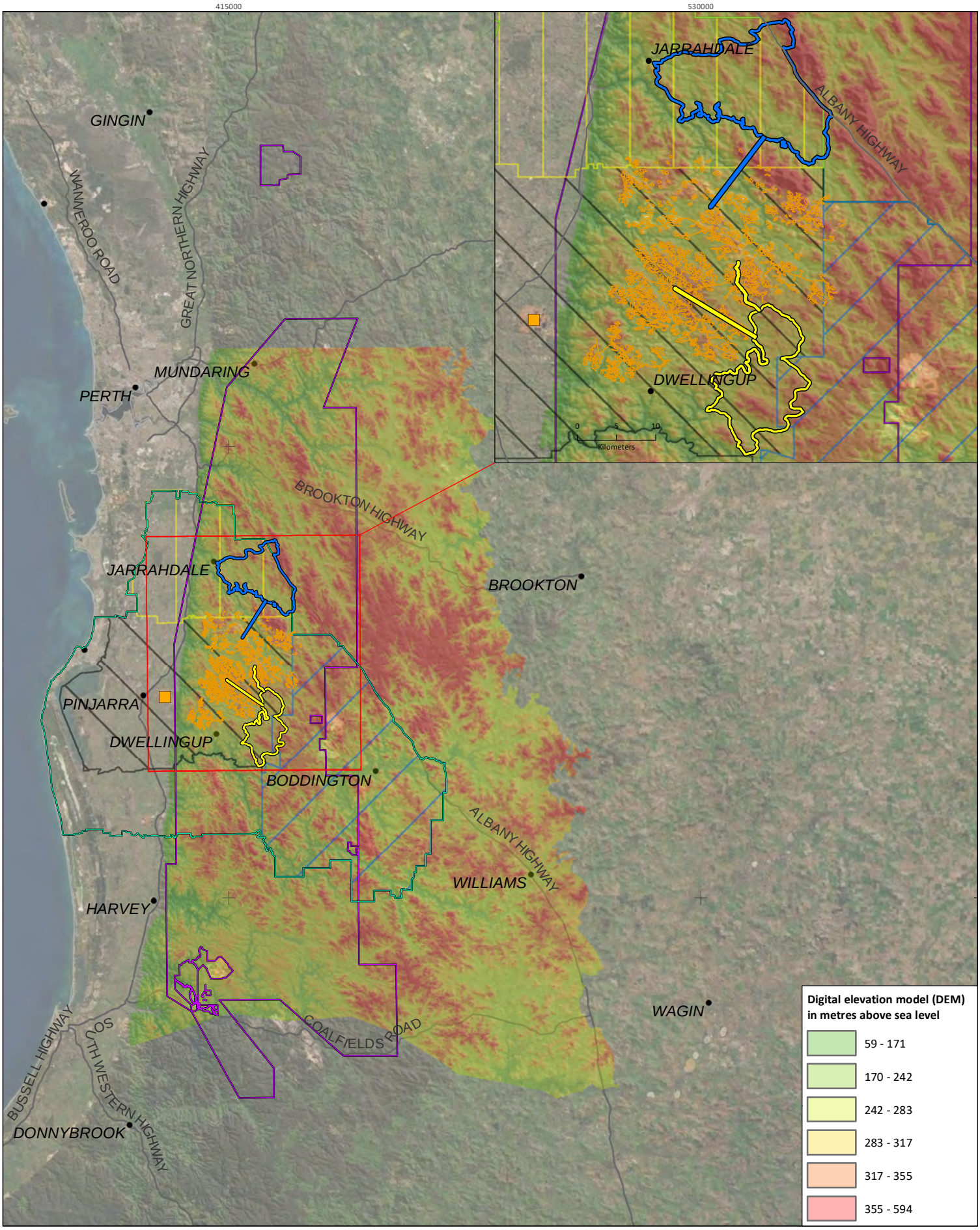
- undertake data analysis, sample processing and species identifications for samples collected during the field survey
- prepare maps showing potential SRE species records and habitats.

1.3 STUDY AREA

The SRE survey was conducted within three main study areas relating to the two future mine regions, and previously mined areas that have been rehabilitated as follows (Figure 1-2):

- Myara North study area (MNSA) – 17,675.2 ha in total, comprising of three survey areas:
    - proposed mining area (MN-MA), 17,448.9 ha
    - proposed conveyor corridor (MN-CC) with a 100 m buffer, 211.1 ha
    - proposed haul road (MN-HR), 15.1 ha
- Holyoake study area (HSA) – 10,456.9 ha in total, comprising of three survey areas:
    - proposed mining area (H-MA), 10,169.8 ha
    - proposed conveyor corridor (H-CC) with a 100 m buffer, 213.1 ha
    - proposed haul road (H-HR), 73.9 ha
- Rehabilitation study area (ReSA) – 11,894.7 ha in total, comprising previously mined and subsequently rehabilitated land at the Huntly Mine site between 1973 and 2019. There is some overlap between the ReSA and baseline study area (95.1 ha of the ReSA intersects the H-CC, 29.8 ha intersects the H-HR and 10.1 ha intersects the MN-CC).

All study areas are collectively referred to as the 'study area' in this report. The MNSA and HSA are collectively referred to as the 'baseline study area', which was the primary focus of the survey. The survey in the ReSA was supplementary to the primary survey and intended to collect information on colonisation by SREs of rehabilitated areas.





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Huntly Mine Expansion Project

Project No	1337/1347
Date	28/04/2021
Drawn by	IN
Map author	AJ

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Kilometers

1:1,200,000 (at A4) GDA 1994 MGA Zone 50

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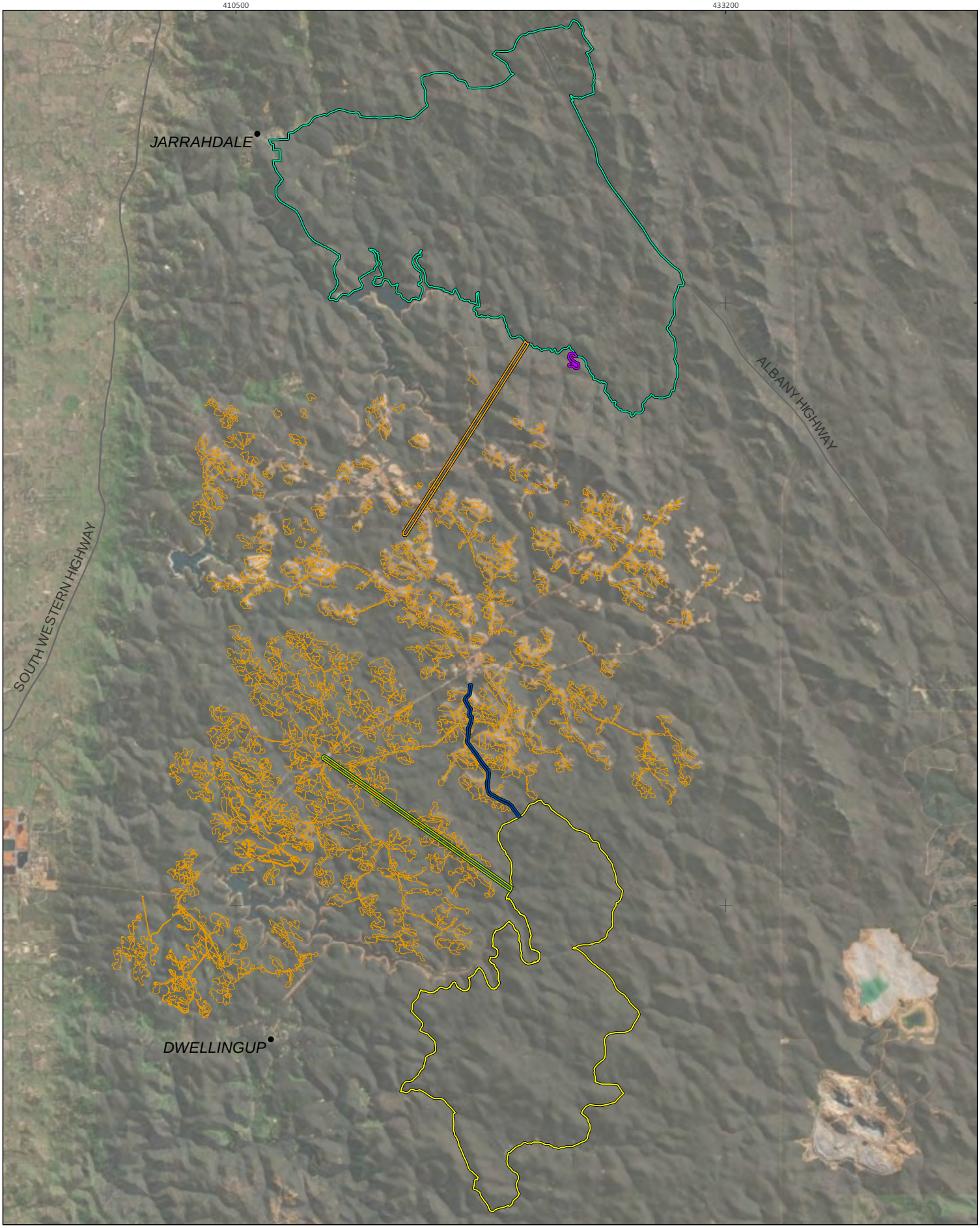
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- Myara North study area (MNSA)
- Holyoake study area (HSA)
- Rehabilitation study area (RSA)
- Peel region boundary
- ML1SA (Mineral lease)
- Pinjarra Alumina Refinery

Local government areas
- Shire of Boddington
- Shire of Murray
- Shire of Serpentine Jarrahdale

Figure 1–1
Project location

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- Rehabilitation study area (RSA)

Myara North study area (MNSA)

- Myara North mining area (MN-MA)
- Myara North conveyor corridor (MN-CC)
- Myara North haul road (MN-HR)

Holyoake study area (HSA)

- Holyoake mining area (H-MA)
- Holyoake conveyor corridor (H-CC)
- Holyoake haul road (H-HR)

Figure 1–2
Study area

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2 LEGISLATIVE CONTEXT

The protection of fauna in WA is principally governed by three acts:

Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)

State *Biodiversity Conservation Act 2016* (BC Act)

State *Environmental Protection Act 1986* (EP Act).

2.1 COMMONWEALTH

Under the EPBC Act, actions that have, or are likely to have, a significant impact on a matter of national environmental significance (MNES), require approval from the Australian Government minister for the Environment. The EPBC Act provides for the listing of Threatened native fauna as MNES.

Few invertebrate taxa from WA are listed as MNES. Those that are mostly include species that have experienced significant range contractions and population declines due to habitat loss, for example the Margaret River Marron (*Cherax tenuimanus*) (Critically Endangered) and the Shield-backed Trapdoor Spider (*Idiosoma nigrum*) (Vulnerable) (DoEE 2018).

2.2 STATE

In WA, the BC Act provides for the listing of Threatened fauna species (Government of Western Australia 2018a, b)[1] in the following categories:

- Critically Endangered (CR) – species facing an extremely high risk of extinction in the wild in the immediate future[2]
- Endangered (EN) – species facing a very high risk of extinction in the wild in the near future[2]
- Vulnerable (VU) – species facing a high risk of extinction in the wild in the medium term future[2].

Species may also be listed as specially protected (SP) under the BC Act under the category of 'species of special conservation interest' (conservation dependent fauna, CD), including species with a restricted natural range.

The Department of Biodiversity, Conservation and Attractions (DBCA) administers the BC Act and also maintains a non-statutory list of Priority fauna. Priority species are still considered to be of conservation significance – that is they may be Threatened – but cannot be considered for listing under the BC Act until there is adequate understanding of threat levels imposed on them. Species on the Priority fauna lists are assigned to one of four Priority (P) categories, P1 (highest) – P4 (lowest), based on level of knowledge/concern.

Few SRE invertebrate taxa are currently listed under the BC Act and while there are several invertebrate species on DBCA's Priority list (some of which are SRE taxa), these lists cannot be relied on as a complete guide to significant invertebrate taxa within a particular location. The most up-to-date listings of terrestrial invertebrates and their distribution are available through the WA Museum invertebrate databases.

[1] The *Wildlife Conservation (Specially Protected Fauna) Notice 2018* and the *Wildlife Conservation (Rare Flora) Notice 2018* have been transitioned under regulations 170, 171 and 172 of the *Biodiversity Conservation Regulations 2018* to be the lists of Threatened, Extinct and Specially Protected species under Part 2 of the BC Act.

[2] As determined in accordance with criteria set out in the ministerial guidelines.

2.3 OVERVIEW OF SRE INVERTEBRATES

Short-range endemic (SRE) fauna are defined as animals that display restricted geographic distributions, nominally less than 10,000 km^2, that may also be disjunct and highly localised (Harvey 2002; Ponder & Colgan 2002). Short-range endemism in terrestrial invertebrates is believed to have evolved through two primary processes (Harvey 2002), relictual short-range endemism – where drying climate has forced range contraction into small pockets with remaining moist conditions (e.g. south-facing rock faces or slopes of mountains or gullies) – and habitat specialist SREs that may have settled in particular isolated habitat types (e.g. rocky or granite outcrops) by means of dispersal and evolved in isolation into distinct species. However, SRE invertebrates have also been reported in more widespread habitats such as spinifex plains or woodlands mainly in groups with low dispersal capabilities such as mygalomorph spiders and millipedes.

Short-range endemic fauna need to be considered in environmental impact assessments (EIA) as localised, small populations of species are generally at greater risk of changes in conservation status due to environmental change than other, more widely distributed taxa (EPA 2016).

There can be uncertainty in categorising a specimen as SRE due to a number of factors including poor regional survey density, lack of taxonomic research and problems of identification, i.e. specimens that may represent SREs cannot be identified to species level based on the life stage at hand. For example, in contrast to mature males, juvenile and female millipedes, mygalomorph spiders and scorpions cannot be identified to species level. Molecular techniques such as 'barcoding' (Hebert *et al.* 2003a; Hebert *et al.* 2003b) are routinely employed to overcome taxonomic or identification problems.

3 EXISTING ENVIRONMENT

3.1 INTERIM BIOGEOGRAPHIC REGIONALISATION OF AUSTRALIA

The Interim Biogeographic Regionalisation of Australia (IBRA) classifies Australia's landscapes into large 'bioregions' and 'subregions' based on climate, geology, landform, native vegetation and species information (DoEE 2016). The study area is located in the Northern Jarrah Forest subregion (JAF01) of the Jarrah Forest bioregion (Figure 3-1) which is predominantly comprised of jarrah - marri forest in the west with bullich and blackbutt in the valleys (Williams & Mitchell 2001). This grades to wandoo and marri woodlands in the east, with powderbark on breakaways. Heath is found on granite rocks and there are extensive but localised sandsheets with *Banksia* low woodlands (Williams & Mitchell 2001).

3.2 LAND SYSTEMS AND SURFACE GEOLOGY

DPIRD undertakes land system mapping for WA using a nesting soil-landscape mapping hierarchy (Schoknecht & Payne 2011). While the primary purpose of the mapping is to inform pastoral and agricultural land capability, it is also useful for informing biological assessments. Under this hierarchy, land systems are defined as areas with recurring patterns of landforms, soils, vegetation and drainage (Payne & Leighton 2004).

The study area intersects two land systems, the Darling Plateau and Murray Valleys land system. The Darling Plateau comprises over 93% of the baseline study area, this constitutes 15,879 ha (~90%) the MNSA and 10,417 ha (>99%) of the HSA (Table 3-1; Figure 3-2).

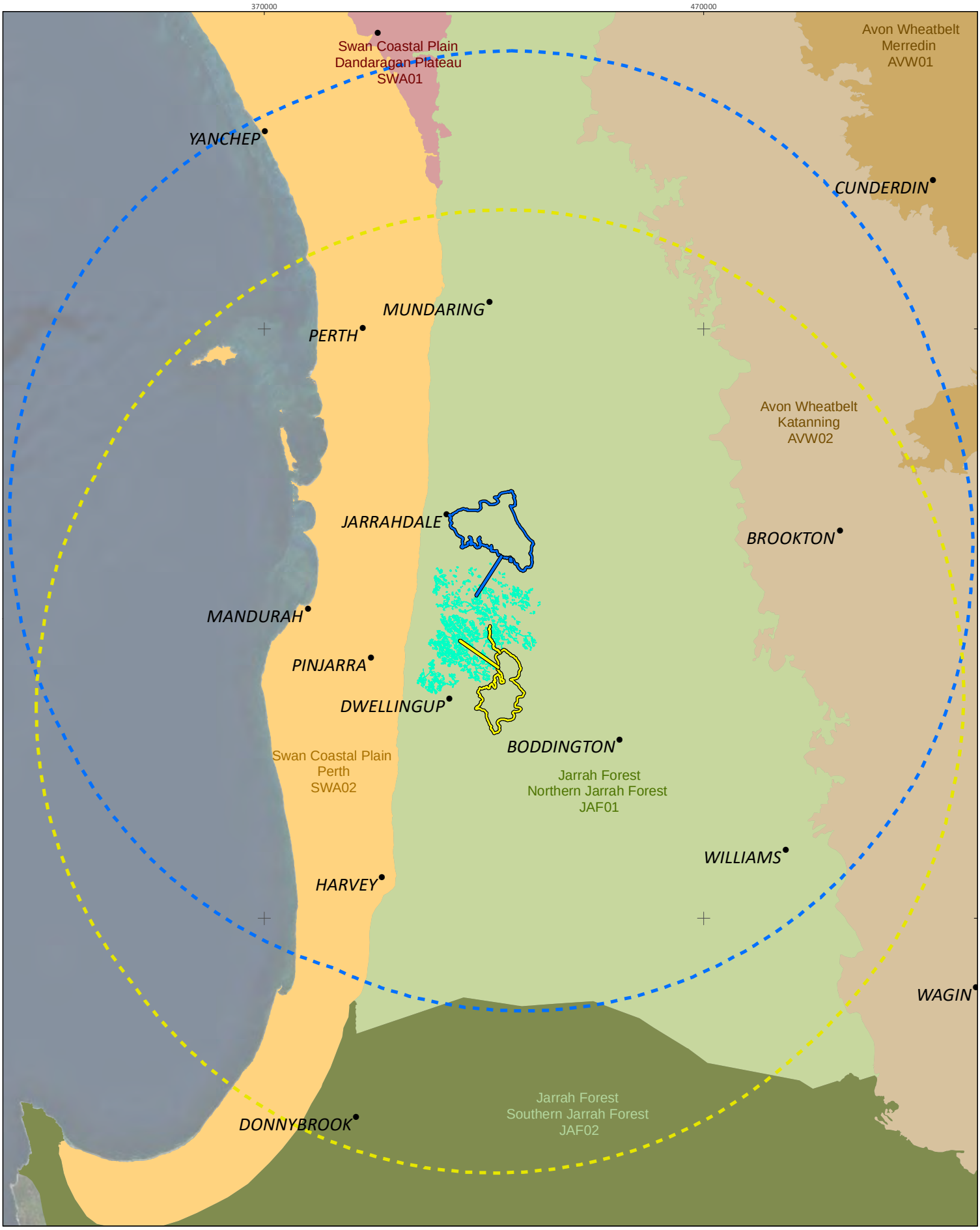
Table 3-1 Land systems and extent in baseline study area

Land system	Description	MNSA ha (%)	HSA ha (%)	Baseline study area total ha (%)
Darling Plateau System	Lateritic plateau. Duplex sandy gravels, loamy gravels and wet soils. Jarrah-marri-wandoo forest and woodland.	15,879.5 (89.8%)	10,417.7 (99.6%)	26,297.4 (93.5%)
Murray Valleys System	Western Darling Range from the Avon Valley to Harvey. Deeply incised valleys with Red loamy earths, shallow duplexes and rock outcrop and Jarrah-marri-wandoo forest and woodland with mixed shrubland	1,795.7 (10.2%)	39.2 (0.4%)	1,834.8 (6.5%)
	TOTAL	**17,675.2 (100%)**	**10,456.9 (100%)**	**28,132.1 (100%)**

According to the Surface Geology of Australia 1:1,000,000 scale, Western Australia database (Stewart *et al.* 2008), the baseline study area intersects four geological formations (Table 3-2; Figure 3-2); however, it is overwhelmingly dominated by ferruginous duricrust (unit 38498) which constitutes 9,768 ha (93.4 %) of the HSA and 9,826 ha (55.6%) of the MNSA.

Table 3-2 Surface geology of the study area, extent by deposit type

Surface geology	Abbrev.	Description	MNSA ha (%)	HSA ha (%)	Baseline study area total ha (%)
felsic intrusives 74292	Ag	Undifferentiated felsic intrusive rocks, including monzogranite, granodiorite, granite, tonalite, quartz monzonite, syenogranite, diorite, monzodiorite, pegmatite. Locally metamorphosed, foliated, gneissic. Local abundant mafic and ultramafic inclusions	7,766.5 (43.9%)	493.9 (4.7%)	8,260.4 (29.4%)
gneiss, granulite, migmatite 74310	An	Banded granitic gneiss (monzogranitic to granodioritic), quartzofeldspathic gneiss with mafic bands, migmatite, granofels, mafic and felsic granulites, hypersthene-plagioclase-quartz granulite; schist, pelitic or mafic granofels	82.1 (0.5%)	-	82.0 (0.3%)
ferruginous duricrust 38498	Czl	Pisolitic, nodular or vuggy ferruginous laterite; some lateritic soils; ferricrete; magnesite; ferruginous and siliceous duricrusts and reworked products, calcrete, kaolinised rock, gossan; residual ferruginous saprolite	9,826.6 (55.6%)	9,768.1 (93.4%)	19,594.7 (69.7%)
colluvium 38491	Qrc	Colluvium, sheetwash, talus; gravel piedmonts and aprons over and around bedrock; clay-silt-sand with sheet and nodular kankar; alluvial and aeolian sand-silt-gravel in depressions and broad valleys in Canning Basin; local calcrete, reworked laterite	-	194.9 (1.9%)	194.9 (0.7%)
		TOTAL	**17,675.2 (100%)**	**10,456.9 (100%)**	**28,132.1 (100%)**





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Study area
- Myara North study area
- Myara North desktop study area
- Holyoake study area
- Holyoake desktop study area
- Rehabilitation study area

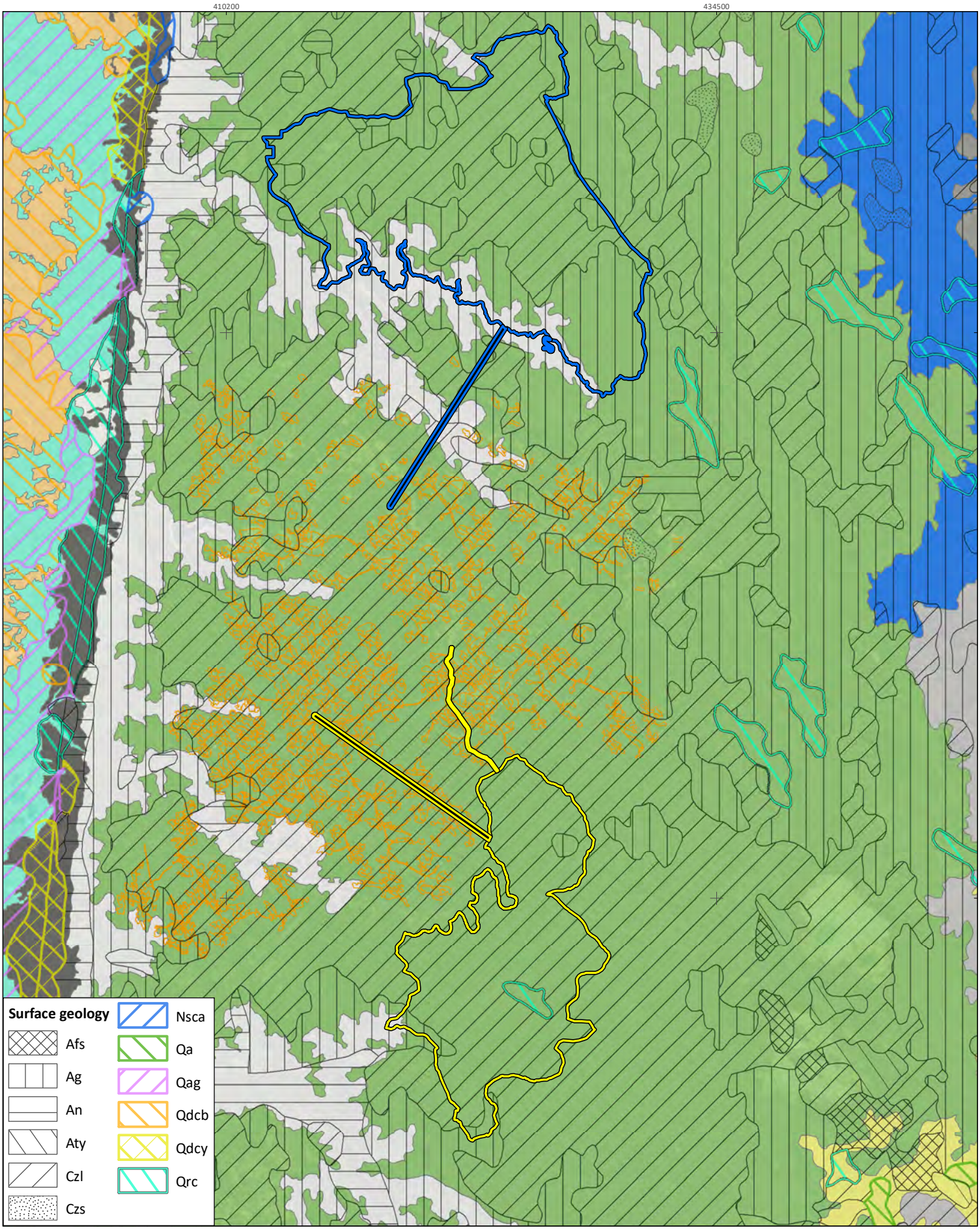
IBRA region: Jarrah Forest
- Northern Jarrah Forest (JAF01)
- Southern Jarrah Forest (JAF02)

IBRA region: Swan Coastal Plain
- Dandaragan Plateau (SWA01)
- Perth (SWA02)

IBRA region: Avon Wheatbelt
- Katanning (AVW02)
- Merredin (AVW01)

Figure 3–1
Study area in relation to IBRA bioregions and subregions

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Myara North study area
Holyoake study area
Rehabilitation study area

Land system

Bassendean System
Darling Plateau System
Forrestfield System
Marradong Upland System
Murray Valleys System
Pinjarra System
Quindanning System
Wundowie System

Figure 3–2

Land systems and surface geology in the study area

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3.3 CLIMATE AND WEATHER

The climate of the Northern Jarrah Forest subregion is Warm Mediterranean, with cool wet winters and warm dry summers. The nearest Bureau of Meteorology (BoM) weather stations to the study area with comprehensive data collection and recent historic climate data are Dwellingup (no. 009538, Latitude: -32.71°S Longitude: 116.06), located 6.1 km west of the HSA, and Karnet (no. 009111, Latitude: 32.44°S Longitude 116.08°E), located 4.5 km south west of the MNSA.

Dwellingup (1934–2021) records the highest mean maximum monthly temperature (29.7°C) in January and February (lowest in July, 15.1°C) and the lowest minimum mean monthly temperature (5.5°C) in July and August, with the highest (14.6°C) in February (BoM 2021; Figure 3-3). The average annual rainfall at Dwellingup is 1,225.9 mm with June recording the highest monthly average of 235.1 mm (Figure 3-3).

Daily mean maximum temperatures recorded at Dwellingup during the survey period (July to November 2020) were 1-2.5°C above the long-term annual average, except for November which was 1.4°C lower than average (Figure 3-3). Daily mean minimum temperatures were about the same or slightly higher than long-term monthly averages. Dwellingup experienced a drier than average winter but wetter than average spring in 2020 (Figure 3-3).

Karnet (1963–2021) records the highest mean maximum monthly temperature (29.7°C) in January and February (lowest in July 15.5°C) and the lowest minimum mean monthly temperature (6.3°C) in July and August, with the highest (15.8°C) in February (BoM 2021; Figure 3-4). The average annual rainfall at Karnet is 1,150.3 mm with June and July recording the highest monthly averages of 209.7 mm and 217 mm, respectively (Figure 3-4).

Daily mean maximum and minimum temperatures recorded at Karnet during the survey period were similar to or slightly above the long-term annual averages, except for November which slightly cooler (Figure 3-4). Rainfall at Karnet in 2020 was similar to Dwellingup, with a drier than average winter and wetter than average spring recorded (Figure 3-4).

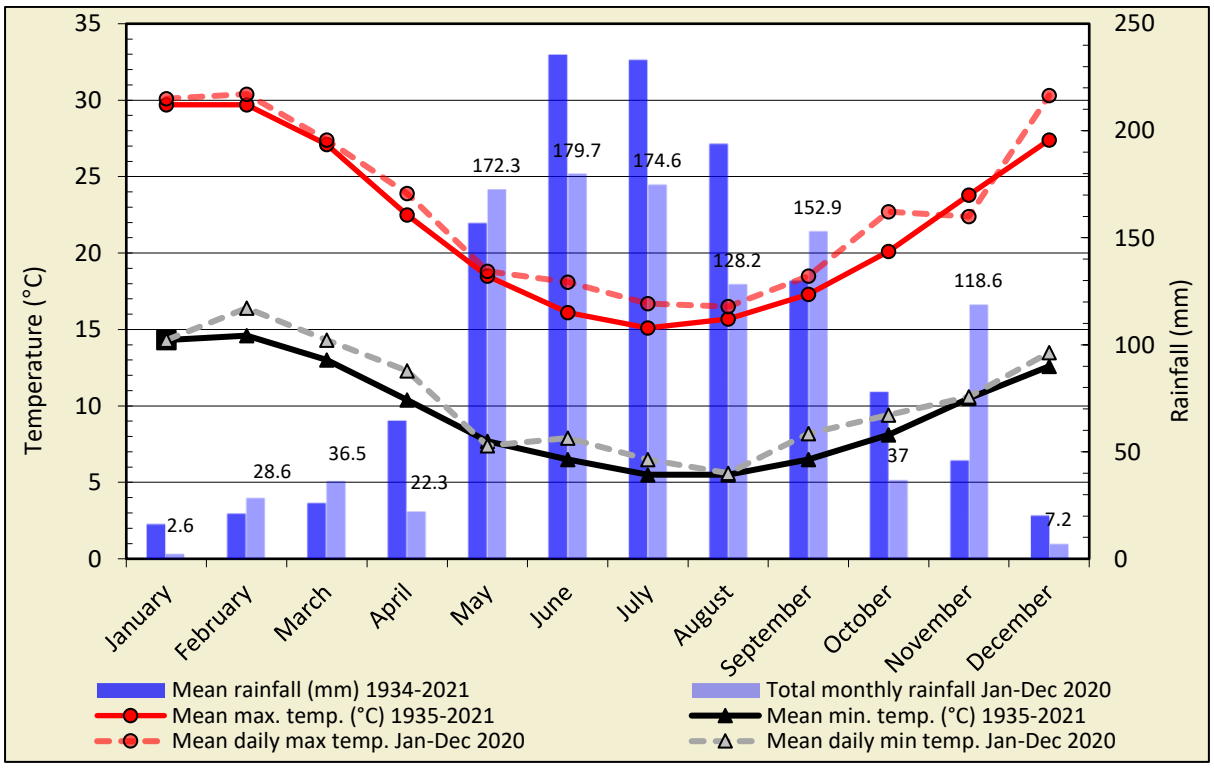


Figure 3-3 **Annual climate and weather data for Dwellingup (no. 009538) and mean monthly data preceding and during the survey (BoM 2021)**

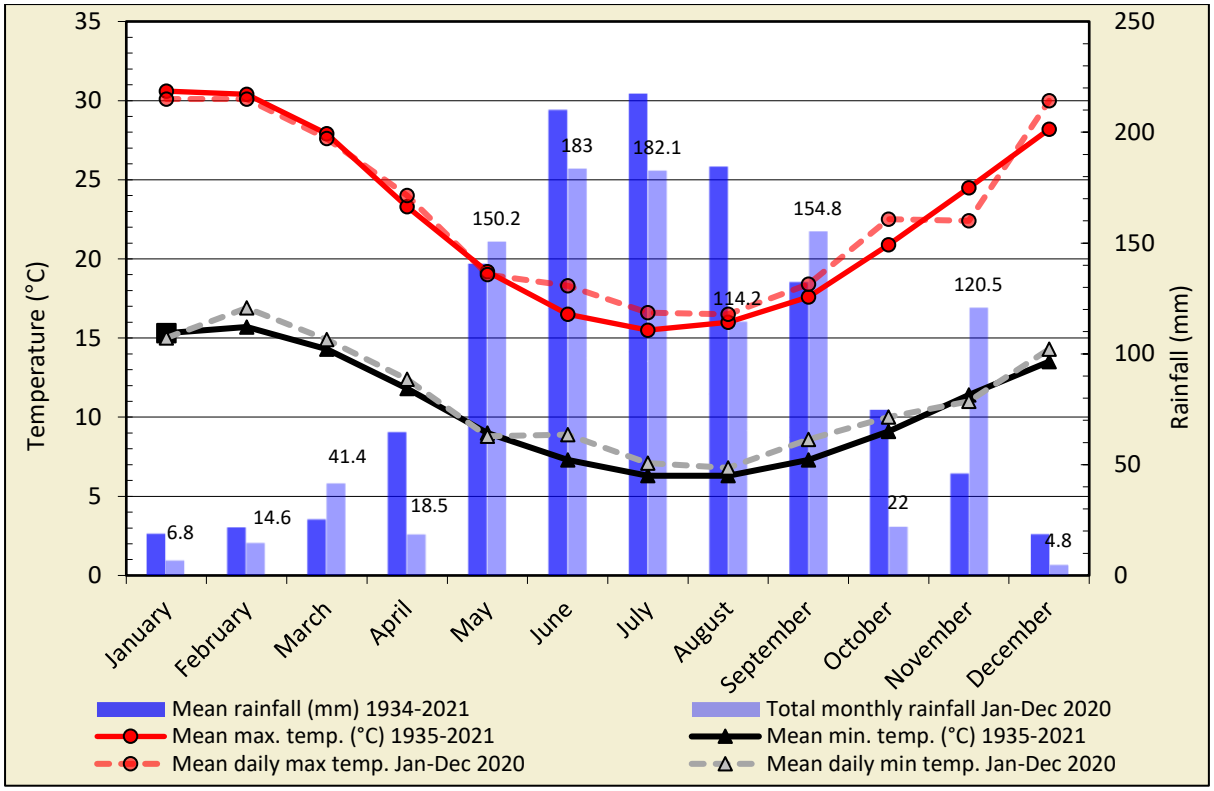


Figure 3-4 **Annual climate and weather data for Karnet (no. 009111) and mean monthly data for the 12 months preceding and during the survey (BoM 2021)**

3.4 LAND USE

Land use statistics were derived from the Australian Bureau of Agriculture and Resource Economics and Sciences' Catchment Scale Land Use Mapping for WA 2018 dataset (ABARES 2018), for the Northern Jarrah Forest subregion. The dataset is a compilation derived from various vector datasets, with land use classified according to the Australian Land Use and Management Classification (v8); a three-tiered hierarchical structure.

According to the ABARES dataset, approximately 25,944 ha (92%) of the baseline study area is 'uncleared' and used for production native forests (Table 3-3), with a higher proportion present in the HSA (96%) than the MNSA (90%). Predominant land uses in the cleared portion of the baseline study area are mining (1.2%) and softwood plantation (184 ha).

Around 4% of the baseline study area is represented by non-production conservation reserves or other residual native cover, with this proportion higher in the MNSA. Marsh/wetland covers 308 ha (~1%) of the baseline study area and is more abundant in the MNSA (243 ha) than the HSA (65 ha).

Table 3-3 **Land uses of the study area**

Land use	MNSA (ha)	MNSA (%)	HSA (ha)	HSA (%)	Baseline study area total (ha)	Baseline study area total (%)
Cleared	**738.2**	**4.2**	**41.9**	**0.4**	**780.1**	**2.8**
- Production from dryland agriculture and plantations	**202.9**	**1.2**	**1.7**	**<0.1**	**204.6**	**0.7**
Plantation forests	<0.1	<0.1		-	<0.1	<0.1
Hardwood plantation forestry	11.0	0.1		-	11.0	<0.1
Softwood plantation forestry	183.5	1.0	0.5	<0.1	184.0	0.7

Land use	MNSA (ha)	MNSA (%)	HSA (ha)	HSA (%)	Baseline study area total (ha)	Baseline study area total (%)
Degraded land	8.4	0.1	1.2	<0.1	9.6	<0.1
- Production from irrigated agriculture and plantations	**51.4**	**0.3**	**1.7**	**0.0**	**53.1**	**0.2**
Irrigated perennial horticulture	3.6	<0.1		-	3.6	<0.1
Irrigated tree fruits	7.0	<0.1	1.7	<0.0	8.7	<0.1
Irrigated seasonal horticulture	7.5	<0.1		-	7.5	<0.1
Irrigated seasonal vegetables and herbs	33.3	0.2		-	33.3	0.1
- Intensive uses	**483.9**	**2.7**	**38.5**	**0.4**	**522.4**	**1.9**
Shade houses	8.1	0.1		-	8.1	<0.1
Urban residential	3.0	<0.1		-	3.0	<0.1
Rural residential with agriculture	<0.1	<0.1		-	0.0	<0.1
Public services	1.7	<0.1		-	1.7	<0.1
Recreation and culture	99.9	0.6		-	99.9	0.4
Airports/aerodromes	-	-	2.2	<0.1	2.2	<0.1
Roads	43.0	0.2	18.7	0.2	61.7	0.2
mining	328.3	1.9	17.6	0.2	345.9	1.2
Uncleared	**16,937.0**	**95.8**	**10,415.0**	**99.6**	**27,351.9**	**97.2**
- Conservation and natural environments	**734.3**	**4.2**	**348.1**	**3.3**	**1,082.5**	**3.8**
National park	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Other conserved area	25.2	0.1	14.4	0.1	39.6	0.1
Residual native cover	709.2	4.0	333.7	3.2	1,042.9	3.7
- Production from relatively natural environments	**15,942.6**	**90.2**	**10,001.6**	**95.7**	**25,944.3**	**92.2**
Production native forests	15,942.6	90.2	10,001.6	95.7	25,944.3	92.2
- Water	**260.0**	**1.5**	**65.2**	**0.6**	**325.2**	**1.2**
Lake	6.1	<0.1	0.1	<0.1	6.1	<0.1
Reservoir	6.1	<0.1		-	6.1	<0.1
Water storage - intensive use/farm dams	3.6	<0.1	0.3	<0.1	3.9	<0.1
Stormwater	0.6	<0.1		-	0.6	<0.1
Marsh/wetland	243.6	1.4	64.9	0.6	308.4	1.1
TOTAL	**17,675.2**	**100**	**10,456.9**	**100**	**28,132.1**	**100**

3.5 CONSERVATION RESERVES, PRIORITY ECOLOGICAL COMMUNITIES AND ENVIRONMENTALLY SENSITIVE AREAS

The MNSA is located almost entirely within Jarrahdale State Forest and the HSA, within Dwellingup State Forest (Table 3-4; Figure 3-5). Three protected areas managed by the DBCA are adjacent to the study area comprising of Serpentine National Park, Lane Poole Reserve (a Conservation Park) and Monadnocks Conservation Park (a Section 5(1)(g) Reserve).

Three Priority Ecological Communities (PECs) partially intersect the MNSA; a Priority 2 Litter-dependant invertebrate community occupies 222.2 ha (0.8%) in the north and two Priority 3 Granite communities of the Northern Jarrah Forest (Blue Rock and Sullivan Rock) occupying 84 ha (0.3%) in the north-west and east (Table 3-4; Figure 3-5).

Four environmentally sensitive areas (ESAs) intersect the baseline study area. Three of these are located in the MNSA and one in the HSA, all classed as SCP_WETL50, which is an area mapped as a defined wetland in the geomorphic wetland maps and the area within 50 m of the wetland. Defined wetlands include Ramsar wetlands, conservation category wetlands and nationally important wetlands (DWER, pers. comm. 24 February 2021; Figure 3-5). All four wetlands have been evaluated as an ESA on the basis of "Conservation".

Table 3-4 Conservation reserves, PECs and ESAs in the baseline study area

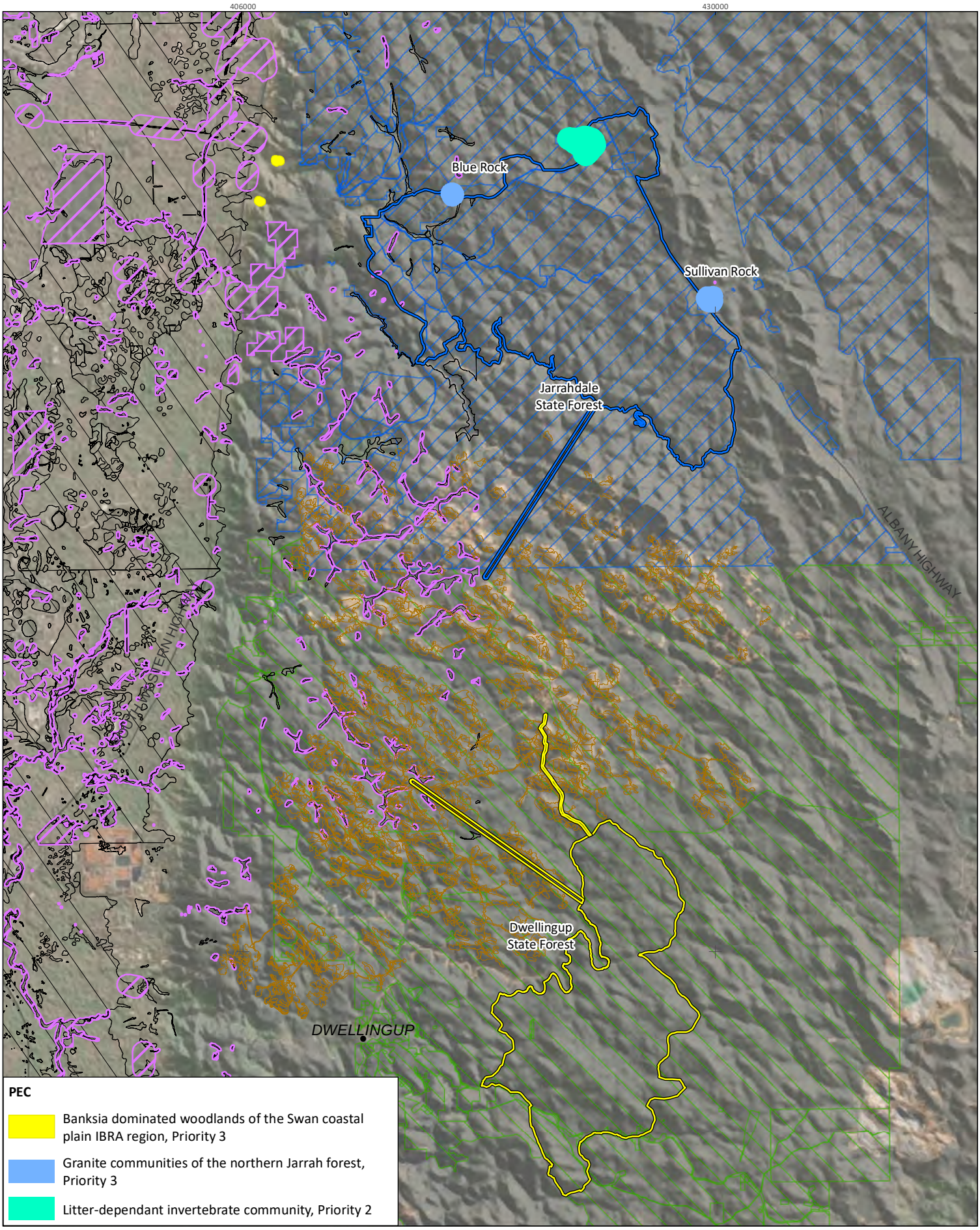
Conservation reserves, PECs and ESA's	MNSA ha (%)	HSA ha (%)	Baseline study area total ha (%)
State Forest			
Dwellingup State Forest	-	10,346.9 (98.9%)	10,346.9 (36.8%)
Jarrahdale State Forest	17,221.6 (97.4%)	-	17,221.6 (61.2%)
Priority Ecological Communities			
Litter-dependant invertebrate community (Priority 2)	222.2 (1.3%)	-	222.2 (0.8%)
Granite communities of the northern Jarrah Forest (Blue Rock) (Priority 3)	47.5 (0.3%)	-	47.5 (0.17%)
Granite communities of the northern Jarrah Forest (Sullivan Rock) (Priority 3)	36.5 (0.2%)	-	36.5 (0.13%)
Environmentally Sensitive Areas			
ESA 3205 - SCP_WETL50 which is an area mapped as a defined wetland in the geomorphic wetland maps	21.0 (58.6%)	-	-
ESA 3198 - SCP_WETL50 which is an area mapped as a defined wetland in the geomorphic wetland maps	6.3 (17.6%)	-	-
ESA 3161 SCP_WETL50 which is an area mapped as a defined wetland in the geomorphic wetland maps	3.9 (10.8%)	-	-
ESA 2489 - SCP_WETL50 which is an area mapped as a defined wetland in the geomorphic wetland maps	-	4.6 (12.8%)	-

3.6 HYDROLOGICAL VALUES

The baseline study area intersects a number of important urban and agricultural water sources. This includes four catchment areas and surface water allocation areas (SWAAs): Murray River, Serpentine River, Canning River and Dandalup River. Several Proclaimed Drinking Water Source Areas (PDWSAs) under the *Metropolitan Water Supply Sewerage and Drainage Act 1909* intersect the study area: Canning River Catchment Area, Conjurunup Creek Pipehead Dam Catchment Area, North Dandalup Pipehead Dam Catchment Area, Serpentine Dam Catchment Area, Serpentine Pipehead Dam Catchment Area, South Dandalup Dam Catchment Area and Wungong Brook Catchment Area (Figure

3-6). Five proclaimed surface water areas also intersect the baseline study area: Canning Dam Surface Water Area, Dandalup River System, Murray River System, Serpentine River System and Wungong Dam Surface Water Area, as proclaimed under the *Rights in Water and Irrigation Act 1914* (Figure 3-6).

Two perennial rivers occur within the MNSA, the Serpentine River and Big Brook. One non-perennial river, the South Dandalup River, flows through the HSA, along with one unnamed tributary. There are four Geomorphic Wetlands (also classed as ESAs) present in the baseline study area, three in the MNSA are damplands and one in the HSA is a palusplain.





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Myara North study area
Holyoake study area
Rehabilitation study area
Environmentally sensitive areas (DWER)
Geomorphic wetland

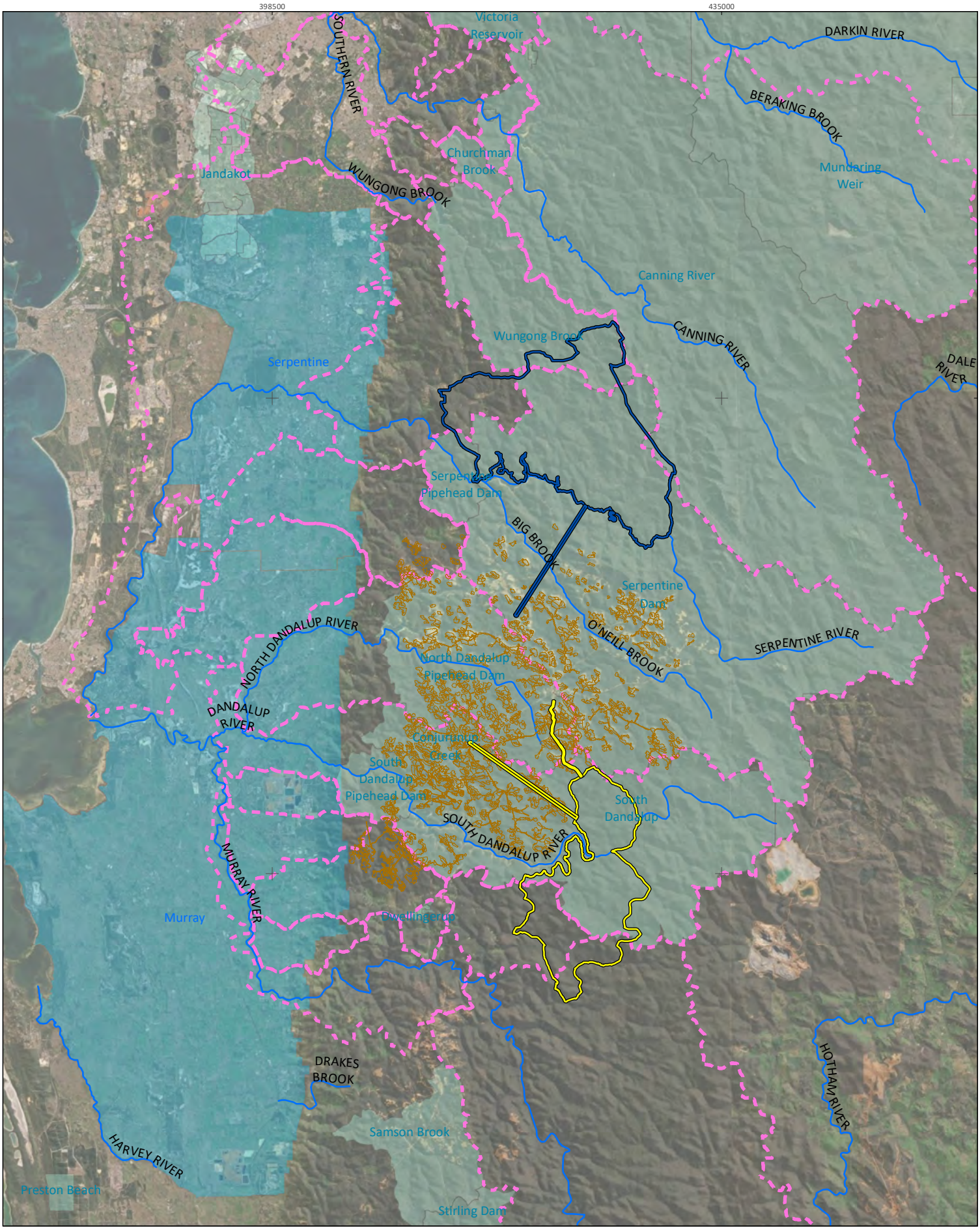
DBCA legislated lands and water

Dwellingup state forest
Jarrahdale state forest

Figure 3-5

Environmentally sensitive areas, conservation reserves and priority ecological communities in the study area

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- Myara North study area
- Holyoake study area
- Rehabilitation study area
- River
- Surface water allocation subareas
- Public drinking water source areas
- Groundwater area

Figure 3-6

Hydrological values in the study area

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4 METHODS

The SRE invertebrate survey was conducted in accordance with Environmental Protection Authority (EPA) Technical Guidance: Sampling of short range endemic invertebrate fauna (EPA 2016).

4.1 DESKTOP REVIEW

Searches of several biological databases were undertaken to identify records of SREs from the vicinity of the baseline study area (Table 4-1). A literature search was conducted for accessible reports for biological surveys conducted within 40 km of the baseline study area to build on the lists developed from the database searches (Table 4-2). A significant desktop data source for the current survey was a similar large scale SRE survey conducted by Phoenix (2021a) for the Worsley Expansion Project, located east of the study area in state forest and mining tenure between Boddington and Collie (referred to as 'the Worsley survey in this report). The results of this survey were included in the desktop results and were also analysed together with the results of the current survey to provide additional data to inform species distributions.

Table 4-1 Database searches conducted for the desktop review

Database	Target group/s	Search coordinates and extent
DBCA Threatened and Priority Fauna Database (DBCA 2020b)	Threatened and Priority fauna	Baseline study area plus a 40 km buffer
DBCA Threatened and Priority Ecological Communities Database (DBCA 2020a)	TECs and PECs	Baseline study area plus a 40 km buffer
WA Museum Arachnid and Myriapod Database, Mollusca Database	Arachnid, myriapod and mollusc SREs	100 km^2 search area encompassing the baseline study area between -32.22°S, 114.912°E (northwest corner) and -34.398°S, 117.868°E (southeast corner). This search area was then clipped to a 100 km radius buffer to the MNSA and HSA

Table 4-2 Survey reports included in the desktop review

Report author	Survey description	Project
Phoenix (2021b)	*Memo: Identification of invertebrate specimens collected from the Huntly Mine area*	Huntly Mine
Phoenix (2021a)	*Four-phase short-range endemic invertebrate fauna survey for the Worsley Mine Expansion Project*	Worsley Mine Expansion Project
Phoenix (2012)	*Level 2 short-range endemic (SRE) invertebrate survey for the Worsley Primary Bauxite Area Expansion Project*	Worsley Mine Expansion Project
Outback Ecology (2012)	*Terrestrial short-ranged endemic invertebrate fauna baseline survey for the Boddington Gold Mine*	Newmont BGM

4.2 HABITAT ASSESSMENT AND SITE SELECTION

Vegetation units defined by Mattiske (2021) within the baseline study area were re-interpreted in relation to SRE invertebrates, based on factors considered important in defining fauna assemblages, including vegetation type and structure, substrate and position in the landscape. Each fauna habitat was then rated for its potential to support SREs (potential habitat rating; PHR) as follows:

High – defined/known areas of habitat that contain elements that often give rise to specialisation or dependency in invertebrate fauna, such as aspect (e.g. south-facing slopes, deeply incised gullies), geological features (e.g. granite), soil types that retain water (e.g. clay, loam).

Low – areas of largely intact native vegetation that occur broadly across the landscape, are less incised and typically link more restricted habitats. This includes land that was cleared but has since been rehabilitated or is in the process of being rehabilitated.

None – land that has been previously cleared for other uses that no longer contains native vegetation.

Survey sites for the baseline study area were pre-selected using aerial imagery and were chosen to represent the various habitats within the baseline study area. These included, but were not limited to, typical SRE habitats such as drainage-lines and creek riparian zones, south-facing slopes and granite outcrops. Sites were placed inside potential impact areas such as the haul roads, conveyor corridors and within a preliminary Myara North mining area 10-year mine plan, as well as reference sites. No preliminary disturbance footprint was available for the Holyoake mining area, therefore site selection here focussed on representative sampling of habitats and coverage across this area, with some reference sites placed outside the H-MA.

Sites in the ReSA were selected to sample a range of rehabilitation age classes between 5 and 30 years:

- 5-year-old rehabilitation (rehabilitated in 2015)
- 10-year-old rehabilitation (rehabilitated in 2010)
- 20-year-old rehabilitation (rehabilitated in 2000)
- 30-year-old rehabilitation (rehabilitated in 1990).

All rehabilitation sites were selected from the Huntly mine rehabilitation areas to ensure as many other variables, such as proximity to active mining areas, adjacent habitat types, soils, topography and geographic features, microclimate etc. were as constant as possible.

4.3 FIELD SURVEY

Field surveys were conducted over two seasons, between July and November 2020 (Table 4-3) in all study areas except the two haul road sites which had one season of sampling, as these areas were added to the study area after the survey had commenced and timing only allowed one round of sampling within the optimal season.

The following methods were employed in the survey:

SRE wet pit trapping (see 4.3.1)

active foraging (see 4.3.2)

litter/soil sieving (see 4.3.3).

Table 4-3 Survey dates

Study area		Phase	Season	Dates (all 2020) and methods
MNSA	Mine area	1	Winter	20–28 July, trap installation, foraging and litter/soil sieving 14–18 September, trap retrieval
	Corridor	1	Winter/Spring	19–21 August, trap installation, foraging and litter/soil sieving 5–7 October, trap retrieval
	Haul road	1	Winter	25 September, trap installation, foraging and litter/soil sieving 13 November, trap retrieval
	Mine area	2	Spring	14–18 September, trap installation, foraging and litter/soil sieving 2–10 November, trap retrieval
	Corridor	2	Spring	5–7 October, trap installation, foraging and litter/soil sieving 26 November, trap retrieval
HSA	Mine area	1	Winter/Spring	5–9 August, trap installation, foraging and litter/soil sieving 29 September – 2 October, trap installation
	Corridor	1	Winter/Spring	19–21 August, trap installation, foraging and litter/soil sieving 5–7 October, trap retrieval
	Haul road	1	Spring	25 September, trap installation, foraging and litter/soil sieving 13 November, trap retrieval
	Mine area	2	Spring	29 September – 2 October, trap installation, foraging and litter/soil sieving 23 – 26 November, trap retrieval
	Corridor	2	Spring	5–7 October, trap installation, foraging and litter/soil sieving 26 November, trap retrieval
ReSA		1	Winter	29-31 July, trap installation, foraging and litter/soil sieving 16–18 September, trap retrieval
		2	Spring	16–18 September, trap installation, foraging and litter/soil sieving 11–12 November, trap retrieval

4.3.1 Wet pit trapping

A total of 72 wet pitfall trapping sites were established across the study area, 60 within the baseline study area and 12 within the ReSA, of which two are also in the H-CC (Table 4-4; Table 4-5). Each wet pitfall trap site comprised of five one litre plastic containers with a 70 mm diameter dug in flush with the surface in suitable microhabitats at each site (Figure 4-1; Table 4-5). Pit traps were half-filled with propylene glycol/ethanol mixture, which has been shown to preserve DNA under laboratory conditions in invertebrates (Vink *et al.* 2005) and Phoenix has successfully sequenced the mitochondrial cytochrome oxidase subunit 1 (COI) gene from specimens caught in propylene glycol pitfall traps from previous surveys. All traps were covered with a plastic lid elevated 25 mm above the trap with wooden blocks to minimise by-catch of vertebrates where possible. Traps remained open following the setup and were retrieved by site personnel approximately six weeks later.

Table 4-4 Survey site locations per study area

Study area	MNSA			HSA			HSA/ReSA intersect	ReSA
	MN-MA	MN-CC	MN-HR	H-MA	H-CC	H-HR		
No. of systematic sites surveyed	28 baseline	5 baseline	1 baseline	22 baseline	3 baseline	1 baseline	2 rehab	10 rehab

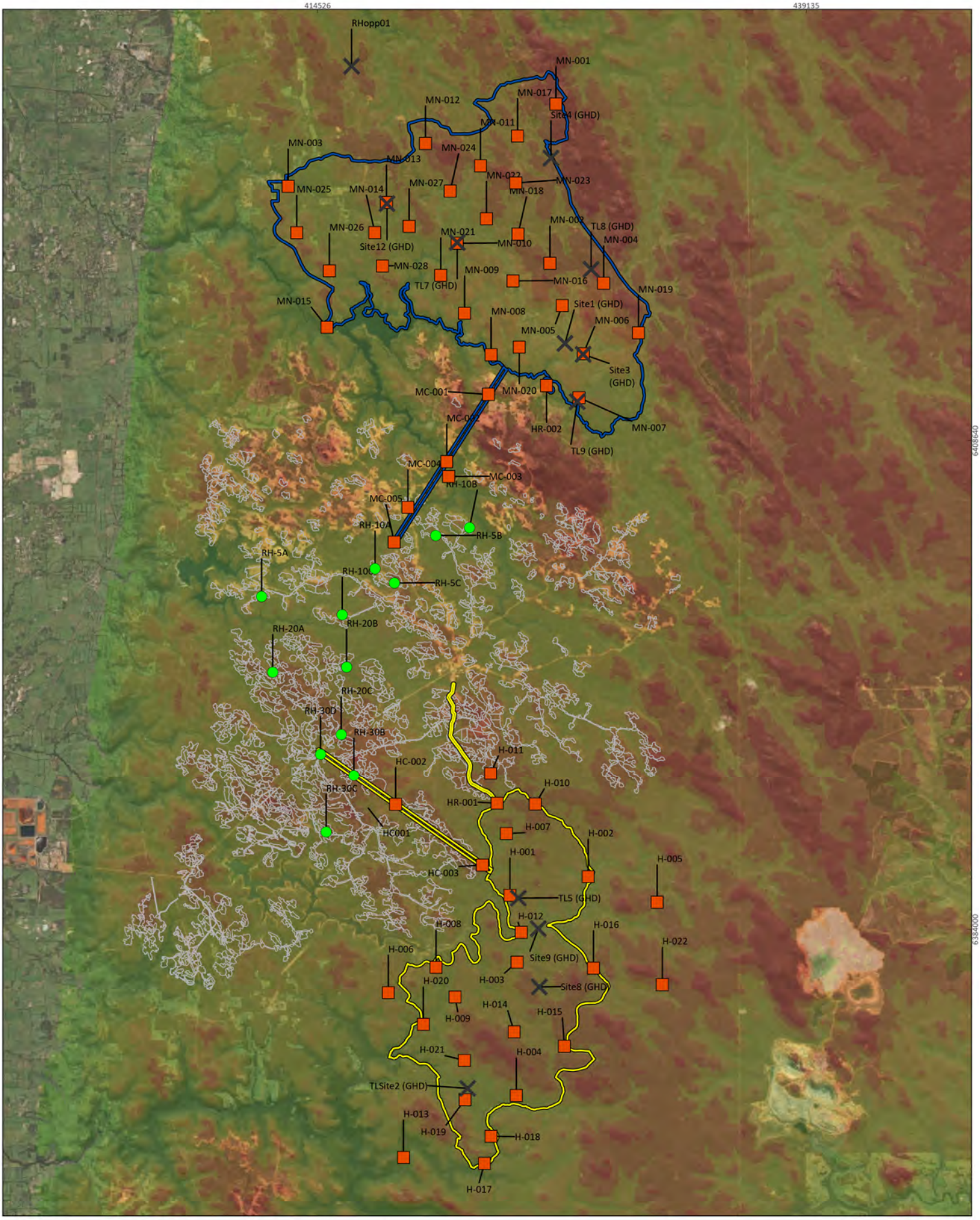
4.3.2 Active foraging

Active foraging for SRE invertebrate groups comprised inspection of logs, larger plant debris, within the foliage and stem of shrubs such as *Xanthorrhoea preissii*, the underside of bark of larger trees and the underside of rocks. Methodical searches were conducted amongst the leaf litter of shade-bearing tall shrubs and trees. Rocks and rock crevices were inspected, particularly for pseudoscorpions.

A standardised approach was undertaken whereby each site was sampled for one person hour per phase, a total search effort of 140 hours in total, 56 in the MN-MA, 10 in the MN-CC, 1 in the MN-HR, 44 in the H-MA, 4 in the H-CC, 1 in the H-HR and 24 in the RHSA (Table 4-5). Trapdoor spider burrows identified during the searches were excavated if they were considered inhabited. Excavation involved removing soil from around the burrow to carefully expose the burrow chamber and remove the spider.

4.3.3 Litter/soil sieving

Combined litter/soil sifts were undertaken at all sites, with three sifts conducted at each site per phase. In total, 420 sifts were undertaken, 168 in the MN-MA, 30 in the MN-CC, 3 in the MN-HR, 132 in the H-MA, 12 in the H-CC, 3 in the H-HR and 72 in the RHSA. (Table 4-5). The collection of leaf litter samples was standardised volumetrically by the diameter and height (310 mm x 50 mm = 1.55 L) of the sieves which were completely filled with compressed litter and the upper layers of underlying soil. Samples were sieved through three stages of decreasing mesh size over a round tray and invertebrates were picked from the sieves and tray with forceps. These samples particularly targeted small spiders (Araneomorphae), pseudoscorpions, buthid scorpions, millipedes, centipedes (in particular Geophilomorpha and Cryptopidae), smaller species of molluscs (e.g. Pupillidae) and slaters.





GHD Pty Ltd
Huntly Mine Expansion Project

Project No	1337/1347
Date	3/12/2024
Drawn by	IN
Map author	AJ

0 2.5 5
Kilometers

1:246,400 (at A4) GDA 1994 MGA Zone 50

All information within this map is current as of 3/12/2024. This product is subject to COPYRIGHT and is property of Phoenix Environmental Sciences (Phoenix). While Phoenix has taken care to ensure the accuracy of this product, Phoenix make no representations or warranties about its accuracy, completeness or suitability for any particular purpose.

Myara North study area
Holyoake study area
Rehabilitation study area

Sites

Baseline site: Wet pitfall trap, foraging, litter sieve and burrow excavations

Rehabilitation site: Wet pitfall trap, foraging, litter sieve and burrow excavations

Opportuninistic records from GHD vertebrate fauna dry pit traps site

Digital elevation model in metres above sea level

- 59 - 171
- 171 - 242
- 242 - 283
- 283 - 317
- 317 - 355
- 355 - 594

Figure 4-1

Survey site locations

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Table 4-5 Survey site locations and effort

Site[1]	Study area	Habitat type (habitat code)	Lat.	Long.	Phase 1			Phase 2		
					WPT (# nights)	Foraging (hrs)	Sieves (#)	WPT (# nights)	Foraging (hrs)	Sieves (#)
SYSTEMATIC SITES										
MN-001	MN-MA	Open Jarrah/Marri forest (4)	-32.3042	116.2196	57	1	3	49	1	3
MN-002	MN-MA	Open Jarrah/Marri forest (4)	-32.3765	116.2158	57	1	3	49	1	3
MN-003	MN-MA	Open Jarrah/Marri forest (4)	-32.3406	116.0760	57	1	3	49	1	3
MN-004	MN-MA	Open Jarrah/Marri woodland (2) adjacent to Granite outcrop (3)	-32.3858	116.2444	57	1	3	49	1	3
MN-005	MN-MA	Open Jarrah/Marri forest (4)	-32.3958	116.2222	57	1	3	49	1	3
MN-006	MN-MA	Open Jarrah/Marri woodland (2)	-32.4177	116.2333	57	1	3	49	1	3
MN-007	MN-MA	Open Jarrah/Marri forest (5)	-32.4375	116.2308	57	1	3	49	1	3
MN-008	MN-MA	Granite outcrop (3)	-32.4179	116.1839	57	1	3	49	1	3
MN-009	MN-MA	Open Jarrah/Marri woodland (2)	-32.3989	116.1698	57	1	3	49	1	3
MN-010	MN-MA	Open Jarrah/Marri woodland (2)	-32.3671	116.1662	57	1	3	49	1	3
MN-011	MN-MA	Open Jarrah/Marri woodland (2)	-32.3320	116.1790	57	1	3	49	1	3
MN-012	MN-MA	Open Jarrah/Marri forest (4)	-32.3216	116.1496	57	1	3	49	1	3
MN-013	MN-MA	Open Jarrah/Marri woodland (2)	-32.3483	116.1285	57	1	3	49	1	3
MN-014	MN-MA	Open Jarrah/Marri woodland (2)	-32.3619	116.1221	57	1	3	49	1	3
MN-015	MN-MA	Open Jarrah/Marri forest (4)	-32.4048	116.0961	57	1	3	49	1	3
MN-016	MN-MA	Melaleuca woodland (1)	-32.3844	116.1959	57	1	3	49	1	3
MN-017	MN-MA	Open Jarrah/Marri forest-woodland (7)	-32.3186	116.1989	57	1	3	49	1	3
MN-018	MN-MA	Open Jarrah/Marri woodland (2)	-32.3632	116.1988	57	1	3	49	1	3
MN-019	MN-MA	Open Jarrah/Marri forest (4)	-32.4084	116.2629	57	1	3	49	1	3
MN-020	MN-MA	Granite Outcrop (3)	-32.4145	116.1990	57	1	3	49	1	3
MN-021	MN-MA	Open Jarrah/Marri forest (4)	-32.3816	116.1572	57	1	3	49	1	3
MN-022	MN-MA	Open Jarrah/Marri forest (4)	-32.3561	116.1820	57	1	3	49	1	3
MN-023	MN-MA	Open Jarrah/Marri forest (4)	-32.3399	116.1978	57	1	3	49	1	3
MN-024	MN-MA	Open Jarrah/Marri forest (4)	-32.3434	116.1627	57	1	3	49	1	3
MN-025	MN-MA	Open Jarrah/Marri forest (4)	-32.3617	116.0803	57	1	3	49	1	3
MN-026	MN-MA	Open Jarrah/Marri forest (4)	-32.3792	116.0976	57	1	3	49	1	3
MN-027	MN-MA	Open Jarrah/Marri forest (4)	-32.3593	116.1405	57	1	3	49	1	3
MN-028	MN-MA	Open Jarrah/Marri forest (4)	-32.3772	116.1261	57	1	3	49	1	3
MN-MA (Myara North proposed mining area) total					**1596**	**28**	**84**	**1372**	**28**	**84**
MC-001	MN-CC	Open Jarrah/Marri forest (4)	-32.4357	116.1823	47	1	3	50	1	3
MC-002	MN-CC	Bullich forest (13)	-32.4661	116.1597	47	1	3	50	1	3
MC-003	MN-CC	Open Jarrah/Marri forest (5)	-32.4729	116.1607	47	1	3	50	1	3
MC-004	MN-CC	Open Jarrah/Marri forest (4)	-32.4867	116.1387	47	1	3	50	1	3
MC-005	MN-CC	Bullich forest (13)	-32.5024	116.1312	47	1	3	50	1	3
MN-CC (Myara North proposed conveyor corridor) total					**235**	**5**	**15**	**250**	**5**	**15**

Site[1]	Study area	Habitat type (habitat code)	Lat.	Long.	Phase 1			Phase 2		
					WPT (# nights)	Foraging (hrs)	Sieves (#)	WPT (# nights)	Foraging (hrs)	Sieves (#)
HR-002	MN-HR	Open Jarrah/Marri forest (4)	-32.4319	116.2134	49	1	3	-	-	-
MN-HR (Myara North proposed haul road) total					**49**	**1**	**3**	**-**	**-**	**-**
H-001	H-MA	Open Jarrah/Marri forest (4)	-32.6636	116.1918	55	1	3	55	1	3
H-002	H-MA	Open Jarrah/Marri woodland (2)	-32.6554	116.2339	55	1	3	55	1	3
H-003	H-MA	Open Jarrah/Marri woodland (2)	-32.6939	116.1954	55	1	3	55	1	3
H-004	H-MA	Open Jarrah/Marri forest (4)	-32.7545	116.1944	55	1	3	55	1	3
H-005	H-MA	**Not mapped but likely to be Open Jarrah/Marri woodland (2)**	-32.6672	116.2708	55	1	3	55	1	3
H-006	H-MA	Open Jarrah/Marri forest (4)	-32.7073	116.1260	55	1	3	55	1	3
H-007	H-MA	Open Jarrah/Marri forest (4)	-32.6355	116.1902	55	1	3	55	1	3
H-008	H-MA	Open Jarrah/Marri forest (4)	-32.6960	116.1518	55	1	3	55	1	3
H-009	H-MA	Open Jarrah/Marri forest (4)	-32.7095	116.1619	55	1	3	55	1	3
H-010	H-MA	Open Jarrah/Marri forest (4)	-32.6222	116.2058	55	1	3	55	1	3
H-011	H-MA	Open Jarrah/Marri forest (5)	-32.6080	116.1819	55	1	3	55	1	3
H-012	H-MA	Open Jarrah/Marri forest (4)	-32.6804	116.1978	55	1	3	55	1	3
H-013	H-MA	Open Jarrah/Marri forest (4)	-32.7822	116.1335	55	1	3	55	1	3
H-014	H-MA	Open Jarrah/Marri woodland (2)	-32.7256	116.1935	55	1	3	55	1	3
H-015	H-MA	Open Jarrah/Marri woodland (2)	-32.7323	116.2204	55	1	3	55	1	3
H-016	H-MA	Open Jarrah/Marri woodland (2)	-32.6969	116.2364	55	1	3	55	1	3
H-017	H-MA	Open Jarrah/Marri forest-woodland (7)	-32.7852	116.1770	55	1	3	55	1	3
H-018	H-MA	Open Jarrah/Marri forest (4)	-32.7729	116.1806	55	1	3	55	1	3
H-019	H-MA	Open Jarrah/Marri forest (4)	-32.7562	116.1668	55	1	3	55	1	3
H-020	H-MA	Open Jarrah/Marri forest (4)	-32.7218	116.1447	55	1	3	55	1	3
H-021	H-MA	Open Jarrah/Marri forest (4)	-32.7384	116.1666	55	1	3	55	1	3
H-022	H-MA	Open Jarrah/Marri forest (4)	-32.7046	116.2733	55	1	3	55	1	3
H-MA (Holyoake proposed mining area) total					**1210**	**22**	**66**	**1210**	**22**	**66**
HC-001	H-CC	Open Jarrah/Marri forest (5)	-32.6218	116.1308	47	1	3	50	1	3
HC-002	H-CC	Open Jarrah/Marri forest (5)	-32.6218	116.1308	47	1	3	50	1	3
HC-003	H-CC	Open Jarrah/Marri forest (4)	-32.6497	116.1771	47	1	3	50	1	3
H-CC (Holyoake proposed conveyor corridor) total					**141**	**3**	**9**	**150**	**3**	**9**
HR-001	H-HR	Open Jarrah/Marri forest (5)	-32.6217	116.1853	49	1	3	-	-	-
H-HR (Holyoake proposed haul road) total					**49**	**1**	**3**	**-**	**-**	**-**
RH-5A	ReSA	5-year-old rehabilitation (12)	-32.5267	116.0598	50	1	3	56	1	3
RH-5B	ReSA	5-year-old rehabilitation (12)	-32.4996	116.1534	50	1	3	56	1	3
RH-5C	ReSA	5-year-old rehabilitation (12)	-32.521	116.1311	50	1	3	56	1	3
RH-10A	ReSA	10-year-old rehabilitation (12)	-32.5145	116.1208	50	1	3	56	1	3
RH-10B	ReSA	10-year-old rehabilitation (12)	-32.4962	116.1716	50	1	3	56	1	3
RH-10C	ReSA	10-year-old rehabilitation (12)	-32.5354	116.103	50	1	3	56	1	3
RH-20A	ReSA	20-year-old rehabilitation (12)	-32.5611	116.0654	50	1	3	56	1	3

Site[1]	Study area	Habitat type (habitat code)	Lat.	Long.	Phase 1			Phase 2		
					WPT (# nights)	Foraging (hrs)	Sieves (#)	WPT (# nights)	Foraging (hrs)	Sieves (#)
RH-20B	ReSA	20-year-old rehabilitation (12)	-32.5591	116.1051	50	1	3	56	1	3
RH-20C	ReSA	20-year-old rehabilitation (12)	-32.5897	116.1019	50	1	3	56	1	3
RH-30B	ReSA	30-year-old rehabilitation (12)	-32.6085	116.1085	50	1	3	56	1	3
RH-30C	ReSA	30-year-old rehabilitation (12)	-32.6342	116.0934	50	1	3	56	1	3
RH-30D	ReSA	30-year-old rehabilitation (12)	-32.5986	116.0907	50	1	3	56	1	3
ReSA (Rehabilitation study area) total					**600**	**12**	**36**	**672**	**12**	**36**
OPPORTUNISTIC SITES[2]										
TL5 (GHD)	H-MA	Open Jarrah/Marri woodland (2)	-32.6649	116.1963	-	-	-	-	-	-
Site9 (GHD)	H-MA	Open Jarrah/Marri woodland (2)	-32.6788	116.2069	-	-	-	-	-	-
Site8 (GHD)	H-MA	Open Jarrah/Marri woodland (2)	-32.7053	116.2072	-	-	-	-	-	-
TLSite2 (GHD)	H-MA	Open Jarrah/Marri forest (4)	-32.7511	116.1683	-	-	-	-	-	-
Site12 (GHD)	MN-MA	Open Jarrah/Marri woodland (2)	-32.3489	116.1288	-	-	-	-	-	-
TL8 (GHD)	MN-MA	Open Jarrah/Marri forest (4)	-32.3794	116.2378	-	-	-	-	-	-
TL9 (GHD)	MN-MA	Open Jarrah/Marri woodland (2)	-32.4393	116.2299	-	-	-	-	-	-
Site4 (GHD)	MN-MA	Open Jarrah/Marri forest-woodland (7)	-32.3288	116.2167	-	-	-	-	-	-
Site1 (GHD)	MN-MA	Open Jarrah/Marri forest (4)	-32.413	116.2235	-	-	-	-	-	-
TL7 (GHD)	MN-MA	Open Jarrah/Marri woodland (2)	-32.3668	116.1662	-	-	-	-	-	-
Site3 (GHD)	MN-MA	Open Jarrah/Marri woodland (2)	-32.4180	116.2332	-	-	-	-	-	-
OppMN (GHD)	MN-MA	Open Jarrah/Marri forest (4)								
RHopp01	ReSA	44-year-old rehabilitation (12)	-32.2863	116.1105	-	-	-	-	-	-
Opportunistic collection sites total					-	-	-	-	-	-

1 – Grey shading indicates sites that are within preliminary 10-year mine plan. Yellow shading indicates a reference site outside of the MNSA and HSA.

2 – GHD sites – invertebrates collected in dry pitfall trap sites for the vertebrate fauna survey for the Proposal.

4.3.4 SRE potential habitat rating

Fauna habitat mapping was assessed for its potential to support endemic SRE species and communities. Potential SRE habitat was rated as follows:

- High – defined/known areas of habitat that contain elements that often give rise to specialisation or dependency in invertebrate fauna, such as aspect (e.g. south-facing slopes, geological features (e.g. granite), soil types that retain water (e.g. clay, loam). These habitats may also include habitat isolates which have the capacity to restrict dispersal.
- Low – areas of largely in-tact native vegetation that occur broadly across the landscape, are less incised and typically link more restricted habitats. This may include land that was cleared but has since been rehabilitated or is in the process of being rehabilitated.
- None – land that has been previously cleared for other uses that no longer contains native vegetation.

4.3.5 SRE status

Currently, there is no accepted system to determine the likelihood that a species is an SRE. The WA Museum applies a three tier-rating: confirmed, potential and not SRE (Western Australian Museum 2013). Phoenix uses a classification similar to that of the WA Museum, which was employed in this assessment (Table 4-6). Any SRE categorisation of a taxon is based on the information available at the time. As new information emerges from additional surveys, the SRE status may change.

Table 4-6 Short-range endemic categories

SRE category	Criteria
Confirmed	Distribution < 10,000 km^2. Taxonomy of the group is well known (but not necessarily published); group is well-represented in collections, in particular from the region in question; high levels of endemism exists in documented species; inference is often possible from immature specimens.
Likely	Distribution < 10,000 km^2. Taxonomically poorly resolved group but group is generally well-represented in collections; unusual morphology for the group (e.g. some form of troglomorphism); often recorded as singletons in survey and few, if any, regional records.
Potential	Distribution < 10,000 km^2. Taxonomically poorly resolved group; patchy distribution, often common in certain microhabitats, but no other regional records; congeners (= species in the same genus) often widespread.
Widespread (not SRE)	Distribution >10,000 km^2.

4.3.6 Identification of SRE taxa

4.3.6.1 Morphological identification

Taxonomists with recognised and proven taxonomic qualifications and experience were engaged to undertake high-level morphological identifications of specimens within SRE groups (Table 4-7). In all cases, identifications relied on direct comparison with reference material from the WA Museum. The reliance on the WA Museum reference collections provides the important regional context in the assessment of short-range endemism for unpublished taxa.

Table 4-7 Taxonomic specialists who identified the SRE invertebrates from the survey

Personnel	Taxonomic groups
Dr Cathy Car	Diplopoda
Dr. Julianne Waldock	*Antichiropus* millipede revisions (2024)
Dr Simon Judd	Isopoda
Dr Erich S. Volschenk	Scorpiones, Pseudoscorpiones
Dr Sharon Zuiddam	Opiliones
Ms Anna Jacks	Mygalomorphae, Eupulmonata

4.3.6.2 Molecular sequencing

Molecular sequencing was conducted for a large number of specimens from the survey; 157 mygalomorph spiders, 60 millipedes and four land snails (Table 4-8). The molecular identification of

species based on comparisons between the mitochondrial gene COI (Cytochrome OxidaseI) is referred to as DNA barcoding. A molecular framework for COI exists at the WA Museum for mygalomorph spiders (Castalanelli 2014; Helix 2012) and increasingly also for other taxonomic groups.

DNA was extracted from each specimen and the 658 base pair COI gene was amplified by Genotyping Australia using universal COI primers (Folmer *et al.* 1994). The data was subsequently compared to previously published sequences uploaded into Genbank using the BLAST function in Geneious Prime v11.1.5. Sequences were also compared inhouse, to Phoenix's molecular database and mygalomorph spiders sequences were compared to the WA Museum molecular database. Additional comparisons to the WA Museum database were undertaken in 2024 to account for updated taxonomy that may have occurred since initial identifications were done. The top blast hits for each major taxon were reported, the sequences from the survey were added, duplicate sequences were removed, and remaining sequences then analysed with a Maximum Likelihood phylogenetic analysis using a GTR+G model of evolution and 100 bootstraps (RAxML). Distances were calculated via tree-based estimates of identical bases in Geneious Prime.

Species identification based on COI barcoding is not without problems as sequence divergence within species can be high and may exceed that between species in some taxa, including SRE target groups (Bond 2004; Boyer *et al.* 2007; Köhler & Johnson 2012). For example, sequence divergences of up to 10% may be considered to represent the same species in some genera of mygalomorph spiders, with evidence of some groups displaying less than 5% divergence between species. In *Dampetrus* harvestmen and *Karaops* spiders however, intra-specific divergences extend only up to 6% and in millipedes less than 5% (Phoenix unpublished data). Species delineation was determined through analysis of pairwise similarity matrices and RAxML trees showing clusters of specimens with similar DNA to those from the current survey, the concurrent Worsley survey, and GenBank, and if other clusters were present but clearly forming a separate species. *Antichiropus* millipedes were all within 97% similarity, while mygalomorph spiders ranged from 93.5% similarity. Confidence in determining conspecific species was highest for taxa with 97% pairwise similarity and above.

Comparison of sequences is the most effective way of determining if conspecific species have been collected from another source. GenBank stores the world's largest collection of publicly available DNA sequences, with contributions from both private and public organisations, including tertiary and government research institutions; however, it is up to the discretion of the owner to share the sequences to GenBank. While not everything that has been morphologically identified has been sequenced, and not everything that has been sequenced has been shared with GenBank, it is still the largest collection of data available and most likely to return similar species. Recently, there has been a shift to molecular identification of SREs and so the GenBank database is growing and becoming more accurate.

Table 4-8 Molecular sequencing of specimens per study area

Study area	Millipedes	Mygalomorph spiders	Land snails
MN-MA	19	73 (of which 15 failed)	3 (of which 1 failed)
H-MA	25	51 (of which 6 failed)	1
MN-CC	8	14 (of which 2 failed)	0
H-CC	2	5	0
MN-HR	1	1	0
H-HR	1	2	0
ReSA	1	8 (of which 2 failed)	0

Opportunistic sites (GHD vertebrate fauna dry pit)	3	3	0
Total number of sequences	**60**	**157**	**4**

4.3.6.3 Nomenclature

Nomenclature followed a number of taxon-specific references; however, many invertebrate species, including millipedes are currently unnamed requiring morphospecies designation as listed in this report. These are adopted from the nomenclatural systems developed by the WAM or other respective taxonomic authorities. Interim Phoenix specific codes are used for some of the species identified using molecular tools pending a code-designation by the WA Museum. Reference collections for these morphospecies generally reside with the WA Museum, as expected by the EPA (EPA 2016).

4.3.7 Statistical analysis of survey effectiveness

In order to assess whether further diversity remained hidden due to under sampling, species rarefaction-extrapolation (R/E) curves and the associated 95% confidence intervals, using iNEXT (Chao 2014; Hsieh 2016) were generated, i.e. whether the collection adequately represents the SRE invertebrate fauna of the study area. iNEXT focuses on three measures of Hill numbers of order q: species richness (q=0), Shannon diversity (q=1), and Simpson diversity (q=2) and the diversity estimates used abundance-based data (Gotelli 2011).

An abundance-based estimator tallies the abundance of each species within each sample. Individual sample-size R/E curves were produced for seven of the most species-rich Orders (infraorder for trap-door spiders) in order to determine if the rate of discovery of new species slowed down or reached saturation with an increase in sample size. Results are represented by the means of repeated resampling (1,000 bootstrap replicates). Examining the slope of these curves allowed assessment of the impact of under sampling on estimating diversity. The results are presented section 5.3. Analyses were run on the seven most species-rich Orders (Infraorder for trap-door spiders):

- Arachnids
    - Harvestmen (Opiliones)
    - Pseudoscorpiones (pseudoscorpions)
    - Scorpions (Scorpiones)
    - Trap-door spiders (Mygalomorphae)
- Diplopoda
    - Millipedes
- Malacostraca
    - Slaters (Isopods)
- Gastropoda
    - Land snails (Eupulmonata).

4.3.8 Survey personnel

The personnel involved in the surveys are listed in Table 4-9. All survey work was carried out under relevant licences issued by DBCA under the BC Act (Table 4-9).

Table 4-9 Survey personnel

Name	Qualifications	Role/s	Years' experience
Karen Crews	BSc (Environmental Biology) (Hons)	Project management, report writing	20+
Anna Jacks	BSc (Environmental Science) (Hons)	Field management, field surveys, GIS, report writing, taxonomy, lab work	15+
Simon Pynt	BSc (Zoology)	Field survey	15+
Dr. Michael Lohr	PhD (Natural Sciences)	Field survey	15+
Caitlin Nagle	MSc (Biol. Sciences and Conservation Biol.)	Field survey	5
Brendan Thomson	BSc (Env. Mgmt. and Env. planning)	Field survey, lab work	1
Paula Strickland	MSc (Biology and Conservation)	Lab work	2
Paige Maroni	PhD Candidate (Molecular Biology)	Molecular analyses	5
Dr. Ikrom Nishanbaev	PhD (GIS)	GIS	10+

4.4 SURVEY LIMITATIONS

The limitations of the survey have been considered in accordance with EPA (2016) in Table 4-10.

Table 4-10 Consideration of potential survey limitations

Limitations	Comments
Field collecting adequacy	All target SRE groups and habitats within the baseline study area were surveyed in accordance with the scope of work, with the exception of two habitats (9 and 11) present in very low extent (see section 5.2.3). This is not considered a limitation for the survey due to the very low representation of these habitats in the baseline study area and because similar habitats were well sampled, in particular for habitat 9 which was rated High PHR. Habitat 11 is considered Low PHR and therefore not of concern.
Seasonal factors	May to October is the optimal timing for SRE surveys in the south-west (EPA 2016). The baseline survey was conducted between July and November, so largely within the optimal period. Rainfall was slightly lower than average during winter and wetter than average in spring (see section 3.3), making conditions favourable for sampling into November.
Level of resolution of specimen identifications	Taxonomic resolution was achieved to the lowest level possible. Several taxa remain indeterminate due to poor taxonomic knowledge, poor genetic knowledge, inadequate life stage or sex, or a specimen in poor condition. The indeterminate 'SRE' taxa could represent any of the collected or previously collected taxa, or possibly new taxa. Uncertainty in taxonomic resolution could be rectified through further investigation by taxonomists (e.g. describing a species), and/or further surveys to locate more specimens to provide more morphologic or genetic material for comparison. Comparison of genetic material for matches with previously collected taxa in Genbank is limited by the voluntary uploading of sequence data to this database. Some collections reside within the WAM that have not been sequenced or uploaded to Genbank.
Competency/experience of survey personnel	All field personnel have previous experience in conducting SRE surveys, with the field leads each having over 10 years experience in invertebrate fauna surveys. Identifications were conducted by personnel with appropriate expertise, including specialist morphological and molecular taxonomists.

5 RESULTS

5.1 DESKTOP REVIEW

The desktop review identified a total of 228 of SRE taxa from the MNSA and HSA. Of these records, 36 are confirmed SRE taxa, 10 are likely SRE taxa and 182 are potential SRE taxa (Table 5-1; Figure 5-1).

Mygalomorph spiders represented the largest group of SREs within the desktop search area with a total of 96 taxa, followed by millipedes with 46 taxa and slaters with 43 taxa (Table 5-2). SRE pseudoscorpions, Opiliones (harvest spiders), land snails and scorpions were also returned in the desktop searches (Table 5-2).

Thirty-three of the 37 confirmed SREs are millipedes, of which most belong to the genus *Antichiropus*. The remaining four taxa are a mygalomorph spider (*Missulena* 'MYG198'), a scorpion (*Urodacus planimanus*) and two land snails (*Bothriembryon irvinensis* (also Priority 2) and *B. serpentinus*). Five of the 35 confirmed taxa are formally described species: *Antichiropus nanus*, *Dinocambala ingens* (both millipedes), *U. planimanus*, *B. irvinensis* and *B. serpentinus*. In addition to SRE taxa, the review identified four species listed as Priority within the area of the desktop review, they are also potential SREs (Figure 5-1):

- *Idiosoma sigillatum* (Priority 3) – all but two of the 272 records within the desktop search area are located to the west of the study area along the Swan Coastal Plain (SCP). Two records from the Jarrah Forest were collected approximately 82 km south of the HSA and 38 km north of the MNSA, in 1976 and 1991 respectively
- *Idiosoma schoknechtorum* (Priority 3) – historically recorded from four locations between 20 km and 55 km east of the MNSA in Pinjarra in 1955, 1959 and 1966 and has also been widely recorded (268 records) throughout the desktop search area
- *Euoplos inornatus* (Priority 3) – 20 records from seven locations north/north west of the MNSA and two locations east/south east of the HSE are known. A recent male specimen collected by Phoenix (2020) extended the known range of this species 34 km further south than was previously known
- *Bothriembryon irvinensis* (Priority 2) – recorded 88 km south west of the study area from Gelorup, 9 km south of Bunbury from an urban bushland. This species is rarely collected and only known from the Geographe region.

Of the 228 taxa confirmed, likely or potential SRE taxa, 29 are named species, 161 comprise taxa named only to morphospecies codes as applied by the WA Museum or are not identified to confirmed species level (i.e. "sp." or "cf.") and 37 taxa are unidentifiable ("sp. indet.", i.e. female or juvenile specimens) or could not be identified to species or morphospecies and may represent new species or other species listed in the same genus where records exist (Table 5-2).

Habitat descriptions for previously recorded SREs were highly variable and often broad, with descriptions of 'forest', 'woodland', and included a range of woodland types: Marri, Jarrah, *Melaleuca*, Wandoo, Tuart, Banksia, Sheoak. More discrete habitat features included granite outcrops and riparian zones.

5.1.1 Myara North

The desktop records indicate three SRE species have previously been recorded within the MNSA (Figure 5-1):

- *Aname* 'mainae' (potential), the locality for this record states "Collie" and so this may be a GPS or data error
- *Bothriembryon serpentinus* (potential), four specimens were collected from one site off Jarrahdale road in 1976
- *Spherillo* 'sp. 4 Judd 2002)' (potential), this record was returned from the WAM crustacea database search and was collected by Dr. Simon Judd.

None of these are restricted to the MNSA.

5.1.2 Holyoake

The desktop records indicate one SRE species has previously been recorded within the HSA (Figure 5-1). Triaenonychidae 'genus008 sp. indet.'/ 'dna - S Zuiddam study' (potential), was returned from the WAM arachnid database search but is not restricted to the HSA.

Table 5-1 Summary of SRE taxa from the desktop review

	Total SRE taxa	Confirmed	Likely	Potential	Priority & potential	Described species	Undescribed morpho-species	Unidentifiable "sp. indet."
MNSA	214	34	10	168	3	27	150	37
HSA	226	37	10	177	4	29	160	37
Total	**228**	**37**	**10**	**181**	**4**	**29**	**162**	**37**

Table 5-2 SRE and significant invertebrate taxa identified in the desktop review

Higher taxon, family	Species	SRE status[1]	Habitat	Source	Proximity to MNSA	Proximity to HSA	Records outside MNSA & HSA	Comments[2]
Class Arachnida, infraorder Mygalomorphae (trapdoor spiders)								
Actinopidae	*Missulena* 'MYG198'	Pot.	Forest, hilltop, Jarrah woodland	WAM, Phoenix 2012, 2021	15 km N	18 km E	Y	Recorded from 3 locations N and S of baseline study area
Actinopidae	*Missulena* 'MYG639'	Pot.	Forest	Phoenix 2021	81 km S	51 km S	Y	Only known from 1 location in JAF
Actinopidae	*Missulena* 'Phoenix0046'	Pot.	Jarrah/Marri woodland	Phoenix 2021	61 km S	30 km S	Y	Only known from 1 location in JAF
Actinopidae	*Missulena* 'WorsleyDNA13'	Pot.	Open woodland	Phoenix 2021	37 km SSE	14 km E	Y	Only known from 1 location in JAF
Actinopidae	*Missulena* 'sp. indet'	Pot.	Wandoo woodland, granite outcrop	WAM, Phoenix 2012, 2021	33 km S	8 km E	Y	Females & juv. likely multiple species
Anamidae	*Aname* 'Brennan sp. 1'	Pot.	Jarrahdale (Alcoa) Mine area	WAM	6 km N	34 km N	Y	Only known from a single specimen collected in 1997
Anamidae	*Aname* 'Brennan sp. 2'	Pot.	Jarrahdale (Alcoa) Mine area	WAM	6 km N	34 km N	Y	Only known from a single specimen collected in 1997
Anamidae	*Aname* 'Dwellingup'	Pot.	No data	WAM	32 km SE	15 km E	Y	Only known from a single representative collected in 1979
Anamidae	*Aname* 'mainae group'	Pot.	No data	WAM	61 km S	26km S	Y	Only known from 1 location in JAF
Anamidae	*Aname* 'mainae'	Pot.	Jarrah/Marri forest, gravelly sand, urban areas	WAM	Within	7 km W	Y	157 WAM records from the SCP and JAF; N, E, S, W of the study areas
Anamidae	*Aname* 'MYG119'	Pot.	No data	WAM	18 km E	35 km E	Y	Recorded from 3 locations to the E. of the study areas
Anamidae	*Aname* 'MYG120'	Pot.	No data	WAM	30 km E	33 km E	Y	Only known from a single location
Anamidae	*Aname* 'MYG121'	Pot.	Jarrah forest, upland	WAM	17 km E	29 km NE	Y	Recorded from 5 locations from a small patch E. of the study areas

Higher taxon, family	Species	SRE status[1]	Habitat	Source	Proximity to MNSA	Proximity to HSA	Records outside MNSA & HSA	Comments[2]
Anamidae	*Aname* 'MYG161'	Pot.	Bushland, urban	WAM	79 km S	55 km SSW	Y	4 records from SCP near Bunbury
Anamidae	*Aname* 'MYG184'	Pot.	No data	WAM	97 km N	128 km N	Y	Only known from 1 location on SCP
Anamidae	*Aname* 'MYG242'	Pot.	Swale, plain	WAM, Phoenix 2012	44 km SSE	22 km E	Y	Known from two records
Anamidae	*Aname* 'MYG405'	Pot.	No data	WAM	22 km W	45 km W	Y	Only known from 1 location on SCP
Anamidae	*Aname* 'MYG496'	Pot.	Urban areas	WAM	20 km W	40 km NNW	Y	4 locations on SCP and Rottnest Is.
Anamidae	*Aname* 'MYG522'	Pot.	No data	WAM	99 km E	102 km E	Y	2 records from the Wheatbelt
Anamidae	*Aname* 'sp. indet'	Pot.	Wandoo, Jarrah/ Marri woodland, drainage depression	WAM, Phoenix 2021	22 km E	7 km E	Y	Females & juv. likely multiple species
Anamidae	*Aname* 'sp. nov'	Pot.	No data	WAM	20 km E	31 km NE	Y	Only known from 1 location in JAF
Anamidae	*Aname* 'MYG867'	Pot.	Rehabilitation	Phoenix 2021	54 km SSE	24 km SE	Y	3 specimens from 2 nearby locations
Anamidae	*Aname* 'WorsleyDNA03'	Pot.	Woodland	Phoenix 2021	79 km S	48 km S	Y	Only known from 1 location in JAF
Anamidae	*Aname* 'WorsleyDNA04'	Pot.	Forest	Phoenix 2021	79 km S	48 km S	Y	Only known from 1 location in JAF
Anamidae	*Aname* 'WorsleyDNA09'	Pot.	Woodland	Phoenix 2021	85 km S	55 km S	Y	Only known from 1 location in JAF
Anamidae	*Aname tepperi*	Pot.	Forest	Phoenix 2012	45 km SE	19 km SE	Y	Taxon currently being revised (pers. comm. M. Harvey, WAM)
Anamidae	Anamidae 'Phoenix0022'	Pot.	Jarrah/Marri woodland	Phoenix 2021	90 km S	59 km S	Y	Only known from 1 location in JAF
Anamidae	Anamidae 'sp. indet'	Pot.	Jarrah/Marri woodland	Phoenix 2021	62 km S	29 km S	Y	2 records, potentially difft. species
Anamidae	*Kwonkan* 'gelorup'	Pot.	Urban areas	WAM	108 km SSW	83 km SW	Y	7 records from SCP, Gelorup area

Higher taxon, family	Species	SRE status[1]	Habitat	Source	Proximity to MNSA	Proximity to HSA	Records outside MNSA & HSA	Comments[2]
Anamidae	*Kwonkan* 'MYG060'	Pot.	No data	WAM	13 km N	40 km N	Y	Only known from 1 location on SCP
Anamidae	*Kwonkan* 'sp. nov.'	Pot.	No data	WAM	3 km E	25 km NNE	Y	Only known from 1 location in JAF
Anamidae	*Kwonkan* 'sp. indet'	Pot.	sheoak	WAM	9 km N	10 km E	Y	Females & juv. likely multiple species
Anamidae	*Proshermacha* 'MYG449'	Pot.	Bushland with industrial, wetland w *Melaleuca*, Marri	WAM	20 km N	48 km N	Y	Also 2 records S. of the study areas
Anamidae	*Proshermacha* 'MYG471'	Pot.	No data	WAM	103 km S	72 km S	Y	3 records from nearby locations
Anamidae	*Proshermacha* 'MYG485'	Pot.	Riparian forest, midslope, plain	LTFMP, WAM	17 km S	4.5 km NE	Y	Known from NE and SW of HSA
Anamidae	*Proshermacha* 'MYG495'	Pot.	Plain	WAM	25 km SE	16 km E	Y	Only known from 2 records
Anamidae	*Proshermacha* 'MYG596'	Pot.	Drainage depression	WAM	29 km SE	18 km E	Y	Only known from 1 record
Anamidae	*Proshermacha* 'MYG646'	Pot.	Forest	Phoenix CBME	81 km S	49 km S	Y	Only known from 1 record
Anamidae	*Proshermacha* 'MYG658'	Pot.	No data	WAM	62 km SE	35 km SE	Y	Known from 2 locations in JAF
Anamidae	*Proshermacha* 'MYG659'	Pot.	Urban areas	WAM	116 km SSW	89 km SSW	Y	Only known from 1 record
Anamidae	*Proshermacha* 'villosa'	Pot.	No data	WAM	24 km S	7 km W	Y	Several records from one site between 1977-1979 only
Anamidae	*Proshermacha* 'WorselyDNA12'	Pot.	Woodland	Phoenix 2021	80 km S	50 km S	Y	Only known from 1 location in JAF
Anamidae	*Proshermacha* 'sp. indet'	Pot.	Jarrah/Marri/Wandoo woodland, under granite, drainage	LTFMP, Phoenix 2021	3 km E	6 km E	Y	Females & juv. likely multiple species

Higher taxon, family	Species	SRE status[1]	Habitat	Source	Proximity to MNSA	Proximity to HSA	Records outside MNSA & HSA	Comments[2]
Anamidae	*Teyl* 'Brennan sp. 2'	Pot.	Jarrahdale (Alcoa) mine area	WAM	5 km N	36 km N	Y	Known only from 1 location in JAF
Anamidae	*Teyl* 'mandgedal sp. group'	Pot.	Jarrahdale (Alcoa) mine and forest area	WAM	5 km N	36 km N	Y	Known only from 1 location in JAF
Anamidae	*Teyl* 'MYG241'	Pot.	Wandoo woodland mid-slope	WAM	10 km N	7 km E	Y	4 records ranging from N to SE of the study areas
Anamidae	*Teyl* 'MYG245'	Pot.	Forest	WAM, LTFMP	14 km S	5 km NE	Y	4 records to the E/SE of the study areas
Anamidae	*Teyl* 'MYG249'	Pot.	*Melaleuca* woodland	WAM	11 km NW	38 km N	Y	Records from SCP and Rottnest Is.
Anamidae	*Teyl* 'Phoenix0017'	Pot.	Jarrah/Marri woodland	Phoenix 2021	61 km S	29 km S	Y	Known only from 1 location in JAF
Anamidae	*Teyl* 'waldockae'	Pot.	Tuart, *Melaleuca*/Banksia woodland, shrubland	WAM	29 km E	48 km NNW	Y	Several records from SCP near coast
Anamidae	*Teyl* 'sp. indet'	Pot.	Wandoo woodland, drainage, granite	WAM	3 km E	7 km E	Y	Females & juv. likely multiple species
Barychelidae	*Aurecocrypta* 'Phoenix0014'	Pot.	Jarrah/Marri woodland	Phoenix 2021	70 km S	35 km S	Y	Known from 3 locations in JAF
Barychelidae	Barychelidae 'sp. indet'	Pot.	Forest, Huntly	LTFMP, WAM	9 km S	2 km N	Y	Females & juv. likely multiple species
Barychelidae	Barychelidae 'Worsley 'DNA10'	Pot.	Woodland	Phoenix 2021	85 km S	55 km S	Y	Known only from 1 location in JAF
Barychelidae	*Synothele harveyi*	Pot.	No data	WAM	3 km E	25 km N	Y	Only known from 1 specimen collected in 1991 on the coast
Barychelidae	*Synothele rubripes*	Pot.	Woodland, open woodland	WAM, Phoenix 2021	24 km S	6 km W	Y	Known from 5 records in JAF
Barychelidae	*Synothele* 'MYG640'	Pot.	Jarrah/Marri forest/woodland	WAM, Phoenix 2021	80 km S	50 km S	Y	Known from 5 nearby locations

Higher taxon, family	Species	SRE status[1]	Habitat	Source	Proximity to MNSA	Proximity to HSA	Records outside MNSA & HSA	Comments[2]
Barychelidae	*Synothele* 'WorsleyDNA17'	Pot.	Woodland	Phoenix 2021	85 km S	54 km S	Y	Known only from 1 location in JAF
Barychelidae	*Synothele* 'sp. indet'	Pot.	Jarrah/Marri forest/woodland, Wandoo woodland, sheoak, granite	WAM/Phoenix 2012	35 km S	10 km E	Y	Females & juv. likely multiple species
Idiopidae	*Bungulla disrupta*	Pot.	No data	WAM	72 km E	65 km E	Y	Only known from 1 specimen from 1997
Idiopidae	*Bungulla parva*	Pot.	No data	WAM	3 km E	24 km N	Y	4 records from 2 locations in JAF
Idiopidae	*Eucanippe nemestrina*	Pot.	Wandoo woodland	WAM	55 km SSE	29 km SE	Y	Only known from 2 specimens
Idiopidae	*Eucyrtops* 'arthur_river'	Pot.	No data	WAM	118 km SSE	93 km SE	Y	Known from 1 site in Wheatbelt
Idiopidae	*Eucyrtops 'collie'*	Pot.	Jarrah/Marri woodland	Phoenix 2021	63 km S	33 km S	Y	Recorded from 2 locations in JAF
Idiopidae	*Eucyrtops* 'efoveate sp.'	Pot.	No data	WAM	76 km S	46 km S	Y	Known only from 1 location in JAF
Idiopidae	*Eucyrtops* 'marradong'	Pot.	No data	WAM	47 km SSE	26 km E	Y	Known from 1 specimen Phoenix (2012), prev. ID'd as *E. latior* but has undergone genus revision
Idiopidae	*Eucyrtops* 'MYG142'	Pot.	On rocks	WAM	11 km N	39 km N	Y	Known only from 1 location in JAF
Idiopidae	*Eucyrtops* 'MYG645'	Pot.	Forest, woodland, blackbutt	WAM, Phoenix 2021	48 km SSE	20 km SSE	Y	Known from 6 records from JAF
Idiopidae	*Eucyrtops* 'Phoenix0001'	Pot.	Marri woodland	Phoenix 2021	73 km S	35 km S	Y	Known only from 1 location in JAF
Idiopidae	*Eucyrtops* 'Phoenix0018'	Pot.	Jarrah/Marri woodland	Phoenix 2021	73 km S	35 km S	Y	Known only from 1 location in JAF
Idiopidae	*Eucyrtops* 'Phoenix0033' (nr. *inornatus*)	Pot.	Jarrah/Marri woodland	Phoenix 2021	120 km S	81 km S	Y	Known only from 2 locations in JAF

Higher taxon, family	Species	SRE status[1]	Habitat	Source	Proximity to MNSA	Proximity to HSA	Records outside MNSA & HSA	Comments[2]
Idiopidae	*Eucyrtops* 'Phoenix0043'	Pot.	Jarrah woodland	Phoenix 2021	78 km S	46 km S	Y	Known only from 1 location in JAF
Idiopidae	*Eucyrtops* 'Phoenix0044'	Pot.	Jarrah/Marri/ wandoo woodland	Phoenix 2021	78 km S	45 km S	Y	Known from 4 nearby locations in JAF
Idiopidae	*Eucyrtops* 'Phoenix0045'	Pot.	Jarrah woodland	Phoenix 2021	63 km S	34 km S	Y	Known only from 1 location in JAF
Idiopidae	*Eucyrtops* 'sp. indet'	Pot.	Jarrah/Marri forest, wandoo woodland, drainage, granite	WAM, Phoenix 2012	6 km N	8 km E	Y	Females & juv. likely multiple species
Idiopidae	*Eucyrtops* 'WorsleyDNA06' (nr. *inornatus*)	Pot.	Woodland, open woodland	Phoenix 2021	38 km S	14 km E	Y	5 records from nearby locations in JAF
Idiopidae	*Eucyrtops* 'WorsleyDNA08'	Pot.	Woodland, open woodland	Phoenix 2021	58 km SSE	30 km SE	Y	5 records from nearby locations in JAF
Idiopidae	*Eucyrtops latior*	Pot.	Jarrah forest	Phoenix 2012	45 km SSE	22 km SE	Y	Species under revision as evidence >1 species (pers. comm. M. Harvey, WAM).
Idiopidae	*Euoplos* 'minimus'	Pot.	No data	WAM	3 km E	24 km N	Y	Only 1 specimen collected in 1991
Idiopidae	*Euoplos* 'Phoenix0013'	Pot.	Jarrah woodland	Phoenix 2021	63 km S	32 km S	Y	Known only from 1 location in JAF
Idiopidae	*Euoplos* 'sp. nov.'	Pot.	Jarrahdale (Alcoa) mine/forest area	WAM	6 km N	37 km N	Y	Only 1 specimen collected in 1993
Idiopidae	*Euoplos inornatus*	Pot., P3	Jarrah forest, riparian/creekline, granite outcrop	WAM, Phoenix 2021	6 km W	20 km E	Y	Recorded from several locations in JAF and SCP foothills
Idiopidae	*Gaius cooperi*	Pot.	Urban areas	WAM	91 km S	61 km S	Y	5 records from nearby locations
Idiopidae	*Idiosoma* 'Donnelly River group'	Pot.	Urban areas	WAM	124 km S	94 km S	Y	Known only from 1 location in JAF
Idiopidae	*Idiosoma* 'MYG075'	Pot.	Under rock	WAM	Within	27 km N	Y	Known only from 1 location in JAF

Higher taxon, family	Species	SRE status[1]	Habitat	Source	Proximity to MNSA	Proximity to HSA	Records outside MNSA & HSA	Comments[2]
Idiopidae	*Idiosoma* 'MYG187'	Pot.	Jarrah/Marri, wandoo woodland	WAM	37 km SSE	15 km E	Y	Known from 3 locations in the JAF
Idiopidae	*Idiosoma* 'nannup'	Pot.	No data	WAM	120 km S	93 km S		Known only from 1 location in JAF
Idiopidae	*Idiosoma* 'sp. indet'	Pot.	Jarrah forest, wandoo woodland, granite	WAM	6 km W	15 km E	Y	Females & juv. likely multiple species
Idiopidae	*Idiosoma* 'Phoenix0002'	Pot.	Jarrah woodland	Phoenix 2021	70 km S	37 km S	Y	Known from 2 locations in JAF
Idiopidae	*Idiosoma* 'WorsleyDNA05'	Pot.	Woodland, open woodland, forest	Phoenix 2021	38 km S	14 km E	Y	Known from 4 locations in JAF
Idiopidae	*Idiosoma* 'WorsleyDNA07'	Pot.	Woodland	Phoenix 2021	59 km SSE	33 km SE	Y	Known from 2 locations in JAF
Idiopidae	*Idiosoma schoknechtorum*	Pot.	No data	WAM	17 km E	44 km NE	Y	Collected from te Wheatbelt
Idiopidae	*Idiosoma sigillatum*	Pot., P3	Woodland, low-lying riparian woodland, urban areas	DBCA, WAM	33 km SW	25 km W	Y	263 records with all but 3 from SCP/Rottnest I.
Idiopidae	Idiopidae 'sp. indet'	Pot., P3	various	Phoenix 2012, 2021	44 km SSE	22 km SE	Y	Females & juv. likely multiple species
Migidae	*Bertmainius opimus*	Pot.	Blackbutt	WAM	107 km S	77 km S	Y	Collected from JAF
Unknown	Mygalomorphae 'WorsleyDNA11'	Pot.	Forest	Phoenix 2021	80 km S	50 km S	Y	Known only from 1 location in JAF
Class Arachnida, Order Opiliones (harvestmen spiders)								
Caddidae	*Hesperopilio mainae*	Pot.	No data	WAM	24 km S	6 km E	Y	Known form 1 location in JAF
Neopilionidae	*Ballarra longipalpus*	Pot.	Jarrah/Marri/ Wandoo woodland/forest	WAM, Phoenix 2021	4 km N	7 km W	Y	Known from several locations in JAF
Neopilionidae	*Ballarra* 'sp. indet'	Pot.	No data	Phoenix 2021	58 km SE	28 km SE	Y	Collected from 1 location in JAF

Higher taxon, family	Species	SRE status[1]	Habitat	Source	Proximity to MNSA	Proximity to HSA	Records outside MNSA & HSA	Comments[2]
Neopilionidae	*Megalopsalis* 'sp. indet.'	Pot.	Jarrah/Marri woodland/forest, granite outcrop	WAM, Phoenix 2021	3 km E	6 km W	Y	Poorly studied genus, records may represent >1 species
Neopilionidae	Neopilionidae 'sp. indet'	Pot.	Granite outcrop	WAM	26 km SE	15 km E	Y	Poorly studied genus, records may represent >1 species
Triaenonychidae	*Calliuncus* 'sp. indet'	Pot.	Jarrah/Marri woodland/open woodland	WAM, Phoenix 2021	44 km SSE	19 km E	Y	Poorly studied genus, records may represent >1 species
Triaenonychidae	*Nunciella* 'sp. 6'	Pot.	Under granite	WAM	5 km E	35 km N	Y	Collected from 1 location in JAF
Triaenonychidae	*Nunciella* 'sp. indet'	Pot.	Jarrah/Marri forest, open woodland	WAM, Phoenix 2020	30 km S	9 km E		Poorly studied genus, records may represent >1 species
Triaenonychidae	*Nunciella* 'sp. nov.'	Pot.		WAM, Phoenix 2012, 2021, OES2011	4 km N	38 km N	Y	Collected from one site in 1971
Triaenonychidae	*Nunciella karriensis*	Pot.	Marri with *Macrozamia* and rich immature soil	WAM	2 km N	36 km N	Y	Also located 40 km S of HSA
Triaenonychidae	Triaenonychidae 'genus008 sp. indet.'/ 'dna - S Zuiddam study'	Pot.	Open Jarrah forest, open woodland, woodland, riparian, regrowth eucalypt	WAM, Phoenix 2021,LTFMP	4 km N	Within	Y	Recorded from several locations in JAF, N and S of the study areas
Triaenonychidae	Triaenonychidae 'genus008 sp. 5'	Pot.	No data	WAM	5 km N	35 km N	Y	Collected from 1 location in JAF
Triaenonychidae	Triaenonychidae 'genus 003' 'sp. indet'	Pot.	Woodland	Phoenix 2021	33 km SSE	14 km E	Y	7 records from JAF
Class Arachnida, Order: Scorpiones (scorpions)								
Buthidae	*Lychas* 'majeri'	Pot.	SCP	WAM	27 km W	48 km NNW	Y	Recorded from SCP

Higher taxon, family	Species	SRE status[1]	Habitat	Source	Proximity to MNSA	Proximity to HSA	Records outside MNSA & HSA	Comments[2]
Buthidae	*Lychas* 'sp. indet'	Pot.	No data	WAM	54 km S	31 km SW	Y	1 record from SCP
Buthidae	*Lychas* 'subsplendens'	Pot.	No data	WAM	99 km E	100 km E	Y	Recorded from Wheatbelt
Urodacidae	*Urodacus* 'sp. indet'	Pot.	No data	WAM	3 km E	35 km N	Y	2 records, possibly difft. species
Urodacidae	*Urodacus* 'woodwardii'	Pot.	No data	WAM	10 km NW	38 km NW	Y	Recorded from Perth foothills
Urodacidae	*Urodacus planimanus*	CF	Jarrah/Marri, Wandoo woodland, drainage, granite, urban areas	WAM	< 1 km E	5 km E	Y	395 records within a 10,000 km^2 area of N. Jarrah Forest, with a handful of records from SCP and Wheatbelt
Class Arachnida, Order Pseudoscorpiones (pseudoscorpions)								
Atemnidae	Atemnidae 'sp. indet'	Pot.	Riparian forest	LTFMP	42 km S	9 km W	Y	1 record from JAF
Chernetidae	*Balgachernes occultus*	Pot.	*Xanthorrhoea preissii*	WAM	< 1 km S	9 km NW	Y	Known from 10 records from Darling Scarp
Chernetidae	Chernetidae 'PSEAAF' 'PSE130'	Pot.	No data	WAM	43 km S	24 km ESE	Y	Known from 2 records from SCP foothills
Chthoniidae	*Austrochthonius* 'austini'	Pot.	Jarrah/Marri forest	WAM	11 km E	32 km SE	Y	Known from 2 records from JAF
Chthoniidae	*Austrochthonius* 'lesueuri'	Pot.	Melaleuca spp. woodland	WAM	70 km SW	48 km SW	Y	Recorded from SCP
Chthoniidae	*Pseudotyrannochthonius* 'Harms sp. Darling Range 1'	Pot.	Jarrah/Marri woodland/forest, wandoo woodland	WAM, Phoenix 2021	1 km N	24 km N	Y	Several records from JAF and 1 from SCP
Chthoniidae	*Pseudotyrannochthonius* 'sp. indet'	Pot.	Open woodland	Phoenix 2021	79 km S	49 km S	Y	1 record in JAF
Olpiidae	Chthoniidae 'sp. indet'	Pot.	Woodland, open woodland	Phoenix 2021	39 km S	18 km E		2 records from JAF, possibly difft. species
Olpiidae	*Beierolpium* 'sp. indet'	Pot.	Forest, woodland	WAM, Phoenix 2021	3 km E	1 km W		several records from JAF and SCP, possibly difft. species

Higher taxon, family	Species	SRE status[1]	Habitat	Source	Proximity to MNSA	Proximity to HSA	Records outside MNSA & HSA	Comments[2]
Olpiidae	*Beierolpium* '8/4'	Pot.	No data	WAM	13 km S	1 km W	Y	Known from 3 records in JAF
Olpiidae	*Beierolpium* '8/4 lge'	Pot.	No data	WAM	30 km S	9 km E	Y	Known from 1 record in JAF
Olpiidae	*Euryolpium* 'sp. indet'	Pot.	Woodland	Phoenix 2020	85 km S	55 km S	Y	Known from 1 record in JAF
Olpiidae	*Indolpium* 'sp. indet'	Pot.	Woodland	Phoenix 2020	31 km SSE	9 km E	Y	Known from 1 record in JAF
Class Myriapoda, Order Diplopoda (millipedes)								
Dalodesmidae	cf Sphaerotrichopus 'sp. indet'	Pot.	Riparian zone	Phoenix 2021	38 km S	14 km E	Y	Poorly understood taxon
Dalodesmidae	cf Sphaerotrichopus 'WorsleyDNA01'	Pot.	Woodland, open woodland	Phoenix 2021	38 km S	14 km E	Y	Poorly understood taxon
Dalodesmidae	Dalodesmidae 'sp. indet'	Pot.	Forest	LTFMP	15 km S	5 km N	Y	Poorly understood taxon
Iulomorphidae	*Dinocambala ingens*	CF	Jarrah forest, under Marri bark, granite	WAM	16 km N	45 km N	Y	Several records mostly from Darling Scarp and SCP north of Perth
Iulomorphidae	Iulomorphidae 'genus indet.' 'large, black sp.'	Pot.	No data	WAM	34 km SW	12 km SW	Y	3 records from JAF
Iulomorphidae	Iulomorphidae 'genus indet.' 'small, brown sp.'	Pot.	Under rock	WAM	34 km SW	12 km SW	Y	1 record in JAF
Iulomorphidae	Iulomorphidae 'sp. indet'	Pot.	Forest	Phoenix 2021	65 km S	35 km S	Y	Potentially difft. spp.
Iulomorphidae	*Podykipus collinus*	Pot.	Forest, woodland	WAM/ Phoenix 2021	37 km NW	63 km NW	Y	Several records known from JAF
Paradoxosomatidae	*Antichiropus* 'bancroft, DIP105'	CF	No data	WAM	105 km S	73 km S	Y	1 record in JAF
Paradoxosomatidae	*Antichiropus* 'bannister (DIP178)'	CF	woodland	Phoenix 2021	32 km SE	14 km E	Y	1 record in JAF

Higher taxon, family	Species	SRE status[1]	Habitat	Source	Proximity to MNSA	Proximity to HSA	Records outside MNSA & HSA	Comments[2]
Paradoxosomatidae	*Antichiropus* 'collie (DIP177)'	CF	Forest/woodland	Phoenix 2021	45 km SSE	19 km SE	Y	Several records in JAF between Collie and Quindanning
Paradoxosomatidae	*Antichiropus* 'DIP045'	CF	No data	WAM	108 km SSW	82 km SW	Y	2 records from 1 location on SCP
Paradoxosomatidae	*Antichiropus* 'DIP046 boddington'	CF	Jarrah/Marri forest/ woodland, granite, pine plantation	WAM/Phoenix 2012, Phoenix 2021	45 km SSE	19 km SE	Y	Several records from Boddington and Collie
Paradoxosomatidae	*Antichiropus* 'DIP056'	CF	No data	WAM	107 km SE	82 km SE	Y	Recorded from Wheatbelt
Paradoxosomatidae	*Antichiropus* 'DIP066, boyagin'	CF	No data	WAM	58 km E	68 km E	Y	Recorded from Wheatbelt
Paradoxosomatidae	*Antichiropus* 'GI'	CF	*Melaleuca* woodland, Tuart forest	WAM	28 km WNW	47 km NW	Y	Several records on SCP and Rottnest Is.
Paradoxosomatidae	*Antichiropus* 'goldmine'	CF	Wandoo woodland	WAM/Phoenix 2012	32 km SE	20 km	Y	Known from 5 records in JAF
Paradoxosomatidae	*Antichiropus* 'lane poole' DIP181	CF	Jarrah forest	WAM	31 km S	8 km SW	Y	Known from 3 records in 1 location
Paradoxosomatidae	*Antichiropus* 'marradong'	CF	Jarrah/Marri forest, wandoo woodland, drainage, granite outcrop	WAM/Phoenix 2011	19 km S	6 km E	Y	Known form several records in E JAF
Paradoxosomatidae	*Antichiropus* 'minnivale 2'	CF	No data	WAM	72 km ESE	60 km SE	Y	Recorded from Wheatbelt
Paradoxosomatidae	*Antichiropus* 'mt saddleback' DIP108	CF	Forest, wandoo	WAM, Phoenix 2021	30 km S	7 km W	Y	Known from several locations in N JAF
Paradoxosomatidae	*Antichiropus* 'Norman Road 1'	CF	No data	WAM	9 km NW	39 km N	Y	Few locations from Perth foothills

Higher taxon, family	Species	SRE status[1]	Habitat	Source	Proximity to MNSA	Proximity to HSA	Records outside MNSA & HSA	Comments[2]
Paradoxosomatidae	*Antichiropus* 'saddleback2' DIP137	CF	No data	WAM/Phoenix 2011	57 km S	29 km SE	Y	Known only from 2 locations in E JAF
Paradoxosomatidae	*Antichiropus* 'saddleback3' DIP182	CF	Jarrah/Marri forest	WAM	19 km S	6 km E	Y	1 record from JAF
Paradoxosomatidae	*Antichiropus* 'SB1'	CF	No data	WAM/Phoenix 2012	62 km SSE	37 km SE	Y	1 record from E JAF
Paradoxosomatidae	*Antichiropus* 'serpentine'	CF	Jarrah forest	WAM	5 km W	35 km NW	Y	Known from 1 location at Serpentine
Paradoxosomatidae	*Antichiropus* 'southwest' DIP183	CF	Jarrah/Marri forest	WAM	28 km S	8 km E	Y	1 record from E JAF
Paradoxosomatidae	*Antichiropus* 'sp. indet'	Pot.	Jarrah/Marri forest/woodland, wandoo woodland, granite outcrop, drainage	WAM, LTFMP, Phoenix 2012, 2021	3 km E	5 km W	Y	Females & juv. likely multiple species
Paradoxosomatidae	*Antichiropus* 'tuttaning'	CF	No data	WAM	69 km SE	60 km E	Y	Recorded from Wheatbelt
Paradoxosomatidae	*Antichiropus* 'UBS2'	CF	Banksia woodland, Marri/*Melaleuca* woodland	WAM	13 km NW	40 km N	Y	Several records from SCP N of Perth
Paradoxosomatidae	*Antichiropus* 'UBS3'	CF	Marri/*Melaleuca* woodland	WAM	23 km NW	40 km W	Y	Several records from SCP N of Perth
Paradoxosomatidae	*Antichiropus* 'worsley DIP176'	CF	Open woodland	Phoenix 2021	79 km S	49 km S	Y	Recorded from 2 locations in JAF
Paradoxosomatidae	*Antichiropus* 'WorsleyDNA18'	Ot.P	Open woodland	Phoenix 2021	46 km SE	22 km E	Y	Known from 1 location in E JAF
Paradoxosomatidae	*Antichiropus nanus*	CF	Jarrah forest with *Agonis*	WAM	99 km S	70 km S	Y	Known from 1 location in JAF and 1 in foothills near Bunbury

Higher taxon, family	Species	SRE status[1]	Habitat	Source	Proximity to MNSA	Proximity to HSA	Records outside MNSA & HSA	Comments[2]
Siphonotidae	'Hesperisiphon' 'cacaoi'	CF	No data	WAM	3 km E	23 km SSE	Y	Collected in 1991 in 1 location
Siphonotidae	'Hesperisiphon' 'mt saddleback'	CF	Midslope, swale	WAM/Phoenix 2012	47 km SSE	27 km ESE	Y	Several records from E JAF
Siphonotidae	'Megalosiphon' 'sp. indet'	Pot.	Woodland	WAM	45 km S	20 km E	Y	Poorly understood taxon
Siphonotidae	*Rhinotus michaelseni*	Pot.	No data	WAM	10 km N	40 km N	Y	Known from 1 location in JAF
Siphonotidae	Siphonotidae 'DIPAAF' 'cf. michaelseni'	Lik.	Forest, woodland, open woodland	Phoenix 2021	35 km SE	13 km E	Y	Recorded from 3 locations in JAF
Siphonotidae	Siphonotidae 'DIPAAF' 'DIP188' 'boddington'	CF	Wandoo woodland	Phoenix 2021	58 km S	28 km S	Y	Recorded from 2 locations in JAF
Siphonotidae	Siphonotidae 'DIPAAF' 'WorsleyDNA14'	CF	Woodland	Phoenix 2021	44 km S	19 km SE	Y	Known only from 1 location in JAF
Siphonotidae	Siphonotidae 'DIPAAF' 'WorsleyDNA15'	CF	Forest	Phoenix 2021	80 km S	50 km S	Y	Known only from 1 location in JAF
Siphonotidae	Siphonotidae 'DIPAAF' 'sp. indet'	Lik.	Open woodland	Phoenix 2021	79 km S	49 km S	Y	Poorly understood taxon
Siphonotidae	Siphonotidae 'DIPAAG' 'DIP189' 'collie'	CF	Forest, woodland	Phoenix 2021	63 km S	32 km S	Y	Known from several locations in JAF
Siphonotidae	Siphonotidae 'DIPAAG' 'DIP192' 'mt saddleback'	CF	Forest, woodland	Phoenix 2021	70 km S	36 km S	Y	Recorded from 2 locations in JAF
Siphonotidae	Siphonotidae 'DIPAAH 'DIP190' 'Harris River'	CF	No data	WAM	60 km S	30 km S	Y	Known only from 1 location in JAF
Siphonotidae	Siphonotidae 'Marradong'	Pot.	No data	WAM/Phoenix 2012	45 km SSE	22 km E	Y	Known only from 1 location in JAF
Class Malacostraca, Order Isopoda (slaters)								

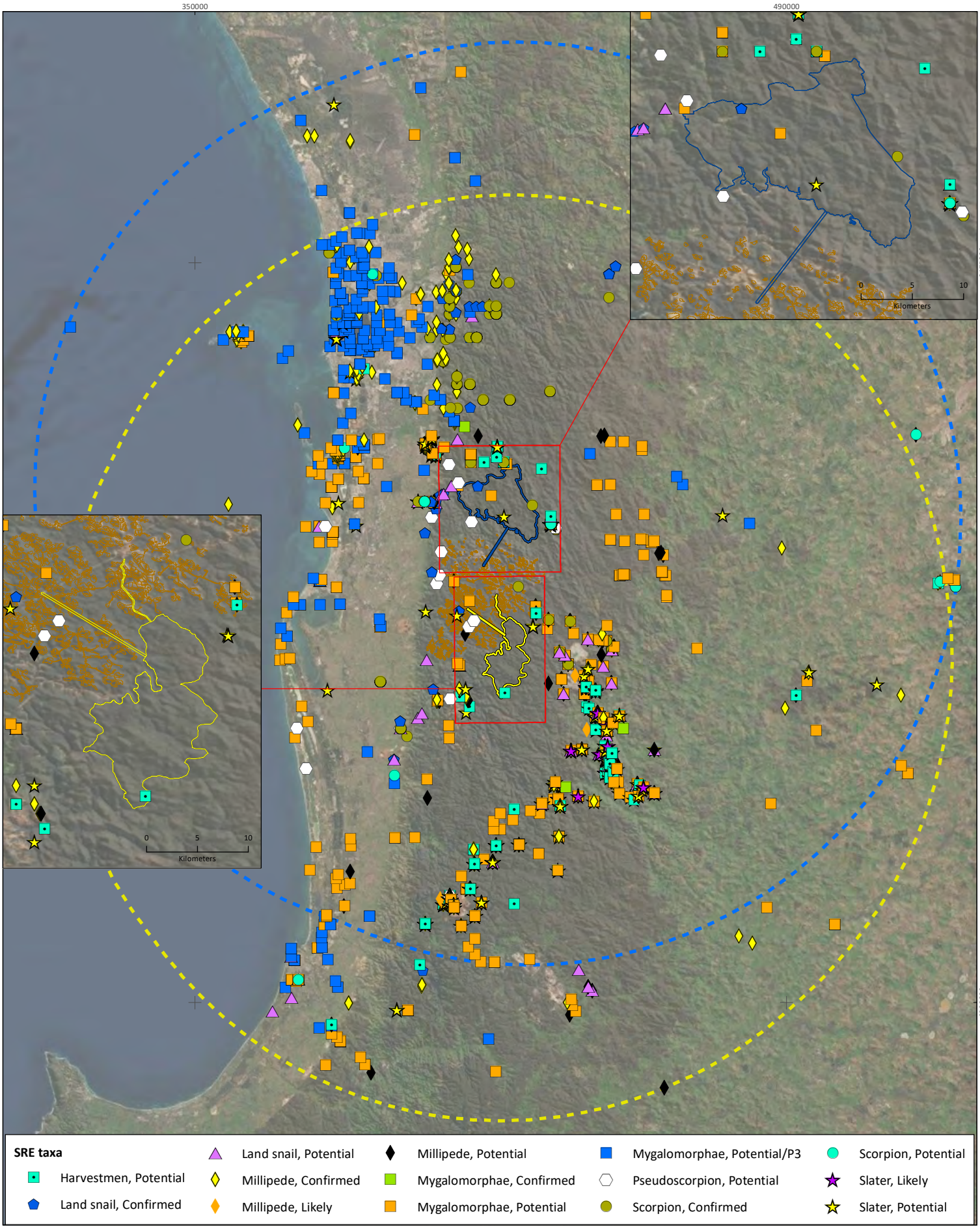
Higher taxon, family	Species	SRE status[1]	Habitat	Source	Proximity to MNSA	Proximity to HSA	Records outside MNSA & HSA	Comments[2]
Armadillidae	*Acanthodillo 'sp. 3 (Judd 2002)'*	Pot.	No data	WAM	35 km S	9 km SW	Y	Recorded from 1 location in JAF
Armadillidae	*Acanthodillo* '5'	Pot.	Woodland	Phoenix 2021	52 km S	83 km S	Y	Recorded from 1 location in JAF
Armadillidae	*Acanthodillo* 'sp. indet'	Pot.	Riparian forest, woodland	WAM, LTFMP, Phoenix 2021	20 km S	2 km E	Y	Poorly understood genus, may represent different species
Armadillidae	Acanthodillo 'sp. worsley A'	Pot.	No data	WAM	58 km SE	36 km SE	Y	Known only from 1 location in JAF
Armadillidae	Acanthodillo 'sp. worsley B'	Pot.	No data	WAM	53 km SSE	24 km SE	Y	Known only from 1 location in JAF
Armadillidae	*Armadillo* (*Acanthadillo*) *flavus*	Pot.	Woodland, rehab.	WAM, LTFMP, Phoenix 2021	3 km E	10 km W	Y	Several records throughout JAF
Armadillidae	*Buddelundia* '04'	Pot.	woodland	WAM, Phoenix 2021	10 km NW	37 km N	Y	Recorded from 3 locations in E JAF
Armadillidae	*Buddelundia* 'sp. 1 (Judd 2002)'	Pot.	No data	WAM	9 km W	27 km NNW	Y	Recorded from 1 location on SCP
Armadillidae	*Buddelundia* 'sp. 4 (Judd 2002)'	Pot.	No data	WAM	10 km NW	37 km N	Y	Recorded at nearby locations on SCP
Armadillidae	*Buddelundia* 'sp. 5 (Judd 2002)'	Pot.	No data	WAM	3 km W	25 km SSW	Y	Recorded from 1 location in JAF
Armadillidae	*Buddelundia* 'sp. 6 (Judd 2002)'	Pot.	No data	WAM	106 km S	78 km S	Y	Recorded from 1 location in JAF
Armadillidae	*Buddelundia* 'sp. indet'	Pot.	Open woodland	WAM/Phoenix 2021	13 km E	23 km NE	Y	May represent different species
Armadillidae	*Buddelundia* 'sp. indet' A	Lik.	Woodland, open woodland	Phoenix 2021	39 km SE	17 km E	Y	Recorded from 1 location in JAF
Armadillidae	*Buddelundia albomaculata*	Pot.	Dryandra woodland	WAM	87 km SSE	81 km E	Y	Recorded from Wheatbelt

Higher taxon, family	Species	SRE status[1]	Habitat	Source	Proximity to MNSA	Proximity to HSA	Records outside MNSA & HSA	Comments[2]
Armadillidae	*Buddelundia nigripes*	Pot.	Forest, riparian	WAM, LTFMP, Phoenix 2021	35 km NE	61 km NNW	Y	Several records from SCP and JAF
Armadillidae	*Buddelundia opaca*	Pot.	No data	WAM	10 km W	28 km NNW	Y	Recorded from SCP
Armadillidae	*Cubaris* 'sp. 1 (Judd 2002)'	Pot.	No data	WAM	10 km NW	37 km N	Y	Recorded from Perth foothills
Armadillidae	*Pseudodiploexochus* '1'	Lik.	Woodland, forest	WAM, Phoenix 2012, 2021	3 km W	25 km SSW	Y	Several records throughout JAF
Armadillidae	*Pseudodiploexochus* '2'	Pot.	No data	WAM	3 km W	25 km SSW	Y	Recorded from 2 locations in JAF
Armadillidae	*Pseudodiploexochus* 'sp. indet' A	Lik.	Woodland	Phoenix 2021	37 km SSE	13 km E	Y	Recorded from 1 location in JAF
Armadillidae	*Pseudodiploexochus* 'sp. indet' B	Pot.	Pot.	Phoenix 2021	48 km SSE	19 km SE	Y	Recorded from 1 location in JAF
Armadillidae	*Pseudodiploexochus* 'X'	Lik.	No data	Phoenix 2012	51 km SSE	22 km SE	Y	Recorded from 2 locations in JAF
Armadillidae	*Pseudodiploexochus* 'sp. indet'		No data	Phoenix 2021	73 km SSE	35 km SE		Recorded from 2 locations in JAF
Armadillidae	*Pseudolaureola* 'sp. 5 (Judd 2002)'	Pot.	No data	WAM	107 km S	77 km S	Y	Recorded from 1 location in JAF
Armadillidae	*Spherillo* 'sp. 2 Judd 2002)'	Pot.	No data	WAM	10 KN NW	37 km N	Y	Recorded from Perth foothills
Armadillidae	*Spherillo* 'sp. 3 Judd 2002)'	Pot.	No data	WAM	27 km W	33 km NW	Y	Recorded on SCP
Armadillidae	*Spherillo* 'sp. 4 Judd 2002)'	Pot.	Under bark	WAM	Within	19 km N	Y	4 records from JAF and Wheatbelt
Armadillidae	*Spherillo* 'sp. indet'	Pot.	No data	WAM	9 km E	30 km NNE	Y	

Higher taxon, family	Species	SRE status[1]	Habitat	Source	Proximity to MNSA	Proximity to HSA	Records outside MNSA & HSA	Comments[2]
Platyarthridae	*Paraplatyarthrus* 'sp. indet' A	Lik.	Woodland	Phoenix 2021	58 km SSE	30 km SE	Y	Recorded from 4 locations in JAF
Platyarthridae	*Paraplatyarthrus* 'sp. indet' B	Lik.	Woodland	Phoenix 2021	58 km SSE	30 km SE	Y	Known only form 1 location in JAF
Platyarthridae	*Paraplatyarthrus* 'sp. indet' C	Lik.	Woodland	Phoenix 2021	51 km SSE	25 km SE	Y	Known only form 1 location in JAF
Platyarthridae	*Paraplatyarthrus* 'sp. indet' D	Lik.	Woodland	Phoenix 2021	45 km SSE	19 km SE	Y	Known only form 1 location in JAF
Platyarthridae	*Paraplatyarthrus* 'sp indet'	Pot.	Woodland	Phoenix 2021	45 km SSE	19 km SE	Y	Several records in JAF. May be >1 species
Platyarthridae	*Trichorhina* 'W'	Pot.	Forest	Phoenix 2012	47 km SE	23 km SE	Y	Recorded from 3 locations in JAF
Philosciidae	*Laevophiloscia* 's' or '1'	Pot.	Forest, woodland, open woodland	WAM, Phoenix 2012, 2021	3 km E	25 km N	Y	Many records throughout th JAF
Philosciidae	*Laevophiloscia* 'sp. indet'	Pot.	Woodland, open woodland, riparian	Phoenix 2020, 2021, LTFMP	20 km S	2 km E	Y	Recorded throughout JAF but may represent several species
Philosciidae	*Laevophiloscia perlata*	Pot.	Harvey estuary	WAM	38 km W	47 km SSW	Y	Recorded from SCP
Philosciidae	Philosciidae 'sp 1'	Pot.	No data	WAM	3 km E	25 km N	Y	Recorded from JAF and SCP but may represent several species
Styloniscidae	*Styloniscus* '1'	Pot.	Forest, woodland, open woodland	WAM, Phoenix 2021	3 km E	5 km SW	Y	Many records throughout JAF
Styloniscidae	*Styloniscus* '7'	Pot.	Forest, woodland	Phoenix 2012, 2021	44 km S	20 km E	Y	Many records throughout JAF
Styloniscidae	*Styloniscus* 'sp. B (Worsley)'	Pot.	Forest	Phoenix 2021	66 km S	35 km S	Y	Known only from 1 location in JAF
Styloniscidae	*Styloniscus* 'sp. indet'	Pot.	Forest	Phoenix 2021	63 km S	30 km S	Y	Recorded throughout JAF but may represent several species

Higher taxon, family	Species	SRE status[1]	Habitat	Source	Proximity to MNSA	Proximity to HSA	Records outside MNSA & HSA	Comments[2]
Class Gastropoda, Order Eupulmonata (land snails)								
Bothriembryontidae	*Bothriembryon* cf. *bradshawi*	Pot.	Rehabilitation	Phoenix 2021	54km SSW	27 km SW	Y	Recorded from 2 locations in JAF
Bothriembryontidae	*Bothriembryon irvinensis*	CF, P2	Granite, leaf litter	WAM	108 km SSW	84 km SW	Y	Known from SCP
Bothriembryontidae	*Bothriembryon* cf. *irvinensis*	Pot.	Granite, leaf litter	WAM	108 km SSW	84 km SW	Y	Recorded from SCP, near Bunbury
Bothriembryontidae	*Bothriembryon serpentinus*	CF	Heath, under rocks, granite, plain	WAM	Within	2 km W	Y	Many records from JAF and Perth foothills
Bothriembryontidae	*Bothriembryon* cf. *serpentinus*	Pot.		WAM	26 km S	14 km W	Y	Several records throughout JAF
Bothriembryontidae	*Bothriembryon* 'sp. indet'	Pot.	Coast, under granite	WAM	1 km W	7 km W	Y	Recorded from SCP and JAF. Likely to represent several species
Charopidae	*Epinicium restifer*	Pot.	No data	WAM	10 km W	30 km NNW	Y	Recorded from 1 location in JAF
Charopidae	*Epinicium restifer firmatum*	Pot.	No data	WAM	46 km NW	73 km NNW	Y	Recorded from the SCP
Charopidae	*Luinodiscus* cf. *repens*	Pot.	Heathland	WAM	37 km N	10 km E	Y	Recorded from 2 locations in JAF
Charopidae	*Luinodiscus* cf. *sublestus*	Pot.	Creekline in wandoo woodland, wandoo rocky outcrop	WAM, Phoenix 2012	38 km S	19 km E	Y	Recorded from the E JAF and 1 record from Darling Scarp
Charopidae	*Luinodiscus* 'sp. indet'	Pot.	1331-2,5,11,15	Phoenix 2021	58 km S	25 km S	Y	Recorded in JAF but may represent several species
Charopidae	*Westraloma* 'sp. indet' / cf. *Westraloma* '1'	Pot.	Jarrah woodland, wandoo woodland, open heath	WAM, Phoenix 2012	27 km S	7 km E	Y	Recorded in the JAF

1 – SRE status (CF = confirmed, Pot. = potential, Lik. = likely). 2 – JAF = Jarrah Forest, SCP = Swan Coastal Plain





GHD Pty Ltd
Huntly Mine Expansion Project

Project No	1337/1347
Date	28/04/2021
Drawn by	IN
Map author	AJ

0 25 50
Kilometers

1:1,164,200 (at A4) GDA 1994 MGA Zone 50

Myara North study area
Myara North desktop study area
Holyoake study area
Holyoake desktop study area
Rehabilitation study area

Figure 5-1
Desktop records of SRE invertebrates

PHOENIX ENVIRONMENTAL SCIENCES

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5.2 FIELD SURVEY

5.2.1 SRE habitats

A total of ten SRE habitats were defined within the remnant vegetation of the baseline study area, based on the Mattiske (2021) vegetation mapping (Table 5-3; Figure 5-2). Collectively, native vegetation represents 27,128.8 ha (96.4%) of the baseline study area. An additional 539.4 ha (1.9%) represents rehabilitated land and the remainder (1.65%) is cleared (e.g. for infrastructure, plantations or dams).

The baseline study area was dominated by Jarrah/Marri woodland/forest habitats (2, 4, 5 and 7). Both the MNSA and HSA were dominated by SRE habitat 4, comprising 64.5% and 80.0% of the study areas respectively.

Ten habitats were present within the MNSA and seven SRE habitats were present in the HSA. Notable habitats that were absent from the HSA but present in the MNSA were habitat 1 (*Melaleuca* woodlands/shrublands), and 9 (*Eucalytpus* woodlands). Habitat 11 (Open wandoo woodland) and habitat 3 (granite associated vegetation) was minimal in the MNSA and HSA comprising less than 0.01%.

Approximately 6,624.8 ha (23.5%) of the study area has a high potential habitat rating (PHR), with 26.8% and 18.1% in the MNSA and HSA respectively.

Two habitats (9 and 11) were not surveyed because representation in the baseline study area was very low:

- High – Open *Eucalyptus* woodlands (wet) on sands, clay loam or sandy-gravel on lower slopes and valley floors (9) (0.32% of the baseline study area)
- Low - Open woodlands of Wandoo with clay-loams and some gravel on upper slopes (11) (0.01% of the baseline study area).

Habitat 9 is very similar to habitats 2, 10 and 11, with valley floors and lower slopes well sampled in these habitats.

Some inconsistencies in Phoenix site descriptions (Appendix 1) and vegetation/habitat mapping (Mattiske 2021) may occur due to microhabitats sampled within the 1:10,000 mapping that are too small to delineate from the broader surroundings, or minor inaccuracies in GPS and/or habitat boundaries.

Sites within habitat 12, the rehabilitated areas, were overall considered Low PHR for SREs as they had more patchy litter cover and refugial material and mature vegetation structure than remnant vegetation sites. These attributes were variable throughout the rehabilitation sites however.

Table 5-3 Description of SRE habitats in the baseline study area and corresponding vegetation types

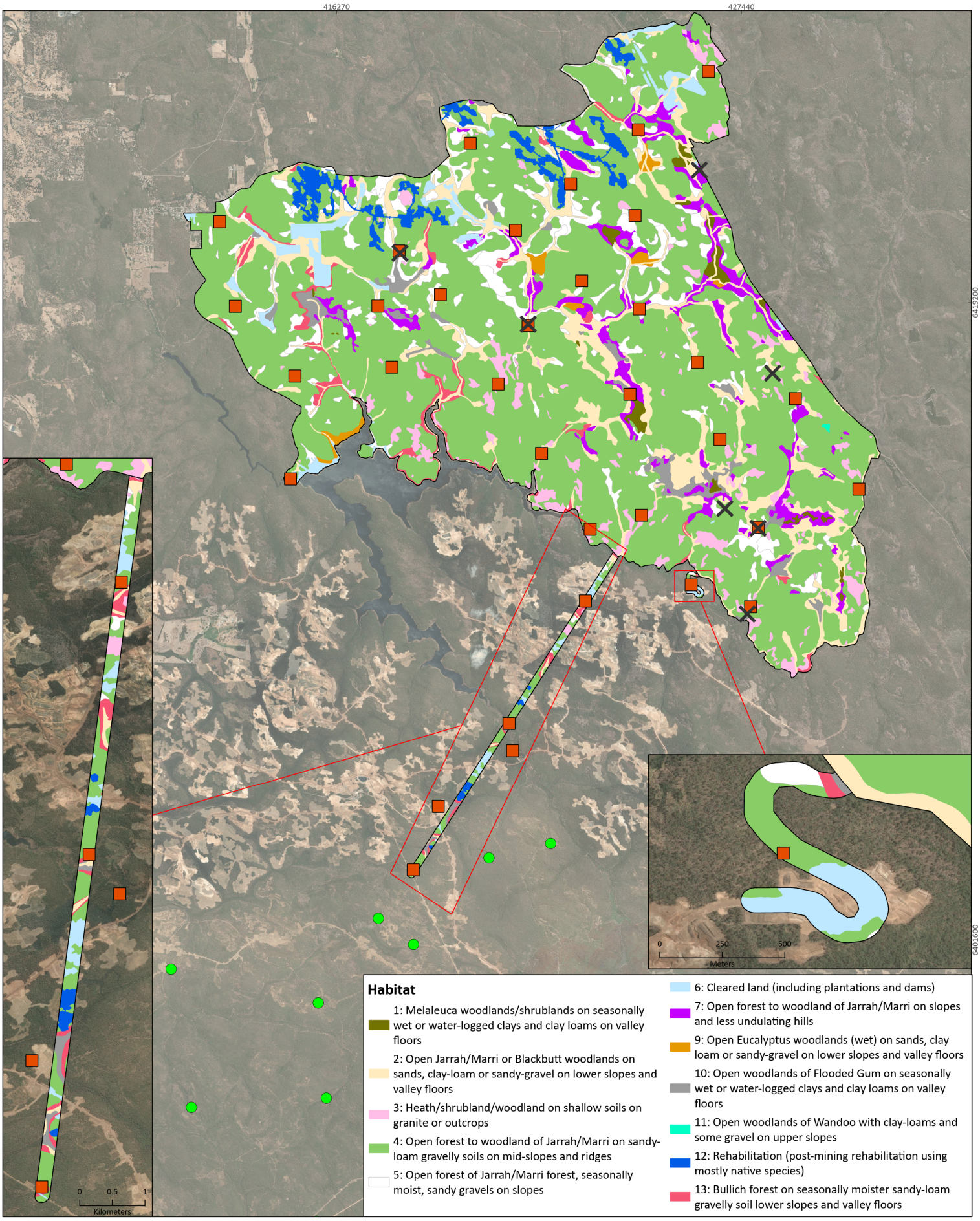
SRE habitat code	Vegetation units (Mattiske 2021)	SRE habitat description	PHR[1]	Number of sites
1	A	*Melaleuca* woodlands/shrublands on seasonally wet or water-logged clays and clay loams on valley floors	High	1
2	AW, AW/CW, C, D, DA, DG, J, CW	Open Jarrah/Marri or Blackbutt woodlands on sands, clay-loam or sandy-gravel on lower slopes and valley floors	High	10
3	GR, G, G1, R, RG	Heath/shrubland/woodland on shallow soils on granite or outcrops	High	2
4	P, PS, PT, S, SP, ST, T, TS	Open forest to woodland of Jarrah/Marri on sandy-loam gravelly soils on mid-slopes and ridges	Low	34
5	WA, PW, SW, WD	Open forest of Jarrah/Marri forest, seasonally moist, sandy gravels on slopes	High	6
6	Cleared, plantation	Cleared land (including plantations, dams)	n/a	0
7	AD, E	Open forest to woodland of Jarrah/Marri on slopes and less undulating hills	Low	1
9	AW/AX, AX, Q	Open *Eucalyptus* woodlands (wet) on sands, clay loam or sandy-gravel on lower slopes and valley floors	High	0
10	AC	Open woodlands of Flooded Gum on seasonally wet or water-logged clays and clay loams on valley floors	High	4
11	M	Open woodlands of Wandoo with clay-loams and some gravel on upper slopes	Low	0
12	n/a	Rehabilitation (post-mining rehabilitation using mostly native species)	Low	12
13	W	Bullich forest on seasonally moister sandy-loam gravelly soil lower slopes and valley floors (previously included in habitat 5)	High	2

Table 5-4 Extent of each SRE habitat in the study area

SRE habitat type	PHR[1]	Survey sites	MN-MA ha (%)	MN-CC ha (%)	MN-HR ha (%)	MNSA total ha (%)	H-MA ha (%)	H-CC ha (%)	H-HR ha (%)	HSA total ha (%)	Baseline study area total ha (%)
1	High	MN-016	130.3 (0.7%)	0	0	130.3 (0.7%)	0	0	0	0	130.27 (0.46%)
2	High	MN-004, MN-006, MN-009, MN-010, MN-011, MN-018, H-005, H-014, H-015, H-017 opp sites: Site 3, TL5, TL7, TL9, site 12, Site8	1865.7 (10.7%)	14.4 (6.8%)	0	1880.1 (10.7%)	1,064.0 (10.5%)	6.5 (3.0%)	0.8 (0.76%)	1,071.0 (10.2%)	2,996.82 (10.49%)
3	High	MN-008, MN-020	634.5 (3.6%)	6.8 (3.2%)	0	641.3 (3.6%)	0.2 (<0.1%)	0	0	0.2 (<0.1%)	641.54 (2.28%)
4	Low	MN-001, MN-002, MN-003, MN-005, MN-012, MN-015, MN-019, MN-021, MN-022, MN-023, MN-024, MN-025, MN-026, MN-027, MN-028, MC-001, MC-004, H-001, H-003, H-004, H-006, H007, H-008, H-009, H-010, H-012, H-13, H-018, H-019, H-020, H-021, H-022, HC-003, HR-001, opp sites: site1, TL8, site2, oppMN	11,302.1 (64.8%)	97.4 (46.1%)	6.3 (41.6%)	11,405.8 (64.5%)	8,257.0 (81.2%)	93.6 (43.9%)	10.0 (13.6%)	8,360.6 (80.0%)	20,110.10 (70.26%)
5	High	MC-003, HC-001, HC-002, HR-002, MN-007, H-011	1,365.9 (7.8%)	6.1 (2.9%)	1.6 (10.7%)	1,631.3 (7.7%)	128.0 (1.3%)	9.2 (4.3%)	2.0 (2.7%)	139.2 (1.3%)	1,512.80 (5.38%)
6 (cleared)	n/a	None	361.1 (2.1%)	32.5 (15.4)	6.5 (42.9%)	400.0 (2.3%)	58.2 (0.6%)	4.7 (2.2%)	0.4 (0.6%)	63.3 (0.6%)	474.9 (1.65%)
7	Low	MN-017, opp site4	733.2 (4.2%)	0	0	733.2 (4.2%)	1.0 (>0.1%)	0	0	1.0 (<0.1%)	736.80 (2.61%)
9	High	None	93.5 (0.5%)	0	0	93.5 (0.5%)	0	0	0.2 (0.3%)	0.2 (<0.1%)	93.77 (0.33%)

SRE habitat type	PHR[1]	Survey sites	MN-MA ha (%)	MN-CC ha (%)	MN-HR ha (%)	MNSA total ha (%)	H-MA ha (%)	H-CC ha (%)	H-HR ha (%)	HSA total ha (%)	Baseline study area total ha (%)
10	High	MN-013, MN-014, H-002, H-016 opp site: Site9, site12	341.3 (2.0%)	12.8 (6.1%)	0.2 (1.6%)	354.4 (2.0%)	378.9 (3.7%)	8.6 (4.0%)	0.7 (0.9%)	388.1 (3.7%)	809.10 (2.64%)
11	Low	None	3.4 (<0.1%)	0	0	3.4 (<0.1%)	0	0	0	0	3.43 (0.01%)
12	Low	RH-5A, RH5B, RH-5C, RH-10A, RH-10B, RH-10C, RH-20A, RH-20B, RH-20C, RH-30B, RH-30C, RH-30D	387.5 (2.2%)	14.4 (6.8%)	0	401.9 (2.3%)	0	79.3 (37.2)	58.2 (78.8%)	137.6 (1.3%)	857.80 (1.92%)
13	High	MC-002, MC-005	230.4 (1.3%)	26.8 (12.7%)	0.5 (3.3%)	257.7 (1.5%)	282.1 (2.7%)	11.3 (5.3%)	1.8 (2.4%)	295.2 (2.9%)	522.90 (1.96%)
Total		-	**17,448.9**	**211.1**	**15.1**	**17,675.2**	**10,169.3**	**213.1**	**73.9**	**10,456.4**	**28,131.6**

1 – Potential habitat rating.





GHD Pty Ltd
Huntly Mine Expansion Project

Project No	1337/1347
Date	3/12/2024
Drawn by	IN
Map author	AJ

0 2.5 5
Kilometers

1:135,000(at A4) GDA 1994 MGA Zone 50

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Myara North study area

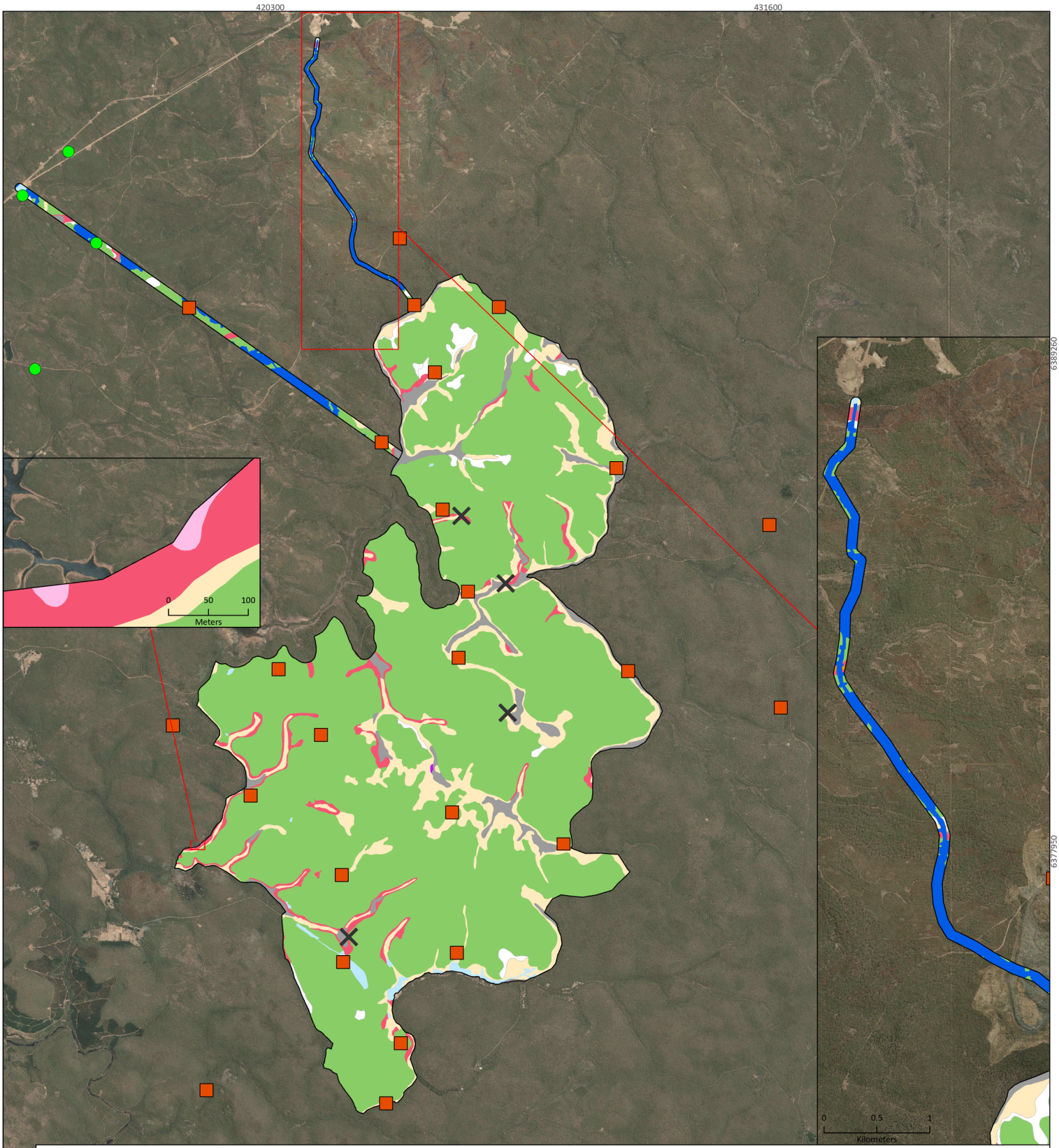
Sites

- Baseline site: Wet pitfall trap, foraging, litter sieve and burrow excavations
- Rehabilitation site: Wet pitfall trap, foraging, litter sieve and burrow excavations
- Opportuninistic records from GHD vertebrate fauna dry pit traps site

Figure 5-2a

SRE habitats in the Myara North study area

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Habitat

- 2: Open Jarrah/Marri or Blackbutt woodlands on sands, clay-loam or sandy-gravel on lower slopes and valley floors
- 3: Heath/shrubland/woodland on shallow soils on granite or outcrops
- 4: Open forest to woodland of Jarrah/Marri on sandy-loam gravelly soils on mid-slopes and ridges
- 5: Open forest of Jarrah/Marri forest, seasonally moist, sandy gravels on slopes
- 6: Cleared land (including plantations and dams)
- 7: Open forest to woodland of Jarrah/Marri on slopes and less undulating hills
- 9: Open Eucalyptus woodlands (wet) on sands, clay loam or sandy-gravel on lower slopes and valley floors
- 13: Bullich forest on seasonally moister sandy-loam gravelly soil lower slopes and valley floors
- 12: Rehabilitation (post-mining rehabilitation using mostly native species)
- 10: Open woodlands of Flooded Gum on seasonally wet or water-logged clays and clay loams on valley floors



GHD Pty Ltd
Huntly Mine Expansion Project

Project No	1337/1347
Date	3/12/2024
Drawn by	IN
Map author	AJ

0 2.5 5
Kilometers

1:120,000 (at A4) GDA 1994 MGA Zone 50

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Holyoake study area

Sites

- Baseline site: Wet pitfall trap, foraging, litter sieve and burrow excavations
- Rehabilitation site: Wet pitfall trap, foraging, litter sieve and burrow excavations
- Opportuninistic records from GHD vertebrate fauna dry pit traps site

Figure 5-2b

SRE habitats in the Holyoake study area

PHOENIX ENVIRONMENTAL SCIENCES

5.2.2 SRE records

A total of 112 taxa from groups known to include SREs were collected in the field surveys and of these, 82 taxa (73%) from 19 families were classified as SREs (Table 5-5; Figure 5-3–Figure 5-8), as follows:

- 11 are confirmed SREs, represented by ten millipedes and one scorpion
- five are likely SREs, all represented by isopods
- 66 are potential SREs, represented by
    - 33 taxa of mygalomorphs (trap-door spiders)
    - 11 species of isopods (slaters)
    - seven species of diplopods (millipedes)
    - seven species of opiliones (harvestmen spiders)
    - five species of land snail
    - one species of scorpion
    - two species of pseudoscorpions.

A total of 30 taxa were collected that were not considered SREs (see Appendices 2–6). These were represented by pseudoscorpions (14 taxa), millipedes (four taxa), scorpions (three species), isopods (three species), selenopids (two species), mygalomorphs (two species), and a velvet worm.

Of the 82 SRE taxa from the survey, 49 (59%) were matched to species also known from outside of the study area, and of these, 25 species (30%) are described species or are morphospecies that were matched either morphologically or genetically to recorded species and 23 are indeterminate taxa which may represent new or widespread species but the uncertainty around these taxa cannot be resolved therefore are no longer discussed (Table 5-5). Of the 25 species or morphospecies, 13 are mygalomorph spiders, seven are isopods, two are scorpions, one is a recently described species of Opiliones, one is a millipede, and one is a land snail.

A total of 16 of the SRE taxa are known from sites within the MNSA and/or HSA only (Table 5-5) comprising 8 mygalomorph spiders, seven millipedes, and one land snail:

- mygalomorph spiders
    - *Teyl '*MYG864', recorded from three sites within the MN-MA (MN-010, MN-014, MN-023)
    - Teyl 'MYG863', recorded from one site within the MN-MA (MN-001)
    - *Proshermacha* 'Phoenix0028', recorded from two sites within the MN-MA (MN-003, and MN-012)
    - *Proshermacha* 'Phoenix0024, recorded from one site within the MN-MA (MN-014)
    - *Teyl* 'MYG860', recorded from one site within the MN-MA (MN-001)
    - *Teyl* 'MYG865', recorded from one site within the MN-MA (MN-019)
    - *Eucyrtops* 'Phoenix0030', recorded from one site within the MN-MA (MN-012)
    - *Eucyrtops* 'Phoenix0032', recorded from three sites within the MNSA (MN-027, MC-001, HR-002)

- millipedes
    - *Antichiropus* 'dwellingup', recorded from four sites within the MNSA and HSA (MN-007, MN-008, MN-016, MN-020, HR-001, H-018)
    - *Antichiropus* 'jarrah', recorded from one site within the MNSA (MN-027)
    - *Antichiropus* 'mini', recorded from four sites within the MNSA (MN-015, MN-018, MN25, MN26)
    - Dalodesmidae 'Phoenix0038', recorded from two sites within the MN-MA (MN-012, HR-002)
    - Polyzoniida 'Phoenix0040', recorded from one site within the MN-MA (MN-027)
    - Polyzoniida 'Phoenix0041', recorded from two sites within the MN-MA (MN-007, MN-008)
    - Polyzoniida 'Phoenix0042', recorded from one site within the MN-MA (MN-008)
- land snails
    - *Bothriembryon* cf. *indutus*, recorded from three sites within the MN-MA (MN-003, MN-009, MN-025).

The remaining species collected from the study area were either recorded outside the MNSA and HSA during the survey, e.g. from reference sites, or the ReSA, or were matched to a taxon identified from the desktop review.

From the full list of 112 taxa collected, 24 species have been formally described, of which 8 considered SREs. A further 61 were allocated to morphospecies (including 57 which are considered SREs), based on previously collected specimens, or newly collected specimens that were not the same as any other taxon known from the WA Museum collection or by the taxonomist.

The remaining 27 are indeterminate (including 23 belonging to taxa that have SRE representatives) due to poor taxonomic knowledge, poor genetic knowledge, inadequate life stage or sex, or a specimen in poor condition. The indeterminate 'SRE' taxa could represent any of the collected or previously collected taxa, or possibly new taxa.

Twenty-eight taxa from groups known to include SREs were collected from the ReSA during the surveys. This assemblage comprised isopods (eight taxa), mygalomorph spiders (six taxa), millipedes and land snails (three taxa each), opiliones, pseudoscorpions and scorpions (two species each) and a single species each of selenopid and velvet worm (Appendix 5). This included 17 taxa considered likely or potential SREs (Table 5-5), with isopods, land snails, mygalomorphs, opiliones and a land snail making up the SRE collection. None of these are formally described species, seven are morphospecies and the remaining 10 are indeterminate. All SRE taxa recorded at rehabilitation sites were also recorded from sites in the baseline study area. Of the seven morphospecies, four were also recorded in both the MNSA and HSA and three were recorded from the MNSA.

The number of taxa and SRE taxa collected at each site was variable between rehabilitation age, with a slight tendency towards higher numbers in the 10 and 30-year age classes but below the average number of taxa at the baseline sites (Figure 5-9).

The proportions of SREs collected via active searches (foraging, litter sift and burrow excavations) vs. pitfall traps (wet and dry) showed consistency between study areas, particularly in those with higher number of systematic survey sites (MN-MA and H-SA; Table 5-6). Overall, 54% of SRE records came from active searches and 46% from pitfall traps (Appendix 7).

Mygalomorph spiders and scorpions were the only taxa in which active searches yielded a higher number of records. The H-SA, MN-SA and ReSA recorded similar proportions of mygalomorphs from

active searches (between 76.5% – 80%), the MN-CC with slightly more from active searches (87.6%), and the H-CC and HR with 100% of mygalomorph records from active searches.Scorpions were collected almost exclusively from active searches; however, *Isometroides* 'jarrah' recorded only once from the survey was collected from a pitfall trap, and *Urodacus planimanus,* recorded 28 times from the survey, was collected only from active searches.

Opiliones were recorded evenly between active and pitfall trap sample types in all study areas except for the ReSA, where more records came from pitfall traps. Millipede records varied between study areas, with the MN-MA, H-MA and MC-CC all recording approximately one third from active searches and two-thirds from pitfall traps. The HR and ReSA had an even split of millipedes between active searches and pitfall traps, and only the H-CC recorded millipedes exclusively from pitfall traps. Isopods came from roughly half active searches and half pitfall trap sample types, except for the MN-MA and ReSA in which approximately two-thirds were collected in pitfall traps and one-third collected from active searches. Land snails were mostly collected from pitfall traps.

Four species of mygalomorphs were recorded from burrows at rehabilitation sites, they comprised of taxa only from the Idiopidae and Anamidae families (*Bungulla harrisonae*, *Eucyrtops* 'MYG645', Teyl 'MYG866', *Proshermacha* 'MYG485' and three unidentifiable Anamidae). *Teyl* 'Phoenix0007' was the only mygalomorph species collected in a wet pitfall trap from the rehabilitation sites. Further to this, two adult females from different species within the Anamidae family were recorded in newly created or existing/abandoned burrows in subsequent trips. *Aname* 'Phoenix0020' was excavated from a burrow found next to the spoils of a pitfall trap at a baseline site and *Proshermacha* 'MYG485' was excavated during trip 2 from a burrow located next to the spoils from a previous burrow excavation from the first trip at a rehabilitation site. Eight of the 10 mygalomorph records from the rehabilitation sites were from 30-year old rehabilitation sites, the remaining two were from a 10 year rehabilitation site.

A total of 221 specimens were sequenced, 157 mygalomorph spiders, 60 millipedes and four land-snails, mostly indeterminate taxa due to being juveniles, females, too small and singletons or poor condition. Seventeen specimens failed to obtain a sequence, but of the 204 specimens that were successful, 23 taxa were found be significantly different to specimens where a taxonomist was able to allocate a species or morphospecies identification. This is indicated by the morphospecies code 'Phoenix####' or 'MYG###' if the specimen was allocated a WA Museum code.

The species molecular analyses that were determined to be unique consisted of 18 mygalomorph spiders and five millipedes. Seven new *Antichiropus* species were able to be morphologically identified from male gonopods and matched to females and juveniles using molecular techniques (*A*. 'DIP224, dwellingup', *A*. 'forest', *A*. 'holyoake', *A*. 'jarrah', *A*. mini, *A*. 'Myara' and *A*. 'southern').

Table 5-5 Specimens from SRE groups recorded in the field survey

Higher order/ Family	Species	SRE status[1]	SRE hab. code	PHR[2]	Sites[3]	Out-side SA[4]	Records in study area						
							MN-MA	MN-CC	MN-HR	H-MA	H-CC	H-HR	ReSA
Class Arachnida, Infraorder Mygalomorphae (trapdoor spiders)													
Actinopidae	*Missulena* 'MYG198'	Pot.	2	H	H-016	■a				■			
Anamidae	*Teyl '*MYG864' *(*Previously *Aname* 'Phoenix0004')	Pot.	2, 4, 10	H,L	MN-010, MN-014, **MN-023**		■						
Anamidae	*Teyl* (Previously *Aname*) 'Phoenix0010'	Pot.	2	H	Opp Site8	■c				■			
Anamidae	*Teyl '*Phoenix0006' (Previously *A.* 'Phoenix0018')	Pot.	2	H	*H-013* (*reference site outside HSA*)	■b,c							
Anamidae	*Aname* 'Phoenix0020'	Pot.	4,13	H,L	HC-003, MC-005	■c		■			■		
Anamidae	*Proshermacha* 'MYG658' (Previously *Aname* 'Phoenix0036')	Pot.	2,4,13	H,L	MN-010, MC-002, *MC-004*	■ a,b	■	■					
Anamidae	*Aname* 'MYG867' (Previously *A.* 'Phoenix0037')	Pot.	4	L	MC-001	■a		■					
Anamidae	Teyl 'MYG863' (Previously Anamidae 'Phoenix0009')	Pot.	4	L	**MN-028**	■c	■						
Anamidae	Anamidae 'sp. indet' (Females, juveniles and failed sequences, likely to represent multiple species)	Pot.	2, 4, 5,10, 12,13	H,L	MN-007, MN-009, MN-011, MN-018, **MN-022**, **MN-023**, **MN-028**, H-003, H-004, *H-006*, H-007, H-008, *H-011*, H-015, H-016, H-017, H-020, MC-002, *MC-003*, RH-10A, RH-30B	■a,b	■	■		■			■
Anamidae	*Kwonkan* 'Phoenix005'	Pot.	2	H	MN-006	■c	■						
Anamidae	*Kwonkan* 'Phoenix008'	Pot.	4	L	H-019	■c				■			
Anamidae	*Proshermacha* 'MYG485'	Pot.	2, 4,5,7, 10,12	H,L	**MN-023**, H-002, *H-005*, H-009, *H-011*, H-014, H-015, H-016, H-019, H-020, H-021, HR-001, RH-30C, Opp sites: Site1, Site3, Site4, Site8, Site9, Site12, TLSite2, TL5	■a,b	■			■		■	■

Higher order/ Family	Species	SRE status[1]	SRE hab. code	PHR[2]	Sites[3]	Out-side SA[4]	Records in study area						
							MN-MA	MN-CC	MN-HR	H-MA	H-CC	H-HR	ReSA
Anamidae	*Proshermacha* 'MYG495' (Previously *P.*'Phoenix0023')	Pot.	4	L	MN-001, *H-022*	■a,b	■			■			
Anamidae	*Teyl* 'MYG862' (Previously *Proshermacha* 'Phoenix0027')	Pot.	2, 10	H	MN-001, MN-011, MN-014	■c	■						
Anamidae	*Proshermacha* 'Phoenix0028'	Pot.	4	L	MN-003, MN-012		■						
Anamidae	*Proshermacha* 'Phoenix0024' (Previously *P.* 'Phoenix0040')	Pot.	10	H	MN-014		■						
Anamidae	*Teyl* 'MYG355'	Pot.	5,13	H	MN-007, MC-005	■a	■	■					
Anamidae	*Teyl* 'MYG866' (Previously *T.* 'Phoenix0007')	Pot.	2,4,7,12	H,L	MN-009, **MN-017**, *MC-004*, RH-10B	■b	■						■
Anamidae	*Teyl* 'MYG860' *(Previously T.* 'Phoenix0019')	Pot.	4	L	MN-001		■						
Anamidae	*Teyl* 'MYG865' (Previously *T.* 'Phoenix0021')	Pot.	4	L	**MN-019**		■						
Barychelidae	Barychelidae 'sp. indet' (failed sequencing)	Pot.	4	L	**MN-027**	■a	■						
Barychelidae	*Synothele mullaloo* (Previously *S.* 'Phoenix0015' *and S.* 'Phoenix0016')	Pot.	2,4,5	H,L	MN-001, MN-004, MN-006, MN-007, MN-018, **MN-025**, **MN-027,** H-001, *H-005*, H-007, H-012, H-014, H-015, H-017, H-018, H-018, H-019, *H-022*, HC-003	■a,b	■			■	■		
Idiopidae	*Eucyrtops latior* This sp. is currently under revision but these are all the same species	Pot.	2,4,10	H,L	MN-001, MN-011, MN-012, MN-014, MN-018, **MN-021**, **MN-022**, **MN-023**, **MN-025**, **MN-028**	■a	■						
Idiopidae	*Bungulla harrisonae* (Previously *Eucyrtops* 'Phoenix0003')	Pot.	1,2,3,4,5,13	H,L	MN-002, MN-003, MN-007, MN-016, MN-020, H-001, *H-011*, MC-005, RHopp001	■b	■	■		■			

Higher order/ Family	Species	SRE status[1]	SRE hab. code	PHR[2]	Sites[3]	Out-side SA[4]	Records in study area						
							MN-MA	MN-CC	MN-HR	H-MA	H-CC	H-HR	ReSA
Idiopidae	*Eucyrtops* 'Phoenix0029'	Pot.	2,4	H,L	**MN-002**, **MN-005**, MN-006		■						
Idiopidae	*Eucyrtops* 'Phoenix0030'	Pot.	4	L	MN-012		■						
Idiopidae	*Eucyrtops* 'Phoenix0032'	Pot.	4	L	**MN-027**, MC-001, HR-002		■	■	■				
Idiopidae	*Eucyrtops* 'MYG645' (Previously *E.* 'WorsleyDNA06 and E.'Phoenix0033')	Pot.	2, 4,5, 10,12, 13	H,L	H-007, H-008, H-010, *H-011*, H-015, H-016, *MC-004*, MC-005, RH-30B, RH-30C, RH-30D	■a,b,c		■		■			■
Idiopidae	*Euoplos inornatus* (Previously *E.* 'Phoenix0011')	Pot. and P3	1,4	L	MN-016, **MN-025**	■a	■						
Idiopidae	*Euoplos* 'Phoenix0012'	Pot.	4	L	*H-013 (reference site outside HSA*)	■b				■			
Idiopidae	Idiopidae sp. indet.	Pot.	2,4,7, 10, 12	H,L	MN-002, MN-009, M-N010, MN-013, MN-015, **MN-017**, **MN-022**, **MN-024**, **MN-026**, H-003, H-004, *H-005*, H-018, H-019	■a,b			■				
Idiopidae	*Idiosoma* 'MYG790' (Previously *I.* 'Phoenix0035')	Pot.	2,4,5	H,L	H-001, *H-006*, H-007, H-008, *H-013*, H-021, *HC-001*, HC-002, HC-003, *MC-004*, HR-001	■b,c	■		■	■	■		
Idiopidae	*Idiosoma* 'MYG187' (Previously 'WAM T129362')	Pot.	2,3,4,13	H,L	MN-004, MN-008, **MN-019**, **MN-021**, **MN-022**, MC-002	■a	■	■					
Class Arachnida, Order Opiliones (harvestmen spiders)													
Lomanellidae	*Abaddon despoliator*	Pot.	4,13	H,L	H-001, MC-002, *MC-004*	■a,b,c		■		■			
Trianonychidae	*Calliuncus* 'sp. indet'	Pot.	4,5,13	H,L	H-001, H-010, *H-011*, *H-013*, HC-002, MC-005	■a,b,c		■		■			
unknown	Eupnoi 'sp. indet'	Pot.	2,4, 5,7, 10, 12, 13	H,L	MN-003, **MN-005**, MN-008, MN-011, **MN-17**, **MN-21**, **MN-26**, **MN-28**, H-002, H-003, H-004, H-007, H-008, H-012, H-020, H-021, *HC-001*, MC-001, MC-005, RH-05B, RH-10A, RH-10C, RH-20A, RH-30C, RH-30D	■a,b,c	■	■		■	■		■
Trianonychidae	*Nunciella* 'sp. indet'	Pot.	4	L	MN-015	■a,b,c	■						

Higher order/ Family	Species	SRE status[1]	SRE hab. code	PHR[2]	Sites[3]	Out-side SA[4]	Records in study area						
							MN-MA	MN-CC	MN-HR	H-MA	H-CC	H-HR	ReSA
Trianonychidae	Trianonychidae 'genus 008' sp. indet.	Pot.	2,4, 5,10, 12,13	H,L	MN-001, MN-007, MN-010, MN-012, MN-015, **MN-023**, **MN-027**, **MN-25**, H-002, H-003, H-004, *H-005*, H-012, H-017, H-018, H-019, H-021, H-022, HC-003, MC-001, MC-002, *MC-004*, MC-005, RH-10A, RH-10B, RH-20A, RH-20B	■a,b,c	■	■		■			■
Trianonychidae	Trianonychidae 'sp. indet'	Pot.	2,4	H,L	MN-003, MN-011, MN-012, MN-024, MN-026, *H-005*, H-006	■a,b,c	■			■			
unknown	Opiliones sp. indet.	Pot.	5, 10, 12	H,L	MN-013, MN-014, *MC-003*, RH-30B	■a,b,c	■						■
Class Arachnida, Order Scorpiones (scorpions)													
Buthidae	*Isometroides* 'jarrah'	Pot.	2	H	GH-D site: TL9	■a,c	■						
Urodacidae	*Urodacus planimanus*	CF	2, 4, 5, 10	H,L	MN-001, MN-006, MN-008, MN-011, MN-012, MN-015, **MN-019**, **MN-021**, **MN-022**, **MN-023**, **MN-024**, **MN-025**, **MN-026**, H-002, *MC-003*	■a,b,c	■	■		■			
Class Arachnida, Order Pseudoscorpiones (pseudoscorpiones)													
Olpiidae	*Beierolpium* 'sp. indet'	Pot.	4	L	MN-021	■a,b,c	■						
Olpiidae	Olpiidae 'sp. indet'	Pot.	4	L	MN-012	■a,b,c	■						
Class Myriapoda, Order Diplopoda (millipedes)													
Paradoxosomatidae	*Antichiropus*, 'DIP224, dwellingup'	CF	1,3,4,5	H,L	MN-007, MN-008, MN-016, MN-020, HR-001, H-018		■			■		■	
Paradoxosomatidae	*Antichiropus* 'DIP135, minnivale2?'	CF	2	H	MN-010	■a	■						
Paradoxosomatidae	*Antichiropus* 'forest'	CF	4,	L	H-007, *H-013*	■b				■			
Paradoxosomatidae	*Antichiropus* 'holyoake'	CF	4	L	*H-013*	■b				■			
Paradoxosomatidae	*Antichiropus* 'jarrah'	CF	4	L	**MN-027**		■						
Paradoxosomatidae	*Antichiropus* 'DIP097, Marradong'	CF	2,4	H,L	H-004, *H-005*, H-006, H-008, H-014, H-015, H-020	■a,b,c				■			
Paradoxosomatidae	*Antichiropus* 'mini'	CF	2, 4	H,L	MN-015, MN-018, **MN-025**, **MN-026**		■						

Higher order/ Family	Species	SRE status[1]	SRE hab. code	PHR[2]	Sites[3]	Out-side SA[4]	Records in study area						
							MN-MA	MN-CC	MN-HR	H-MA	H-CC	H-HR	ReSA
Paradoxosomatidae	*Antichiropus* 'Myara'	CF	4	L	*H-013*, MC-004 good	■b		■		■			
Paradoxosomatidae	*Antichiropus* 'southern'	CF	4,5	H,L	H-004, H-009, H-011 H-014, H-020, H-021	■b,c				■			
Paradoxosomatidae	*Antichiropus* 'sp. indet'	Pot.	2,3,4,5, 12,13	H,L	MN-003, MN-008, MN-015, MN-018, **MN-020**, H-001, H-002, H-004, *H-005*, H-007, H-008, H-009, H-012, H-014, H-015, H-017, H-021, **H-022**, HC-002, MC-001, MC-002, *MC-003*, MC-005, RH-30C	■a,b,c	■	■		■	■		■
Dalodesmidae	Dalodesmidae 'Phoenix0038'	Pot.	4	L	MN-012, HR-002		■		■				
Polydesmida	Polydesmida 'sp. indet'	Pot.	4	L	H-018	■a,b				■			
Polyzoniidae	Polyzoniida 'Phoenix0039'	Pot.	4	L	*H-013 (reference site outside H-SA*)	■b							
Polyzoniidae	Polyzoniida 'Phoenix0040'	Pot.	4	L	**MN-027**		■						
Polyzoniidae	Polyzoniida 'Phoenix0041'	Pot.	3,5	H	MN-007, MN-008		■						
Polyzoniidae	Polyzoniida 'Phoenix0042'	Pot.	3	H	MN-008		■						
Siphonotidae	Siphonotidae 'DIPAAG' 'DIP189' 'collie'	CF	2,4,10	H,L	H-003, *H-005*, H-016, H-017, **H-022**	■a,b				■			
Class Malacostraca, Order Isopoda (slaters)													
Armadillidae	*Acanthodillo* '1'	Pot.	2	H	H-002	■a,c				■			
Armadillidae	*Acanthodillo* 'sp. indet'	Pot.	4, 10, 13	H,L	MN-003, MN-014, H-010, MC-005	■a	■	■		■			
Armadillidae	*Armadillo flavus*	Pot.	2, 4	H,L	MN-009, *H-006*, H-020	■a,b	■			■			
Armadillidae	*Buddelundia* '5' (huntly)	Lik.	2,4,5, 10,12, 13	H,L	MN-009, MN-015, **MN-026**, **MN-027**, **MN-028**, H-002, H-003, *H-005*, *H-006*, H-008, H-007, H-010, *H-011*, H-012, H-014, H-017, H-020, H-021, *HC-001*, HC-002, HC-003 MC-001, MC-002, *MC-003*, *MC-004*, MC-005, RH-5B, RH-20A, RH-30D, HR-001, opp sites: site 9, TL5	■b	■	■		■	■	■	■
Armadillidae	*Buddelundia* 'sp. indet'	Pot.	4	L	MN-015, H-006	■a	■			■			

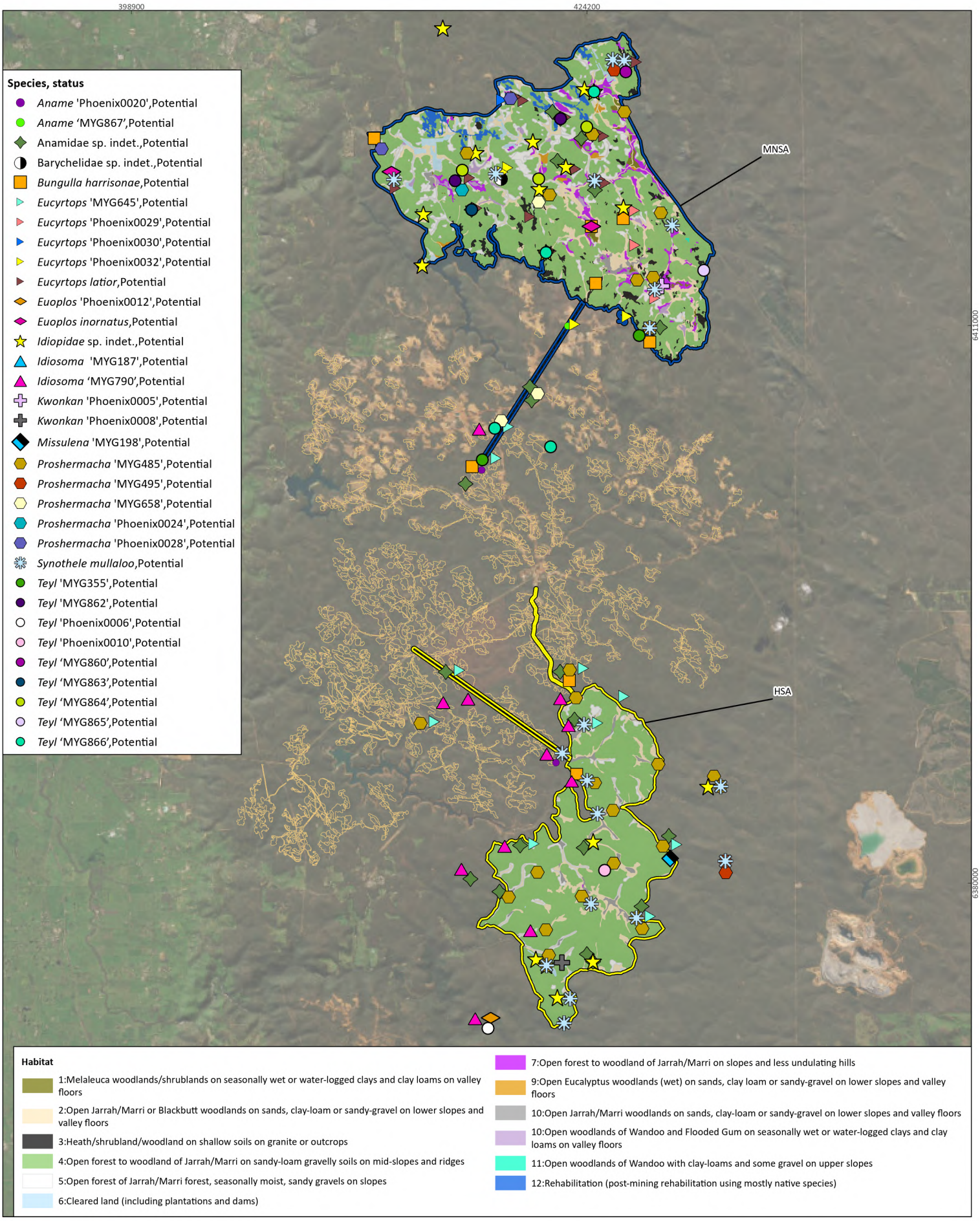
Higher order/ Family	Species	SRE status[1]	SRE hab. code	PHR[2]	Sites[3]	Out-side SA[4]	Records in study area						
							MN-MA	MN-CC	MN-HR	H-MA	H-CC	H-HR	ReSA
Armadillidae	*Pseudodiploexochus* 'sp. indet'	Lik.	2,4,7, 13	H,L	MN-009, MN-010, **MN-017** MN-018, **MN-025**, **MN-026**, H-009, **H-013**, H-017, H-019, H-020 **H-022**, MC-002	■a,b	■	■		■			
Armadillidae	*Paraplatyarthridae* 'sp. indet'	Pot.	2,4	H,L	MN-001, MN-011, MN-002, **MN-025**	■a	■						
Armadillidae	*Spherillo* '1'	Lik.	2,4	H,L	MN-009, MN-011, **MN-022**	■a,c	■						
Paraplatyarthridae	*Paraplatyarthrus* 'sp. indet'	Pot.	4	L	H-018	■a				■			
Philosciidae	*Laevophiloscia* '1'	Pot.	2,3,4,5, 10,12, 13	H,L	MN-001, MN-004, **MN-005**, MN-006, MN-007, MN-008, MN-009, MN-016, MN-018, MN-019, MN-020, **MN-021**, **MN-023**, **MN-025**, **MN-026**, **MN-28**, H-001, H-002, H-003, H-004, *H-005, H-006*, H-007, H-008, H-009, H-010, *H-011*, *H-013*, H-014, H-015, H-016, H-017, H-020, H-021, *H-022*, HC-002, HC-003, MC-001, *MC-004*, MC-005, H-R002, RH-05A, RH-5B, RH-5C, RH-10A, RH-10B, RH-10C, RH-20A, RH-20, RH-20C, RH-30B RH-30c, RH-30D	■a,b,c	■	■	■	■			■
Philosciidae	*Laevophiloscia* 'sp. indet'	Pot.	2,4	H,L	MN-001, MN-009, MN-011, MN-025, RH-10A	■a,b	■						■
Philosciidae	Philosciidae 's' / Philosciidae '1'	Lik.	2,4,7, 10	H,L	MN-001, **MN-002**, MN-004, **MN-005**, MN-006, MN-007, MN-011, MN-012, MN-014, MN-015, MN-016, **MN-017**, MN-018, **MN-019**, **MN-021** **MN-022**, **MN-025**, **MN-027**, **MN-028**, H-009, H-R002	■a,c	■		■	■			
Philosciidae	Philosciidae 'sp. indet'	Pot.	4,12	L	H-012, HC-003, RH-10B, RH-20A, RH-20B, RH-30B	■a,b				■	■		■
Styloniscidae	*Styloniscus* '1'	Pot.	2, 4, 5, 7, 10, 12, 13	H,L	MN-001, MN-003, MN-004, **MN-005**, MN-011, MN-012, MN-015, **MN-017**, MN-018, **MN-022**, **MN-023**, **MN-024**, **MN-026**, **MN-027**, **MN-028**, H-001, H-002, *H-006*, H-007, H-010, *H-011*, H-012, H-016, H-017, H-018, H-020, MC-002, *MC-004*, MC-005, RH-10a, RH-10C, RH-30C	■a,b,c	■	■		■			■

Higher order/ Family	Species	SRE status[1]	SRE hab. code	PHR[2]	Sites[3]	Out-side SA[4]	Records in study area						
							MN-MA	MN-CC	MN-HR	H-MA	H-CC	H-HR	ReSA
Styloniscidae	*Styloniscus* '7'	Lik.	2,4,5, 13	H,L	MN-007, MN-011, H-001, H-010, *H-022*, MC-005	■a,b,c	■	■		■			
Styloniscidae	*Styloniscus* 'sp. indet'	Pot.	4,12	L	MN-003, MN-015, RH-20B, RH-30D	■a,b	■						■
Class Gastropoda, Order Eupulmonata (land snails)													
Bothriembryontidae	*Bothriembryon* cf. *bradshawi*	Pot.	2	H	H-015, RH-004	■b				■			
Bothriembryontidae	*Bothriembryon* cf. *inductus*	Pot.	2,4	L	MN-003, MN-009, MN-025		■						
Charopidae	*Annoselix* cf. dolosa	Pot.	4,12	L	MN-003, **MN-028**, RH-20C	■b,c	■						■
Charopidae	cf. *Westraloma* 'sp. indet'	Pot.	4,12	L	H-008, RH-30C	■a,b,c				■			■
Charopidae	Charopidae 'sp. indet'	Pot.	2,3,4 12	H,L	MN-006, MN-020, H-008, H-018, RH-30C	■a,b	■			■			■

1 – SRE status (CF = confirmed, Pot. = potential, Lik. = likely; H = High, L=Low), 2 – Potential habitat rating (H = High, L=Low), 3 – Italics = reference sites, Bold = 'impact' sites.
4 – a = desktop (incl. Worsley survey), b = reference sites from current survey outside baseline study area or rehabilitation sites, c = sites from other Alcoa SRE surveys

Table 5-6 SRE records by sample type

Study area	Sample type	Iso-poda	Land snail	Milli-pedes	Mygalo-morphae	Opil-iones	Pseudo-scorpion	Scorpion	total
H-SA (22 sites)	Active searching	58.1%	-	30%	76.5%	43.3%	-	100%	56.5%
	Pitfall trap	41.9%	100%	70%	23.5%	56.7%	100%	-	44.5%
	Grand Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
H-CC (5 sites)	Active searching	55.6%	-	-	100%	100%	-	-	71.9%
	Pitfall trap	44.4%	-	100%	-		-	-	28.1%
	Grand Total	**100%**	-	**100%**	**100%**	**100%**	-	-	**100%**
HR (2 sites)	Active searching	50%	-	50%	100%	-	-	-	64.3%
	Pitfall trap	50%	-	50%	-	-	-	-	35.7%
	Grand Total	**100%**	-	**100%**	**100%**	-	-	-	**100%**
MN-CC (7 sites)	Active searching	48.8%	-	28.6%	87.6%	58.3%	-	100.0%	57%
	Pitfall trap	51.2%	-	71.4%	12.5%	41.7%	-		43%
	Grand Total	**100%**	-	**100%**	**100%**	**100%**	-	**100%**	**100%**
MN-MA (28 sites)	Active searching	30.1%	14.3%	33.3%	78.3%	48.5%	14.3%	96.3%	53.7%
	Pitfall trap	69.9%	85.7%	66.7%	21.7%	51.5%	85.7%	3.7%	46.3%
	Grand Total	**100.0**	**100.0**	**100.0**	**100.0**	**100%**	**100%**	**100.0%**	**100%**
ReSA (12 sites)	Active searching	33.3%	-	50%	80%	33.3%	-	-	40%
	Pitfall trap	66.7%	100%	50%	10%	66.7%	-	-	60%
	Grand Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**-**	**100%**





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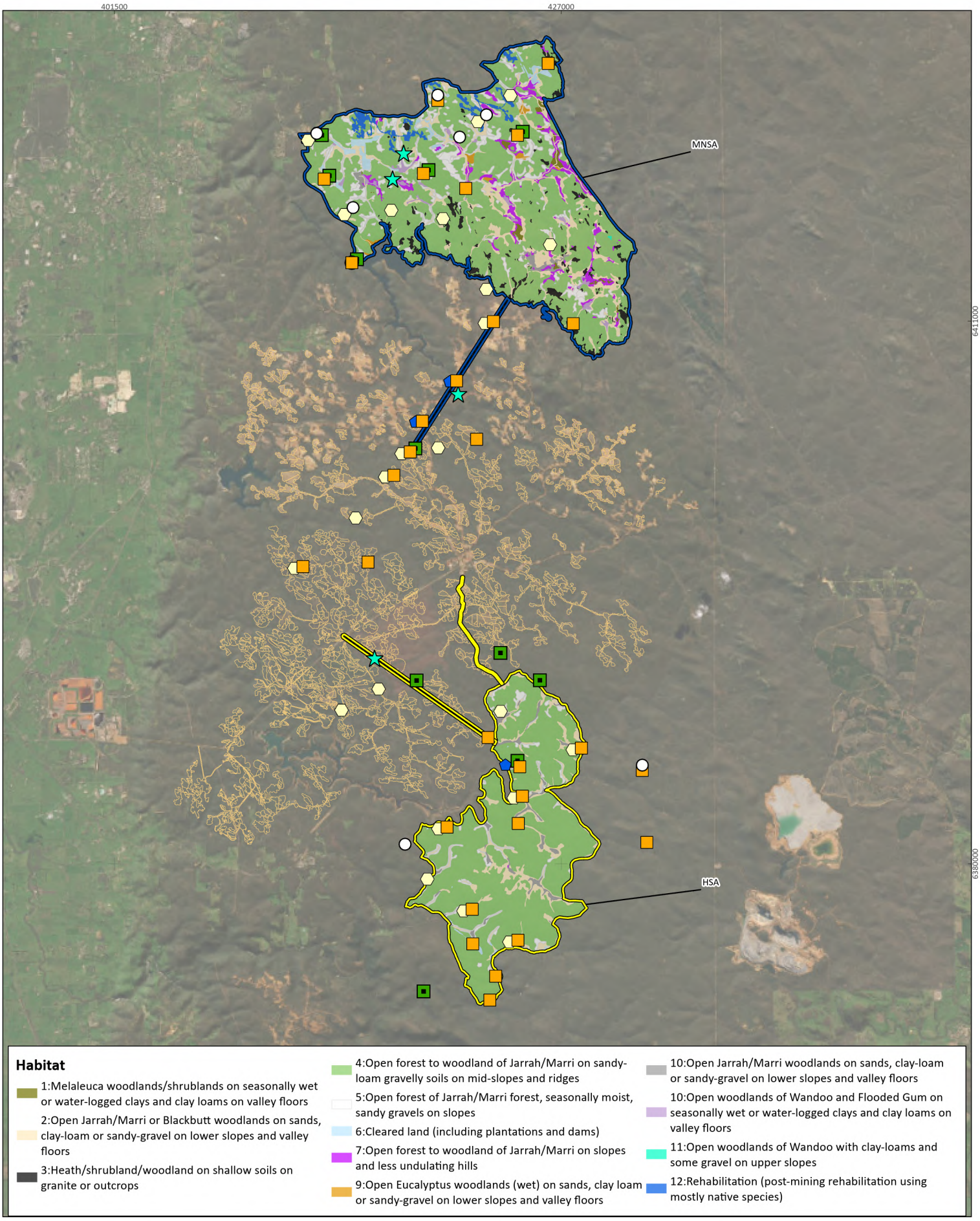
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Myara North study area
Holyoake study area
Rehabilitation study area

Figure 5-3
Field records of SRE mygalomorph spiders

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Habitat

- 1:Melaleuca woodlands/shrublands on seasonally wet or water-logged clays and clay loams on valley floors
- 2:Open Jarrah/Marri or Blackbutt woodlands on sands, clay-loam or sandy-gravel on lower slopes and valley floors
- 3:Heath/shrubland/woodland on shallow soils on granite or outcrops
- 4:Open forest to woodland of Jarrah/Marri on sandy-loam gravelly soils on mid-slopes and ridges
- 5:Open forest of Jarrah/Marri forest, seasonally moist, sandy gravels on slopes
- 6:Cleared land (including plantations and dams)
- 7:Open forest to woodland of Jarrah/Marri on slopes and less undulating hills
- 9:Open Eucalyptus woodlands (wet) on sands, clay loam or sandy-gravel on lower slopes and valley floors
- 10:Open Jarrah/Marri woodlands on sands, clay-loam or sandy-gravel on lower slopes and valley floors
- 10:Open woodlands of Wandoo and Flooded Gum on seasonally wet or water-logged clays and clay loams on valley floors
- 11:Open woodlands of Wandoo with clay-loams and some gravel on upper slopes
- 12:Rehabilitation (post-mining rehabilitation using mostly native species)



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- Myara North study area
- Holyoake study area
- Rehabilitation study area

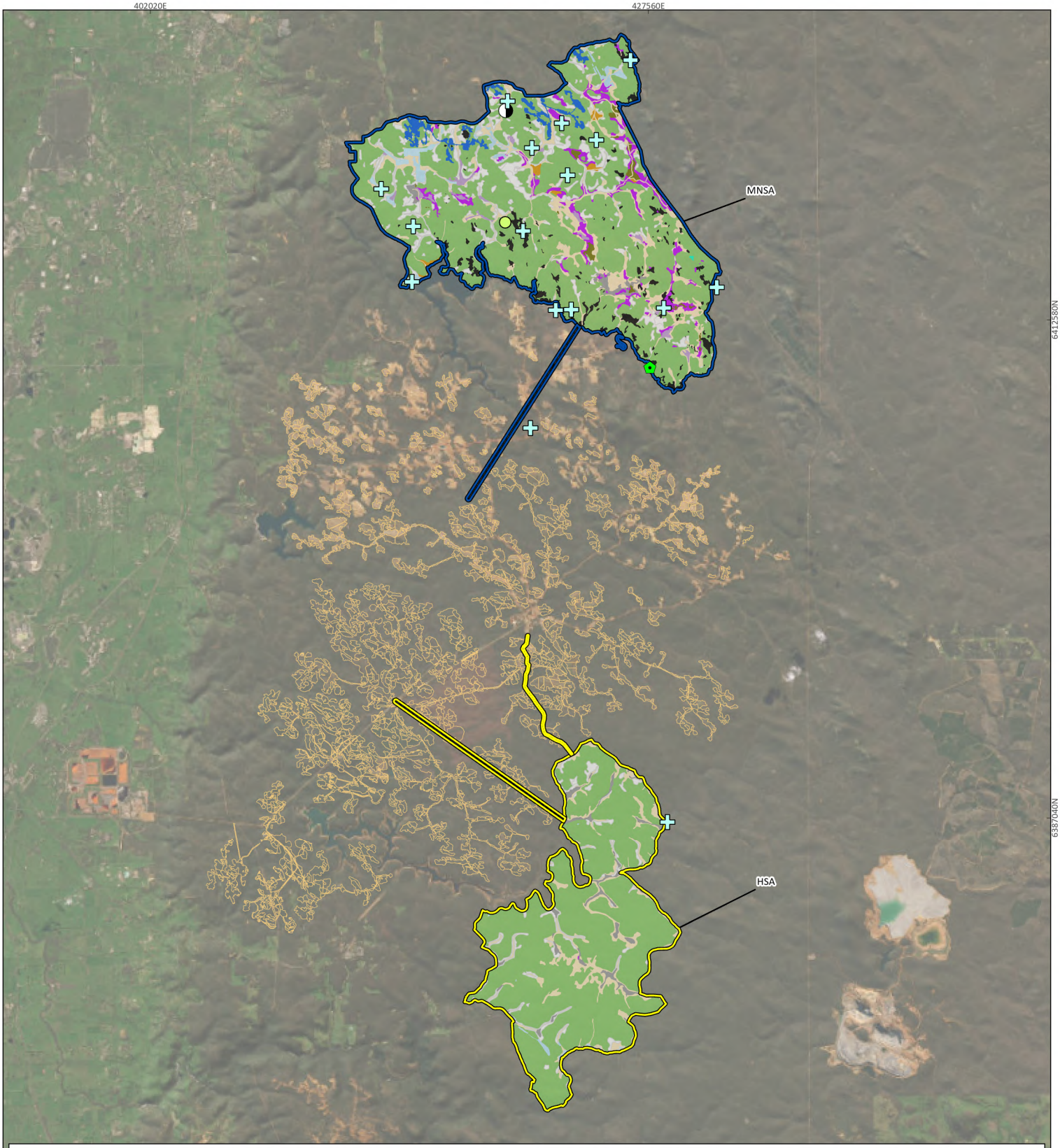
Species, status

- *Abaddon despoliator*,Potential
- *Calliuncus* sp. indet.,Potential
- Eupnoi sp. indet.,Potential
- *Nunciella* sp. indet.,Potential
- Opiliones sp. indet.,Potential
- Trianonychidae 'genus 008' sp. indet.,Potential
- Trianonychidae sp. indet.,Potential

Figure 5-4

Field records of SRE Opiliones (harvestmen spiders)

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Myara North study area
Holyoake study area
Rehabilitation study area

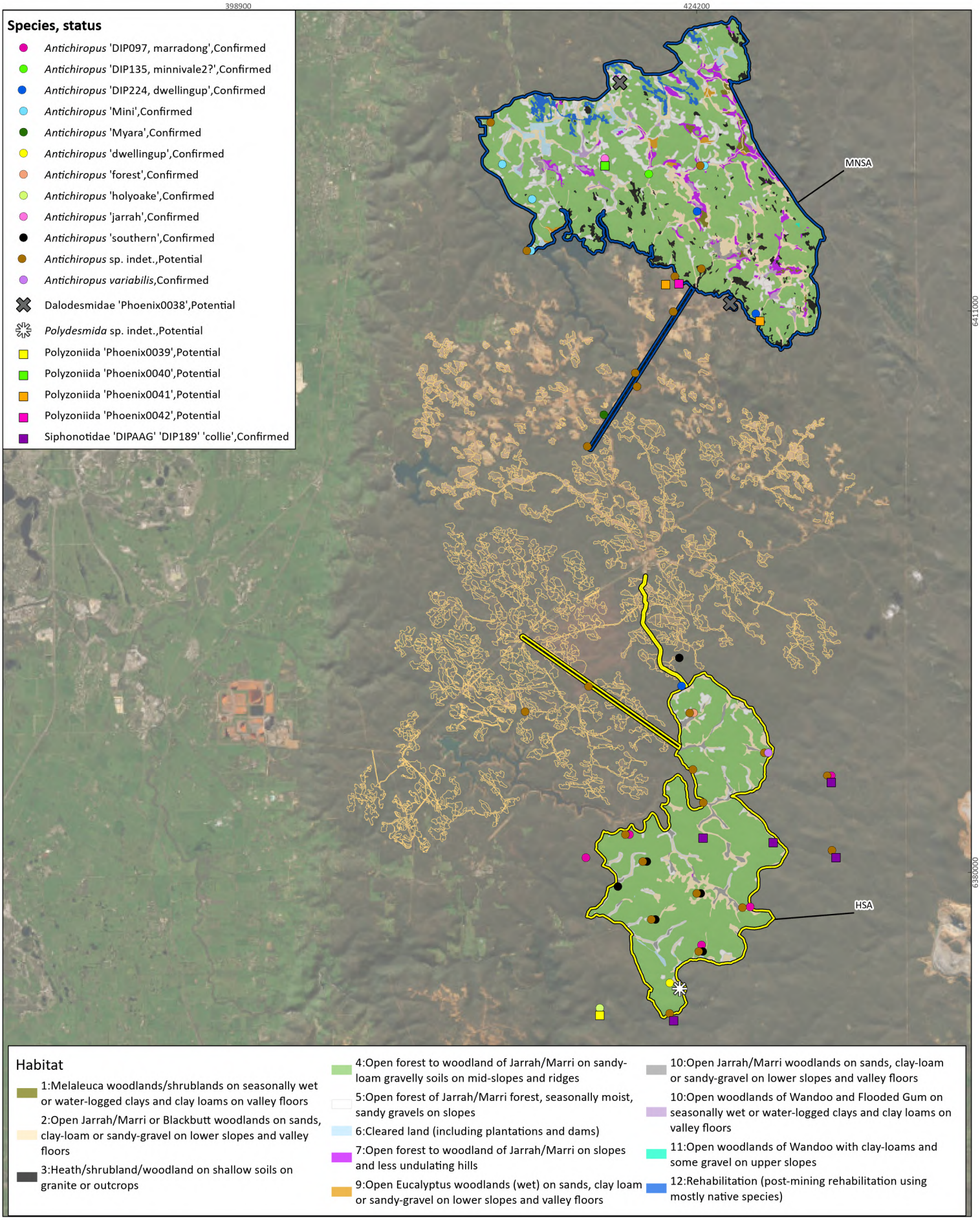
Species, status

- *Beierolpium* sp. indet.,Potential
- *Isometroides* 'jarrah',Potential
- Olpiidae sp. indet.,Potential
- *Urodacus planimanus*,Confirmed

Figure 5-5

Field records of SRE scorpions and pseudoscorpions

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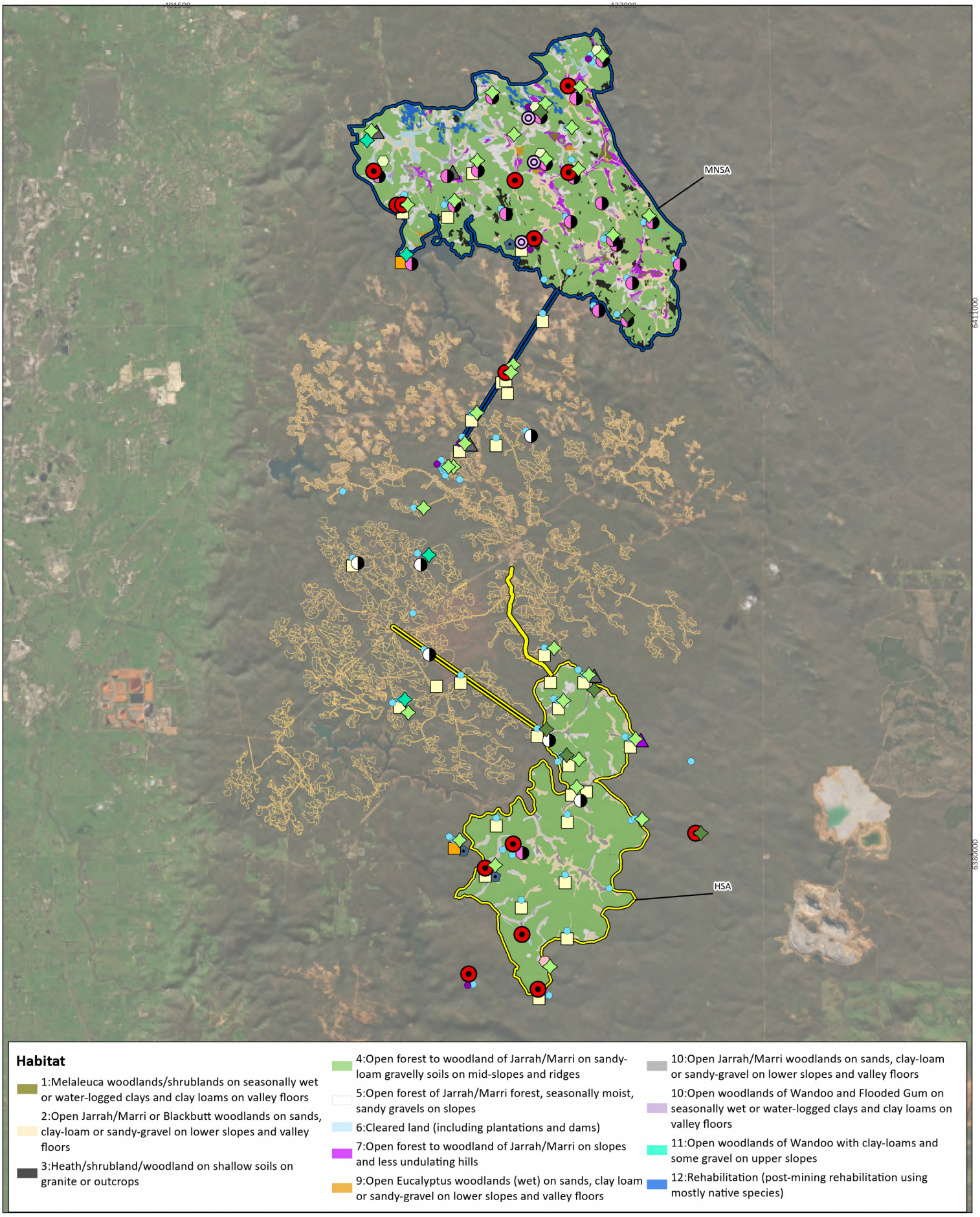
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Myara North study area
Holyoake study area
Rehabilitation study area

Figure 5-6
Field records of SRE millipedes

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Habitat

- 1:Melaleuca woodlands/shrublands on seasonally wet or water-logged clays and clay loams on valley floors
- 2:Open Jarrah/Marri or Blackbutt woodlands on sands, clay-loam or sandy-gravel on lower slopes and valley floors
- 3:Heath/shrubland/woodland on shallow soils on granite or outcrops
- 4:Open forest to woodland of Jarrah/Marri on sandy-loam gravelly soils on mid-slopes and ridges
- 5:Open forest of Jarrah/Marri forest, seasonally moist, sandy gravels on slopes
- 6:Cleared land (including plantations and dams)
- 7:Open forest to woodland of Jarrah/Marri on slopes and less undulating hills
- 9:Open Eucalyptus woodlands (wet) on sands, clay loam or sandy-gravel on lower slopes and valley floors
- 10:Open Jarrah/Marri woodlands on sands, clay-loam or sandy-gravel on lower slopes and valley floors
- 10:Open woodlands of Wandoo and Flooded Gum on seasonally wet or water-logged clays and clay loams on valley floors
- 11:Open woodlands of Wandoo with clay-loams and some gravel on upper slopes
- 12:Rehabilitation (post-mining rehabilitation using mostly native species)



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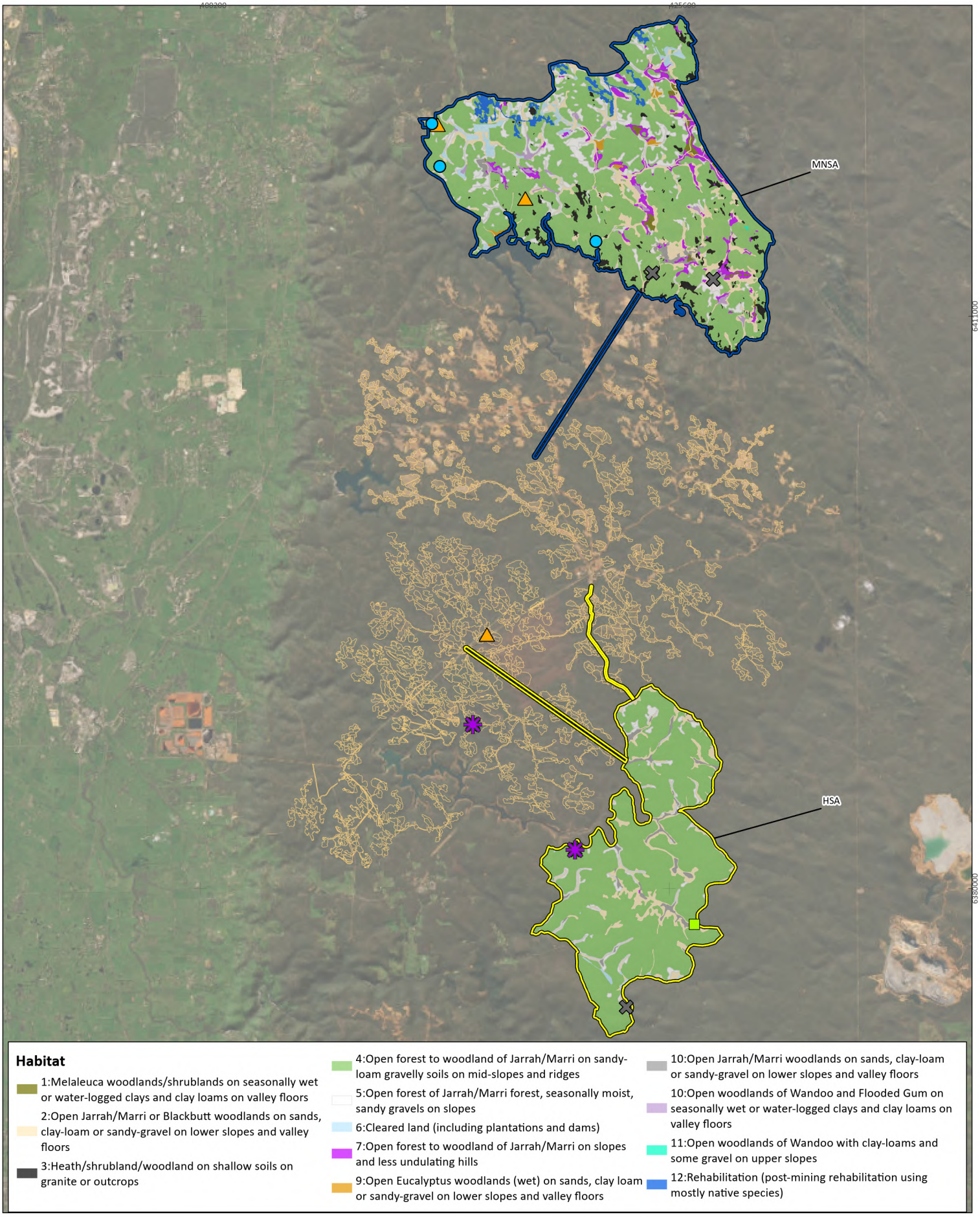
- Myara North study area
- Holyoake study area
- Rehabilitation study area

Species, status

- *Acanthodillo* '1',Potential
- *Acanthodillo* sp. indet.,Potential
- *Armadillo flavus*,Potential
- *Buddelundia* '5' (Huntly),Likely
- *Buddelundia* sp. indet.,Potential
- *Laevophiloscia* '1',Potential
- *Laevophiloscia* sp. indet.,Potential
- Paraplatyarthridae sp. indet.,Potential
- *Paraplatyarthrus* sp. indet.,Potential
- Philosciidae 's',Likely
- Philosciidae sp. indet.,Potential
- *Pseudodiploexochus* sp. indet.,Likely
- *Spherillo* '1',Likely
- *Styloniscus* '1',Potential
- *Styloniscus* '7',Potential
- *Styloniscus* sp. indet.,Potential

Figure 5-7
Field records of SRE isopods

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Habitat

- 1:Melaleuca woodlands/shrublands on seasonally wet or water-logged clays and clay loams on valley floors
- 2:Open Jarrah/Marri or Blackbutt woodlands on sands, clay-loam or sandy-gravel on lower slopes and valley floors
- 3:Heath/shrubland/woodland on shallow soils on granite or outcrops
- 4:Open forest to woodland of Jarrah/Marri on sandy-loam gravelly soils on mid-slopes and ridges
- 5:Open forest of Jarrah/Marri forest, seasonally moist, sandy gravels on slopes
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- Myara North study area
- Holyoake study area
- Rehabilitation study area

Species, status

- *Annoselix* cf. *dolosa*,Potential
- *Bothriembryon* cf. bradshawi,Potential
- *Bothriembryon* cf. indutus,Potential
- Charopidae sp. indet.,Potential
- cf.^*Westralaoma* sp. indet.,Potential

Figure 5-8

Field records of SRE land snails

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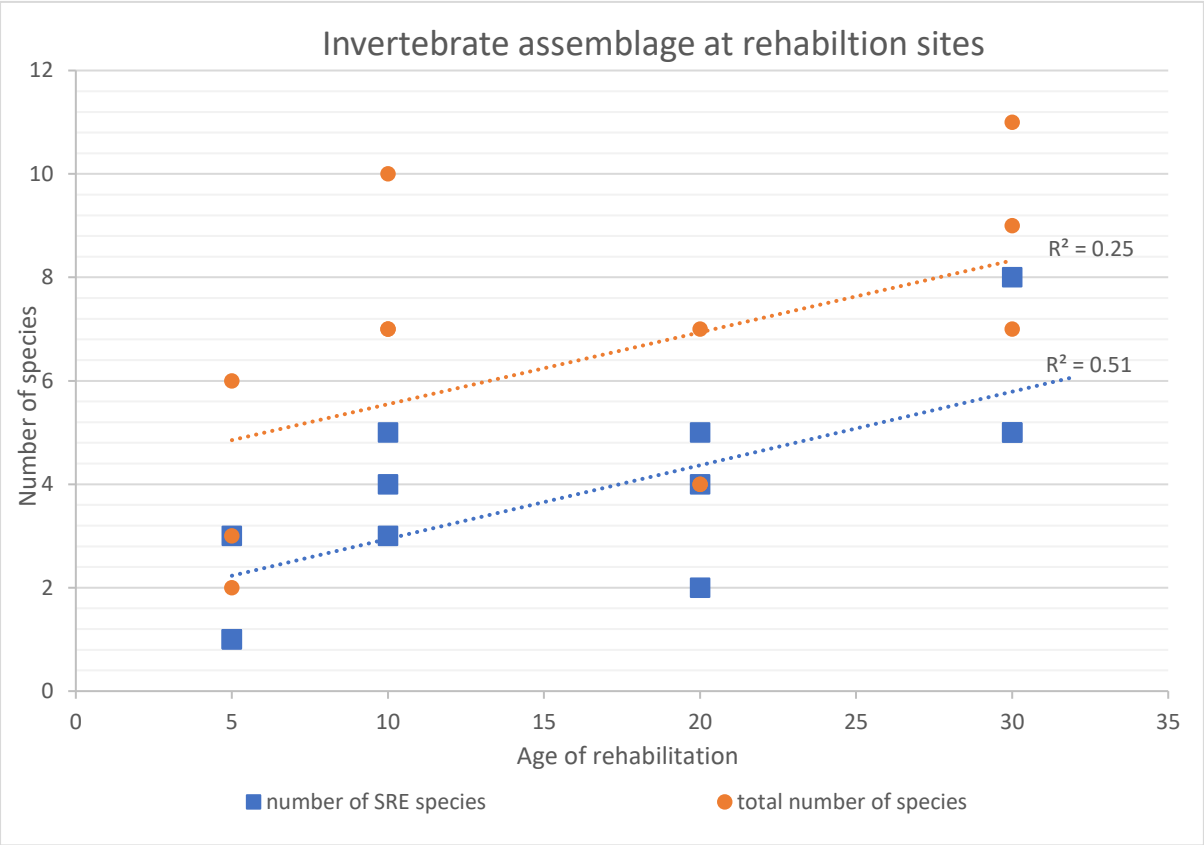


Figure 5-9 Number of SRE invertebrate taxa present at rehabilitation sites

5.2.3 SRE taxa and fauna habitats

A summary of SRE taxa recorded per habitat type is presented below (Table 5-7). Eight native fauna habitats recorded SRE taxa as follows:

- High – *Melaleuca* woodlands/shrublands on seasonally wet or water-logged clays and clay loams on valley floors (1): 4 taxa
- High – Open Jarrah/Marri or Blackbutt woodlands on sands, clay-loam or sandy-gravel on lower slopes and valley floors (2): 43 taxa
- High – Heath/shrubland/woodland on shallow soils on granite or outcrops (3): 8 taxa
- Low – Open forest of Jarrah/Marri on sandy-loam gravelly soils on mid slopes and ridges (4): 68 taxa
- High – Open forest of Jarrah/Marri forest, seasonally moist, sandy gravels on slopes (5): 21 taxa
- Low – Open forest to woodland of Jarrah/Marri on slopes and less undulating hills (7): 8 taxa
- High – Open woodlands of Wandoo and Flooded Gum on seasonally wet or water-logged clays and clay loams on valley floors (10) 15 taxa
- Low – Rehabilitation (post-mining rehabilitation using mostly native species) (12): 16 taxa
- High – Bullich forest on seasonally moister sandy-loam gravelly soil lower slopes and valley floors (18 taxa).

Habitat type 4 (Open forest of Jarrah/Marri on sandy-loam gravelly soils on mid slopes and ridges) recorded the highest number of SRE taxa. This is also the most widespread habitat in the baseline study area (20,110 ha) and the most sampled. Of the taxa recorded in this habitat however, 14 SRE morphospecies were recorded only fromthis 'widespread' habitat during the survey.

Of the SRE taxa recorded, 57were collected from the six High potential SRE habitats (1, 2, 3, 5, 10, and 13). Of these, nine were recorded from a single habitat type. The most diverse habitat is habitat 2, which recorded 43 SRE taxa, followed by habitat 5 which recorded 21 SRE taxa. This is expected given the number of sites recorded in each habitat type. Habitat type 13 recorded 18 taxa, which is diverse considering only 2 sites were sampled in this habitat type.

In total, 33 taxa were recorded from a single habitat type, of these, ten were recorded from High SRE habitat; nine of these are from habitat (2), the most widespread High SRE habitat, and one from habitat (3), granite associated habitats.

None of the SRE taxa were recorded only from the rehabilitated habitat (12).

Table 5-7 Summary of SRE taxa recorded in this survey with respect to fauna habitat

Taxa	Fauna habitat								
	High SRE potential						Low SRE potential		
	1	2	3	5	10	13	4	7	12
Mygalomorphae (trap-door spiders)	●	●	●	●	●	●	●	●	●
Missulena 'MYG198'		●							
Teyl 'MYG864' (*Aname* 'Phoenix0004)'		●			●		●		
Teyl (*Aname*) 'Phoenix0010'		●							
Teyl 'Phoenix0006' (*A.* 'Phoenix0018')		●							
Aname 'Phoenix0020'						●	●		
Proshermacha 'MYG658' (*Aname* 'Phoenix0036')		●				●	●		
Aname 'MYG867' (*Aname* 'Phoenix0037')							●		
Teyl 'MYG863' (Anamidae 'Phoenix0009')						●	●		
Anamidae 'sp. indet'		●		●	●		●		●
Kwonkan 'Phoenix005'		●							
Kwonkan 'Phoenix008'							●		
Proshermacha 'MYG485'		●		●	●		●	●	●
Proshermacha 'MYG495' (*P* 'Phoenix0023')							●		
Teyl 'MYG862 (*Proshermacha* 'Phoenix0027')		●							
Proshermacha 'Phoenix0028'								●	
Proshermacha 'Phoenix0024' (*P.* 'Phoenix0040')		●							
Teyl 'MYG355'				●		●			
Teyl 'MYG866' (*T.* 'Phoenix0007')		●					●	●	●
Teyl 'MYG860' (*T.* 'Phoenix0019')							●		
Teyl 'MYG865' (*T.* 'Phoenix0021')							●		
Barychelidae 'sp. indet'							●		
Synothele mullaloo ('Phoenix0015' & 'Phoenix0016')		●		●			●		
Eucyrtops latior		●			●		●		
Bungulla harrisonae (*Eucyrtops* 'Phoenix0003')	●	●	●	●		●	●		●
Eucyrtops 'Phoenix0029'		●					●		
Eucyrtops 'Phoenix0030'							●		
Eucyrtops 'Phoenix0032'							●		
Eucyrtops 'MYG645' (*E.*'Phoenix0033' & 'WorsleyDNA06')		●		●	●	●	●		●
Euoplos inornatus (E. 'Phoenix0011')	●						●		

Taxa	Fauna habitat								
	High SRE potential						Low SRE potential		
	1	2	3	5	10	13	4	7	12
Euoplos 'Phoenix0012'							●		
Idiopidae sp. indet.	●	●			●		●	●	●
Idiosoma 'MYG790' (*I.*'Phoenix0035')		●				●	●		
Idiosoma 'MYG187' ('WAM T129362')		●	●	●			●		
Opiliones (harvestmen spiders)		●		●	●	●	●	●	●
Abaddon despoliator						●	●		
Calliuncus 'sp. indet'				●		●	●		
Eupnoi 'sp. indet'		●		●	●	●	●	●	
Nunciella 'sp. indet'							●		
Trianonychidae 'genus 008' sp. indet.		●		●	●	●	●		●
Trianonychidae 'sp. indet'		●					●		
Opiliones sp. indet.					●		●		●
Scorpiones (scorpions)		●		●	●		●		
Isometroides 'jarrah'		●		●			●		
Urodacus planimanus		●		●	●		●		
Pseudoscorpions							●		
Beierolpium 'sp. indet'							●		
Olpiidae 'sp. indet'							●		
Diplopoda (millipedes)	●	●	●	●	●	●	●		●
Antichiropus 'DIP224, dwellingup'	●		●	●			●		
Antichiropus 'DIP135, minnivale2?'		●							
Antichiropus 'forest'							●		
Antichiropus 'holyoake'							●		
Antichiropus 'jarrah'							●		
Antichiropus 'DIP 097, Marradong'		●					●		
Antichiropus 'mini'		●							
Antichiropus 'Myara'							●		
Antichiropus 'southern'				●			●		
Antichiropus 'sp. indet'		●	●	●		●	●		●
Dalodesmidae 'Phoenix0038'							●		
Polydesmida 'sp. indet'							●		
Polyzoniida 'Phoenix0039'							●		
Polyzoniida 'Phoenix0040'							●		
Polyzoniida 'Phoenix0041'			●	●					
Polyzoniida 'Phoenix0042'			●						
Siphonotidae 'DIPAAG' 'DIP189' 'collie'		●			●		●		

Taxa	Fauna habitat								
	High SRE potential						Low SRE potential		
	1	2	3	5	10	13	4	7	12
Isopoda (slaters)		●	●	●	●	●	●	●	●
Acanthodillo '1'		●							
Acanthodillo 'sp. indet'		●		-	●	●	●		
Armadillo flavus		●					●		
Buddelundia '5' (huntly)		●		●	●	●	●		●
Buddelundia 'sp. indet'							●		
Pseudodiplexochus 'sp. indet'		●				●	●	●	
Paraplatyarthridae 'sp. indet'		●					●		
Spherillo '1'		●					●		
Paraplatyarthrus 'sp. indet'							●		
Laevophiloscia '1'		●	●	●	●	●	●		●
Laevophiloscia 'sp. indet'		●					●		
Philosciidae 's' / Philosciidae '1'		●			●		●	●	
Philosciidae 'sp. indet'							●		●
Styloniscus '1'		●		●	●	●	●	●	●
Styloniscus '7'		●		●		●	●		
Styloniscus 'sp. indet'							●		●
Eupulmonata (land snails)		●	●				●		●
Bothriembryon cf. *bradshawi*		●							
Bothriembryon cf. *inductus*		●					●		
Annoselix cf. dolosa							●		●
cf. *Westraloma* 'sp. indet'							●		●
Charopidae 'sp. indet'		●	●				●		●
Total	**4**	**43**	**8**	**21**	**15**	**18**	**68**	**8**	**17**

5.3 STATISTICAL ANALYSIS OF SURVEY COMPLETENESS

The species records for the baseline surveys of the MNSA and HSA were aggregated for the species accumulation analysis. Despite extensive survey effort conducted to date, the curves of all four indices of t curves for five of the seven Orders examined (Figure 5-10–Figure 5-16) continued to increase at a relatively steep rate, suggesting many species in these Orders remain to be collected. The curves of the indices for the opiliones (Figure 5-11) and scorpions (Figure 5-12) reach asymptote, suggesting few taxa remain undetected.

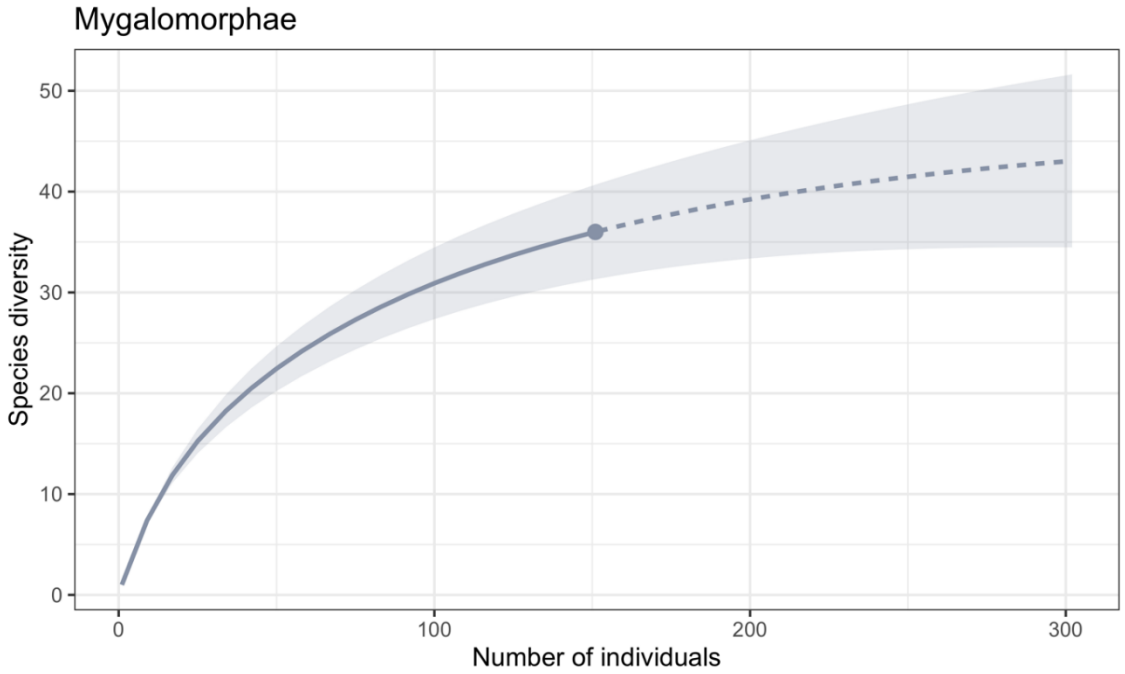


Figure 5-10 Species accumulation curve for Mygalomorphae

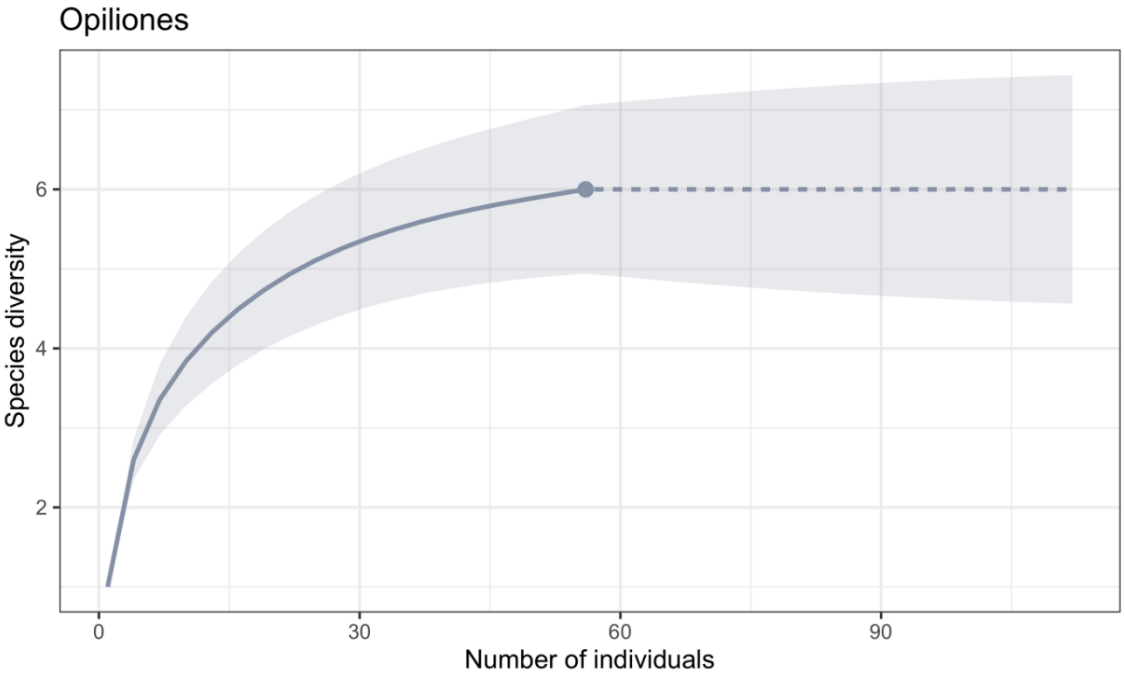


Figure 5-11 Species accumulation curve for Opiliones

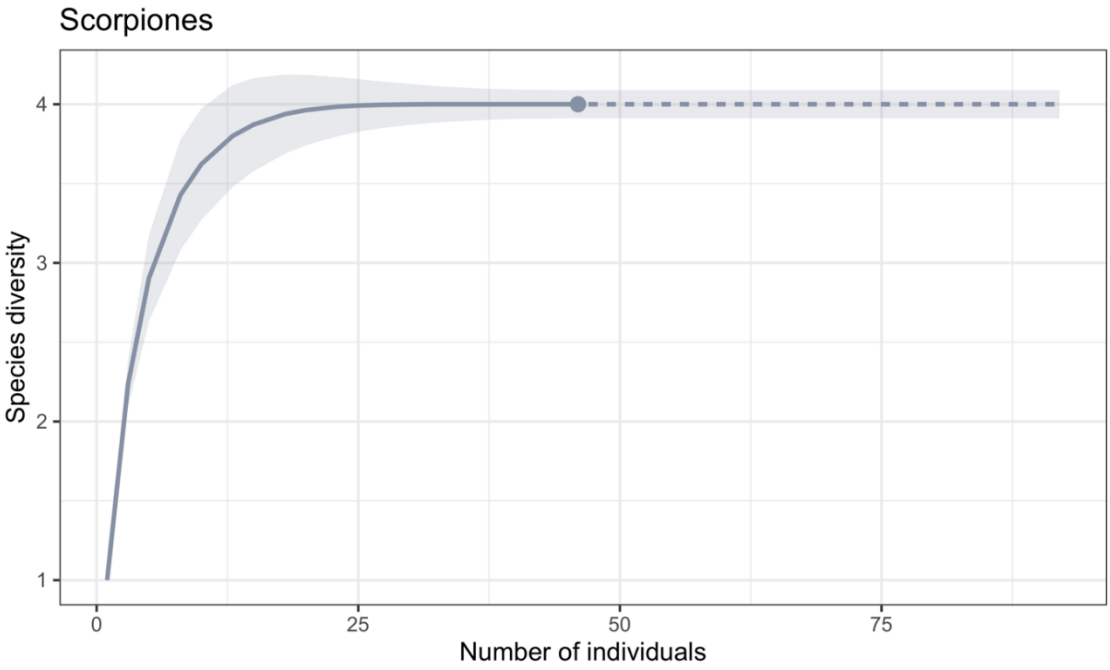


Figure 5-12 Species accumulation curve for Scorpiones

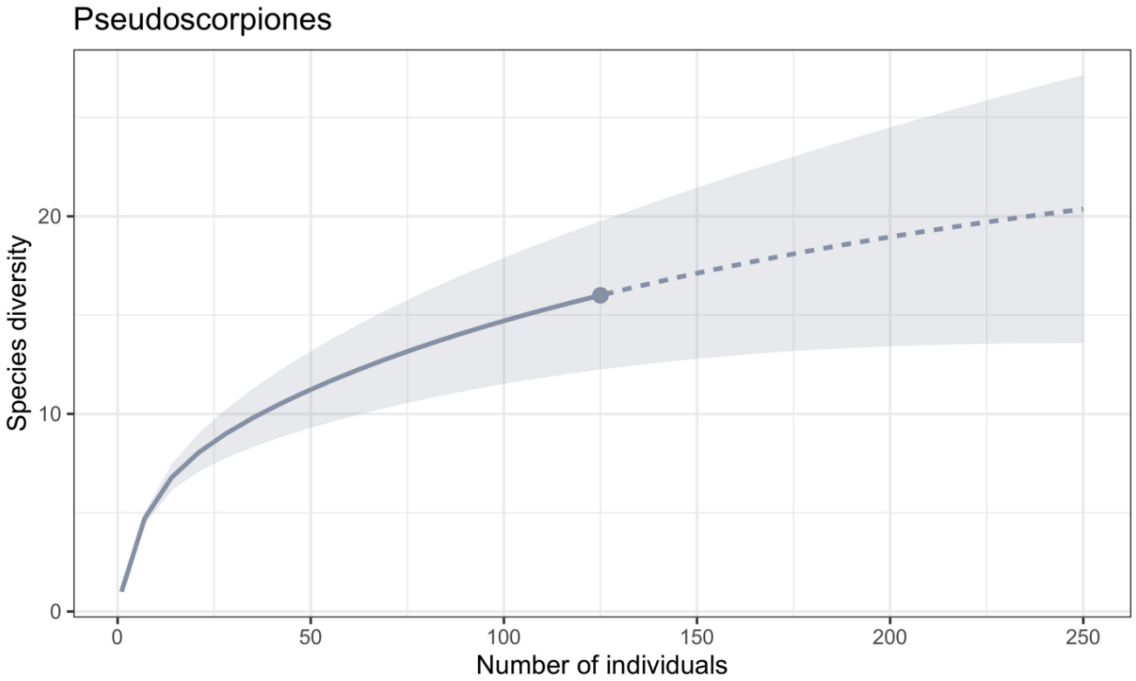


Figure 5-13 Species accumulation curve for Pseudoscorpiones

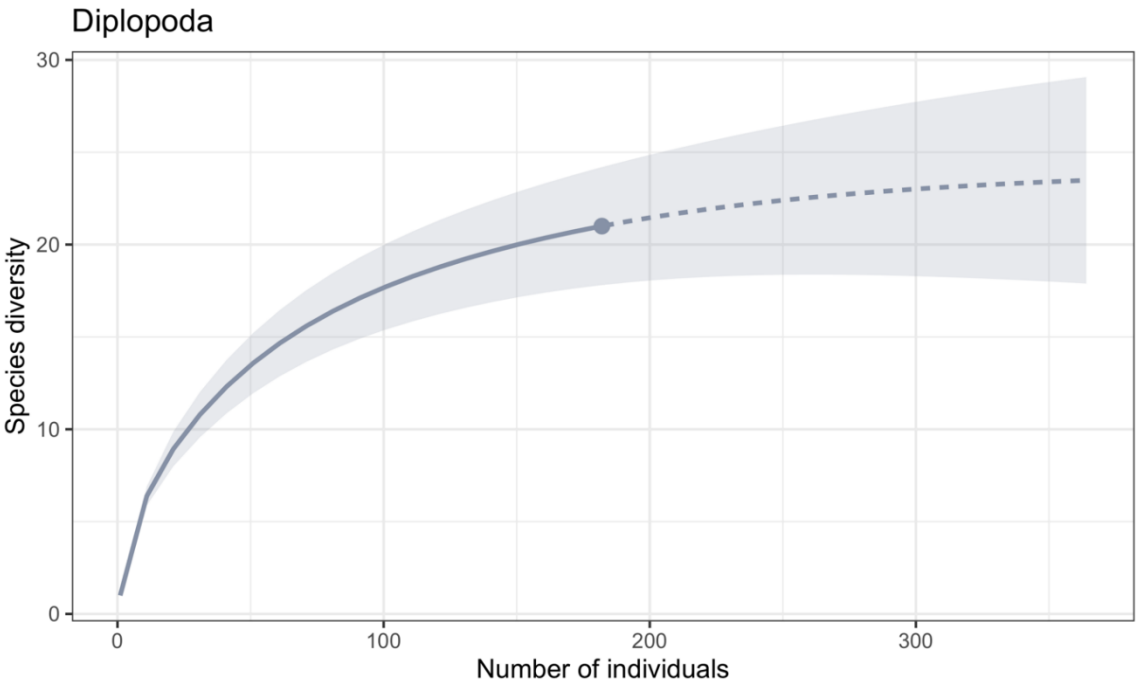


Figure 5-14 Species accumulation curve for Diplopoda

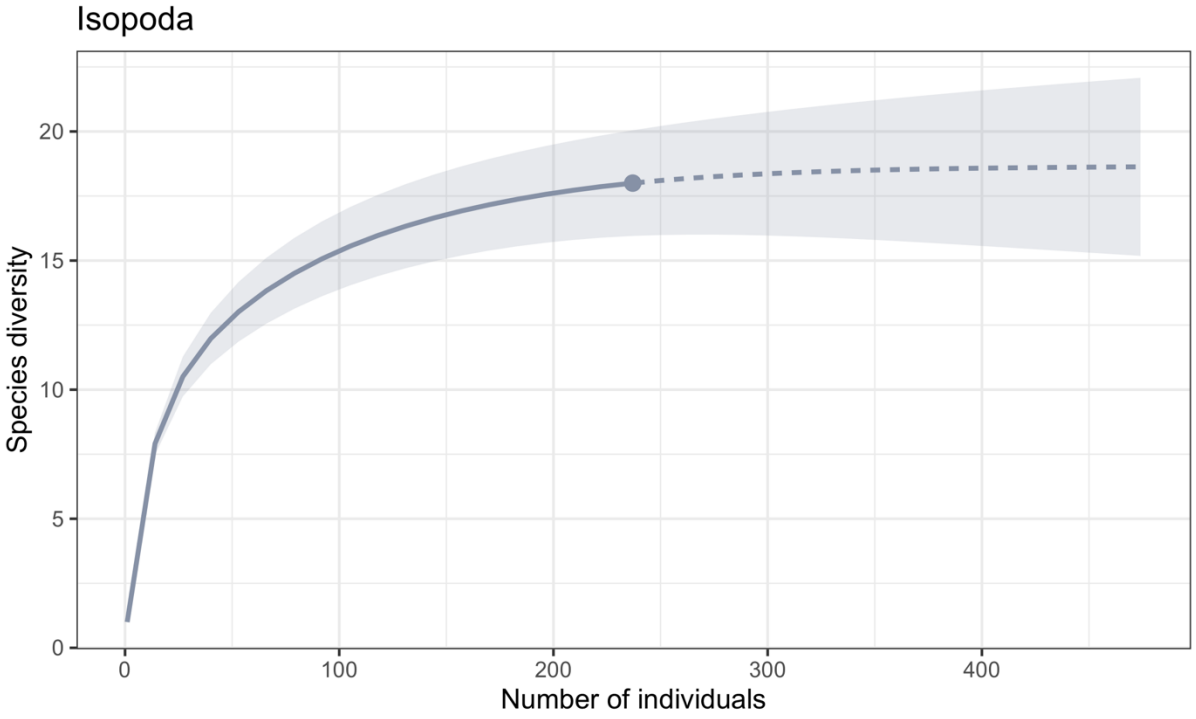


Figure 5-15 Species accumulation curve for Isopoda

Expected asymptote: 17-24 species

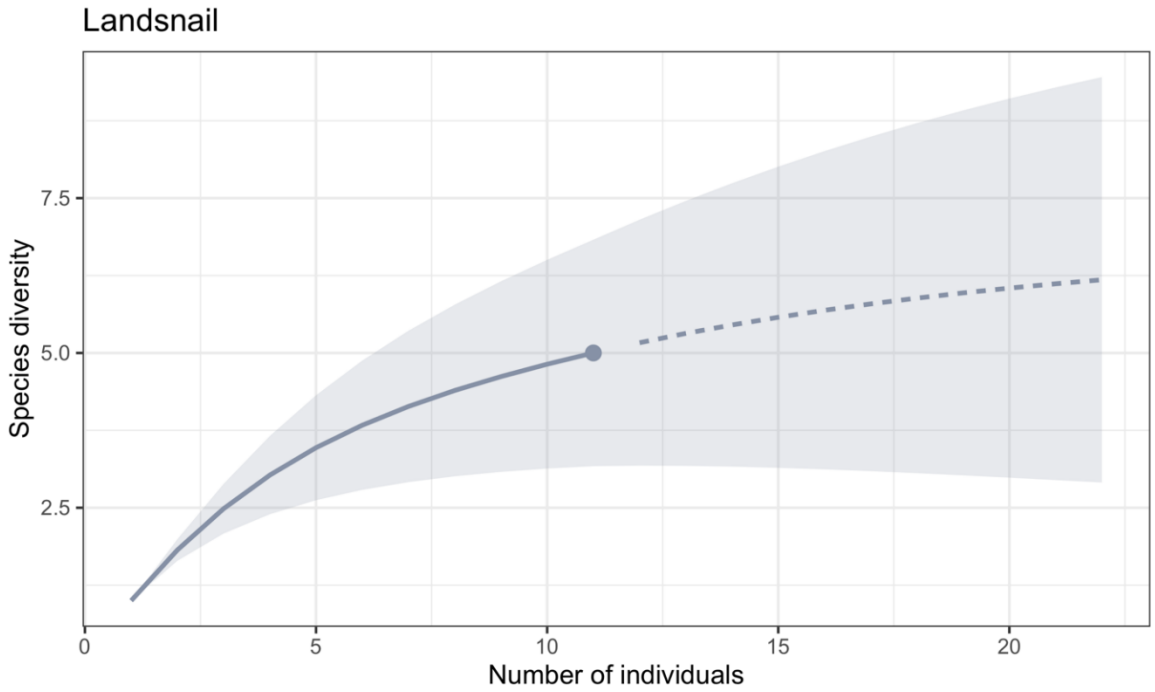


Figure 5-16 Species accumulation curve for Mollusca

6 DISCUSSION

6.1 SRE TAXA

The results of this survey indicate a rich and diverse SRE invertebrate fauna is present in the baseline study area, but with clear bias toward presence of particular SRE groups. Based on the desktop and field results, 85 SRE taxa are known from the baseline study area, comprising 82 taxa from the field survey and three species from the desktop review that were not re-collected in the survey.

The SRE assemblage comprised 10 confirmed SREs (nine millipedes and one scorpion), five likely SREs (all isopods) and 66 potential SREs (33 mygalomorphs, 11 isopods, seven millipedes, seven Opiliones, 5 land snails, one scorpion and two pseudoscorpions). The 10 confirmed SRE taxa were mainly classified as such based-on knowledge of the specific taxonomic group, i.e. *Antichiropus* millipedes, of which there were eight confirmed species recorded. Within the described *Antichiropus* species, only a few have ranges that exceed the nominal limits of short-range endemism (Car & Harvey 2014). All other species of the genus are believed to be SREs and many are known from only a few hundred square kilometres (Car & Harvey 2014; Car *et al.* 2013; Wojcieszek & Simmons 2011).

The confirmed SRE scorpion *Urodacus planimanus* is restricted to the western parts of the Northern Jarrah subregion (E. Volschenk pers. comm.); however, the species is very close to exceeding the nominal upper limit of 10,000 km^2 for SREs and records are common within its range.

Taxa were recorded from all main target SRE groups relevant to southern WA but there was high variability in species richness between groups, with mygalomorph spiders, millipedes and isopods represented by much higher diversity than others. Some groups were represented by only widespread species, for example onychophorans, selenopids and spirostreptid millipedes.

Species accumulation curves were not done for some SRE taxa (Selenopidae (flat spiders) and Onychophora (velvet worms) which are typically SRE taxa in other bioregions) were not included because they only contained a few representatives, and all of these were all described and known to be widespread.

Of the SRE taxa collected in the survey, 16 were recorded only from the baseline study area, of which 12 were recorded only from the MNSA and 4 recorded from both MNSA and HSA. (Table 6-1). The remaining 65 SRE taxa from the survey have been confirmed to have wider distributions than the baseline study area. Further comment is provided in section 6.5 on the 16 taxa that are known only from the MNSA and/or HSA, as these species are most at risk from the Proposal.

The high proportion of taxa collected from representatives of SRE groups that were classified as SREs (73%) was atypical of SRE surveys which generally range between 20-50% SRE taxa; however, was consistent with the Worsley survey (Phoenix 2021a). This is likely attributable to the large number of specimens that were collected and identified using molecular techniques, as well as being from a known diverse ecosystem comprising of a relatively narrow strip of hills and gullies with widescale clearing to the east and west. The use of molecular analysis enabled resolution of distinct taxa which otherwise would be unable to be morphologically identified due to life stage (juveniles), sex (females), or a simple lack of taxonomic knowledge.

The evolution of endemism within the Jarrah Forest has been documented by Wardell-Johnson and Horwitz (2000) to be the outcome of the long and complex geological and climatic history of the region. Through the interrogation of molecular results and geographic datasets, it can be inferred that active speciation via sympatry is prominent within the northern Jarrah Forest. Examples from within the two most speciose taxon groups from the survey, mygalomorph spiders and millipedes, demonstrate clear sister-species that overlap in distribution; however, are genetically dissimilar. This

study highlights a clear gap of knowledge relating to uncovering cryptic, sympatric and/or allopatric speciation within the northern Jarrah Forest and highlights potential endemicity for many taxa.

Table 6-1 Summary of all SRE known taxa in the study area

Survey area	Confirmed	Likely	Potential	Also collected outside baseline study area	Known only from survey area
MN-MA	5	5	48	42	12
MN-CC	2	3	17	21	0
MN-HR	0	1	5	4	0
H-MA	9	4	29	440	0
H-CC	0	1	6	7	0
H-HR	1	1	1	2	0
Baseline study area total	11	5	67	65	16
Rehabilitation	0	1	16	17	0

6.2 SRE HABITATS

The baseline study area has a very high proportion of native vegetation cover (96.4%). Of the ten SRE habitats defined within this, seven were classified as having High PHR with habitat attributes that often give rise to specialisation or dependency in invertebrate fauna, particularly more mesic habitats on lower slopes and valley floors and isolated granite outcrops. These represented 6,624.8 ha (23.5%) of the baseline study area.

Some SRE taxa were collected only from High PHR habitat/s (e.g. *Teyl* 'MYG862', *Teyl* 'MYG355', Polyzoniida 'Phoenix0041') and it is possible these habitats harbour highly range-restricted species. Many SRE taxa were recorded from both Low and High PHR habitats however, with some of these having wider distributions than the current study area, e.g. *Proshermacha* 'MYG485', *Synothele mullaloo*, *Bungaulla harrisonae*, *Euoplos inornatus*, and *Antichiropus* 'southern'.

The Low PHR habitats in the remainder of native vegetation (21,708 ha, 74.8%), mainly woodlands on mid and upper slopes, occur more broadly and typically lacked distinguishing features that facilitate habitat specialisation. At the site level however, microhabitat features suitable for SREs were sometimes present that are not reflected in the much broader scale habitat mapping.

SRE records were not confined to High PHR habitats, with the most widespread habitat (4, Open forest of Jarrah/Marri on sandy-loam gravelly soils on mid slopes and ridges) recording the highest number of SRE taxa. Habitat 4 was the most sampled habitat type and therefore this result probably reflects sampling effort to a large extent. However, it may also reflect different scenarios for different species.

It is possible that finer habitat attributes within habitat 4 may be influencing distribution of some species but many of the species (e.g. Teyl 'MYG863', *Kwonkan* 'Phoenix0008', *Teyl* 'MYG860', *Teyl* 'MYG865', *Eucyrtops* 'Phoenix0030') were collected from a single site, making inferences about distribution and habitat preference difficult.

Several sites within habitat 4 contained *Allocasuarina* which is a common genus utilised by members of Idiopidae for trap-door lid construction (Main 1978; Rix *et al.* 2018; Phoenix, unpublished data). *Eucyrtops* 'Phoenix0030' and *Euoplos* 'Phoenix0012' were both recorded only from a site containing *Allocasuarina*; however, several other Idiopids were collected from sites lacking *Allocasuarina*, and there is also there is evidence to suggest that these species easily move between patches of *Allocasuarina* with similar species recorded from several separate patches of *Allocasuarina.*

Habitat 4 does not contain refuges or soils that are likely to retain moisture over the dry season, therefore the SREs recorded in this habitat are unlikely to restricted to this habitat type or only from the study area. Habitat 4 contains the main targets for mining, and given the widespread and generally unrestricted nature of this habitat, it is of lower risk for SREs than other High PHR SRE habitats in the study area.

6.3 SURVEY COMPLETENESS

A total of 60 sites were systematically surveyed in the baseline study area across an area of 28,132 ha and across eight habitat types. From this survey, 112 taxa from nine SRE groups were delineated. Species accumulation curves for three of the seven most speciose SRE groups (opiliones, scorpions or isopods) suggest few taxa remain undetected and that additional efforts focused on these Orders is likely to only marginally improve the knowledge concerning the species richness of these groups.

The curves of the indices of the remaining four SRE groups (mygalomorphs, pseudoscorpions, millipedes and land snails) continued to rise indicating that these groups are more speciose and additional taxa remain to be collected. These trends are considered reflective of the high level of endemicity, and hence diversity, in the northern Jarrah Forest as concluded by Wardell-Johnson and Horwitz (1996) and Wardell-Johnson and Horwitz (2000). This result was also consistent with the Worsley survey (Phoenix 2021a).

6.4 COMPARISON BETWEEN MNSA AND HSA

The SRE assemblages between the MNSA and HSA were considerably different with the two study areas sharing just 30 out of the 82 SRE taxa (36%), and 36 and 16 SRE taxa being exclusively recorded from the MNSA and has during the survey, respectively (Table 6-2). Mygalomorph spiders comprised the highest proportion of taxa that were recorded exclusively in either the MNSA or the HSA, followed by Millipedes. Both study areas recorded similar numbers of millipede species exclusively; however, the MNSA recorded four times the number of mygalomorph spiders unique to that area.

The group that appears to have the highest degree of similarity between the MNSA and HSA is the isopods, with over half of the taxa being recorded from both the MNSA and HSA. Opiliones also appear to be distributed between both study areas; however, this group is very data deficient and poorly studied, with all but one species from the survey being indeterminate.

While both the MNSA and HSA shared similar habitat types, the MNSA had more habitat diversity, with nine fauna habitats compared to seven fauna habitats in the HSA. The dominant habitat (4) covered 65% of its 17,672.2 ha study area leaving 35% of the MNSA study area split between the remaining eight fauna habitats, while the HSA dominant habitat (also habitat 4) covered 80% of its 10,456.4 ha study area, leaving only 20% comprising of other types of habitat, of which three occupied less than 0.1% of the HSA.

Some notable habitats were missing from the HSA or occupied less than 0.1% of the HSA, including *Melaleuca* woodlands/shrublands and granite associated woodland/shrublands. Valley floor habitats which often represent high value habitat for SREs were identical in both the MNSA and HSA, with 13.9%; however, habitats with a high habitat rating were 26.7% and 18.1% in the MNSA and HSA, respectively. The higher proportion of high value habitats in the MNSA is largely attributed to more areas of granite outcroppings, presence of drainage/creeklines and seasonally moist areas in that study area.

Table 6-2 SRE taxa within the MNSA and HSA

	MNSA only	HSA only	Common to MNSA and HSA
Mygalomorph spiders	19	5	9
Opiliones	2	0	5
Scorpions	1	0	1
Pseudoscorpions	2	0	0
Millipedes	7	7	3
Isopods	4	3	9
Land snails	2	2	1
Total	**36**	**16**	**30**

6.5 COMPARISON BETWEEN HUNTLY AND WORSLEY STUDIES

Comparisons between the current survey and the Worsley survey (Phoenix 2021a) revealed similar SRE invertebrate community structure but with mostly different SRE species (Table 6-3). The proportionate representation of the SRE groups is similar to that of the Worsley survey (Phoenix 2021a), where the SRE assemblage was also predominantly comprised of mygalomorphs, millipedes and isopods. A similar number of SRE species were recorded in each survey and the same proportion of taxa collected from SRE groups were classified as an SRE species (Table 6-3).

Of the SRE assemblage from the current survey and the Worsley survey (Phoenix 2021a), 13 SREs were collected from both areas (Table 6-4). Overlapping taxa included several mygalomorphs and isopods, an opilione, a millipede and a land snail (Table 6-4).

The overlapping species represent just 15% of the SRE assemblage known from the baseline study area and suggests many of the SREs may have restricted ranges at a scale much smaller than IBRA subregion.

Table 6-3 Comparison of Huntly and Worsley (Phoenix 2021a) studies

	Huntly	Worsley
Baseline study area size (ha)	28,132 ha	124,651 ha 29,360 (CBME and WMDE) 95,291 (regional study area)
Number of sites (baseline survey)	60 sites in total • 28 MN-MA • 22 H-MA • 5 MN-CC • 3 H-CC • 1 MN-HR • 1 H-HR	47 sites in total • 10 CBME (2019) • 22 WMDE (2019) • 15 regional study area (2020)
Number of taxa from SRE groups	117	134
Number of SRE taxa	Confirmed: 11 Likely: 5 Potential: 66 Total: 81	Confirmed: 9 Likely: 12 Potential: 77 Total: 98
% of taxa from SRE groups that are SREs	73%	73%
Number of families and genera	Families: 19	Families: 19

	Huntly	Worsley
	Genera: 24	Genera: 30
Number of taxa in each group	Mygalomorphs: 33 (40.7%) Opiliones: 7 (8.6%) Pseudoscorpions: 2 (2.5%) Scorpions: 2 (2.5%) Millipedes: 16 (19.8%) Isopods: 16 (19.8%) Land snails: 5 (6.1%)	Mygalomorphs: 40 (40.8%) Opiliones: 8 (8.2%) Pseudoscorpions: 4 (4.1%) Scorpions: 0 Millipedes: 19 (19.4%) Isopods: 24 (24.5%) Land snails: 3 (3%)
Number of native habitat types	10	9
Number of sites (rehabilitation survey)	12	8
Age of rehabilitation	5 YO (rehabilitated in 2015): 3 sites 10 YO (rehabilitated in 2010): 3 sites 20 YO (rehabilitated in 2000): 3 sites 30 YO (rehabilitated in 1990): 3 sites	5 YO (rehabilitated in 2015): 1 site 9 YO (rehabilitated in 2011): 1 site 13 YO (rehabilitated in 2007): 1 site 15 YO (rehabilitated in 2005): 1 site 18 YO (rehabilitated in 2002): 1 site 22 YO (rehabilitated in 1998): 1 site 27 YO (rehabilitated in 1993): 1 site 36 YO (rehabilitated in 1984): 1 site

Table 6-4 Common SRE taxa from the Huntly and Worsley studies

Family	Species	Comments
Actinopidae	*Missulena* 'MYG198'	Also recorded by Phoenix (Phoenix 2012) and at Wungong Dam in 2010
Anamidae	*Aname* 'MYG867'	Collected from several rehabilitation sites (Worsley and Huntly), and a baseline site (Huntly)
Anamidae	*Proshermacha* 'MYG485'	Appears relatively common within a restricted range
Anamidae	*Teyl* 'MYG355'	Only one other known record outside Huntly and Worsley
Idiopidae	*Eucyrtops* 'MYG645'	Recorded from other areas of the Jarrah Forest
Idiopidae	*Euoplos inornatus*	Recorded from other areas of the Jarrah Forest
Lomanellidae	*Abaddon despoliator*	Also collected from the Warren region; however, only from a few records
Siphonotidae	Siphonotidae 'DIPAAG' 'DIP189' 'collie'	Only known from the Huntly and Worsley surveys
Armadillidae	*Armadillo flavus*	Recorded from other areas of the Jarrah Forest
Philosciidae	*Laevophiloscia* '1'	Commonly collected from both study areas and the rehabilitation sites
Styloniscidae	*Styloniscus* '1'	Commonly recorded from both study areas and the rehabilitation sites
Styloniscidae	*Styloniscus* '7'	Commonly recorded from both study areas
Bothriembryontidae	*Bothriembryon* cf. *bradshawi*	Recorded from a baseline site (Huntly) and a rehabilitation site (Worsley)

6.6 REVIEW OF TAXA KNOWN ONLY FROM THE BASELINE STUDY AREA

Eight of the 16 taxa restricted to the MNSA and/or the HSA are represented by mygalomorphs, seven are represented by millipedes and one is a land snail. Nineteen of these are known only from the MNSA, again supporting the position that this study area is more likely to harbour species with very restricted ranges. Eleven of the taxa were collected at a single site within the baseline study area making comments about habitat preferences and distributions difficult. The other species were collected at two or more sites allowing for more informed comment on these species (Table 6-5). All 24 taxa are considered potential SREs.

6.6.1 Aname

Many *Aname* species appear to have restricted distributions (Harvey *et al.* 2012) and few are formally described. A large number of *Aname* taxa were identified in the desktop review, none of which were collected in the current survey with the exception of *Aname* 'MYG867' which was previously recorded in the Worsley survey. All other *Aname* from the study area are new species. This was a similar result to Worsley, with a mainly unique assemblage recorded there also.

The results appear to support likelihood of the *Aname* from the survey being SREs. Several indeterminate Anamidae were collected throughout the study area that may represent additional specimens of the assigned morpho-species.

Aname specimens were collected from a range of habitat and site types, including a creekline, plains, and hill slopes (one associated with granite). Two *Aname* species were recorded from variable habitat types. Two habitat types most recorded *Aname* species, (2) Open Jarrah/Marri or Blackbutt woodlands on sands, clay-loam or sandy-gravel on lower slopes and valley floors and (4) Open forest to woodland of Jarrah/Marri on sandy-loam gravelly soils on mid-slopes and ridges. This included records of the same species from both habitats, but also single site records from either habitat 2 or 4. This may indicate preference for some of the *Aname* taxa to inhabit lower vs upper parts of the landscape.

Based on current knowledge, the *Aname* species with most potential for highly restricted distribution is *Aname* 'Phoenix0010' as it is only known from a single High PHR habitat type (Table 6-5; Figure 5-3).

6.6.2 Proshermacha

Proshermacha is a genus of trap-door spider in the family Anamidae known mostly from southwestern Australia but extending along the southern coast.

Proshermacha specimens were collected from a variety of site types, including hill slopes, plains and drainage lines. The two species known only from the baseline study area, *P.* 'Phoenix0024' and *P.* 'Phoenix0028', were collected from habitats 4 and 10 respectively, both of which are well represented in the baseline study area. A large number of indeterminate *Proshermacha* specimens were returned in the desktop review and may include additional collections of *Proshermacha* 'Phoenix0024' and *P.* 'Phoenix0028'.

6.6.3 Teyl

The trap-door spider genus *Teyl* is a poorly described yet widely distributed group in the family Anamidae; with highest diversity in the southwestern land division of WA (Huey *et al.* 2019). A number of species are dependent on southern-temperate mesic habitats in the far south of WA, but most occur in occur in semi-arid or arid inland regions (Main1985, in Huey *et al.* 2019).

Collection sites for *Teyl* specimens from the survey were variable, including hill slopes, gullies and plains. The four species known only from the baseline study area have been allocated WA Museum morpho-species codes indicating they are unique species (Teyl 'MYG860', 'MYG863,

'MYG864', and 'MYG865'.Three of the four species were collected from only single site each, limiting comment on habitat preferences and distribution, though all were collected within widespread habitat 4.

A further four *Teyl* species were collected from the survey were recorded from outside the study area, however all of these species have only a few records associated with them, indicating low abundance and very short-range distributions, typical for this genus.

6.6.4 Eucyrtops

Eucyrtops is a relatively small and geographically restricted genus endemic to the southern half of WA (Rix *et al.* 2017). Two of the three *Eucyrtops* known only from the baseline study area were recorded from a range of habitat types and are unlikely to be highly restricted (Table 6-5). The third, *E.* 'Phoenix0030', was recorded from a single site in Low PHR habitat 4 in a similar site matching records of the other two species. The distribution of *E.* 'Phoenix0030' may therefore be inferred from these two species to be wider than a single habitat type, and therefore unlikely to be highly restricted.

6.6.5 Antichiropus

The genus *Antichiropus* is the most abundant and diverse millipede genus in WA and occurs throughout most of the State. Within the described species only a few have ranges that exceed the nominal limits of short-range endemism (Car & Harvey 2014). All other species of the genus are believed to be SREs and many are known from only a few hundred square kilometres (Car & Harvey 2014; Car *et al.* 2013; Wojcieszek & Simmons 2011). Several morphospecies in the genus *Antichiropus* have been found throughout the southwest and mostare currently considered SREs with demonstrated high range restrictions (WA Museum database).

Antichiropus specimens were collected from most drainage/creekline, gully and granite outcrop sites, but were also recorded in broader hill slope habitats. Of the three *Antichiropus* species known only from the baseline study area, *Antichiropus* 'jarrah' is currently the most restricted, being recorded from one site only, a valley floor/lower slope site in association with drainage line. *Antichiropus* 'DIP224, dwellingup' and *A.* 'mini' were both collected from variable habitats and from sites over 40 km apart.

The taxonomy of *Antichiropus* millipedes is very complex, and thorough investigation into the taxa collected during the survey and regionally throughout the northern jarrah forest using both molecular and morphological identification techniques is required to confidently delineate species, distributions and ecology.

6.6.6 Dalodesmidae

Dalodesmidae is a family of millipedes in the order Polydesmida, containing at least 250 species found in the Southern Hemisphere (ALA 2021). Narrow distributions have been documented for members of the family (Mesibov 2005). Dalodesmidae 'Phoenix0038' was collected from variable site types in widespread habitat 4 and is therefore unlikely to be highly restricted.

6.6.7 Polyzoniida

Polyzoniida is an order of millipedes referred to as sucking millipedes containing three families of which only one, Siphonotidae, has a southern distribution, including representatives in Australia (ALA 2021). One described Siphonotidae, *Rhinotus michaelseni*, and several morphospecies, were returned in the desktop review, including confirmed SRE species (Table 5-2).

The polyzoniids from the survey represent new taxa that were not matched to any previous collections. Three are currently known only from the baseline study area (Table 6-5) and a fourth was collected from a reference site outside the HSA (Table 5-5). Nearly all polyzoniid records were associated with gully and/or granite outcropping features, suggesting this group have fairly narrow habitat requirements.

6.6.8 Bothriembryon

Bothriembryon cf. *indutus* was collected from three variable sites suggesting the species does not have highly narrow habitat requirements. The common feature apparent to all sites was high litter depth and cover (Appendix 1). The specimens were juveniles and therefore relationship to *B. indutus* is unconfirmed. The specimens were not matched to any sequences on Genbank. *B. indutus* has a widespread distribution in WA.

Table 6-5 Review of SRE taxa known only from the baseline study area

Species	Comments
Teyl 'MYG864'	Recorded from three sites within the MN-MA (MN-010, MN-014, MN-023) in three woodland habitat types, two High PHR (2, 10) and one Low PHR (10). Site descriptions: - MN-010 – mature Jarrah/Marri forest with abundant *Xanthorrhoea* and thick understory along a creek line with brown sandy-loam soil. Mapped as habitat 2. - MN-014 – Jarrah/Marri forest on plain with whitish, sandy-loam soil. Mapped as habitat 10 - MN-023 – Jarrah and *Allocasuarina* over *Banksia* with fallen logs on hill slope with clay loam, laterite soil. Mapped as habitat 4. Indeterminate Anamidae (Anamidae 'sp. indet') were collected from 21 sites throughout the baseline study area, the ReSA and outside the study areas that may include additional specimens of *Aname* 'Phoenix0004'. Variable habitats of the records, including from Low PHR habitats and records in high and low parts of the landscape suggest this species does not have very narrow habitat requirements and is therefore unlikely to be highly restricted.
Teyl 'MYG863'	Recorded from one site within the MN-MA (MN-001) in Low PHR habitat 4. Site description: Jarrah/Marri forest with *Allocasuarina* over *Banksia grandis*, with lots of large logs. Brown sandy loam, laterite soils. Single record limits inferences about habitat preferences and distribution but habitat 4 is widespread throughout baseline study area.
Proshermacha 'Phoenix0028'	Recorded from two sites within the MN-MA (MN-003, and MN-012) in both in Low PHR habitat 4. Site descriptions: - MN-003 – Jarrah Marri forest over *Banksia grandis* on hill slope. Brown, sandy clay-loam/laterite soils - MN-012 – Jarrah *Allocasuarina* woodland over *Xanthorrhoea* dominant shrubs over sedge grasses and mixed herbs. Brown/yellow, sandy clay/loam/laterite soils. Single record limits inferences about habitat preferences and distribution but habitat 4 is widespread throughout baseline study area. Large number of indeterminate *Proshermacha* specimens returned in desktop, may include specimens of *Proshermacha* 'Phoenix0028'.
Proshermacha 'Phoenix0024'	Recorded from one site within the MN-MA (MN-014) in High PHR habitat 10. Site description: MN-014 – Jarrah/Marri forest on plain with whitish, sandy-loam soil.

Species	Comments
	Site 14 in low lying area (valley floor). Species may be confined to valley floors along drainage lines, although single record limits inferences about habitat preferences and distribution. Habitat 10 well represented in MNSA and HSA. Large number of indeterminate *Proshermacha* specimens returned in desktop, may include specimens of *Proshermacha* 'Phoenix0040'.
Teyl 'MYG860'	Recorded from one site within the MN-MA (MN-001) in Low PHR habitat 4. Site description: Jarrah/Marri forest with *Allocasuarina* over *Banksia grandis*, with lots of large logs. Brown sandy loam, laterite soils. Single record limits inferences about habitat preferences and distribution but habitat 4 is widespread throughout baseline study area. Several indeterminate *Teyl* specimens returned in desktop, may include specimens of *Teyl* 'Phoenix0019'.
Teyl 'MYG865'	Recorded from one site within the MN-MA (MN-019) in Low PHR habitat 4. Site description: Jarrah Marri *Allocasuarina* forest over *Banksia grandis* on hill slope. Brown/whitish, sandy loam/laterite soils. Single record limits inferences about habitat preferences and distribution but habitat 4 is widespread throughout baseline study area. Several indeterminate *Teyl* specimens returned in desktop, may include specimens of *Teyl* 'Phoenix0021'.
Eucyrtops 'Phoenix0030'	Recorded from one site within the MN-MA (MN-012) in Low PHR habitat 4. Site description: Jarrah *Allocasuarina* woodland over *Xanthorrhoea* dominant shrubs on hill slope. Brown/yellow, sandy clay/loam/laterite soils. Single record limits inferences about habitat preferences and distribution but habitat 4 is widespread throughout baseline study area and site similar to that of records for *E.* 'Phoenix0029' and *E.* 'Phoenix0032'. Distribution may therefore be inferred from these two species to be wider than a single habitat type. Idiopidae sp. indet collected from several sites throughout the study area, and several indetermine *Eucyrtops* from desktop may include additional specimens of *Eucyrtops* 'Phoenix0029'.
Eucyrtops 'Phoenix0032'	Recorded from three sites within the MNSA (MN-027, MC-001, HR-002) in High PHR habitat 5 and Low (4). Site descriptions: - MN-027– Jarrah woodland over *Banksia* over mixed shrubs and grasses on hill slope. Brown, sandy loam/laterite soils - MC-001 – Hill slope dominated by Jarrah and *Allocasuarina* over sparse midstory of smaller Jarrah, *Banksia* and *Allocasuarina* and understory of diverse low shrubs. Red–orange/grey, gravel–alluvial/loam soils - HR-002 – Marri/Jarrah forest, with *Banksia grandis*, *Zamia* and *Xanthorrhoea*, on north facing moderate slope. Red–orange/brown, sandy loam soils. Habitats of records variable and include widespread habitat 4. Unlikely to be highly restricted. Idiopidae sp. indet collected from several sites throughout the study area, and several indetermine *Eucyrtops* from desktop may include additional specimens of *Eucyrtops* 'Phoenix0032'.
Antichiropus 'dwellingup'	Recorded from six sites within the MNSA and HSA (MN-007, MN-008, MN-016, MN-020, HR-001, H-018) from three High PHR habitats (1, 3 and 5) and one low (4). Site descriptions: - MN-007 – Jarrah/Marri forest with thick understory, next to creek and granite outcropping

Species	Comments
	- MN-016 – Jarrah, Marri and Melaleuca woodland along drainage line/low lying channel/swamp area - MN-008 – Marri forest next to large granite outcropping and gully. Brown, laterite soils - MN-020 – *Acacia* shrubland with *Xanthorrhoea* and low herbs along creek in gully, lots of granite outcropping and boulders. Brown, sandy loam soils. - HR-001 – description Jarrah/Marri woodland on east facing moderate slope next to creek line. X*anthorrhoea* common, with some *Banksia grandis*, lots of woody debris. Red–orange, brown/ sandy loam soils. - H-018 – Jarrah forest over *Xanthorrhoea*, ferns, low shrubs and *Zamia* on undulating plain. Brown/yellow, clay loam/laterite soils. Records 47 km apart across the two study areas (MNSA and HSA) and collected from variable habitats. Unlikely to have highly restricted distribution. Large number of indeterminate *Antichiropus* collected from study area and returned in desktop may include additional specimens of *Antichiropus* 'dwellingup'.
Antichiropus 'jarrah'	Recorded from one site within the MNSA (MN-027) in a Low PHR habitat (4). Site description: - MN-027 – Jarrah woodland over *Banksia* over mixed shrubs and grasses on hill slope. Sandy loam/laterite soils. Difficult to predeict distribution however, possiblyrestricted to lower slopes in association with drainage. Single record limits inferences about habitat preferences and distribution but habitat 4 is widespread throughout baseline study area. Large number of indeterminate *Antichiropus* collected from study area and returned in desktop may include additional specimens of *Antichiropus* 'jarrah'.
Antichiropus 'mini'	Recorded from five sites within the MNSA and HSA (MN-015, MN-018, MN-025, MN-026,) in two High PHR habitats (2, 10) and one Low (4). Site descriptions: - MN-015 – Jarrah/Marri forest on steep slope in gully. Brown, sandy loam/laterite soils. - MN-018 – Jarrah, Marri and *Allocasuarina* on north facing slope. Brown, sandy loam/laterite soils. - MN-025 – Jarrah/Marri forest with *Banksia sessilis* and *Xanthorrhoea* on undulating plain. Brown, sandy loam/laterite soils. - MN-026 – *Banksia grandis* and *Banksia sessilis* woodland on hill slope surrounded by *Allocasuarina* Jarrah/Marri forest. Brown, gravel–alluvial soils. Recorded from sites over 42 km apart. Habitat descriptions variable and not confined to lower drainage areas. Unlikely to have highly restricted distribution. Large number of indeterminate *Antichiropus* collected from study area and returned in desktop may include additional specimens of *Antichiropus* 'mini'.
Dalodesmidae 'Phoenix0038'	Recorded from two sites within the MN-MA (MN-012, HR-002) in one High PHR habitat (5) and one Low (4). Site descriptions: - MN-012 –Jarrah *Allocasuarina* woodland over *Xanthorrhoea* dominant shrubs over sedge grasses on gentle hill slope. Brown/yellow, sandy clay/loam/laterite soils. - HR-002 – Marri/Jarrah forest, with *Banksia grandis*, *Zamia* and *Xanthorrhoea*, on north facing moderate slope. Red–orange/brown, sandy loam soils. Records over 16 km apart at edges of MNSA. Site descriptions variable and habitat 4 widespread. Unlikely to be highly constrained.
Polyzoniida 'Phoenix0040'	Recorded from one site within the MN-MA (MN-027) in Low PHR habitat 4.

Species	Comments
	Site description: Jarrah woodland over *Banksia* over mixed shrubs and grasses on hill slope. Brown, sandy loam/laterite soil. Single record limits inferences about habitat preferences and distribution but habitat 4 is widespread throughout baseline study area.
Polyzoniida 'Phoenix0041'	Recorded from two sites within the MN-MA (MN-007, MN-008) in two High PHR habitats (3, 5). Site descriptions: - MN-007 – Jarrah Marri forest with thick understory next to creek and granite outcropping in gully. Brown, sand-clay soils with granite rocks present - MN-008 – Marri forest next to large granite outcropping and gully. Brown, laterite soils. Both sites are gullies with granite outcroppings present, possibly habitat specialist and highly restricted. Habitat 3 and 5 well represented in MNSA, 5 present in HSA, 3 almost absent from HSA.
Polyzoniida 'Phoenix0042'	Recorded from one site within the MN-MA (MN-008) in High PHR habitat 3. Site description: MN-008 – Marri forest next to large granite outcropping and gully. Brown, laterite soils. Single record limits inferences about habitat preferences and distribution but site description indicates potential restricted to gullies with granite. Co-occurs with Polyzoniida 'Phoenix0041'. Habitat 3 well represented in MNSA, almost absent from HSA.
Bothriembryon cf. *indutus*	Recorded from three sites within the MN-MA (MN-003, MN-009, MN-025) in High PHR habitat (2) and Low PHR habitat (4) Site descriptions: - MN-003 – Jarrah /Marri forest over *Banksia grandis* on gentle hill slope. Brown, sandy loam laterite soils. - MN-009 – Jarrah/Marri forest over *Banksia grandis* on south facing side of gully, just above intermittent creek. Brown sandy loam/laterite soils. - MN-025 – Jarrah/Marri forest with *Banksia* sessilis and *Xanthorrhoea* on undulating plain. Brown, sandy loam/laterite soils. Granite rocks present. Not recorded from desktop. Variable site descriptions suggest not highly restricted habitat requirements, though at all sites high litter depth and cover were present.

6.7 SURVEY OF REHABILITATION AREAS

Extensive research has been conducted into the success of bauxite mining rehabilitation in the northern Jarrah Forest (Armstrong & Nichols 2000; Gardner & Stoneman no date; Kabay & Nichols 1979; Koch & Hobbs 2007; Lee *et al.* 2013; Nichols & Bamford 1985; Nichols & Nichols 2003; Seiser 2001), principally for Alcoa's operations, and also into the effects of forestry activities (Calver & Wardell-Johnson 2004; Strehlow *et al.* 2002; Webala 2010; Webala *et al.* 2011), which occur in tandem with bauxite mining, including for invertebrates (Abbott *et al.* 2003; Brennan 2003; Brennan *et al.* 2003; Brennan *et al.* 2004; Farr *et al.* 2011; Kabay & Nichols 1979; Strehlow *et al.* 2002). These studies have largely agreed that Alcoa's bauxite mining rehabilitation has been successful in restoring terrestrial vertebrate and invertebrate fauna and that the impacts of forestry activities are relatively short-lived. However, until this study and the Worsley survey (Phoenix 2021a) no studies have examined mining rehabilitation success in restoring SRE assemblages.

The results of the survey in the ReSA indicate that SRE taxa can re-colonise rehabilitated areas but, as expected, the diversity is overall considerably lower than that of remnant native vegetation. Twenty-

eight taxa from nine groups known to include SREs were collected from the ReSA. This included 17 taxa considered likely or potential SREs (Table 5-5), with isopods, mygalomorphs, opiliones and a land snail making up the collection. All SRE taxa from rehabilitation sites were also recorded from other areas of the baseline survey or from outside the study areas.

Given that all the mygalomorph spiders recorded from burrows in the rehabilitation sites were from the family Anamidae, taxa within this family clearly appear more readily able to re-colonise rehabilitated areas than members in other mygalomorph families.

Results from SRE sampling in rehabilitated areas for the Worsley survey (Phoenix 2021a) were fairly consistent with this survey, with two Anamidae species recorded. One species of SRE Anamidae was collected from both burrow excavation and pitfall traps (*Proshermacha* 'MYG485'), one species was collected from wet pitfall traps only (*Aname* 'MYG867'). The Worsley survey however also recorded a species from the Barychelidae family, the widespread *Idiommata blackwalli*, from a shallow burrow within rehabilitation.

As the numbers of SREs showed a moderate positive correlation with rehabilitation age, it may be concluded that SRE colonisation improves with age of rehabilitation. Other factors, such as rehabilitation method, flora species diversity, abundance of coarse woody debris or large trees, distance to/from mine and disturbances are also likely to have influenced recolonisation of SREs.

6.8 CONCLUSION

A rich assemblage of SRE taxa was recorded from the baseline study area with 82 SREs collected, represented by confirmed, likely and potential SREs. Taxa were recorded from several SRE groups but there was high variability in species richness between groups, with mygalomorph spiders, millipedes and isopods represented by much higher diversity than others.

Some overlap of SRE species was identified between the MNSA and HSA, and between the MNSA/HSA and records from the Worsley survey (or other desktop source), indicating wider distributions than the baseline study area. However, the survey results suggest at least some SRE invertebrates have narrow habitat preferences and potentially highly restricted distributions.

Overall, the MNSA is of higher value for SREs than the HSA, with greater diversity and abundance of SRE habitat features. This position is supported by the collection of a higher number SRE species overall from the MNSA and higher number of SREs known only from this study area. It is considered that the MNSA is more likely to harbour SREs with highly restricted distributions than the HSA.

Within each study area, High PHR SRE habitats are considered more likely to support the extremely range-restricted SREs. These habitats generally provide more protection and moisture retaining features (such as crevices, denser vegetation and soils) that act as refugia for SREs. The low PHR habitats, such as habitat 4 and 7, which consist of open Jarrah/Marri woodland/forest on hillslopes, are generally more widespread and do not support features that provide additional protection for SREs, however, a variety of SREs still occur these habitats and thus are still considered to be of value to SRE invertebrates.

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Appendix 1 Site descriptions

Site details			
Site	H-001	**Position (WGS84)**	-32.663588, 116.191774
Topography	hill slope	**Soil texture**	sandy clay, loam, laterite
Slope	gentle	**Rock type**	nil
Soil colour	brown, yellow	**Rock cover (%)**	0

Site description			
Jarrah over *Xanthorrhoea preissii, Macrozamia riedlei* and ferns.			
Habitat	forest		
Disturbance	vehicle tracks		
Vegetation condition	pristine	**Total veg. cover (%)**	70
Tree cover %	40	**Fire age**	>5 years
Shrub cover (%)	35	**Litter distribution**	even
Grass cover (%)	2	**Litter depth (cm)**	4
Herb cover (%)	1	**Litter cover (%)**	85



Site details			
Site	H-002	**Position (WGS84)**	-32.65535, 116.233904
Topography	hill slope	**Soil texture**	sandy clay, loam, laterite
Slope	gentle	**Rock type**	nil
Soil colour	red–orange, yellow	**Rock cover (%)**	0

Site description			
Jarrah over *Banksia grandis* over ferns and *Macrozamia riedlei*.			
Habitat	forest		
Disturbance	vehicle tracks		
Vegetation condition	excellent	**Total veg. cover (%)**	65
Tree cover %	35	**Fire age**	>5 years
Shrub cover (%)	40	**Litter distribution**	even
Grass cover (%)	2	**Litter depth (cm)**	5
Herb cover (%)	1	**Litter cover (%)**	98



Site details			
Site	H-003	**Position (WGS84)**	-32.693933, 116.195363
Topography	hill slope	**Soil texture**	sandy clay, loam, laterite
Slope	moderate	**Rock type**	nil
Soil colour	red–brown	**Rock cover (%)**	0

Site description			
Jarrah over *Banksia grandis* over ferns and *Macrozamia riedlei*.			
Habitat	forest		
Disturbance	vehicle tracks		
Vegetation condition	excellent	**Total veg. cover (%)**	85
Tree cover %	50	**Fire age**	>5 years
Shrub cover (%)	35	**Litter distribution**	even
Grass cover (%)	2	**Litter depth (cm)**	3
Herb cover (%)	1	**Litter cover (%)**	90



Site details			
Site	H-004	**Position (WGS84)**	-32.754473, 116.194401
Topography	hill slope	**Soil texture**	sandy loam
Slope	gentle	**Rock type**	nil
Soil colour	red–orange, brown	**Rock cover (%)**	0

Site description			
Jarrah Marri forest over *Banksia grandis* with *Acacia* and *Xanthorrhoea preissii* and mixed herbs. Gentle South facing slope. Lots of logs, coarse woody debris and leaf litter.			
Habitat	forest		
Disturbance	historic clearing, vehicle tracks		
Vegetation condition	excellent	**Total veg. cover (%)**	60
Tree cover %	40	**Fire age**	>5 years
Shrub cover (%)	40	**Litter distribution**	even
Grass cover (%)	0	**Litter depth (cm)**	5
Herb cover (%)	50	**Litter cover (%)**	100



Site details			
Site	H-005	**Position (WGS84)**	-32.667207, 116.270834
Topography	undulating plain	**Soil texture**	sandy clay, loam
Slope	negligible	**Rock type**	granite - rocks
Soil colour	brown, yellow	**Rock cover (%)**	15

Site description			
Jarrah forest over ferns and *Macrozamia riedlei.*			
Habitat	forest		
Disturbance	vehicle tracks		
Vegetation condition	excellent	**Total veg. cover (%)**	90
Tree cover %	50	**Fire age**	>5 years
Shrub cover (%)	60	**Litter distribution**	even
Grass cover (%)	1	**Litter depth (cm)**	4
Herb cover (%)	1	**Litter cover (%)**	98



Site details			
Site	H-006	**Position (WGS84)**	-32.707319, 116.126034
Topography	hill slope	**Soil texture**	sandy loam
Slope	moderate	**Rock type**	nil
Soil colour	brown, yellow	**Rock cover (%)**	0

Site description			
Jarrah/Marri forest over *Xanthorrhoea preissii*, *Macrozamia riedlei* palms on hill slope.			
Habitat	forest		
Disturbance	exploration (drill pads and access tracks)		
Vegetation condition	excellent	**Total veg. cover (%)**	80
Tree cover %	30	**Fire age**	1–5 years
Shrub cover (%)	40	**Litter distribution**	even
Grass cover (%)	5	**Litter depth (cm)**	4
Herb cover (%)	5	**Litter cover (%)**	100



Site details			
Site	H-007	**Position (WGS84)**	-32.63545, 116.190133
Topography	hill slope	**Soil texture**	sandy loam
Slope	gentle	**Rock type**	nil
Soil colour	brown, yellow	**Rock cover (%)**	0

Site description			
Jarrah/Marri forest over *Xanthorrhoea preissii*, *Macrozamia riedlei* palms on hill slope.			
Habitat	forest		
Disturbance	vehicle tracks		
Vegetation condition	excellent	**Total veg. cover (%)**	80
Tree cover %	40	**Fire age**	>5 years
Shrub cover (%)	30	**Litter distribution**	even
Grass cover (%)	2	**Litter depth (cm)**	3
Herb cover (%)	1	**Litter cover (%)**	90



Site details			
Site	H-008	**Position (WGS84)**	-32.696, 116.151757
Topography	undulating plain	**Soil texture**	sandy clay, loam, laterite
Slope	negligible	**Rock type**	nil
Soil colour	brown, yellow	**Rock cover (%)**	0

Site description			
Jarrah/Marri forest over *Macrozamia riedlei* palms and bracken ferns.			
Habitat	forest		
Disturbance	vehicle tracks		
Vegetation condition	excellent	**Total veg. cover (%)**	90
Tree cover %	35	**Fire age**	>5 years
Shrub cover (%)	50	**Litter distribution**	even
Grass cover (%)	2	**Litter depth (cm)**	5
Herb cover (%)	3	**Litter cover (%)**	100



Site details			
Site	H-009	**Position (WGS84)**	-32.709507, 116.161885
Topography	hill slope	**Soil texture**	sandy clay, loam, clay, laterite
Slope	gentle	**Rock type**	nil
Soil colour	brown, yellow	**Rock cover (%)**	0

Site description			
Jarra/Marri forest over *Macrozamia riedlei* and bracken fern.			
Habitat	forest		
Disturbance	exploration (drill pads and access tracks)		
Vegetation condition	excellent	**Total veg. cover (%)**	80
Tree cover %	40	**Fire age**	>5 years
Shrub cover (%)	30	**Litter distribution**	even
Grass cover (%)	5	**Litter depth (cm)**	3
Herb cover (%)	5	**Litter cover (%)**	100



Site details			
Site	H-010	**Position (WGS84)**	-32.622217, 116.205761
Topography	undulating plain	**Soil texture**	sandy clay, loam, laterite
Slope	negligible	**Rock type**	nil
Soil colour	brown, yellow	**Rock cover (%)**	0

Site description			
Jarrah/Marri forest over *Macrozamia riedlei* and bracken fern.			
Habitat	forest		
Disturbance	vehicle tracks		
Vegetation condition	excellent	**Total veg. cover (%)**	80
Tree cover %	70	**Fire age**	>5 years
Shrub cover (%)	30	**Litter distribution**	even
Grass cover (%)	2	**Litter depth (cm)**	5
Herb cover (%)	3	**Litter cover (%)**	100



Site details			
Site	H-011	**Position (WGS84)**	-32.607995, 116.181904
Topography	undulating plain	**Soil texture**	sandy clay, loam, laterite
Slope	negligible	**Rock type**	nil
Soil colour	brown, yellow	**Rock cover (%)**	0

Site description			
Jarrah forest over *Banksia grandis* over *Macrozamia riedlei.*			
Habitat	forest		
Disturbance	revegetation, vehicle tracks		
Vegetation condition	excellent	**Total veg. cover (%)**	75
Tree cover %	60	**Fire age**	>5 years
Shrub cover (%)	30	**Litter distribution**	even
Grass cover (%)	2	**Litter depth (cm)**	5
Herb cover (%)	20	**Litter cover (%)**	100



Site details			
Site	H-012	**Position (WGS84)**	-32.680405, 116.197756
Topography	hill slope	**Soil texture**	clay loam, rocks, laterite
Slope	gentle	**Rock type**	nil
Soil colour	red–orange, brown	**Rock cover (%)**	0

Site description			
Jarrah forest over *Banksia grandis* and *Xanthorrhoea preissii* over ferns.			
Habitat	forest		
Disturbance	litter, vehicle tracks		
Vegetation condition	excellent	**Total veg. cover (%)**	75
Tree cover %	45	**Fire age**	>5 years
Shrub cover (%)	50	**Litter distribution**	even
Grass cover (%)	2	**Litter depth (cm)**	5
Herb cover (%)	1	**Litter cover (%)**	90



Site details			
Site	H-013	**Position (WGS84)**	-32.782201, 116.133475
Topography	hill slope	**Soil texture**	loam, clay loam, laterite
Slope	moderate	**Rock type**	granite - rocks
Soil colour	red–brown	**Rock cover (%)**	10

Site description			
Jarrah forest over *Banksia* sp. and *Allocasuarina* sp.			
Habitat	forest		
Disturbance	vehicle tracks		
Vegetation condition	pristine	**Total veg. cover (%)**	85
Tree cover %	65	**Fire age**	>5 years
Shrub cover (%)	40	**Litter distribution**	even
Grass cover (%)	1	**Litter depth (cm)**	5
Herb cover (%)	15	**Litter cover (%)**	100



Site details			
Site	H-014	**Position (WGS84)**	-32.725572, 116.193506
Topography	drainage line	**Soil texture**	sandy clay, loam, clay, laterite
Slope	gentle	**Rock type**	nil
Soil colour	brown, yellow	**Rock cover (%)**	0

Site description			
Jarrah/Marri forest over grass trees in low lying valley.			
Habitat	forest		
Disturbance	exploration (drill pads and access tracks)		
Vegetation condition	excellent	**Total veg. cover (%)**	70
Tree cover %	30	**Fire age**	1–5 years
Shrub cover (%)	30	**Litter distribution**	even
Grass cover (%)	3	**Litter depth (cm)**	2
Herb cover (%)	7	**Litter cover (%)**	80



Site details			
Site	H-015	**Position (WGS84)**	-32.732287, 116.220446
Topography	hill slope	**Soil texture**	sandy loam, loam, laterite
Slope	moderate	**Rock type**	nil
Soil colour	red–brown, red–orange, brown	**Rock cover (%)**	0

Site description			
Jarrah Marri forest with *Banksia grandis*, *Acacia* sp. and *Xanthorrhoea preissii* over various native herbs on south facing slope.			
Habitat	forest		
Disturbance	historic clearing, historic operations, vehicle tracks		
Vegetation condition	excellent	**Total veg. cover (%)**	50
Tree cover %	25	**Fire age**	1–5 years
Shrub cover (%)	20	**Litter distribution**	even
Grass cover (%)	0	**Litter depth (cm)**	3
Herb cover (%)	25	**Litter cover (%)**	100



Site details			
Site	H-016	**Position (WGS84)**	-32.696925, 116.236388
Topography	drainage line	**Soil texture**	clay
Slope	negligible	**Rock type**	nil
Soil colour	red–brown	**Rock cover (%)**	0

Site description			
Jarrah/Marri forest over *Xanthorrhoea preissii* in low lying area.			
Habitat	forest		
Disturbance	vehicle tracks		
Vegetation condition	excellent	**Total veg. cover (%)**	70
Tree cover %	30	**Fire age**	0
Shrub cover (%)	30	**Litter distribution**	even
Grass cover (%)	5	**Litter depth (cm)**	3
Herb cover (%)	5	**Litter cover (%)**	100



Site details			
Site	H-017	**Position (WGS84)**	-32.785179, 116.176973
Topography	hill slope	**Soil texture**	clay loam, rocks, laterite
Slope	gentle	**Rock type**	granite - boulders, granite - outcropping, granite - rocks
Soil colour	red–brown	**Rock cover (%)**	50

Site description			
Jarrah forest with granite outcropping.			
Habitat	forest		
Disturbance	vehicle tracks		
Vegetation condition	pristine	**Total veg. cover (%)**	75
Tree cover %	55	**Fire age**	>5 years
Shrub cover (%)	40	**Litter distribution**	even
Grass cover (%)	2	**Litter depth (cm)**	3
Herb cover (%)	15	**Litter cover (%)**	70



Site details			
Site	H-018	**Position (WGS84)**	-32.772902, 116.180637
Topography	undulating plain	**Soil texture**	clay loam, laterite
Slope	negligible	**Rock type**	nil
Soil colour	brown, yellow	**Rock cover (%)**	0

Site description			
Jarrah forest over *Xanthorrhoea preissii*, ferns, low shrubs and *Macrozamia riedlei.*			
Habitat	forest		
Disturbance	vehicle tracks		
Vegetation condition	excellent	**Total veg. cover (%)**	75
Tree cover %	55	**Fire age**	>5 years
Shrub cover (%)	40	**Litter distribution**	even
Grass cover (%)	3	**Litter depth (cm)**	5
Herb cover (%)	5	**Litter cover (%)**	100



Site details			
Site	H-019	**Position (WGS84)**	-32.756181, 116.166837
Topography	undulating plain	**Soil texture**	clay loam, laterite
Slope	negligible	**Rock type**	nil
Soil colour	brown, yellow	**Rock cover (%)**	0

Site description			
Jarrah forest over *Xanthorrhoea preissii* and *Macrozamia riedlei.*			
Habitat	forest		
Disturbance	litter, vehicle tracks		
Vegetation condition	excellent	**Total veg. cover (%)**	65
Tree cover %	40	**Fire age**	>5 years
Shrub cover (%)	45	**Litter distribution**	even
Grass cover (%)	2	**Litter depth (cm)**	2
Herb cover (%)	5	**Litter cover (%)**	80



Site details			
Site	H-020	**Position (WGS84)**	-32.72182, 116.14473
Topography	hill slope	**Soil texture**	loam, clay, laterite
Slope	gentle	**Rock type**	nil
Soil colour	red–orange	**Rock cover (%)**	0

Site description			
Jarrah/Marri forest over *xanthorrhoea preissii*, ferns and *Acacia pulchella* (or similar) of 1m high.			
Habitat	forest		
Disturbance	exploration (drill pads and access tracks)		
Vegetation condition	excellent	**Total veg. cover (%)**	90
Tree cover %	40	**Fire age**	>5 years
Shrub cover (%)	40	**Litter distribution**	even
Grass cover (%)	5	**Litter depth (cm)**	4
Herb cover (%)	5	**Litter cover (%)**	100



Site details			
Site	H-021	**Position (WGS84)**	-32.738363, 116.166647
Topography	hill slope	**Soil texture**	sandy clay, loam, laterite
Slope	gentle	**Rock type**	nil
Soil colour	brown, yellow	**Rock cover (%)**	0

Site description			
Jarrah forest with *Allocasuarina* over *Banksia grandis*, *Xanthorrhoea preissii* and *Macrozamia riedlei.*			
Habitat	forest		
Disturbance	vehicle tracks		
Vegetation condition	excellent	**Total veg. cover (%)**	90
Tree cover %	70	**Fire age**	>5 years
Shrub cover (%)	30	**Litter distribution**	even
Grass cover (%)	2	**Litter depth (cm)**	5
Herb cover (%)	2	**Litter cover (%)**	100



Site details			
Site	H-022	**Position (WGS84)**	-32.704612, 116.273304
Topography	hill slope	**Soil texture**	sandy loam, loam, laterite
Slope	gentle	**Rock type**	nil
Soil colour	red–orange	**Rock cover (%)**	0

Site description			
Jarrah Marri forest over *Banksia grandis* over *Macrozamia riedlei* and *Xanthorrhoea preissii*.			
Habitat	forest		
Disturbance	exploration (drill pads and access tracks)		
Vegetation condition	excellent	**Total veg. cover (%)**	60
Tree cover %	30	**Fire age**	>5 years
Shrub cover (%)	20	**Litter distribution**	even
Grass cover (%)	7	**Litter depth (cm)**	4
Herb cover (%)	3	**Litter cover (%)**	100



Site details			
Site	HC-001	**Position (WGS84)**	-32.623465, 116.116062
Topography	Drainage line	**Soil texture**	sandy loam
Slope	moderate	**Rock type**	nil
Soil colour	red–brown	**Rock cover (%)**	0

Site description			
Jarrah and *Eucalyptus* sp. forest over *Banksia grandis*, *Xanthorrhoea preissii*, *Macrozamia riedlei*, ferns and grasses in drainage line			
Habitat	forest		
Disturbance	exploration (drill pads and access tracks)		
Vegetation condition	excellent	**Total veg. cover (%)**	90
Tree cover %	30	**Fire age**	>5 years
Shrub cover (%)	25	**Litter distribution**	even
Grass cover (%)	20	**Litter depth (cm)**	6
Herb cover (%)	15	**Litter cover (%)**	100



Site details			
Site	HC-002	**Position (WGS84)**	-32.621841, 116.130795
Topography	hill slope	**Soil texture**	sandy loam, loam, laterite
Slope	moderate	**Rock type**	nil
Soil colour	red–brown	**Rock cover (%)**	0

Site description			
Jarrah, Marri and *Banksia* over *Xanthorrhoea preissii*, *Macrozamia riedlei* and *Gastrolobium* sp. (or similar) on south facing slope.			
Habitat	forest		
Disturbance	exploration (drill pads and access tracks)		
Vegetation condition	excellent	**Total veg. cover (%)**	90
Tree cover %	40	**Fire age**	>5 years
Shrub cover (%)	30	**Litter distribution**	even
Grass cover (%)	15	**Litter depth (cm)**	5
Herb cover (%)	5	**Litter cover (%)**	100



Site details			
Site	HC-003	**Position (WGS84)**	-32.649731, 116.177134
Topography	hill slope	**Soil texture**	sandy loam
Slope	moderate	**Rock type**	nil
Soil colour	red–brown	**Rock cover (%)**	0

Site description			
Jarrah forest over mixed low shrubs on east facing slope.			
Habitat	forest		
Disturbance	exploration (drill pads and access tracks)		
Vegetation condition	excellent	**Total veg. cover (%)**	80
Tree cover %	30	**Fire age**	>5 years
Shrub cover (%)	40	**Litter distribution**	even
Grass cover (%)	5	**Litter depth (cm)**	4
Herb cover (%)	5	**Litter cover (%)**	100



Site details			
Site	HR-001	**Position (WGS84)**	-32.621684, 116.185305
Topography	hill slope	**Soil texture**	sandy loam
Slope	moderate	**Rock type**	laterite
Soil colour	red–orange, brown	**Rock cover (%)**	20

Site description			
Jarrah/Marri woodland on east facing moderate slope next to creek line. *Xanthorrhoea preissii, Banksia grandis*. Lots of woody debris.			
Habitat	woodland		
Disturbance	exploration (drill pads and access tracks)		
Vegetation condition	excellent	**Total veg. cover (%)**	85
Tree cover %	55	**Fire age**	>5 years
Shrub cover (%)	35	**Litter distribution**	even
Grass cover (%)	2	**Litter depth (cm)**	5
Herb cover (%)	5	**Litter cover (%)**	90



Site details			
Site	HR-002	**Position (WGS84)**	-32.431943, 116.213427
Topography	hill slope	**Soil texture**	sandy loam
Slope	moderate	**Rock type**	laterite
Soil colour	red–orange, brown	**Rock cover (%)**	10

Site description			
Marri/Jarrah forest. *Banksia grandis*, *Macrozamia riedlei* and *Xanthorrhoea preissii,* and many other low shrubs, herbs and ground cover. North facing moderate slop, mid slope.			
Habitat	woodland		
Disturbance	exploration (drill pads and access tracks)		
Vegetation condition	excellent	**Total veg. cover (%)**	85
Tree cover %	60	**Fire age**	>5 years
Shrub cover (%)	40	**Litter distribution**	even
Grass cover (%)	5	**Litter depth (cm)**	5
Herb cover (%)	10	**Litter cover (%)**	95



Site details			
Site	MC-001	**Position (WGS84)**	-32.435733, 116.182343
Topography	hill slope	**Soil texture**	gravel–alluvial, loam
Slope	moderate	**Rock type**	ferrous - Ironstone
Soil colour	red–orange, grey	**Rock cover (%)**	10

Site description			
Hill slope dominated by Jarrah and *Allocasuarina* sp. to 19 m over sparse midstory of smaller Jarrah, *Banksia grandis* and *Allocasuarina* sp. and understory of diverse low shrubs.			
Habitat	woodland		
Disturbance	historic clearing		
Vegetation condition	very good	**Total veg. cover (%)**	65
Tree cover %	25	**Fire age**	>5 years
Shrub cover (%)	35	**Litter distribution**	even
Grass cover (%)	0	**Litter depth (cm)**	2
Herb cover (%)	5	**Litter cover (%)**	70



Site details			
Site	MC-002	**Position (WGS84)**	-32.466081, 116.1597
Topography	hill slope	**Soil texture**	sandy loam
Slope	gentle	**Rock type**	nil
Soil colour	red–brown	**Rock cover (%)**	0

Site description			
Jarrah forest over *Gastrolobium* sp.on Southeast facing hill slope.			
Habitat	forest		
Disturbance	vehicle tracks		
Vegetation condition	excellent	**Total veg. cover (%)**	80
Tree cover %	40	**Fire age**	>5 years
Shrub cover (%)	40	**Litter distribution**	even
Grass cover (%)	0	**Litter depth (cm)**	5
Herb cover (%)	0	**Litter cover (%)**	100



Site details			
Site	MC-003	**Position (WGS84)**	-32.472854, 116.160655
Topography	hill slope	**Soil texture**	sandy loam, loam, laterite
Slope	moderate	**Rock type**	nil
Soil colour	brown	**Rock cover (%)**	0

Site description			
Jarrah forest over *Gastrolobium* sp. on south facing slope.			
Habitat	forest		
Disturbance	exploration (drill pads and access tracks)		
Vegetation condition	excellent	**Total veg. cover (%)**	90
Tree cover %	35	**Fire age**	>5 years
Shrub cover (%)	40	**Litter distribution**	even
Grass cover (%)	10	**Litter depth (cm)**	5
Herb cover (%)	5	**Litter cover (%)**	100



Site details			
Site	MC-004	**Position (WGS84)**	-32.486709, 116.138692
Topography	plain	**Soil texture**	gravel–alluvial, loam, rocks
Slope	gentle	**Rock type**	ferrous - Ironstone
Soil colour	red–orange, grey	**Rock cover (%)**	15

Site description			
Jarrah forest to 23 m with midstory of *Banksia* sp., *Persoonia* sp.and *Gastrolobium* sp.and understory of ferns and *Cycads*. Large logs and stumps abundant.			
Habitat	woodland		
Disturbance	historic clearing, vehicle tracks		
Vegetation condition	very good	**Total veg. cover (%)**	85
Tree cover %	40	**Fire age**	>5 years
Shrub cover (%)	40	**Litter distribution**	even
Grass cover (%)	0	**Litter depth (cm)**	3
Herb cover (%)	5	**Litter cover (%)**	95



Site details			
Site	MC-005	**Position (WGS84)**	-32.502442, 116.131188
Topography	plain	**Soil texture**	gravel–alluvial, loam
Slope	gentle	**Rock type**	ferrous - Ironstone
Soil colour	red–orange, brown	**Rock cover (%)**	15

Site description			
Jarrah forest to 23 m with sparse midstory of Jarrah and *Gastrolobium* sp.over understory of *Xanthorrhoea preissii* and cycads. Large stumps and logs abundant.			
Habitat	woodland		
Disturbance	evidence of feral animals, historic clearing		
Vegetation condition	very good	**Total veg. cover (%)**	85
Tree cover %	65	**Fire age**	>5 years
Shrub cover (%)	20	**Litter distribution**	even
Grass cover (%)	0	**Litter depth (cm)**	3
Herb cover (%)	1	**Litter cover (%)**	100



Site details			
Site	MN-001	**Position (WGS84)**	-32.303079, 116.216739
Topography	hill slope	**Soil texture**	sandy loam, laterite
Slope	gentle	**Rock type**	nil
Soil colour	brown	**Rock cover (%)**	0

Site description			
Jarrah/Marri forest with *Allocasuarina* sp. over *Banksia grandis*. Lots of large logs.			
Habitat	forest		
Disturbance	vehicle tracks, logging		
Vegetation condition	very good	**Total veg. cover (%)**	90
Tree cover %	60	**Fire age**	1–5 years
Shrub cover (%)	30	**Litter distribution**	even
Grass cover (%)	2	**Litter depth (cm)**	2
Herb cover (%)	5	**Litter cover (%)**	80



Site details			
Site	MN-002	**Position (WGS84)**	-32.376548, 116.215786
Topography	hill slope	**Soil texture**	sandy loam, laterite
Slope	gentle	**Rock type**	nil
Soil colour	brown	**Rock cover (%)**	0

Site description			
Jarrah/Marri forest over *Allocasuarina* sp. over *Banksia grandis*. Lots of large logs.			
Habitat	forest		
Disturbance	vehicle tracks, logging		
Vegetation condition	very good	**Total veg. cover (%)**	85
Tree cover %	40	**Fire age**	1–5 years
Shrub cover (%)	20	**Litter distribution**	even
Grass cover (%)	2	**Litter depth (cm)**	5
Herb cover (%)	1	**Litter cover (%)**	90



Site details			
Site	MN-003	**Position (WGS84)**	-32.340832, 116.076023
Topography	hill slope	**Soil texture**	sandy clay, sandy loam, loam, clay, laterite
Slope	gentle	**Rock type**	nil
Soil colour	brown	**Rock cover (%)**	0

Site description			
Jarrah/Marri forest over *Banksia grandis*.			
Habitat	forest		
Disturbance	vehicle tracks, logging		
Vegetation condition	very good	**Total veg. cover (%)**	100
Tree cover %	55	**Fire age**	>5 years
Shrub cover (%)	20	**Litter distribution**	even
Grass cover (%)	2	**Litter depth (cm)**	5
Herb cover (%)	3	**Litter cover (%)**	100



Site details			
Site	MN-004	**Position (WGS84)**	-32.385771, 116.244421
Topography	undulating plain	**Soil texture**	sandy loam, loam, laterite
Slope	gentle	**Rock type**	nil
Soil colour	brown	**Rock cover (%)**	0

Site description			
Jarrah/Marri forest over *Allocasuarina* sp. over shrubs.			
Habitat	forest		
Disturbance	vehicle tracks, logging		
Vegetation condition	excellent	**Total veg. cover (%)**	100
Tree cover %	65	**Fire age**	1–5 years
Shrub cover (%)	35	**Litter distribution**	even
Grass cover (%)	2	**Litter depth (cm)**	3
Herb cover (%)	1	**Litter cover (%)**	90



Site details			
Site	MN-005	**Position (WGS84)**	-32.395512, 116.222327
Topography	undulating plain	**Soil texture**	sandy loam, laterite
Slope	gentle	**Rock type**	nil
Soil colour	brown	**Rock cover (%)**	0

Site description			
Jarrah/Marri/*Allocasuarina* sp. forest. *Banksia grandis* regrowth and low herbs.			
Habitat	forest		
Disturbance	vehicle tracks, logging		
Vegetation condition	excellent	**Total veg. cover (%)**	90
Tree cover %	45	**Fire age**	1–5 years
Shrub cover (%)	30	**Litter distribution**	even
Grass cover (%)	2	**Litter depth (cm)**	1
Herb cover (%)	2	**Litter cover (%)**	100



Site details			
Site	MN-006	**Position (WGS84)**	-32.417803, 116.233894
Topography	drainage line	**Soil texture**	sandy clay, sandy loam
Slope	gentle	**Rock type**	nil
Soil colour	brown, grey, whitish	**Rock cover (%)**	0

Site description			
Melaleuca shrubland under large granite outcrop and good understory.			
Habitat	shrubland		
Disturbance	vehicle tracks, logging		
Vegetation condition	very good	**Total veg. cover (%)**	95
Tree cover %	55	**Fire age**	1–5 years
Shrub cover (%)	30	**Litter distribution**	even
Grass cover (%)	2	**Litter depth (cm)**	3
Herb cover (%)	1	**Litter cover (%)**	90



Site details			
Site	MN-007	**Position (WGS84)**	-32.437106, 116.230758
Topography	gully	**Soil texture**	sand, sandy clay
Slope	moderate	**Rock type**	granite - rocks
Soil colour	brown	**Rock cover (%)**	20

Site description			
Jarrah/Marri forest with thick understory, next to creek and granite outcropping.			
Habitat	forest		
Disturbance	vehicle tracks, logging		
Vegetation condition	excellent	**Total veg. cover (%)**	80
Tree cover %	55	**Fire age**	1–5 years
Shrub cover (%)	20	**Litter distribution**	even
Grass cover (%)	2	**Litter depth (cm)**	2
Herb cover (%)	5	**Litter cover (%)**	80



Site details			
Site	MN-008	**Position (WGS84)**	-32.418385, 116.184186
Topography	gully	**Soil texture**	laterite
Slope	steep	**Rock type**	granite - outcropping
Soil colour	brown	**Rock cover (%)**	60

Site description			
Marri forest next to large granite outcropping and gully.			
Habitat	forest		
Disturbance	vehicle tracks, logging		
Vegetation condition	excellent	**Total veg. cover (%)**	85
Tree cover %	65	**Fire age**	1–5 years
Shrub cover (%)	40	**Litter distribution**	even
Grass cover (%)	2	**Litter depth (cm)**	5
Herb cover (%)	1	**Litter cover (%)**	90



Site details			
Site	MN-009	**Position (WGS84)**	-32.398943, 116.169828
Topography	gully	**Soil texture**	sandy loam, laterite
Slope	moderate	**Rock type**	nil
Soil colour	brown	**Rock cover (%)**	0

Site description			
Jarrah/Marri forest over *Banksia grandis* on south facing side of gully, just above an intermittent creek.			
Habitat	forest		
Disturbance	vehicle tracks, logging		
Vegetation condition	excellent	**Total veg. cover (%)**	95
Tree cover %	60	**Fire age**	>5 years
Shrub cover (%)	40	**Litter distribution**	even
Grass cover (%)	2	**Litter depth (cm)**	5
Herb cover (%)	2	**Litter cover (%)**	100



Site details			
Site	MN-010	**Position (WGS84)**	-32.367116, 116.166174
Topography	creek	**Soil texture**	sandy loam, laterite
Slope	moderate	**Rock type**	nil
Soil colour	brown	**Rock cover (%)**	0

Site description			
Jarrah/Marri forest with lots of *Xanthorrhoea preissii i*and thick understory along a creek line.			
Habitat	riparian zone		
Disturbance	vehicle tracks, logging		
Vegetation condition	very good	**Total veg. cover (%)**	90
Tree cover %	40	**Fire age**	>5 years
Shrub cover (%)	25	**Litter distribution**	even
Grass cover (%)	2	**Litter depth (cm)**	5
Herb cover (%)	3	**Litter cover (%)**	100



Site details			
Site	MN-011	**Position (WGS84)**	-32.331985, 116.179003
Topography	hill slope	**Soil texture**	sandy clay, loam, clay, laterite
Slope	gentle	**Rock type**	nil
Soil colour	yellow, black	**Rock cover (%)**	0

Site description			
Jarrah and *Allocasuarina* sp. over *Xanthorrhoea preissii.*			
Habitat	woodland		
Disturbance	vehicle tracks, logging		
Vegetation condition	very good	**Total veg. cover (%)**	80
Tree cover %	60	**Fire age**	>5 years
Shrub cover (%)	30	**Litter distribution**	even
Grass cover (%)	10	**Litter depth (cm)**	4
Herb cover (%)	20	**Litter cover (%)**	90



Site details			
Site	MN-012	**Position (WGS84)**	-32.321645, 116.149616
Topography	hill slope	**Soil texture**	sandy clay, loam, laterite
Slope	gentle	**Rock type**	nil
Soil colour	brown, yellow	**Rock cover (%)**	0

Site description			
Jarrah/*Allocasuarina* sp. woodland over *Xanthorrhoea preissii* dominant shrubs over sedge grasses and mixed herbs.			
Habitat	woodland		
Disturbance	vehicle tracks, logging		
Vegetation condition	excellent	**Total veg. cover (%)**	80
Tree cover %	55	**Fire age**	>5 years
Shrub cover (%)	40	**Litter distribution**	even
Grass cover (%)	15	**Litter depth (cm)**	5
Herb cover (%)	15	**Litter cover (%)**	100



Site details			
Site	MN-013	**Position (WGS84)**	-32.348842, 116.129025
Topography	plain	**Soil texture**	sandy loam, laterite
Slope	gentle	**Rock type**	nil
Soil colour	brown	**Rock cover (%)**	0

Site description			
Bullich forest with Marri, some *Allocasuarina* sp.and thick leaf litter near creek line.			
Habitat	forest		
Disturbance	vehicle tracks, logging		
Vegetation condition	excellent	**Total veg. cover (%)**	85
Tree cover %	45	**Fire age**	>5 years
Shrub cover (%)	30	**Litter distribution**	even
Grass cover (%)	2	**Litter depth (cm)**	2
Herb cover (%)	5	**Litter cover (%)**	80



Site details			
Site	MN-014	**Position (WGS84)**	-32.361989, 116.121877
Topography	plain	**Soil texture**	sandy loam
Slope	negligible	**Rock type**	nil
Soil colour	whitish	**Rock cover (%)**	0

Site description			
Jarrah/Marri forest.			
Habitat	forest		
Disturbance	vehicle tracks, logging		
Vegetation condition	excellent	**Total veg. cover (%)**	90
Tree cover %	60	**Fire age**	1–5 years
Shrub cover (%)	30	**Litter distribution**	even
Grass cover (%)	2	**Litter depth (cm)**	5
Herb cover (%)	2	**Litter cover (%)**	100



Site details			
Site	MN-015	**Position (WGS84)**	-32.40483, 116.096674
Topography	gully	**Soil texture**	sandy loam, laterite
Slope	steep	**Rock type**	granite - boulders, granite - rocks
Soil colour	brown	**Rock cover (%)**	40

Site description			
Jarrah/Marri forest.			
Habitat	forest		
Disturbance	vehicle tracks, logging		
Vegetation condition	excellent	**Total veg. cover (%)**	100
Tree cover %	55	**Fire age**	1–5 years
Shrub cover (%)	40	**Litter distribution**	even
Grass cover (%)	3	**Litter depth (cm)**	2
Herb cover (%)	7	**Litter cover (%)**	80



Site details			
Site	MN-016	**Position (WGS84)**	-32.384408, 116.195906
Topography	drainage line	**Soil texture**	clay loam, clay
Slope	negligible	**Rock type**	nil
Soil colour	brown	**Rock cover (%)**	0

Site description			
Jarrah, Marri and *Melaleuca* woodland along drainage line/low lying channel/swamp area.			
Habitat	open woodland		
Disturbance	vehicle tracks, logging		
Vegetation condition	excellent	**Total veg. cover (%)**	80
Tree cover %	40	**Fire age**	1–5 years
Shrub cover (%)	20	**Litter distribution**	UND
Grass cover (%)	5	**Litter depth (cm)**	3
Herb cover (%)	5	**Litter cover (%)**	50



Site details			
Site	MN-017	**Position (WGS84)**	-32.318598, 116.198914
Topography	hill slope	**Soil texture**	sandy clay, loam, laterite
Slope	gentle	**Rock type**	nil
Soil colour	brown, yellow	**Rock cover (%)**	0

Site description			
Jarrah and *Allocasuarina* sp. over *Xanthorrhoea preissii* over mixed herbs.			
Habitat	woodland		
Disturbance	vehicle tracks, logging		
Vegetation condition	excellent	**Total veg. cover (%)**	80
Tree cover %	45	**Fire age**	>5 years
Shrub cover (%)	30	**Litter distribution**	even
Grass cover (%)	10	**Litter depth (cm)**	3
Herb cover (%)	30	**Litter cover (%)**	80



Site details			
Site	MN-018	**Position (WGS84)**	-32.363187, 116.198826
Topography	hill slope	**Soil texture**	sandy loam, laterite
Slope	moderate	**Rock type**	nil
Soil colour	brown	**Rock cover (%)**	0

Site description			
Jarrah, Marri and *Allocasuarina* on north facing slope.			
Habitat	forest		
Disturbance	vehicle tracks, logging		
Vegetation condition	very good	**Total veg. cover (%)**	90
Tree cover %	60	**Fire age**	1–5 years
Shrub cover (%)	40	**Litter distribution**	even
Grass cover (%)	2	**Litter depth (cm)**	3
Herb cover (%)	2	**Litter cover (%)**	100



Site details			
Site	MN-019	**Position (WGS84)**	-32.40841, 116.26289
Topography	hill slope	**Soil texture**	sandy loam, laterite
Slope	gentle	**Rock type**	nil
Soil colour	brown, whitish	**Rock cover (%)**	0

Site description			
Jarrah/Marri/*Allocasuarina* sp. forest over *Banksia grandis*.			
Habitat	forest		
Disturbance	vehicle tracks, logging		
Vegetation condition	excellent	**Total veg. cover (%)**	85
Tree cover %	60	**Fire age**	1–5 years
Shrub cover (%)	30	**Litter distribution**	even
Grass cover (%)	2	**Litter depth (cm)**	2
Herb cover (%)	5	**Litter cover (%)**	80



Site details			
Site	MN-020	**Position (WGS84)**	-32.414506, 116.199007
Topography	gully	**Soil texture**	sandy loam
Slope	steep	**Rock type**	granite - boulders, granite - outcropping, granite - rocks
Soil colour	brown	**Rock cover (%)**	20

Site description			
Acacia sp. shrubland with *Xanthorrhoea preissii* and low herbs along creek. Lots of granite outcropping and boulders.			
Habitat	shrubland		
Disturbance	vehicle tracks, logging		
Vegetation condition	very good	**Total veg. cover (%)**	90
Tree cover %	45	**Fire age**	>5 years
Shrub cover (%)	30	**Litter distribution**	even
Grass cover (%)	3	**Litter depth (cm)**	2
Herb cover (%)	7	**Litter cover (%)**	80



Site details			
Site	MN-021	**Position (WGS84)**	-32.38169, 116.157457
Topography	hilltop	**Soil texture**	sandy loam, laterite
Slope	moderate	**Rock type**	nil
Soil colour	brown	**Rock cover (%)**	0

Site description			
Jarrah, Marri with *Allocasuarina* sp.over *Banksia grandis*.			
Habitat	forest		
Disturbance	vehicle tracks, logging		
Vegetation condition	excellent	**Total veg. cover (%)**	90
Tree cover %	55	**Fire age**	1–5 years
Shrub cover (%)	40	**Litter distribution**	even
Grass cover (%)	3	**Litter depth (cm)**	5
Herb cover (%)	7	**Litter cover (%)**	80



Site details			
Site	MN-022	**Position (WGS84)**	-32.356087, 116.181994
Topography	hill slope	**Soil texture**	sand, clay loam, laterite
Slope	gentle	**Rock type**	nil
Soil colour	brown, yellow	**Rock cover (%)**	0

Site description			
Jarrah woodland over *Banksia grandis* tall shrubs over other mixed shrubs over mixed grasses and mixed herbs.			
Habitat	woodland		
Disturbance	vehicle tracks, logging		
Vegetation condition	very good	**Total veg. cover (%)**	80
Tree cover %	50	**Fire age**	>5 years
Shrub cover (%)	35	**Litter distribution**	even
Grass cover (%)	10	**Litter depth (cm)**	3
Herb cover (%)	15	**Litter cover (%)**	90



Site details			
Site	MN-023	**Position (WGS84)**	-32.339901, 116.197789
Topography	hill slope	**Soil texture**	clay loam, laterite
Slope	gentle	**Rock type**	Nil
Soil colour	brown, yellow	**Rock cover (%)**	0

Site description			
Jarrah and *Allocasuarina* sp. over *Banksia grandis* with fallen logs.			
Habitat	woodland		
Disturbance	vehicle tracks, logging		
Vegetation condition	excellent	**Total veg. cover (%)**	75
Tree cover %	60	**Fire age**	>5 years
Shrub cover (%)	35	**Litter distribution**	even
Grass cover (%)	5	**Litter depth (cm)**	2
Herb cover (%)	20	**Litter cover (%)**	80



Site details			
Site	MN-024	**Position (WGS84)**	-32.343334, 116.162655
Topography	hill slope	**Soil texture**	sandy clay, loam, laterite
Slope	gentle	**Rock type**	nil
Soil colour	brown, yellow	**Rock cover (%)**	0

Site description			
Jarrah forest over *Banksia grandis* and *Xanthorrhoea preissii* over *Macrozamia riedlei.*			
Habitat	forest		
Disturbance	vehicle tracks, logging		
Vegetation condition	excellent	**Total veg. cover (%)**	80
Tree cover %	55	**Fire age**	>5 years
Shrub cover (%)	30	**Litter distribution**	even
Grass cover (%)	5	**Litter depth (cm)**	5
Herb cover (%)	5	**Litter cover (%)**	90



Site details			
Site	MN-025	**Position (WGS84)**	-32.361723, 116.080348
Topography	undulating plain	**Soil texture**	sandy loam, laterite
Slope	gentle	**Rock type**	granite - rocks
Soil colour	brown	**Rock cover (%)**	15

Site description			
Jarrah/Marri forest with *Banksia sessilis* and *Xanthorrhoea preissii.*			
Habitat	woodland		
Disturbance	vehicle tracks, logging		
Vegetation condition	excellent	**Total veg. cover (%)**	95
Tree cover %	50	**Fire age**	1–5 years
Shrub cover (%)	35	**Litter distribution**	even
Grass cover (%)	5	**Litter depth (cm)**	3
Herb cover (%)	5	**Litter cover (%)**	100



Site details			
Site	MN-026	**Position (WGS84)**	-32.37917, 116.097647
Topography	hill slope	**Soil texture**	gravel–alluvial, sandy loam, laterite
Slope	moderate	**Rock type**	nil
Soil colour	brown	**Rock cover (%)**	0

Site description			
Banksia grandis and *Banksia sessilis* woodland surrounded by *Allocasuarina* sp./Jarrah/Marri forest.			
Habitat	woodland		
Disturbance	vehicle tracks, logging		
Vegetation condition	excellent	**Total veg. cover (%)**	100
Tree cover %	45	**Fire age**	>5 years
Shrub cover (%)	30	**Litter distribution**	even
Grass cover (%)	2	**Litter depth (cm)**	3
Herb cover (%)	1	**Litter cover (%)**	90



Site details			
Site	MN-027	**Position (WGS84)**	-32.359258, 116.140541
Topography	hill slope	**Soil texture**	sandy loam, laterite
Slope	gentle	**Rock type**	nil
Soil colour	brown	**Rock cover (%)**	0

Site description			
Jarrah woodland over *Banksia grandis* over other mixed shrubs over mixed grasses and mixed herbs on sandy clay loam.			
Habitat	forest		
Disturbance	vehicle tracks, logging		
Vegetation condition	excellent	**Total veg. cover (%)**	95
Tree cover %	60	**Fire age**	1–5 years
Shrub cover (%)	30	**Litter distribution**	even
Grass cover (%)	2	**Litter depth (cm)**	2
Herb cover (%)	5	**Litter cover (%)**	80



Site details			
Site	MN-028	**Position (WGS84)**	-32.377177, 116.126104
Topography	undulating plain	**Soil texture**	sandy loam, laterite
Slope	gentle	**Rock type**	nil
Soil colour	brown	**Rock cover (%)**	0

Site description			
Jarrah/Marri/*Allocasuarina* sp. over *Banksia grandis*.			
Habitat	forest		
Disturbance	vehicle tracks, logging		
Vegetation condition	excellent	**Total veg. cover (%)**	90
Tree cover %	50	**Fire age**	1–5 years
Shrub cover (%)	30	**Litter distribution**	even
Grass cover (%)	2	**Litter depth (cm)**	3
Herb cover (%)	1	**Litter cover (%)**	90



Site details			
Site	RH-5A	**Position (WGS84)**	-32.526657, 116.059788
Topography	hill slope	**Soil texture**	sandy clay, loam, laterite
Slope	gentle	**Rock type**	nil
Soil colour	brown, yellow	**Rock cover (%)**	0

Site description			
Jarrah dominant open woodland over *Acacia* sp. dominant shrubs. 5 year old rehabilitation.			
Habitat	woodland		
Disturbance	revegetation, vehicle tracks		
Vegetation condition	very good	**Total veg. cover (%)**	60
Tree cover %	40	**Fire age**	>5 years
Shrub cover (%)	30	**Litter distribution**	Under vegetation
Grass cover (%)	1	**Litter depth (cm)**	3
Herb cover (%)	2	**Litter cover (%)**	5



Site details			
Site	RH-5B	**Position (WGS84)**	-32.499641, 116.153446
Topography	gully	**Soil texture**	sandy clay, loam, clay, laterite
Slope	gentle	**Rock type**	nil
Soil colour	brown, yellow	**Rock cover (%)**	0

Site description			
Jarrah dominant open woodland over *Acacia* sp. dominant shrubs. 5 year old rehabilitation.			
Habitat	open woodland		
Disturbance	revegetation, vehicle tracks		
Vegetation condition	very good	**Total veg. cover (%)**	70
Tree cover %	45	**Fire age**	>5 years
Shrub cover (%)	50	**Litter distribution**	under vegetation
Grass cover (%)	1	**Litter depth (cm)**	3
Herb cover (%)	3	**Litter cover (%)**	10



Site details			
Site	RH-5C	**Position (WGS84)**	-32.521034, 116.131085
Topography	hill slope	**Soil texture**	clay loam, rocks, laterite
Slope	gentle	**Rock type**	nil
Soil colour	brown, yellow	**Rock cover (%)**	0

Site description			
Young Jarrah and other eucalypts. 5 year old rehabilitation.			
Habitat	open woodland		
Disturbance	historic operations, revegetation, vehicle tracks		
Vegetation condition	very good	**Total veg. cover (%)**	50
Tree cover %	35	**Fire age**	>5 years
Shrub cover (%)	20	**Litter distribution**	under vegetation
Grass cover (%)	0	**Litter depth (cm)**	1
Herb cover (%)	3	**Litter cover (%)**	10



Site details			
Site	RH-10A	**Position (WGS84)**	-32.514398, 116.121124
Topography	hill slope	**Soil texture**	sandy clay, loam, laterite
Slope	gentle	**Rock type**	nil
Soil colour	brown, yellow	**Rock cover (%)**	0

Site description			
Jarrah dominant woodland over *Acacia* sp. dominant shrubs. 10 year old rehabilitation.			
Habitat	woodland		
Disturbance	revegetation, vehicle tracks		
Vegetation condition	excellent	**Total veg. cover (%)**	70
Tree cover %	60	**Fire age**	>5 years
Shrub cover (%)	30	**Litter distribution**	under vegetation
Grass cover (%)	0	**Litter depth (cm)**	2
Herb cover (%)	2	**Litter cover (%)**	30



Site details			
Site	RH-10B	**Position (WGS84)**	-32.496203, 116.171628
Topography	hill slope	**Soil texture**	sandy clay, loam, rocks, laterite
Slope	gentle	**Rock type**	nil
Soil colour	yellow	**Rock cover (%)**	0

Site description			
Jarrah woodland. 10 year old rehabilitation.			
Habitat	open woodland		
Disturbance	vehicle tracks		
Vegetation condition	very good	**Total veg. cover (%)**	75
Tree cover %	30	**Fire age**	>5 years
Shrub cover (%)	60	**Litter distribution**	under vegetation
Grass cover (%)	0	**Litter depth (cm)**	2
Herb cover (%)	10	**Litter cover (%)**	10



Site details			
Site	RH-10C	**Position (WGS84)**	-32.535352, 116.102953
Topography	hill slope	**Soil texture**	sandy clay, loam, laterite
Slope	negligible	**Rock type**	nil
Soil colour	brown, yellow	**Rock cover (%)**	0

Site description			
Jarrah woodland. 10 year old rehabilitation.			
Habitat	woodland		
Disturbance	vehicle tracks, logging		
Vegetation condition	very good	**Total veg. cover (%)**	60
Tree cover %	45	**Fire age**	>5 years
Shrub cover (%)	30	**Litter distribution**	Under vegetation
Grass cover (%)	1	**Litter depth (cm)**	4
Herb cover (%)	3	**Litter cover (%)**	15



Site details			
Site	RH-20A	**Position (WGS84)**	-32.560987, 116.065432
Topography	gully	**Soil texture**	sandy clay, loam, laterite
Slope	gentle	**Rock type**	nil
Soil colour	brown, yellow	**Rock cover (%)**	0

Site description			
Jarrah woodland. 20 year old rehabilitation.			
Habitat	woodland		
Disturbance	revegetation, vehicle tracks		
Vegetation condition	very good	**Total veg. cover (%)**	60
Tree cover %	45	**Fire age**	>5 years
Shrub cover (%)	20	**Litter distribution**	Under vegetation
Grass cover (%)	0	**Litter depth (cm)**	3
Herb cover (%)	2	**Litter cover (%)**	10



Site details			
Site	RH-20B	**Position (WGS84)**	-32.558972, 116.105018
Topography	mesa	**Soil texture**	sandy clay, loam, laterite
Slope	gentle	**Rock type**	nil
Soil colour	brown, yellow	**Rock cover (%)**	0

Site description			
Jarrah woodland. 20 year old rehabilitation.			
Habitat	woodland		
Disturbance	revegetation, vehicle tracks		
Vegetation condition	very good	**Total veg. cover (%)**	75
Tree cover %	65	**Fire age**	1–5 years
Shrub cover (%)	35	**Litter distribution**	Under vegetation
Grass cover (%)	0	**Litter depth (cm)**	3
Herb cover (%)	2	**Litter cover (%)**	50



Site details			
Site	RH-20C	**Position (WGS84)**	-32.589792, 116.101899
Topography	undulating plain	**Soil texture**	sandy clay, loam, laterite
Slope	negligible	**Rock type**	nil
Soil colour	brown, yellow	**Rock cover (%)**	0

Site description			
Jarrah woodland. 20 year old rehabilitation.			
Habitat	woodland		
Disturbance	revegetation, vehicle tracks		
Vegetation condition	excellent	**Total veg. cover (%)**	60
Tree cover %	45	**Fire age**	>5 years
Shrub cover (%)	20	**Litter distribution**	even
Grass cover (%)	0	**Litter depth (cm)**	3
Herb cover (%)	2	**Litter cover (%)**	95



Site details			
Site	RH-30B	**Position (WGS84)**	-32.634127, 116.093352
Topography	hill slope	**Soil texture**	sandy clay, loam, laterite
Slope	gentle	**Rock type**	nil
Soil colour	brown, yellow	**Rock cover (%)**	0

Site description			
Jarrah woodland. 30 year old rehabilitation.			
Habitat	woodland		
Disturbance	revegetation, vehicle tracks		
Vegetation condition	very good	**Total veg. cover (%)**	90
Tree cover %	60	**Fire age**	>5 years
Shrub cover (%)	50	**Litter distribution**	even
Grass cover (%)	0	**Litter depth (cm)**	2
Herb cover (%)	3	**Litter cover (%)**	95



Site details			
Site	RH-30C	**Position (WGS84)**	-32.608504, 116.10856
Topography	hill slope	**Soil texture**	sandy clay, loam, laterite
Slope	gentle	**Rock type**	nil
Soil colour	brown, yellow	**Rock cover (%)**	0

Site description			
Jarrah woodland over *Acacia* sp. shrubs. 30 year old rehabilitation.			
Habitat	woodland		
Disturbance	revegetation, vehicle tracks		
Vegetation condition	very good	**Total veg. cover (%)**	90
Tree cover %	70	**Fire age**	>5 years
Shrub cover (%)	60	**Litter distribution**	even
Grass cover (%)	0	**Litter depth (cm)**	6
Herb cover (%)	2	**Litter cover (%)**	100



Site details			
Site	RH-30D	**Position (WGS84)**	-32.634169, 116.093376
Topography	hill slope	**Soil texture**	sandy clay, loam, laterite
Slope	gentle	**Rock type**	nil
Soil colour	brown, yellow	**Rock cover (%)**	0

Site description			
Jarrah woodland. 30 year old rehabilitation.			
Habitat	woodland		
Disturbance	revegetation, vehicle tracks		
Vegetation condition	excellent	**Total veg. cover (%)**	85
Tree cover %	55	**Fire age**	>5 years
Shrub cover (%)	75	**Litter distribution**	even
Grass cover (%)	1	**Litter depth (cm)**	5
Herb cover (%)	3	**Litter cover (%)**	90



Appendix 2 Site x Species matrix for Myara North Mining Area

Species	SRE status[1]	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Total
Abaddon despoliator	P																													
Acanthodillo '1'	P																													
Acanthodillo sp. indet.	P			•											•															2
Akamptogonus novarae	W															•														1
Teyl 'MYG864'	P										•				•									•						3
Teyl 'Phoenix0010'	P																													
Teyl 'Phoenix0006'	P																													
Aname 'Phoenix0020'	P																													
Proshermacha 'MYG658'	P										•																			1
Aname 'MYG867'	P																													
Teyl 'MYG863'	P																												•	1
Anamidae sp. indet.	P							•		•		•							•				•	•					•	7
Annoselix cf. dolosa	P			•																									•	2
Antichiropus 'DIP244, dwellingup'	C							•	•								•				•									4
Antichiropus 'forest'	C																													
Antichiropus 'holyoake'	C																													
Antichiropus 'jarrah'	C																											•		3
Antichiropus ' DIP097, Marradong'	C																													
Antichiropus 'mini'	C															•			•							•	•			4
Antichiropus 'DIP135, minnivale2?'	C										•																			1
Antichiropus 'Myara'	C																													
Antichiropus 'southern'	C																													
Antichiropus sp. indet.	P			•					•							•			•		•								5
Antichiropus variabilis	W		•	•					•	•			•										•		•		•		•	9
Armadillo flavus	P									•																				1

Species	SRE status[1]	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Total
Atelomastix nigrescens	W			•				•		•	•	•	•	•		•		•	•		•	•	•	•	•	•	•	•	•	19
Atelomastix sp. indet.	W						•			•				•		•														4
Austrochthonius 'grandis'	W																													
Austrochthonius muchmorei	W			•		•			•			•						•				•		•	•		•			9
Austrochthonius 'PSE188'	W		•	•		•				•		•	•			•		•	•	•	•	•	•	•		•			•	16
Austrochthonius sp. indet.	W																													
Barychelidae sp. indet.	P																											•		1
Beierolpium bornemisszai	W		•	•	•					•	•	•								•	•	•	•		•			•	•	13
Beierolpium sp. indet.	P																					•								1
Bothriembryon cf. *bradshawi*	P																													
Bothriembryon cf. *indutus*	P			•						•																•				3
Buddelundia '5' (Huntly)	L									•						•											•	•	•	5
Buddelundia nitidissima	W			•	•				•			•							•	•										6
Buddelundia sp. indet.	P															•														1
Calliuncus sp. indet.	P			•												•								•		•		•		4
Cercophonius sulcatus	W									•						•		•					•		•	•			•	7
cf.^*Westralaoma* sp. indet.	P																													
Charopidae sp. indet.	P						•														•									2
Chernetidae 'boddington'	W						•	•											•											3
Chernetidae sp. indet.	W																	•												1
Dalodesmidae 'Phoenix0038'	P												•																	1
Eucyrtops latior	P	•								•		•	•		•				•			•	•	•		•			•	11
Bungulla harrisonae	P		•	•				•									•				•									5
Eucyrtops 'Phoenix0029'	P		•			•	•																							3
Eucyrtops 'Phoenix0030'	P												•																	1
Eucyrtops 'Phoenix0032'	P																											•		1

Species	SRE status[1]	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Total
Eucyrtops 'MYG645'	P																													
Euoplos inornatus	P																•									•				2
Euoplos 'Phoenix0012'	P																													
Eupnoi sp. indet.	P			•		•			•			•						•				•					•		•	8
Geogarypus sp. indet.	W																					•								1
Geogarypus taylori	W			•							•										•									3
Idiopidae sp. indet.	P		•							•	•			•		•		•					•		•		•			9
Idiosoma jarrah	W		•																											1
Idiosoma 'MYG790'	P																													
Idiosoma 'MYG187'	P				•				•											•		•	•							5
Isometroides 'jarrah'	P																													
Karaops ellenae	W	•					•						•																	3
Karaops jarrit	W																													
Kwonkan 'Phoenix0005'	P						•																							1
Kwonkan 'Phoenix0008'	P																													
Laevophiloscia '1'	P	•			•	•	•	•	•	•							•		•	•	•	•		•		•	•		•	16
Laevophiloscia '2'	W	•								•	•	•	•	•	•	•		•					•	•	•		•	•		14
Laevophiloscia sp. indet.	P	•								•		•														•				4
Lagynochthonius australicus	W							•			•	•											•	•				•		6
Lychas 'austroccidentalis'	W														•			•			•									3
Missulena 'MYG198'	P																													
Nunciella sp. indet.	P															•														1
Occipperipatoides gilesii	W												•																	1
Olpiidae sp. indet.	P												•																	1
Opiliones sp. indet.	P													•	•															2
Oratemnus sp. indet.	W																													

Species	SRE status[1]	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Total
Paraplatyarthridae sp. indet.	P	●										●											●			●				4
Paraplatyarthrus sp. indet.	P																													
Philosciidae 's'	L	●	●		●	●	●	●				●	●		●	●	●	●	●	●		●	●			●		●	●	19
Philosciidae sp. indet.	P																													
Podykipus leptoiuloides	W	●		●	●		●					●		●	●	●	●	●	●		●	●			●	●	●	●	●	18
Polydesmida sp. indet.	P																													
Polyzoniida 'Phoenix0039'	P																													
Polyzoniida 'Phoenix0040'	P																											●		1
Polyzoniida 'Phoenix0041'	P							●	●																					2
Polyzoniida 'Phoenix0042'	P								●																					1
Proshermacha 'MYG485'	P																							●						1
Proshermacha '495'	P	●																												1
Teyl 'MYG862'	P											●			●															2
Proshermacha 'Phoenix0028'	P			●									●																	2
Proshermacha 'Phoenix0024'	P														●															1
Protochelifer 'boddington'	W	●	●								●	●	●		●		●	●	●			●	●	●	●					13
Protogarypinus giganteus	W																													
Pseudodiploexochus sp. indet.	L									●	●							●	●							●	●			6
Pseudotyrannochthonius 'Harms sp. Darling Range 2'	W					●		●				●				●						●		●			●			7
Siphonotidae 'DIPAAG' 'DIP189' 'collie'	C																													
Spherillo '1'	L									●		●											●							3
Spherillo '5'	W	●			●	●						●	●		●	●		●				●	●	●		●		●	●	14
Styloniscus '1'	P	●		●	●	●						●	●			●		●	●				●	●	●		●	●	●	15
Styloniscus '7'	P							●				●																		2
Styloniscus sp. indet.	P			●												●														2
Synothele michaelseni	W			●											●															2

Species	SRE status[1]	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Total
Synothele 'Phoenix0015'	P				•																					•				2
Synothele 'Phoenix0016'	P	•					•	•											•									•		5
Teyl 'MYG355'	P							•																						1
Teyl 'MYG866'	P									•								•												2
Teyl 'MYG860'	P	•																												1
Teyl 'MYG865'	P																			•										1
Trianonychidae 'genus 008' sp. indet.	P	•						•			•		•			•								•		•		•		8
Trianonychidae sp. indet.	P			•								•	•												•		•			5
Urodacus novaehollandiae	W				•				•				•				•				•		•							6
Urodacus planimanus	C	•					•		•			•	•			•				•		•	•	•	•	•	•			13
Grand Total		**16**	**9**	**20**	**10**	**9**	**11**	**14**	**12**	**18**	**12**	**23**	**19**	**6**	**13**	**21**	**8**	**16**	**15**	**8**	**12**	**16**	**19**	**17**	**12**	**18**	**15**	**16**	**16**	**401**

1 – C = confirmed, P =potential, W = widespread.

Appendix 3 Site x species matrix for Holyoake Mining Area

Species	SRE status[1]	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Tot
Abaddon despoliator	P	•																						**1**
Acanthodillo '1'	P		•																					**1**
Acanthodillo sp. indet.	P										•													**1**
Akamptogonus novarae	W																							
Teyl 'MYG864'	P																							
Teyl 'Phoenix0010'	P																							
Teyl 'Phoenix0006'	P													•										**1**
Aname 'Phoenix0020'	P																							
Proshermacha 'MYG658'	P																							
Aname 'MYG867'	P																							
Teyl 'MYG863'	P																							
Anamidae sp. indet.	P			•	•		•	•	•			•				•	•	•			•			**10**
Annoselix cf. dolosa	P																							
Antichiropus 'DIP244, dwellingup'	C																		•					**1**
Antichiropus 'forest'	C							•						•										**2**
Antichiropus 'holyoake'	C													•										**1**
Antichiropus 'jarrah'	C																							
Antichiropus ' DIP097, Marradong'	C				•	•	•		•						•	•					•			**7**
Antichiropus 'mini'	C																							
Antichiropus 'DIP135, minnivale2?'	C																							
Antichiropus 'Myara'	C													•										**1**
Antichiropus 'southern'	C				•		•			•		•			•						•	•		**7**
Antichiropus sp. indet.	P	•	•		•	•		•	•	•			•		•	•		•				•	•	**13**
Antichiropus variabilis	W	•	•	•		•	•	•		•	•	•	•		•	•	•	•	•		•	•	•	**18**
Armadillo flavus	P						•														•			**2**

Species	SRE status[1]	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Tot
Atelomastix nigrescens	W	•			•				•						•				•			•		**6**
Atelomastix sp. indet.	W					•																		**1**
Austrochthonius 'grandis'	W										•										•			**2**
Austrochthonius muchmorei	W	•			•				•						•		•	•	•		•	•		**9**
Austrochthonius 'PSE188'	W				•		•	•			•												•	**5**
Austrochthonius sp. indet.	W																							
Barychelidae sp. indet.	P																							
Beierolpium bornemisszai	W										•					•				•				**3**
Beierolpium sp. indet.	P																							
Bothriembryon cf. *bradshawi*	P															•								**1**
Bothriembryon cf. *indutus*	P																							
Buddelundia '5' (Huntly)	L		•	•	•		•	•	•		•	•	•		•			•			•	•		**13**
Buddelundia nitidissima	W					•				•	•		•		•	•	•			•			•	**9**
Buddelundia sp. indet.	P						•																	**1**
Calliuncus sp. indet.	P	•									•	•		•										**4**
Cercophonius sulcatus	W		•		•				•	•	•			•			•				•			**8**
cf.^*Westralaoma* sp. indet.	P								•															**1**
Charopidae sp. indet.	P								•										•					**2**
Chernetidae 'boddington'	W																							
Chernetidae sp. indet.	W																							
Dalodesmidae 'Phoenix0038'	P																							
Eucyrtops latior	P																							
Bungulla harrisonae	P	•										•												**2**
Eucyrtops 'Phoenix0029'	P																							
Eucyrtops 'Phoenix0030'	P																							
Eucyrtops 'Phoenix0032'	P																							

Species	SRE status[1]	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Tot
Eucyrtops 'MYG645'	P							•	•		•	•				•	•							6
Euoplos inornatus	P																							
Euoplos 'Phoenix0012'	P													•										1
Eupnoi sp. indet.	P		•		•			•	•				•								•	•		7
Geogarypus sp. indet.	W																							
Geogarypus taylori	W																							
Idiopidae sp. indet.	P			•	•	•													•	•				5
Idiosoma jarrah	W														•									1
Idiosoma 'MYG790'	P	•					•	•	•					•								•		6
Idiosoma 'MYG187'	P																							
Isometroides 'jarrah'	P																							
Karaops ellenae	W																						•	1
Karaops jarrit	W							•				•												2
Kwonkan 'Phoenix0005'	P																							
Kwonkan 'Phoenix0008'	P																			•				1
Laevophiloscia '1'	P	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•			•	•	•	19
Laevophiloscia '2'	W	•		•		•	•		•	•	•	•	•	•	•			•	•		•	•	•	16
Laevophiloscia sp. indet.	P													•										1
Lagynochthonius australicus	W																							
Lychas 'austroccidentalis'	W										•										•			2
Missulena 'MYG198'	P																•							1
Nunciella sp. indet.	P																							
Occipperi patoides gilesii	W								•				•				•							3
Olpiidae sp. indet.	P																							
Opiliones sp. indet.	P																							

Species	SRE status[1]	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Tot
Oratemnus sp. indet.	W																			•		•		**2**
Paraplatyarthridae sp. indet.	P																							
Paraplatyarthrus sp. indet.	P																		•					**1**
Philosciidae 's'	L									•		•												**2**
Philosciidae sp. indet.	P												•											**1**
Podykipus leptoiuloides	P	•	•		•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•		**19**
Polydesmida sp. indet.	P																		•					**1**
Polyzoniida 'Phoenix0039'	P													•										**1**
Polyzoniida 'Phoenix0040'	P																							
Polyzoniida 'Phoenix0041'	P																							
Polyzoniida 'Phoenix0042'	P																							
Proshermacha 'MYG485'	P		•			•				•		•			•	•	•			•	•	•		**10**
Proshermacha '495'	P																						•	**1**
Teyl 'MYG862'	P																							
Proshermacha 'Phoenix0028'	P																							
Proshermacha 'Phoenix0024'	P																							
Protochelifer 'boddington'	W	•	•	•			•	•				•	•	•				•	•	•	•	•	•	**14**
Protogarypinus giganteus	W																		•					**4**
Pseudodiploexochus sp. indet.	L									•				•				•		•	•		•	**6**
Pseudotyrannochthonius 'Harms sp. Darling Range 2'	W	•					•				•	•			•									**5**
Siphonotidae 'DIPAAG' 'DIP189' 'collie'	C			•		•											•	•					•	**4**
Spherillo '1'	L																							
Spherillo '5'	W						•												•	•			•	**4**
Styloniscus '1'	P	•	•				•	•			•	•	•				•		•		•			**10**
Styloniscus '7'	P	•									•												•	**3**

Species	SRE status[1]	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Tot
Styloniscus sp. indet.	P																							
Synothele michaelseni	W						•																	**1**
Synothele mullaloo	P	•				•		•					•		•	•		•	•	•			•	**10**
Teyl 'MYG355'	P																							
Teyl 'MYG866'	P																							
Teyl 'MYG860'	P																							
Teyl 'MYG865'	P																							
Trianonychidae 'genus 008' sp. indet.	P		•	•	•	•			•				•					•	•	•		•	•	**11**
Trianonychidae sp. indet.	P					•	•																	**2**
Urodacus novaehollandiae	W																	•						**1**
Urodacus planimanus	C		•																					**1**
Grand Total		**16**	**14**	**9**	**14**	**14**	**17**	**15**	**17**	**11**	**17**	**16**	**13**	**15**	**15**	**11**	**13**	**14**	**16**	**12**	**18**	**15**	**15**	**318**

1 – C = confirmed, P =potential, W = widespread

Appendix 4 Site x species matrix for the conveyor corridors and haul roads

Species	SRE status[1]	HC001	HC002	HC003	HCC Total	MC001	MC002	MC003	MC004	MC005	MCC Total	HR001	HR002
Abaddon despoliator	P						•		•		2		
Acanthodillo '1'	P												
Acanthodillo sp. indet.	P									•	1		
Akamptogonus novarae	W												
Teyl 'MYG864'	P												
Teyl 'Phoenix0010'	P												
Teyl 'Phoenix0006'	P												
Aname 'Phoenix0020'	P			•	1					•	1		
Proshermacha 'MYG658'	P						•		•		2		
Aname 'MYG867'	P					•					1		
Teyl 'MYG863'	P												
Anamidae sp. indet.	P						•	•			2		
Annoselix cf. dolosa	P												
Antichiropus 'DIP244, dwellingup'	C											•	
Antichiropus 'forest'	C												
Antichiropus 'holyoake'	C												
Antichiropus 'jarrah'	C												
Antichiropus ' DIP097, Marradong'	C												
Antichiropus 'mini'	C												
Antichiropus 'DIP135, minnivale2?'	C												
Antichiropus 'Myara'	C								•		1		
Antichiropus 'southern'	C												

Species	SRE status[1]	HC001	HC002	HC003	HCC Total	MC001	MC002	MC003	MC004	MC005	MCC Total	HR001	HR002
Antichiropus sp. indet.	P		•		1	•	•	•		•	4		
Antichiropus variabilis	W		•	•	2		•	•	•	•	4		
Armadillo flavus	P												
Atelomastix nigrescens	W		•		1	•	•	•	•		4		•
Atelomastix sp. indet.	W		•		1			•			•1		
Austrochthonius 'grandis'	W												
Austrochthonius muchmorei	W		•		1								
Austrochthonius 'PSE188'	W												
Austrochthonius sp. indet.	W						•				1		
Barychelidae sp. indet.	P												
Beierolpium bornemisszai	W					•					1		•
Beierolpium sp. indet.	P												
Bothriembryon cf. *bradshawi*	P												
Bothriembryon cf. *indutus*	P												
Buddelundia '5' (Huntly)	L	•	•	•	3	•	•	•	•	•	5	•	
Buddelundia nitidissima	W									•	1		•
Buddelundia sp. indet.	P												
Calliuncus sp. indet.	P		•		1					•	1		
Cercophonius sulcatus	W		•		1			•		•	2		
cf.^*Westralaoma* sp. indet.	P												
Charopidae sp. indet.	P												
Chernetidae 'boddington'	W												
Chernetidae sp. indet.	W												
Dalodesmidae 'Phoenix0038'	P												•
Eucyrtops latior	P												
Bungulla harrisonae	P									•	1		

Species	SRE status[1]	HC001	HC002	HC003	HCC Total	MC001	MC002	MC003	MC004	MC005	MCC Total	HR001	HR002
Eucyrtops 'Phoenix0029'	P												
Eucyrtops 'Phoenix0030'	P												
Eucyrtops 'Phoenix0032'	P					•					1		•
Eucyrtops 'MYG645'	P								•	•	2		
Euoplos inornatus	P												
Euoplos 'Phoenix0012'	P												
Eupnoi sp. indet.	P	•			1	•				•	2		
Geogarypus sp. indet.	W												
Geogarypus taylori	W												
Idiopidae sp. indet.	P												
Idiosoma jarrah	W												
Idiosoma 'MYG790'	P	•	•	•	3				•		1	•	
Idiosoma 'MYG187'	P						•				1		
Isometroides 'jarrah'	P												
Karaops ellenae	W												
Karaops jarrit	W												
Kwonkan 'Phoenix0005'	P												
Kwonkan 'Phoenix0008'	P												
Laevophiloscia '1'	P		•	•	2	•			•	•	3		•
Laevophiloscia '2'	W		•	•	2		•	•	•	•	4	•	•
Laevophiloscia sp. indet.	P						•			•	2		
Lagynochthonius australicus	W							•			1		
Lychas 'austroccidentalis'	W							•			1		
Missulena 'MYG198'	P												
Nunciella sp. indet.	P												
Occipperi	W								•		1		

Species	SRE status[1]	HC001	HC002	HC003	HCC Total	MC001	MC002	MC003	MC004	MC005	MCC Total	HR001	HR002
patoides gilesii													
Olpiidae sp. indet.	P												
Opiliones sp. indet.	P							•			1		
Oratemnus sp. indet.	W												
Paraplatyarthridae sp. indet.	P												
Paraplatyarthrus sp. indet.	P												
Philosciidae 's'	L												•
Philosciidae sp. indet.	P			•	1								
Podykipus leptoiuloides	W	•	•		2		•		•	•	3	•	
Polydesmida sp. indet.	P												
Polyzoniida 'Phoenix0039'	P												
Polyzoniida 'Phoenix0040'	P												
Polyzoniida 'Phoenix0041'	P												
Polyzoniida 'Phoenix0042'	P												
Proshermacha 'MYG485'	P											•	
Proshermacha '495'	P												
Teyl 'MYG862'	P												
Proshermacha 'Phoenix0028'	P												
Proshermacha 'Phoenix0024'	P												
Protochelifer 'boddington'	W		•	•	2			•		•	2	•	
Protogarypinus giganteus	W												
Pseudodiploexochus sp. indet.	L						•				1		
Pseudotyrannochthonius 'Harms sp. Darling Range 2'	W												
Siphonotidae 'DIPAAG' 'DIP189' 'collie'	C												
Spherillo '1'	L												

Species	SRE status[1]	HC001	HC002	HC003	HCC Total	MC001	MC002	MC003	MC004	MC005	MCC Total	HR001	HR002
Spherillo '5'	W					•					1		
Styloniscus '1'	P						•		•	•	3		
Styloniscus '7'	P			•	**1**								
Styloniscus sp. indet.	P												
Synothele michaelseni	W												
Synothele mullaloo	P			•	**1**								
Teyl 'MYG355'	P									•	1		
Teyl 'MYG866'	P								•		**1**		
Teyl 'MYG860'	P												
Teyl 'MYG865'	P												
Trianonychidae 'genus 008' sp. indet.	P			•	1	•	•		•	•	4		
Trianonychidae sp. indet.	P												
Urodacus novaehollandiae	W												
Urodacus planimanus	C							•			1		
Grand Total		**4**	**13**	**11**		**10**	**15**	**13**	**15**	**19**		**7**	**8**

1 – C = confirmed, P =potential, W = widespread

Appendix 5 Site x species matrix for the ReSA

Species	SRE status[1]	RH05A	RH05B	RH05C	RH10A	RH10B	RH10C	RH20A	RH20B	RH20C	RH30B	RH30C	RH30D	Total
Abaddon despoliator	P													
Acanthodillo '1'	P													
Acanthodillo sp. indet.	P													
Akamptogonus novarae	W													
Teyl 'MYG864'	P													
Teyl 'Phoenix0010'	P													
Teyl 'Phoenix0006'	P													
Aname 'Phoenix0020'	P													
Proshermacha 'MYG658'	P													
Aname 'MYG867'	P													
Teyl 'MYG863'	P													
Anamidae sp. indet.	P				•						•			**2**
Annoselix cf. dolosa	P									•				**1**
Antichiropus 'DIP244, dwellingup'	C													
Antichiropus 'forest'	C													
Antichiropus 'holyoake'	C													
Antichiropus 'jarrah'	C													
Antichiropus ' DIP097, Marradong'	C													
Antichiropus 'mini'	C													
Antichiropus 'DIP135, minnivale2?'	C													
Antichiropus 'Myara'	C													
Antichiropus 'southern'	C													
Antichiropus sp. indet.	P											•		**1**
Antichiropus variabilis	W		•			•				•		•	•	**5**

Species	SRE status[1]	RH05A	RH05B	RH05C	RH10A	RH10B	RH10C	RH20A	RH20B	RH20C	RH30B	RH30C	RH30D	Total
Armadillo flavus	P													
Atelomastix nigrescens	W		•		•									**2**
Atelomastix sp. indet.	W													
Austrochthonius 'grandis'	W													
Austrochthonius muchmorei	W													
Austrochthonius 'PSE188'	W													
Austrochthonius sp. indet.	W													
Barychelidae sp. indet.	P													
Beierolpium bornemisszai	W													
Beierolpium sp. indet.	P													
Bothriembryon cf. *bradshawi*	P													
Bothriembryon cf. *indutus*	P													
Buddelundia '5' (Huntly)	L		•					•					•	**3**
Buddelundia nitidissima	W					•		•			•			**3**
Buddelundia sp. indet.	P													
Calliuncus sp. indet.	P													
Cercophonius sulcatus	W				•		•							**2**
cf.^*Westralaoma* sp. indet.	P											•		**1**
Charopidae sp. indet.	P											•		**1**
Chernetidae 'boddington'	W													
Chernetidae sp. indet.	W													
Dalodesmidae 'Phoenix0038'	P													
Eucyrtops latior	P													
Bungulla harrisonae	P													
Eucyrtops 'Phoenix0029'	P													
Eucyrtops 'Phoenix0030'	P													

Species	SRE status[1]	RH05A	RH05B	RH05C	RH10A	RH10B	RH10C	RH20A	RH20B	RH20C	RH30B	RH30C	RH30D	Total
Eucyrtops 'Phoenix0032'	P													
Eucyrtops 'MYG645'	P										•	•	•	**3**
Euoplos inornatus	P													
Euoplos 'Phoenix0012'	P													
Eupnoi sp. indet.	P		•		•		•	•				•	•	**6**
Geogarypus sp. indet.	W													
Geogarypus taylori	W											•		**1**
Idiopidae sp. indet.	P													
Idiosoma jarrah	W													
Idiosoma 'MYG790'	P													
Idiosoma 'MYG187'	P													
Isometroides 'jarrah'	P													
Karaops ellenae	W						•							**1**
Karaops jarrit	W													
Kwonkan 'Phoenix0005'	P													
Kwonkan 'Phoenix0008'	P													
Laevophiloscia '1'	P	•	•	•	•	•	•	•	•	•	•	•	•	**12**
Laevophiloscia '2'	W	•	•	•	•	•	•	•	•	•	•	•	•	**12**
Laevophiloscia sp. indet.	P				•									
Lagynochthonius australicus	W										•			**1**
Lychas 'austroccidentalis'	W			•			•							**2**
Missulena 'MYG198'	P													
Nunciella sp. indet.	P													
Occipperipatoides gilesii	W								•					**1**
Olpiidae sp. indet.	P													
Opiliones sp. indet.	P										•			**1**

Species	SRE status[1]	RH05A	RH05B	RH05C	RH10A	RH10B	RH10C	RH20A	RH20B	RH20C	RH30B	RH30C	RH30D	Total
Oratemnus sp. indet.	W													
Paraplatyarthridae sp. indet.	P													
Paraplatyarthrus sp. indet.	P													
Philosciidae 's'	L													
Philosciidae sp. indet.	P					•		•	•		•			**4**
Podykipus leptoiuloides	W										•			**1**
Polydesmida sp. indet.	P													
Polyzoniida 'Phoenix0039'	P													
Polyzoniida 'Phoenix0040'	P													
Polyzoniida 'Phoenix0041'	P													
Polyzoniida 'Phoenix0042'	P													
Proshermacha 'MYG485'	P											•		**1**
Proshermacha 'MYG495'	P													
Teyl 'MYG862'	P													
Proshermacha 'Phoenix0028'	P													
Proshermacha 'Phoenix0024'	P													
Protochelifer 'boddington'	W													
Protogarypinus giganteus	W													
Pseudodiploexochus sp. indet.	L													
Pseudotyrannochthonius 'Harms sp. Darling Range 2'	W				•				•					**2**
Siphonotidae 'DIPAAG' 'DIP189' 'collie'	C													
Spherillo '1'	L													
Spherillo '5'	W													
Styloniscus '1'	P				•		•					•		**3**
Styloniscus '7'	P													

Species	SRE status[1]	RH05A	RH05B	RH05C	RH10A	RH10B	RH10C	RH20A	RH20B	RH20C	RH30B	RH30C	RH30D	Total
Styloniscus sp. indet.	P								•				•	**2**
Synothele michaelseni	W													
Synothele mullaloo	P													
Teyl 'MYG355'	P													
Teyl 'MYG866'	P					•								**1**
Teyl 'MYG860'	P													
Teyl 'MYG865'	P													
Trianonychidae 'genus 008' sp. indet.	P				•	•		•	•					**4**
Trianonychidae sp. indet.	P													
Urodacus novaehollandiae	W													
Urodacus planimanus	C													
Grand Total		**2**	**6**	**3**	**10**	**7**	**7**	**7**	**7**	**4**	**9**	**11**	**7**	**80**

1 – C = confirmed, P =potential, W = widespread

Appendix 6 Site x species matrix comparison between study areas

Species	SRE status[1]	MN-MA	MN-CC	MN-HR	H-MA	H-CC	H-HR	Rehab	Opp
Abaddon despoliator	P		•		•				
Acanthodillo '1'	P				•				
Acanthodillo sp. indet.	P	•	•		•				
Akamptogonus novarae	W	•							
Teyl 'MYG864'	P	•							
Teyl 'Phoenix0010'	P								•
Teyl 'Phoenix0006'	P				•				
Aname 'Phoenix0020'	P		•			•			
Proshermacha 'MYG658'	P	•	•						
Aname 'MYG867'	P		•						
Teyl 'MYG863'	P	•							
Anamidae sp. indet.	P	•	•		•			•	
Annoselix cf. dolosa	P	•						•	
Antichiropus 'DIP244, dwellingup'	C	•			•		•		
Antichiropus 'forest'	C	•			•				
Antichiropus 'holyoake'	C				•				
Antichiropus 'jarrah'	C	•							
Antichiropus ' DIP097, Marradong'	C				•				
Antichiropus 'mini'	C	•			•				
Antichiropus 'DIP135, minnivale2?'	C								
Antichiropus 'Myara'	C		•		•				
Antichiropus 'southern'	C				•				
Antichiropus sp. indet.	P	•	•		•	•		•	
Antichiropus variabilis	W	•	•		•	•		•	•
Armadillo flavus	P	•			•				

Species	SRE status[1]	MN-MA	MN-CC	MN-HR	H-MA	H-CC	H-HR	Rehab	Opp
Atelomastix nigrescens	W	•	•	•	•	•		•	
Atelomastix sp. indet.	W	•	•		•	•			
Austrochthonius 'grandis'	W				•				
Austrochthonius muchmorei	W	•			•	•			
Austrochthonius 'PSE188'	W	•			•				
Austrochthonius sp. indet.	W		•						
Barychelidae sp. indet.	P	•							
Beierolpium bornemisszai	W	•	•	•	•				
Beierolpium sp. indet.	P	•							
Bothriembryon cf. *bradshawi*	P				•				
Bothriembryon cf. *indutus*	P	•							
Buddelundia '5' (Huntly)	L	•	•		•	•	•	•	•
Buddelundia nitidissima	W	•	•	•	•			•	•
Buddelundia sp. indet.	P	•			•				
Calliuncus sp. indet.	P	•	•		•	•			
Cercophonius sulcatus	W	•	•		•	•		•	•
cf.^*Westralaoma* sp. indet.	P				•			•	
Charopidae sp. indet.	P	•			•			•	
Chernetidae 'boddington'	W	•							
Chernetidae sp. indet.	W	•							
Dalodesmidae 'Phoenix0038'	P	•		•					
Eucyrtops latior	P	•							
Bungulla harrisonae	P	•	•		•				
Eucyrtops 'Phoenix0029'	P	•							
Eucyrtops 'Phoenix0030'	P	•							
Eucyrtops 'Phoenix0032'	P	•	•	•					
Eucyrtops 'MYG645'	P		•		•			•	

Species	SRE status[1]	MN-MA	MN-CC	MN-HR	H-MA	H-CC	H-HR	Rehab	Opp
Euoplos inornatus	P	•							
Euoplos 'Phoenix0012'	P				•				
Eupnoi sp. indet.	P	•	•		•	•		•	
Geogarypus sp. indet.	W	•							
Geogarypus taylori	W	•						•	
Idiopidae sp. indet.	P	•			•				•
Idiosoma jarrah	W	•			•				
Idiosoma 'MYG790'	P		•		•	•	•		
Idiosoma 'MYG187'	P	•	•						
Isometroides 'jarrah'	P								•
Karaops ellenae	W	•			•			•	
Karaops jarrit	W				•				
Kwonkan 'Phoenix0005'	P	•							
Kwonkan 'Phoenix0008'	P				•				
Laevophiloscia '1'	P	•	•	•	•	•		•	
Laevophiloscia '2'	W	•	•	•	•	•	•	•	
Laevophiloscia sp. indet.	P	•	•		•			•	
Lagynochthonius australicus	W	•	•					•	
Lychas 'austroccidentalis'	W	•	•		•			•	
Missulena 'MYG198'	P				•				
Nunciella sp. indet.	P	•							
Occipperi patoides gilesii	W	•	•		•			•	
Olpiidae sp. indet.	P	•							
Opiliones sp. indet.	P	•	•					•	
Oratemnus sp. indet.	W				•				
Paraplatyarthridae sp. indet.	P	•							

Species	SRE status[1]	MN-MA	MN-CC	MN-HR	H-MA	H-CC	H-HR	Rehab	Opp
Paraplatyarthrus sp. indet.	P				•				
Philosciidae 's'	L	•		•	•				
Philosciidae sp. indet.	P				•	•		•	
Podykipus leptoiuloides	W	•	•		•	•	•	•	
Polydesmida sp. indet.	P				•				
Polyzoniida 'Phoenix0039'	P				•				
Polyzoniida 'Phoenix0040'	P	•							
Polyzoniida 'Phoenix0041'	P	•							
Polyzoniida 'Phoenix0042'	P	•							
Proshermacha 'MYG485'	P	•			•		•	•	•
Proshermacha 'MYG495'	P	•			•				
Teyl 'MYG862'	P	•							
Proshermacha 'Phoenix0028'	P	•							
Proshermacha 'Phoenix0024'	P	•							
Protochelifer 'boddington'	W	•	•		•	•	•		
Protogarypinus giganteus	W				•				
Pseudodiploexochus sp. indet.	L	•	•		•				
Pseudotyrannochthonius 'Harms sp. Darling Range 2'	W	•			•			•	
Siphonotidae 'DIPAAG' 'DIP189' 'collie'	C				•				
Spherillo '1'	L	•							
Spherillo '5'	W	•	•		•				
Styloniscus '1'	P	•	•		•			•	
Styloniscus '7'	P	•			•	•			
Styloniscus sp. indet.	P	•						•	
Synothele michaelseni	W	•			•				
Synothele mullaoo	P	•			•	•			
Teyl 'MYG355'	P	•	•						

Species	SRE status[1]	MN-MA	MN-CC	MN-HR	H-MA	H-CC	H-HR	Rehab	Opp
Teyl 'MYG866'	P	•	•					•	
Teyl 'MYG860'	P	•							
Teyl 'MYG865'	P	•							
Trianonychidae 'genus 008' sp. indet.	P	•	•		•	•		•	•
Trianonychidae sp. indet.	P	•			•				
Urodacus novaehollandiae	W	•			•				
Urodacus planimanus	C	•	•		•				
Grand Total									

1 – C = confirmed, P =potential, W = widespread

Appendix 7 Survey records data (registration numbers, sample types, numbers and notes)

Species	Phoenix reg no.	WAM reg no.	S.Judd Reg. no.	site code	Sample type	notes	indet	males	females	Juv.	tota	seq. notes	Genbank acc.
Abaddon despoliator	33141	TBC		MC004	WPp		1	0	0	0	1		
Abaddon despoliator	33432	TBC		MC002	For/LS		1	0	0	0	1		
Abaddon despoliator	33574	TBC		H001	WPp		1	0	0	0	1		
Acanthodillo '1'	32239	TBC	SJ5778	H002	For/LS	Under rocks (laterite)	0	1	2	0	3		
Acanthodillo sp. indet.	32469	TBC	SJ5793	MN-003	WPp	Bumpy, rolled	0	1	0	0	1		
Acanthodillo sp. indet.	32492	TBC		MN-014	WPp	Very small	0	1	0	0	1		
Acanthodillo sp. indet.	33291	TBC	SJ5783	H010	WPp	Good, unrolled	0	1	0	0	1		
Acanthodillo sp. indet.	33318	TBC	SJ5774	MC005	WPp	pale brown.	0	0	1	0	1		
Akamptogonus novarae	32508	TBC		MN-015	WPp		2	0	2	0	4		
Akamptogonus novarae	33744	TBC		MN-015	WPp		0	1	2	0	3		
Aname 'Phoenix0004'	31447	TBC		MN-010	BE		0	0	1	0	1	yes	TBC
Aname 'Phoenix0004'	31530	TBC		MN-023	BE		0	0	1	0	1	yes	TBC
Aname 'Phoenix0004'	32491	TBC		MN-014	WPp		0	1	0	0	1	yes	TBC
Aname 'Phoenix0006'	31597	TBC		H013	BE		0	0	1	0	1	yes	TBC
Aname 'Phoenix0010'	33858	TBC		GHD-Site8	DP		0	3	0	0	3	yes	TBC
Aname 'Phoenix0020'	31741	TBC		HC003	BE		0	0	1	0	1		
Aname 'Phoenix0020'	31810	TBC		MC005	BE		0	0	1	0	1	yes	TBC
Aname 'Phoenix0020'	31823	TBC		HC003	BE		0	0	0	1	1		
Aname 'Phoenix0020'	33389	TBC		HC003	BE	Next to wetpit, no silk on lid, recently dug in disturbed soil, 8cm down	0	0	1	0	1	No	
Aname 'Phoenix0036'	31432	TBC		MN-010	BE		0	0	1	0	1	yes	TBC
Aname 'Phoenix0036'	31734	TBC		MC002	BE		0	0	1	0	1	yes	TBC
Aname 'Phoenix0036'	31801	TBC		MC004	BE		0	0	1	0	1	yes	TBC
Aname 'Phoenix0037'	33149	TBC		MC001	WPp	92% SIMILAR WITH A. 'WorsleyDNA09'	0	1	0	0	1	yes	TBC
Anamidae 'Phoenix0009'	31448	TBC		MN-028	BE		0	0	1	0	1	yes	TBC
Anamidae 'Phoenix0009'	31450	TBC		MN-028	BE		0	0	1	0	1		
Anamidae 'Phoenix0009'	32228	TBC		MN-028	For/LS	Jarrah log litter	0	0	0	1	1		
Anamidae sp. indet.	31392	TBC		RH10A	For/LS		0	1	0	0	1	fail	TBC
Anamidae sp. indet.	31412	TBC		RH30B	BE	Ate spider in 31413	0	0	1	0	1	fail	TBC
Anamidae sp. indet.	31413	TBC		RH30B	BE	Partially eaten by 31412	0	0	1	0	1		
Anamidae sp. indet.	31482	TBC		MN-011	For/LS		0	0	1	0	1	No	TBC
Anamidae sp. indet.	31485	TBC		MN-023	BE		0	0	1	0	1	fail	TBC
Anamidae sp. indet.	31503	TBC		MN-011	For/LS		0	0	1	0	1	fail	TBC
Anamidae sp. indet.	31523	TBC		MN-022	For/LS		0	0	0	1	1	fail	TBC
Anamidae sp. indet.	31554	TBC		MN-023	For/LS		0	0	1	0	1	fail	TBC
Anamidae sp. indet.	31594	TBC		H017	For/LS		0	0	1	0	1	fail	TBC
Anamidae sp. indet.	31740	TBC		MC003	BE		0	0	1	0	1	fail	TBC
Anamidae sp. indet.	32341	TBC		H020	For/LS	Under logs	0	0	0	1	1		
Anamidae sp. indet.	32412	TBC		MN-018	For/LS		0	0	1	0	1	No	TBC
Anamidae sp. indet.	32413	TBC		MN-018	For/LS		0	0	1	0	1		
Anamidae sp. indet.	32480	TBC		MN-009	WPp		0	1	0	0	1	No	TBC
Anamidae sp. indet.	32789	TBC		H007	WPp	common male	0	1	0	0	1		
Anamidae sp. indet.	32828	TBC		H008	WPp		0	1	0	0	1		
Anamidae sp. indet.	32853	TBC		H003	WPp		0	0	0	1	1	No	TBC
Anamidae sp. indet.	32858	TBC		H004	WPp		0	0	1	0	1	fail	TBC
Anamidae sp. indet.	32859	TBC		H004	WPp		0	0	1	0	1		
Anamidae sp. indet.	33136	TBC		H006	WPp		0	1	0	0	1		
Anamidae sp. indet.	33393	TBC		MC002	For/LS	Under logs	0	0	1	0	1	fail	TBC
Anamidae sp. indet.	33537	TBC		H015	WPp		0	1	0	0	1		
Anamidae sp. indet.	33577	TBC		H016	WPp	Yellow legs	0	0	1	0	1		
Anamidae sp. indet.	33586	TBC		H011	WPp		0	1	0	0	1		
Anamidae sp. indet.	33769	TBC		MN-007	WPp		0	1	0	0	1		
Anamidae sp. indet.	33785			MN-028	WPp	juvenile, discard	0	0	0	1	1		
Annoselix cf. dolosa	32099	TBC		MN-003	For/LS	In/under log	1	0	0	0	1		
Annoselix cf. dolosa	32531	TBC		RH20C	WPp		1	0	0	0	1		
Annoselix cf. dolosa	33781	TBC		MN-028	WPp		1	0	0	0	1		
Antichiropus `forest`	31618	TBC		H007	For/LS	n. sp 'forest'	0	1	0	0	1	yes	TBC
Antichiropus `forest`	32855	TBC		H013	WPp		1	1	0	0	2	yes	TBC
Antichiropus `forest`	33683	TBC		MN-016	WPp	long body broken in half	1	1	0	0	2	yes	TBC
Antichiropus `holyoake`	31685	TBC		H013	For/LS	A.'holyoake'	0	1	0	0	1	yes	TBC
Antichiropus `holyoake`	33590	TBC		H011	WPp		0	1	0	0	1	yes	TBC
Antichiropus `jarrah`	32515	TBC		MN-010	WPp	Broken, A. 'Jarrah' n.sp	0	1	0	0	1	No	TBC
Antichiropus `jarrah`	33472	TBC		MN-027	WPp		0	1	0	0	1	yes	TBC
Antichiropus `jarrah`	33479	TBC		MN-007	WPp	A. n.sp. 'jarrah'	0	2	0	0	2		
Antichiropus `Mini`	32509	TBC		MN-015	WPp		0	3	0	0	3		
Antichiropus `Mini`	33500	TBC		MN-018	WPp		0	1	0	0	1		

Antichiropus `Mini`	33501	TBC		MN-018	WPp		0	1	0	0	1		
Antichiropus `Mini`	33507	TBC		MN-026	WPp		0	1	0	0	1		
Antichiropus `Mini`	33602	TBC		H002	WPp		0	1	0	0	1		
Antichiropus `Mini`	33682	TBC		MN-025	WPp		0	1	0	0	1	yes	TBC
Antichiropus `Myara`	33622	TBC		H013	WPp		0	1	0	0	1	yes	TBC
Antichiropus `Myara`	33641	TBC		MC004	WPp	A. 'another'	0	0	1	0	1	yes	TBC
Antichiropus `Myara`	33642	TBC		MC004	WPp		0	3	0	0	3	yes	TBC
Antichiropus `southern`	33448	TBC		H021	WPp	broken in half	0	1	0	0	1		
Antichiropus `southern`	33534	TBC		H020	WPp		0	1	0	0	1	yes	TBC
Antichiropus `southern`	33545	TBC		H014	WPp		0	4	0	0	4		
Antichiropus `southern`	33558	TBC		H006	WPp		0	1	0	0	1		
Antichiropus `southern`	33606	TBC		H004	WPp		0	3	0	0	3		
Antichiropus `southern`	33611	TBC		H009	WPp		0	1	0	0	1	yes	TBC
Antichiropus 'dwellingup'	31999	TBC		MN-008	For/LS	Under rocks	2	0	1	1	4	yes	TBC
Antichiropus 'dwellingup'	32423	TBC		MN-020	For/LS	Pale yellow body	0	0	0	1	1	yes	TBC
Antichiropus 'dwellingup'	32779	TBC		HR001	WPp		2	2	0	0	4	fail	TBC
Antichiropus 'dwellingup'	33463	TBC		MN-008	WPp		2	2	0	0	4	yes	TBC
Antichiropus 'dwellingup'	33518	TBC		H018	WPp		0	1	0	0	1		
Antichiropus 'Marradong'	31614	TBC		H014	For/LS		0	1	0	0	1		
Antichiropus 'Marradong'	32837	TBC		H020	WPp		0	2	0	0	2		
Antichiropus 'Marradong'	32861	TBC		H004	WPp	A. 'phoenix' n. sp	1	1	0	0	2	yes	TBC
Antichiropus 'Marradong'	33526	TBC		H008	WPp		0	2	0	0	2		
Antichiropus 'Marradong'	33539	TBC		H015	WPp		0	2	0	0	2		
Antichiropus 'Marradong'	33565	TBC		H005	WPp		1	0	1	0	2		
Antichiropus 'Marradong'	33608	TBC		H004	WPp		0	0	2	0	2	yes	TBC
Antichiropus 'Marradong'	34141	TBC		H014	For/LS		0	1	0	0	1		
Antichiropus sp. indet.	31380	TBC		MN-008	For/LS	2 hatchlings	0	0	0	2	2		
Antichiropus sp. indet.	31387	TBC		MN-015	For/LS	1 hatchling 1 juvenile	0	0	0	2	2	No	
Antichiropus sp. indet.	31462	TBC		MN-015	For/LS		0	1	0	0	1	No	
Antichiropus sp. indet.	31629	TBC		H001	For/LS		0	0	0	1	1		
Antichiropus sp. indet.	31667	TBC		H002	For/LS		0	0	0	1	1		
Antichiropus sp. indet.	31668	TBC		H014	For/LS		0	0	2	0	2		
Antichiropus sp. indet.	32138	TBC		RH30C	For/LS	Under/in leaf litter soil/lateritic gravel	0	0	0	1	1		
Antichiropus sp. indet.	32261	TBC		H001	For/LS		0	0	0	1	1		
Antichiropus sp. indet.	32299	TBC		H014	For/LS	Under leaf litter	0	0	1	0	1		
Antichiropus sp. indet.	32323	TBC		H008	For/LS		0	0	1	0	1		
Antichiropus sp. indet.	32332	TBC		H014	For/LS	Under logs/bark	0	0	0	2	2		
Antichiropus sp. indet.	32353	TBC		H008	For/LS	Under rocks (laterite)	1	0	0	1	2	fail	
Antichiropus sp. indet.	32467	TBC		MN-003	WPp	1 broken in half, only front half	0	0	0	4	4		
Antichiropus sp. indet.	32507	TBC		MN-015	WPp	White, hatchlings	5	0	0	5	10		
Antichiropus sp. indet.	32526	TBC		MN-015	WPp		0	0	0	1	1		
Antichiropus sp. indet.	32615	TBC		H015	For/LS	Under logs	0	0	0	1	1		
Antichiropus sp. indet.	32773	TBC		RH30C	WPp		0	1	0	0	1		
Antichiropus sp. indet.	32788	TBC		H001	WPp		0	0	0	1	1		
Antichiropus sp. indet.	32790	TBC		H007	WPp		0	0	0	1	1		
Antichiropus sp. indet.	32843	TBC		H009	WPp		0	0	0	2	2		
Antichiropus sp. indet.	33119	TBC		H004	WPp		0	0	2	0	2		
Antichiropus sp. indet.	33133	TBC		H021	WPp		0	0	0	2	2		
Antichiropus sp. indet.	33148	TBC		MC001	WPp		0	0	0	1	1	No	
Antichiropus sp. indet.	33155	TBC		MC005	WPp	missing?	0	1	0	0	1		
Antichiropus sp. indet.	33338	TBC		H022	For/LS	Under bark	0	0	1	0	1		
Antichiropus sp. indet.	33343	TBC		H014	For/LS	Under rocks (laterite), missing?	1	0	1	0	2		
Antichiropus sp. indet.	33442	TBC		MC003	For/LS		0	0	0	1	1		
Antichiropus sp. indet.	33512	TBC		H022	WPp	broken in half	0	0	0	1	1		
Antichiropus sp. indet.	33514	TBC		H022	WPp		0	0	0	1	1		
Antichiropus sp. indet.	33538	TBC		H015	WPp		0	1	0	0	1		
Antichiropus sp. indet.	33542	TBC		H015	WPp		0	0	0	1	1		
Antichiropus sp. indet.	33546	TBC		H014	WPp		0	0	1	0	1		
Antichiropus sp. indet.	33547	TBC		H014	WPp		0	0	0	1	1		
Antichiropus sp. indet.	33555	TBC		H017	WPp	remains	0	1	0	0	1		
Antichiropus sp. indet.	33562	TBC		H007	WPp		0	0	0	1	1		
Antichiropus sp. indet.	33566	TBC		H005	WPp		0	0	0	1	1		
Antichiropus sp. indet.	33567	TBC		H005	WPp		0	0	0	1	1		
Antichiropus sp. indet.	33575	TBC		H001	WPp	2 damaged juveniles	0	0	0	2	2	No	
Antichiropus sp. indet.	33627	TBC		H012	WPp		0	1	0	0	1		
Antichiropus sp. indet.	33650	TBC		HC002	WPp		0	0	0	1	1		
Antichiropus sp. indet.	33669	TBC		MN-020	WPp		0	0	0	2	2		
Antichiropus sp. indet.	33693	TBC		MN-018	WPp		0	0	1	0	1	No	
Antichiropus sp. indet.	33743	TBC		MN-015	WPp		0	0	0	3	3		
Antichiropus sp. indet.	33832	TBC		MC002	WPp		0	0	0	7	7	No	
Antichiropus variabilis	31359	TBC		MN-009	For/LS		0	1	0	0	1		
Antichiropus variabilis	31391	TBC		RH30D	For/LS		0	0	1	0	1		
Antichiropus variabilis	31411	TBC		RH20C	For/LS		0	0	1	0	1		
Antichiropus variabilis	31440	TBC		MN-002	For/LS		0	0	2	0	2		
Antichiropus variabilis	31615	TBC		H014	For/LS		0	0	0	2	2		

Antichiropus variabilis	31619	TBC		H007	For/LS		0	0	1	0	1	yes	TBC
Antichiropus variabilis	31620	TBC		H009	For/LS		0	0	2	0	2		
Antichiropus variabilis	31624	TBC		H010	For/LS		0	1	0	0	1		
Antichiropus variabilis	31633	TBC		H020	For/LS		0	1	0	0	1		
Antichiropus variabilis	31634	TBC		H020	For/LS		0	1	1	0	2		
Antichiropus variabilis	31642	TBC		H021	For/LS		0	0	1	0	1		
Antichiropus variabilis	31644	TBC		H018	For/LS		0	2	0	0	2		
Antichiropus variabilis	31648	TBC		H021	For/LS	1 Broken in half	0	0	3	1	4		
Antichiropus variabilis	31669	TBC		H002	For/LS		0	0	1	0	1		TBC
Antichiropus variabilis	31681	TBC		H005	For/LS		0	0	0	2	2	yes	TBC
Antichiropus variabilis	31688	TBC		H011	For/LS		0	1	0	0	1	yes	TBC
Antichiropus variabilis	31704	TBC		H006	For/LS	1 broken	0	1	0	0	1		
Antichiropus variabilis	31709	TBC		H017	For/LS		0	0	1	1	2	yes	TBC
Antichiropus variabilis	31747	TBC		MC004	For/LS		1	1	0	0	2		
Antichiropus variabilis	31804	TBC		HC002	For/LS		0	0	0	2	2	yes	TBC
Antichiropus variabilis	31817	TBC		MC002	For/LS		0	0	1	3	4		
Antichiropus variabilis	32003	TBC		MN-024	For/LS	Under rocks	1	0	1	0	2		
Antichiropus variabilis	32133	TBC		RH30C	For/LS	Under rock	0	1	0	0	1	yes	TBC
Antichiropus variabilis	32226	TBC		MN-028	For/LS	Jarrah log litter	0	0	1	0	1		
Antichiropus variabilis	32262	TBC		H012	For/LS	Under logs/bark	0	0	1	0	1		
Antichiropus variabilis	32295	TBC		H011	For/LS	Under logs/bark	0	0	1	0	1	yes	TBC
Antichiropus variabilis	32331	TBC		H014	For/LS	Under logs/bark	1	0	1	0	2		
Antichiropus variabilis	32344	TBC		H020	For/LS		0	0	0	1	1	yes	TBC
Antichiropus variabilis	32398	TBC		MN-022	For/LS		0	0	1	0	1		
Antichiropus variabilis	32466	TBC		MN-003	WPp		0	0	0	1	1	yes	TBC
Antichiropus variabilis	32500	TBC		MN-028	WPp	One broken	0	1	0	2	3		
Antichiropus variabilis	32528	TBC		RH20C	WPp		0	0	1	0	1		
Antichiropus variabilis	32713	TBC		RH30C	WPp		0	2	0	0	2		
Antichiropus variabilis	32728	TBC		RH05B	WPp		0	1	0	0	1		
Antichiropus variabilis	32757	TBC		RH10B	WPp		0	1	0	0	1		
Antichiropus variabilis	32763	TBC		RH05B	WPp		0	2	0	0	2		
Antichiropus variabilis	32797	TBC		H010	WPp		0	0	0	1	1	yes	TBC
Antichiropus variabilis	32807	TBC		H022	WPp		0	0	0	2	2	yes	TBC
Antichiropus variabilis	32834	TBC		H002	WPp		0	0	0	1	1	yes	TBC
Antichiropus variabilis	32842	TBC		H009	WPp		0	0	1	0	1		
Antichiropus variabilis	32851	TBC		H003	WPp		1	0	1	0	2	yes	TBC
Antichiropus variabilis	33120	TBC		H014	WPp		0	0	1	0	1		
Antichiropus variabilis	33121	TBC		H014	WPp		0	1	0	0	1		
Antichiropus variabilis	33137	TBC		H006	WPp		0	0	0	2	2	yes	TBC
Antichiropus variabilis	33142	TBC		MC004	WPp		0	0	0	1	1	yes	TBC
Antichiropus variabilis	33156	TBC		MC005	WPp		0	0	0	2	2	yes	TBC
Antichiropus variabilis	33337	TBC		H022	For/LS	Under bark	0	1	0	0	1		
Antichiropus variabilis	33355	TBC		H021	For/LS		0	0	0	1	1	yes	TBC
Antichiropus variabilis	33405	TBC		HC003	For/LS	Under logs/bark	0	0	1	0	1		
Antichiropus variabilis	33406	TBC		HC003	For/LS		0	0	0	1	1	yes	TBC
Antichiropus variabilis	33452	TBC		MN-012	WPp		0	0	1	0	1		
Antichiropus variabilis	33464	TBC		MN-008	WPp		0	1	0	0	1		
Antichiropus variabilis	33519	TBC		H018	WPp		0	0	0	1	1	yes	TBC
Antichiropus variabilis	33540	TBC		H015	WPp		0	0	0	1	1		
Antichiropus variabilis	33541	TBC		H015	WPp		0	0	0	1	1		
Antichiropus variabilis	33544	TBC		H014	WPp		0	1	0	0	1		
Antichiropus variabilis	33557	TBC		H006	WPp		0	0	1	0	1		
Antichiropus variabilis	33568	TBC		H005	WPp		0	0	1	0	1		
Antichiropus variabilis	33576	TBC		H001	WPp		0	1	0	0	1		
Antichiropus variabilis	33578	TBC		H016	WPp		0	2	0	0	2		
Antichiropus variabilis	33579	TBC		H016	WPp		0	0	1	0	1		
Antichiropus variabilis	33615	TBC		H003	WPp		1	0	0	0	1	yes	TBC
Antichiropus variabilis	33653	TBC		HC003	WPp		0	0	1	0	1		
Antichiropus variabilis	33662	TBC		MC003	WPp		0	1	0	0	1		
Antichiropus variabilis	33674	TBC		MN-026	WPp		0	0	0	1	1	yes	TBC
Antichiropus variabilis	33840	TBC		MC003	WPp		0	0	0	2	2	yes	TBC
Antichiropus variabilis	33847	TBC		GHD-oppMN	DP		0	1	0	0	1		
Antichiropus variabilis	33848	TBC		GHD-oppMN	DP		0	0	0	1	1	yes	TBC
Antichiropus variabilis	33851	TBC		GHD-TL5	DP		0	0	0	5	5	yes	TBC
Antichiropus variabilis	33857	TBC		GHD-Site9	DP		0	0	1	0	1		
Antichiropus variabilis	33865	TBC		GHD-TL8	DP		0	0	0	1	1	yes	TBC
Antichiropus variabilis	34140	TBC		H014	For/LS		0	2	0	0	2		
Armadillo flavus	32486	TBC	SJ5784	MN-009	WPp	White colour, bumpy	0	0	0	1	1		
Armadillo flavus	33139	TBC	SJ5777	H006	WPp	Sex indet. Rolled, juv poor.	1	0	0	1	2		
Armadillo flavus	33533	TBC	SJ5772	H020	WPp		0	1	0	0	1		
Atelomastix nigrescens	31376	TBC		MN-013	For/LS		0	1	0	0	1		
Atelomastix nigrescens	31377	TBC		MN-013	For/LS		0	0	2	0	2		
Atelomastix nigrescens	31455	TBC		MN-015	For/LS		0	0	2	0	2		
Atelomastix nigrescens	31555	TBC		MN-011	For/LS		0	0	2	0	2		
Atelomastix nigrescens	31559	TBC		H021	For/LS		6	0	0	0	6		
Atelomastix nigrescens	31657	TBC		H001	For/LS		2	0	0	0	2		
Atelomastix nigrescens	31748	TBC		MC004	For/LS		22	0	0	0	22		

Atelomastix nigrescens	31816	TBC		MC002	For/LS		3	0	0	0	3		
Atelomastix nigrescens	32134	TBC		RH05B	For/LS	Leaf litter	2	0	0	0	2		
Atelomastix nigrescens	32201	TBC		MN-024	For/LS	Under rocks	4	0	0	0	4		
Atelomastix nigrescens	32216	TBC		MN-020	For/LS	Under bark	1	0	0	0	1		
Atelomastix nigrescens	32288	TBC		H004	For/LS	Under logs	5	0	0	0	5		
Atelomastix nigrescens	32364	TBC		MN-007	For/LS	Under rocks	4	0	0	0	4		
Atelomastix nigrescens	32365	TBC		MN-028	For/LS	Under logs	8	0	0	0	8		
Atelomastix nigrescens	32384	TBC		MN-015	For/LS	Under rocks	1	0	0	0	1		
Atelomastix nigrescens	32387	TBC		MN-021	For/LS		6	0	0	0	6		
Atelomastix nigrescens	32390	TBC		MN-010	For/LS	Under rocks	1	0	0	0	1		
Atelomastix nigrescens	32393	TBC		MN-015	For/LS	Under logs/bark	2	0	0	0	2		
Atelomastix nigrescens	32400	TBC		MN-013	For/LS		3	0	0	0	3		
Atelomastix nigrescens	32402	TBC		MN-007	For/LS		4	0	0	0	4		
Atelomastix nigrescens	32403	TBC		MN-010	For/LS	Under logs	9	0	0	0	9		
Atelomastix nigrescens	32405	TBC		MN-027	For/LS	Under logs	4	0	0	0	4		
Atelomastix nigrescens	32409	TBC		MN-018	For/LS		5	0	0	0	5		
Atelomastix nigrescens	32414	TBC		MN-021	For/LS	Under logs	3	0	0	0	3		
Atelomastix nigrescens	32422	TBC		MN-020	For/LS	Under rock	1	0	0	0	1		
Atelomastix nigrescens	32425	TBC		MN-027	For/LS		3	0	0	0	3		
Atelomastix nigrescens	32430	TBC		MN-020	WPp		1		0	0			
Atelomastix nigrescens	32436	TBC		MN-023	WPp		8	0	0	0	8		
Atelomastix nigrescens	32440	TBC		MN-022	WPp		1	0	0	0	1		
Atelomastix nigrescens	32461	TBC		MN-003	WPp		20	0		0			
Atelomastix nigrescens	32473	TBC		MN-021	WPp		49	0	0	0	49		
Atelomastix nigrescens	32484	TBC		MN-009	WPp		2	0	0	0	2		
Atelomastix nigrescens	32499	TBC		MN-028	WPp		17	0	0	0	17		
Atelomastix nigrescens	32506	TBC		MN-015	WPp		9	0	0	0	9		
Atelomastix nigrescens	32514	TBC		MN-010	WPp		14	0	0	0	14		
Atelomastix nigrescens	32521	TBC		MN-026	WPp		6	0	0	0	6		
Atelomastix nigrescens	32525	TBC		MN-015	WPp		6	0	0	0	6		
Atelomastix nigrescens	32611	TBC		MN-013	WPp	site was burnt approximately halfway (3 weeks) into phase 2	8	0	0	0	8		
Atelomastix nigrescens	32727	TBC		RH05B	WPp		3	0	0	0	3		
Atelomastix nigrescens	32742	TBC		MN-024	WPp		15	0	0	0	15		
Atelomastix nigrescens	32744	TBC		MN-027	WPp		29	0	0	0	29		
Atelomastix nigrescens	32754	TBC		MN-010	WPp		10	0	0	0	10		
Atelomastix nigrescens	32765	TBC		RH10A	WPp		1	0	9	0	10		
Atelomastix nigrescens	32823	TBC		H008	WPp		4	0	0	0	4		
Atelomastix nigrescens	32849	TBC		H018	WPp		73	0	0	0	73		
Atelomastix nigrescens	32864	TBC		H004	WPp		53	0	0	0	53		
Atelomastix nigrescens	33122	TBC		H014	WPp		3	0	0	0	3		
Atelomastix nigrescens	33150	TBC		MC001	WPp		7	0	0	0	7		
Atelomastix nigrescens	33154	TBC		HC002	WPp		1	0	0	0	1		
Atelomastix nigrescens	33379	TBC		HR002	For/LS	Under rocks/logs	5	0	0	0	5		
Atelomastix nigrescens	33385	TBC		HR002	For/LS		2	0	0	0	2		
Atelomastix nigrescens	33391	TBC		MC002	For/LS	Under logs	5	0	0	0	5		
Atelomastix nigrescens	33394	TBC		MC004	For/LS		5	0	0	0	5		
Atelomastix nigrescens	33400	TBC		MC003	For/LS		2	0	0	0	2		
Atelomastix nigrescens	33417	TBC		MC003	For/LS	Under rocks (laterite)	4	0	0	0	4		
Atelomastix nigrescens	33420	TBC		MC001	For/LS	Under rocks (laterite)	6	0	0	0	6		
Atelomastix nigrescens	33422	TBC		MC004	For/LS	Under rocks (laterite)	4	0	0	0	4		
Atelomastix nigrescens	33427	TBC		MC001	For/LS		7	0	0	0	7		
Atelomastix nigrescens	33454	TBC		MN-025	WPp		36	0	0	0	36		
Atelomastix nigrescens	33474	TBC		MN-027	WPp		12	0	0	0	12		
Atelomastix nigrescens	33480	TBC		MN-007	WPp		45	0	0	0	45		
Atelomastix nigrescens	33485	TBC		MN-013	WPp		17	0	0	0	17		
Atelomastix nigrescens	33492	TBC		MN-017	WPp		10	0	0	0	10		
Atelomastix nigrescens	33494	TBC		MN-012	WPp		7	0	0	0	7		
Atelomastix nigrescens	33506	TBC		MN-026	WPp		10	0	0	0	10		
Atelomastix nigrescens	33527	TBC		H008	WPp		12	0	0	0	12		
Atelomastix nigrescens	33549	TBC		H014	WPp		10	0	0	0	10		
Atelomastix nigrescens	33603	TBC		H004	WPp		20	0	0	0	20		
Atelomastix nigrescens	33632	TBC		MC002	WPp		67	0	0	0	67		
Atelomastix nigrescens	33633	TBC		MC002	WPp		53	0	0	0	53		
Atelomastix nigrescens	33643	TBC		MC001	WPp		9	0	0	0	9		
Atelomastix nigrescens	33657	TBC		MC003	WPp		6	0	0	0	6		
Atelomastix nigrescens	33670	TBC		MN-020	WPp		3	0	0	0	3		
Atelomastix nigrescens	33673	TBC		MN-026	WPp		9	0	0	0	9		
Atelomastix nigrescens	33678	TBC		MN-025	WPp		22	0	0	0	22		
Atelomastix nigrescens	33689	TBC		MN-017	WPp		12	0	0	0	12		
Atelomastix nigrescens	33699	TBC		MN-011	WPp		1	0	0	0	1		
Atelomastix nigrescens	33710	TBC		MN-003	WPp		6	0	0	0	6		
Atelomastix nigrescens	33718	TBC		MN-022	WPp		1	0	0	0	1		
Atelomastix nigrescens	33722	TBC		MN-012	WPp		9	0	0	0	9		
Atelomastix nigrescens	33734	TBC		MN-009	WPp		1	0	0	0	1		
Atelomastix nigrescens	33740	TBC		MN-015	WPp		4	0	0	0	4		
Atelomastix nigrescens	33748	TBC		HR002	WPp		1	0	0	0	1		
Atelomastix nigrescens	33762	TBC		MN-021	WPp		12	0	0	0	12		

Atelomastix nigrescens	33767	TBC		MN-007	WPp		10	0	0	0	10		
Atelomastix nigrescens	33778	TBC		MN-028	WPp		9	0	0	0	9		
Atelomastix nigrescens	33779	TBC		MN-028	WPp		6	0	0	0	6		
Atelomastix nigrescens	33830	TBC		MC002	WPp		1	0	0	0	1		
Atelomastix nigrescens	33831	TBC		MC002	WPp		7	0	0	0	7		
Atelomastix nigrescens	33837	TBC		MC002	WPp		36	0	0	0	36		
Atelomastix nigrescens	33841	TBC		MC003	WPp		3	0	0	0	3		
Atelomastix sp. indet.	31456	TBC		MN-015	For/LS		0	1	0	0	1		
Atelomastix sp. indet.	31457	TBC		MN-015	For/LS		0	0	1	0	1	yes	
Atelomastix sp. indet.	31730	TBC		MC003	For/LS		1	0	0	0	1		
Atelomastix sp. indet.	31805	TBC		HC002	For/LS		3	0	0	0	3		
Atelomastix sp. indet.	32377	TBC		MN-009	For/LS	Under logs/rocks	3	0	0	0	3		
Atelomastix sp. indet.	33486	TBC		MN-013	WPp		0	0	0	3	3	yes	
Atelomastix sp. indet.	33569	TBC		H005	WPp		3	0	0	0	3		
Atelomastix sp. indet.	33656	TBC		MC003	WPp	very small legs taken for DNA	2	0	0	0	2	yes	
Atelomastix sp. indet.	33738	TBC		MN-006	WPp	part of body mid-section taken for DNA,	1	0	0	0	1	yes	
Austrochthonius 'grandis'	34178	TBC		H020	WPp		0	2	0	0	2		
Austrochthonius 'grandis'	34180	TBC		H010	WPp		0	1	0	0	1		
Austrochthonius muchmorei	32070	TBC		MN-024	For/LS		0		1	0			
Austrochthonius muchmorei	32468	TBC		MN-003	WPp		0	1	0	0	1		
Austrochthonius muchmorei	32838	TBC		H020	WPp		0	1	0	0	1		
Austrochthonius muchmorei	32860	TBC		H004	WPp		0	0	1	0	1		
Austrochthonius muchmorei	33509	TBC		MN-026	WPp		0	1	0	0	1		
Austrochthonius muchmorei	33520	TBC		H018	WPp		0	1	0	0	1		
Austrochthonius muchmorei	33528	TBC		H008	WPp		0	2	1	0	3		
Austrochthonius muchmorei	33551	TBC		H017	WPp		0	1	0	0	1		
Austrochthonius muchmorei	33571	TBC		H001	WPp		0	2	0	0	2		
Austrochthonius muchmorei	33584	TBC		H016	WPp		0	1	0	0	1		
Austrochthonius muchmorei	33651	TBC		HC002	WPp		0	1	0	0	1		
Austrochthonius muchmorei	33668	TBC		H020	WPp		0	2	0	0	2		
Austrochthonius muchmorei	33696	TBC		MN-023	WPp		0	1	0	0	1		
Austrochthonius muchmorei	33717	TBC		MN-008	WPp		0	1	0	0	1		
Austrochthonius muchmorei	34184	TBC		H014	WPp		0	1	0	0	1		
Austrochthonius muchmorei	34185	TBC		H021	WPp		0	4	2	0	6		
Austrochthonius muchmorei	34190	TBC		MN-011	WPp		0	0	1	0	1		
Austrochthonius muchmorei	34191	TBC		MN-021	WPp		0	1	0	0	1		
Austrochthonius muchmorei	34192	TBC		MN-017	WPp		0	0	1	0	1		
Austrochthonius muchmorei	34193	TBC		MN-005	WPp		0	1	0	0	1		
Austrochthonius muchmorei	34194	TBC		MN-011	WPp		0	1	1	0	2		
Austrochthonius '188'	32071	TBC		MN-020	For/LS		0	4	0	0	4		
Austrochthonius '188'	32081	TBC		MN-012	For/LS	in tree stump	0	1	0	0	1		
Austrochthonius '188'	32097	TBC		MN-003	For/LS	In/under log.	0	0	0	1	1		
Austrochthonius '188'	32438	TBC		MN-023	WPp		0	1	0	0	1		
Austrochthonius '188'	32450	TBC		MN-022	WPp		0	3	1	0	4		
Austrochthonius '188'	32479	TBC		MN-021	WPp		0	2	1	0	3		
Austrochthonius '188'	32485	TBC		MN-009	WPp		0	1	0	0	1		
Austrochthonius '188'	32495	TBC		MN-028	WPp		0	1	1	0	2		
Austrochthonius '188'	32522	TBC		MN-015	WPp		0	0	0	1	1		
Austrochthonius '188'	33459	TBC		MN-025	WPp		0	2	0	0	2		
Austrochthonius '188'	33461	TBC		MN-012	WPp		0	1	0	0	1		
Austrochthonius '188'	33489	TBC		MN-017	WPp		0	0	3	0	3		
Austrochthonius '188'	33505	TBC		MN-018	WPp		0	1	0	0	1		
Austrochthonius '188'	33513	TBC		H022	WPp		0	1	0	0	1		
Austrochthonius '188'	33564	TBC		H007	WPp		0	1	0	0	1		
Austrochthonius '188'	33672	TBC		MN-020	WPp		0	1	0	0	1		
Austrochthonius '188'	33725	TBC		MN-012	WPp		0	0	1	0	1		
Austrochthonius '188'	33733	TBC		MN-009	WPp		0	1	0	0	1		
Austrochthonius '188'	33755	TBC		MN-002	WPp		0	1	0	0	1		
Austrochthonius '188'	33761	TBC		MN-019	WPp		0	0	1	0	1		
Austrochthonius '188'	33786	TBC		MN-028	WPp		0	2	0	0	2		
Austrochthonius '188'	34181	TBC		H010	WPp		0	1	0	0	1		
Austrochthonius '188'	34182	TBC		H006	WPp		0	1	0	0	1		
Austrochthonius '188'	34183	TBC		H004	WPp		0	0	1	0	1		
Austrochthonius '188'	34195	TBC		MN-005	WPp		0	5	0	1	6		
Austrochthonius '188'	34196	TBC		MN-003	WPp		0	0	1	0	1		
Austrochthonius '188'	34197	TBC		MN-011	WPp		0	1	0	1	2		
Austrochthonius sp. indet.	33636	TBC		MC002	WPp	*A. muchmorei*?	0	1	0	0	1		
Barychelidae sp. indet.	31372	TBC		MN-027	BE		0	0	1	0	1	No	
Beierolpium bornemisszai	32069	TBC		MN-024	For/LS		0	0	1	0	1		
Beierolpium bornemisszai	32096	TBC		MN-003	For/LS	In/under log.	0	1	0	0	1		
Beierolpium bornemisszai	32215	TBC		MN-009	For/LS	Grass tree	0	1	0	0	1		
Beierolpium bornemisszai	32451	TBC		MN-022	WPp		0	0	1	0	1		
Beierolpium bornemisszai	32454	TBC		MN-011	WPp		0	0	1	0	1		
Beierolpium bornemisszai	32751	TBC		MN-027	WPp		0	1	0	0	1		
Beierolpium bornemisszai	32752	TBC		MN-010	WPp		0	1	0	0	1		
Beierolpium bornemisszai	32799	TBC		H010	WPp		0	1	0	0	1		
Beierolpium bornemisszai	33129	TBC		H019	WPp		1	0	0	0	1		
Beierolpium bornemisszai	33144	TBC		MC001	WPp		0	0	1	0	1		
Beierolpium bornemisszai	33498	TBC		MN-004	WPp		0	1	0	0	1		

Beierolpium bornemisszai	33536	TBC		H015	WPp		0	0	1	0	1		
Beierolpium bornemisszai	33698	TBC		MN-011	WPp		0	0	1	0	1		
Beierolpium bornemisszai	33747	TBC		HR002	WPp		0	0	1	0	1		
Beierolpium bornemisszai	33756	TBC		MN-002	WPp		0	1	0	0	1		
Beierolpium bornemisszai	33760	TBC		MN-019	WPp		0	0	1	0	1		
Beierolpium bornemisszai	33765	TBC		MN-021	WPp		0	1	0	0	1		
Beierolpium bornemisszai	33787	TBC		MN-028	WPp		0	1	0	0	1		
Beierolpium bornemisszai	34201	TBC		MN-020	WPp		0	1	0	0	1		
Beierolpium sp. indet.	32478	TBC		MN-021	WPp	probably *beierolpium bornemisszai,*	0	0	0	2	2		
Bothriembryon cf. bradshawi	32844	S73676		H015	WPp	Relationship to *B.bradshawi* undetermined at present	0	0	0	1	1	yes	
Bothriembryon cf. indutus	32462	S73705		MN-003	WPp	Relationship to *B.inductus* undetermined at present	0	0		1		yes	
Bothriembryon cf. indutus	32481	S73701		MN-009	WPp		0	0	0	1	1	yes	
Bothriembryon cf. indutus	33455	S73700		MN-025	WPp		0	0	0	1	1	No: rev red failed	
Buddelundia '5' (Huntly)	31399	TBC		RH05B	For/LS		0	0	1	1	2		
Buddelundia '5' (Huntly)	31558	TBC		H021	For/LS		0	1	0	0	1		
Buddelundia '5' (Huntly)	31609	TBC		H003	For/LS	White spot	0	1	0	0	1		
Buddelundia '5' (Huntly)	31637	TBC		H020	For/LS	missing flagellum of right antenna	0	0	1	0	1		
Buddelundia '5' (Huntly)	31651	TBC		H021	For/LS		0	1	1	0	2		
Buddelundia '5' (Huntly)	31663	TBC		H011	For/LS		0	0	3	0	3		
Buddelundia '5' (Huntly)	31696	TBC		H007	For/LS		0	1	0	0	1		
Buddelundia '5' (Huntly)	31732			MC003	For/LS	Small and rolled. Discarded	1	0	1	0	2		
Buddelundia '5' (Huntly)	31744	TBC		HC001	For/LS		0	1	4	0	5		
Buddelundia '5' (Huntly)	31802	TBC		HC003	For/LS		0	0	1	1	2		
Buddelundia '5' (Huntly)	31808	TBC		HC002	For/LS		0	1	1	0	2		
Buddelundia '5' (Huntly)	31813	TBC	SJ5775	MC005	For/LS		25	0	0	0	25		
Buddelundia '5' (Huntly)	32022	TBC		MN-027	For/LS	Under banksia bark	0	0	1	0	1		
Buddelundia '5' (Huntly)	32126	TBC		RH30D	For/LS	Under log	0	0	1	1	2		
Buddelundia '5' (Huntly)	32210	TBC		MN-015	For/LS		0	0	1	0	1		
Buddelundia '5' (Huntly)	32256	TBC		H002	For/LS		0	1	2	2	5		
Buddelundia '5' (Huntly)	32268	TBC		H012	For/LS	Grass tree	0	2	1	0	3		
Buddelundia '5' (Huntly)	32271	TBC		H003	For/LS	Grass tree. Male and female both small. Discarded	0	1	1	1	3		
Buddelundia '5' (Huntly)	32283			H021	For/LS	Discarded	0	0	1	0	1		
Buddelundia '5' (Huntly)	32320	TBC		H006	For/LS		0	1	0	0	1		
Buddelundia '5' (Huntly)	32321	TBC		H008	For/LS	Grass tree	0	0	0	1	1		
Buddelundia '5' (Huntly)	32360	TBC		HR001	For/LS	Good	0	1	0	0	1		
Buddelundia '5' (Huntly)	32518	TBC		MN-026	WPp		0	2	2	0	4		
Buddelundia '5' (Huntly)	32524	TBC		MN-015	WPp		0	0	2	0	2		
Buddelundia '5' (Huntly)	32585	TBC		H021	For/LS	Grass tree	0	0	1	1	2		
Buddelundia '5' (Huntly)	32768	TBC		RH20A	WPp		0	1	0	0	1		
Buddelundia '5' (Huntly)	32780	TBC		HR001	WPp		0	1	1	2	4		
Buddelundia '5' (Huntly)	32801	TBC		H010	WPp		0	3	2	0	5		
Buddelundia '5' (Huntly)	32820	TBC		H012	WPp		0	0	1	0	1		
Buddelundia '5' (Huntly)	32825	TBC		H008	WPp		0	0	1	0	1		
Buddelundia '5' (Huntly)	32862	TBC		H004	WPp		0	0	2	1	3		
Buddelundia '5' (Huntly)	33134	TBC		H021	WPp		0	2	3	1	6		
Buddelundia '5' (Huntly)	33138	TBC		H006	WPp		0	0	1	1	2		
Buddelundia '5' (Huntly)	33145	TBC	SJ5776	MC001	WPp		0	5	2	0	7		
Buddelundia '5' (Huntly)	33152	TBC		HC002	WPp		0	0	3	3	6		
Buddelundia '5' (Huntly)	33158	TBC	SJ5779	MC005	WPp	Males, females and juvs.	13	0	0	0	13		
Buddelundia '5' (Huntly)	33232			H002	For/LS	Under rocks (laterite). Discarded	0	0	1	0	1		
Buddelundia '5' (Huntly)	33234	TBC		H003	WPp	Discarded	0	0	1	0	1		
Buddelundia '5' (Huntly)	33243			H010	For/LS	Discarded	0	0	1	0	1		
Buddelundia '5' (Huntly)	33287			H010	For/LS	Discarded	0	0	1	0	1		
Buddelundia '5' (Huntly)	33290			H010	WPp	Discarded	0	0	1	0	1		
Buddelundia '5' (Huntly)	33330	TBC		H002	For/LS	Grass tree	0	0	3	2	5		
Buddelundia '5' (Huntly)	33333	TBC		H006	For/LS	Grass tree	0	2	3	1	6		
Buddelundia '5' (Huntly)	33336	TBC	SJ5773	H020	For/LS	Grass tree. Good condition	0	1	0	0	1		
Buddelundia '5' (Huntly)	33347	TBC		H007	For/LS	Grass tree	0	0	0	1	1		
Buddelundia '5' (Huntly)	33348	TBC		H014	For/LS	Under Jarrah bark	0	1	1	0	2		
Buddelundia '5' (Huntly)	33349			H007	For/LS	Discarded	0	0	1	0	1		
Buddelundia '5' (Huntly)	33357	TBC		H021	For/LS		0	0	1	0	1		
Buddelundia '5' (Huntly)	33366	TBC		H011	For/LS	Grass tree	0	0	2	0	2		
Buddelundia '5' (Huntly)	33372	TBC		H021	For/LS	Grass tree	0	3	2	1	6		
Buddelundia '5' (Huntly)	33376	TBC		H004	For/LS	Grass tree	0	1	1	0	2		

Buddelundia '5' (Huntly)	33383	TBC		HR001	For/LS	Grass tree	14	0	0	0	14		
Buddelundia '5' (Huntly)	33388	TBC		HR001	For/LS		0	0	2	0	2		
Buddelundia '5' (Huntly)	33392	TBC		MC002	For/LS	Underlogs	0	1	2	0	3		
Buddelundia '5' (Huntly)	33411			MC004	For/LS	Discarded	0	0	1	1	2		
Buddelundia '5' (Huntly)	33413	TBC		MC005	For/LS		0	0	3	1	4		
Buddelundia '5' (Huntly)	33428	TBC		MC005	For/LS		8	0	0	0	8		
Buddelundia '5' (Huntly)	33435	TBC	SJ5770	MC002	For/LS	Good condition	0	1	0	0	1		
Buddelundia '5' (Huntly)	33437	TBC		HC002	For/LS		0	2	2	0	4		
Buddelundia '5' (Huntly)	33439	TBC		HC003	For/LS		0	0	1	0	1		
Buddelundia '5' (Huntly)	33441			MC003	For/LS	Discarded	0	0	4	2	6		
Buddelundia '5' (Huntly)	33443	TBC		MC003	For/LS		0	1	0	0	1		
Buddelundia '5' (Huntly)	33508	TBC		MN-026	WPp	Good condition	0	1	0	0	1		
Buddelundia '5' (Huntly)	33553	TBC		H017	WPp		0	1	0	0	1		
Buddelundia '5' (Huntly)	33588	TBC		H011	WPp		0	0	1	0	1		
Buddelundia '5' (Huntly)	33593			H010	WPp	Discarded	0	1	0	0	1		
Buddelundia '5' (Huntly)	33634	TBC		MC002	WPp		5	5	0	0	10		
Buddelundia '5' (Huntly)	33639	TBC		MC004	WPp		0	1	1	0	2		
Buddelundia '5' (Huntly)	33645	TBC		MC001	WPp		0	0	1	0	1		
Buddelundia '5' (Huntly)	33649	TBC		HC002	WPp		0	0	0	1	1		
Buddelundia '5' (Huntly)	33654	TBC		MC003	WPp		0	0	1	3	4		
Buddelundia '5' (Huntly)	33666	TBC		MC005	WPp		0	0	4	4	8		
Buddelundia '5' (Huntly)	33675	TBC		MN-026	WPp		0	2	2	0	4		
Buddelundia '5' (Huntly)	33731	TBC		MN-009	WPp		0	0	1	0	1		
Buddelundia '5' (Huntly)	33741	TBC	SJ5791	MN-015	WPp		9	0	0	0	9		
Buddelundia '5' (Huntly)	33784	TBC		MN-028	WPp		0	0	2	2	4		
Buddelundia '5' (Huntly)	33835	TBC	SJ5768	MC002	WPp	Light and dark	45	0	0	0	45		
Buddelundia '5' (Huntly)	33838	TBC	SJ5784	MC003	WPp		14	0	0	0	14		
Buddelundia '5' (Huntly)	33844	TBC		HC003	WPp	Darker than usual	0	0	1	0	1		
Buddelundia '5' (Huntly)	33853	TBC	SJ5771	GHD-TL5	DP	1 unrolled	0	2	0	0	2		
Buddelundia '5' (Huntly)	33856	TBC		GHD-Site9	DP		0	0	1	0	1		
Buddelundia nitidissima	31390	TBC		RH30B	For/LS		0	0	1	0	1		
Buddelundia nitidissima	31406	TBC		RH20A	For/LS		0	0	0	1	1		
Buddelundia nitidissima	31524	TBC		MN-011	For/LS		0	0	0	1	1		
Buddelundia nitidissima	31625	TBC		H010	For/LS		0	0	1	0	1		
Buddelundia nitidissima	31678	TBC		H022	For/LS		0	0	1	0	1		
Buddelundia nitidissima	32309	TBC		H022	For/LS	Grass tree	0	1	0	0	1		
Buddelundia nitidissima	32316			H009	For/LS	Largish. Discarded	0	0	1	0	1		
Buddelundia nitidissima	32369	TBC		MN-008	For/LS	Under logs	0	0	1	0	1		
Buddelundia nitidissima	32759	TBC		RH10B	WPp		0	0	0	1	1		
Buddelundia nitidissima	32795	TBC		H010	WPp		0	1	1	0	2		
Buddelundia nitidissima	32808	TBC		H022	WPp		0	1	0	1	2		
Buddelundia nitidissima	32822	TBC		H016	WPp		0	0	3	1	4		
Buddelundia nitidissima	32830	TBC		H005	WPp		0	1	4	1	6		
Buddelundia nitidissima	32846	TBC		H015	WPp		1	0	0	0	1		
Buddelundia nitidissima	33295			H014	WPp	Discarded	0	0	1	0	1		
Buddelundia nitidissima	33319	TBC		MC005	WPp		0	0	1	1	2		
Buddelundia nitidissima	33364	TBC		H010	For/LS		0	1	0	0	1		
Buddelundia nitidissima	33370	TBC		H019	For/LS	Grass tree	0	1	0	1	2		
Buddelundia nitidissima	33468	TBC		MN-008	WPp		0	0	1	0	1		
Buddelundia nitidissima	33630			H012	WPp	Discarded	0	0	0	1	1		
Buddelundia nitidissima	33695	TBC		MN-018	WPp		0	0	1	0	1		
Buddelundia nitidissima	33707	TBC		MN-004	WPp		0	0	1	0	1		
Buddelundia nitidissima	33711	TBC		MN-003	WPp		0	0	0	1	1		
Buddelundia nitidissima	33715			MN-008	WPp	Discarded	0	0	1	0	1		
Buddelundia nitidissima	33750			HR002	WPp	Discarded	0	1	0	0	1		
Buddelundia nitidissima	33759			MN-019	WPp	Discarded	0	0	0	1	1		
Buddelundia nitidissima	33854	TBC		GHD-TL5	DP	Gravid	0	0	1	0	1		
Buddelundia sp. indet.	32504	TBC		MN-015	WPp	Poor condition	1	0	0	0	1		
Buddelundia sp. indet.	33560	TBC		H006	WPp	Partly dehydrated	0	1	0	0	1		
Calliuncus sp. indet.	31369	TBC		MN-025	For/LS		1	0	0	0	1		
Calliuncus sp. indet.	31736	TBC		MC005	For/LS		1	0	0	0	1		
Calliuncus sp. indet.	31809	TBC		HC002	For/LS		1	0	0	0	1		
Calliuncus sp. indet.	32101	TBC		MN-003	For/LS	In/under log. Yellow colour	2	0	0	0	2		
Calliuncus sp. indet.	32115	TBC		MN-023	For/LS	Debris in tree stump	2	0	0	0	2		
Calliuncus sp. indet.	32248	TBC		H013	For/LS	Under logs	2	0	0	0	2		
Calliuncus sp. indet.	32406	TBC		MN-027	For/LS	Under logs	1	0	0	0	1		
Calliuncus sp. indet.	32523	TBC		MN-015	WPp		1	0	0	0	1		
Calliuncus sp. indet.	32787	TBC		H001	WPp		1	0	0	0	1		
Calliuncus sp. indet.	33365	TBC		H010	For/LS	Damaged	1	0	0	0	1		
Calliuncus sp. indet.	33587	TBC		H011	WPp		1	0	0	0	1		
Cercophonius sulcatus	31382	TBC		MN-015	For/LS		0	0	0	1	1		
Cercophonius sulcatus	31701	TBC		H004	For/LS		0	0	0	1	1		
Cercophonius sulcatus	31995	TBC		MN-025	For/LS	Under rock	0	0	0	1	1		
Cercophonius sulcatus	32068	TBC		MN-024	For/LS		0	0	1	4	5		
Cercophonius sulcatus	32108	TBC		MN-017	For/LS	Under rock beneath allocasuarina	0	0	0	1	1		
Cercophonius sulcatus	32441	TBC		MN-022	WPp		0	0	0	1	1		
Cercophonius sulcatus	32482	TBC		MN-009	WPp		0	0	1	1	2		
Cercophonius sulcatus	32494	TBC		MN-028	WPp		0	0	5	3	8		

Cercophonius sulcatus	32700	TBC		RH10A	WPp		0	0	0	1	1		
Cercophonius sulcatus	32720	TBC		RH10C	WPp		0	0	1	0	1		
Cercophonius sulcatus	32802	TBC		H010	WPp		0	0	0	1	1		
Cercophonius sulcatus	32827	TBC		H008	WPp		0	0	1	0	1		
Cercophonius sulcatus	32839	TBC		H009	WPp		0	0	0	1	1		
Cercophonius sulcatus	32857	TBC		H013	WPp		0	0	0	1	1		
Cercophonius sulcatus	33153	TBC		HC002	WPp		0	0	0	3	3		
Cercophonius sulcatus	33157	TBC		MC005	WPp		0	0	0	1	1		
Cercophonius sulcatus	33458	TBC		MN-025	WPp		0	0	0	1	1		
Cercophonius sulcatus	33531	TBC		H020	WPp		0	0	1	0	1		
Cercophonius sulcatus	33580	TBC		H016	WPp		0	0	0	1	1		
Cercophonius sulcatus	33594	TBC		H010	WPp		0	0	0	1	1		
Cercophonius sulcatus	33595	TBC		H010	WPp		0	0	1	0	1		
Cercophonius sulcatus	33601	TBC		H002	WPp		0	0	0	1	1		
Cercophonius sulcatus	33607	TBC		H004	WPp		0	0	0	1	1		
Cercophonius sulcatus	33609	TBC		H004	WPp		0	0	1	0	1		
Cercophonius sulcatus	33646	TBC		HC002	WPp		0	0	1	0	1		
Cercophonius sulcatus	33655	TBC		MC003	WPp		0	0	0	1	1		
Cercophonius sulcatus	33664	TBC		MC005	WPp		0	0	0	5	5		
Cercophonius sulcatus	33692	TBC		MN-017	WPp		0	0	0	1	1		
Cercophonius sulcatus	33782	TBC		MN-028	WPp		0	0	0	1	1		
Cercophonius sulcatus	33849	TBC		GHD-oppMN	DP		0	1	0	0	1		
Cercophonius sulcatus	34188	TBC		MC003	WPp		0	0	1	2	3		
Cercophonius sulcatus	34237	TBC		MN-009	WPp		0	0	0	1	1		
cf.^Westralaoma sp. indet.	32716	S73679		RH30C	WPp		1	0	0	0	1		
cf.^Westralaoma sp. indet.	33530	S73674		H008	WPp		1	0	0	0	1		
Charopidae sp. indet.	32431	S73678		MN-020	WPp	too small to ID	1		0	0			
Charopidae sp. indet.	32717	S73680		RH30C	WPp	tiny	1	0	0	0	1		
Charopidae sp. indet.	33484	S73677		MN-006	WPp	very small, too small to ID	1	0	0	0	1		
Charopidae sp. indet.	33521	S73675		H018	WPp	very small	1	0	0	0	1		
Charopidae sp. indet.	33529	S73673		H008	WPp		1	0	0	0	1		
Chernetidae 'boddington'	32220	TBC		MN-006	For/LS	Grass tree husk	0	3	2	0	5		
Chernetidae 'boddington'	32221	TBC		MN-007	For/LS	Under grass tree	0	0	1	1	2		
rnetidae 'boddington'	32424	TBC		MN-018	For/LS	Grass tree	0	2	2	10	14		
rnetidae 'boddington'	32741	TBC		MN-018	For/LS	ex-32424	0	1	1	0	2		
Chernetidae sp. indet.	34189	TBC		MN-017	For/LS	Grass tree, Probably Chernetidae 'boddington'	0	0	0	1	1		
Dalodesmidae 'Phoenix0038'	32083	TBC		MN-012	For/LS	Debris in tree stump	0	0	0	1	1	yes	
Dalodesmidae 'Phoenix0038'	33384	TBC		HR002	For/LS	small, pink	1	0	1	0	2	yes	
Diplopoda sp. indet.	31623	TBC		H009	For/LS		1	0	0	0	1		
Diplopoda sp. indet.	31797	TBC		MC001	For/LS		31	0	0	0	31		
Diplopoda sp. indet.	31994	TBC		MN-025	For/LS	Under rock	3	0	0	0	3		
Diplopoda sp. indet.	32009	TBC		MN-008	For/LS	Under granite	6	0	0	0	6		
Diplopoda sp. indet.	32065	TBC		MN-024	For/LS		5		0	0			
Diplopoda sp. indet.	32745	TBC		MN-027	WPp		1	0	0	0	1		
Eucyrtops latior	31363	TBC		MN-009	BE		0	0	1	0	1	yes	
Eucyrtops latior	31422	TBC		MN-012	BE		0	0	1	0	1		
Eucyrtops latior	31423	TBC		MN-012	BE		0	0	1	0	1	yes	
Eucyrtops latior	31434	TBC		MN-018	BE		0	0	1	0	1		
Eucyrtops latior	31436	TBC		MN-018	BE		0	0	1	0	1	yes	
Eucyrtops latior	31439	TBC		MN-018	BE		0	0	1	0	1		
Eucyrtops latior	31443	TBC		MN-021	BE		0	0	1	0	1	yes	
Eucyrtops latior	31449	TBC		MN-028	BE		0	0	1	0	1	No	
Eucyrtops latior	31452	TBC		MN-014	BE		0	0	1	0	1	No	
Eucyrtops latior	31475	TBC		MN-025	BE		0	0	1	0	1	No	
Eucyrtops latior	31477	TBC		MN-023	BE		0	0	1	0	1		
Eucyrtops latior	31478	TBC		MN-023	BE		0	0	1	0	1	yes	
Eucyrtops latior	31480	TBC		MN-022	BE		0	0	1	0	1	yes	
Eucyrtops latior	31525	TBC		MN-011	BE		0	0	1	0	1	No	
Eucyrtops latior	31528	TBC		MN-023	BE		0	0	1	0	1		
Eucyrtops latior	31529	TBC		MN-011	BE		0	0	1	0	1	yes	
Eucyrtops latior	31537	TBC		MN-001	BE		0	0	1	0	1	yes	
Eucyrtops 'Phoenix0003'	31438	TBC		MN-007	BE		0	0	1	0	1	yes	
Eucyrtops 'Phoenix0003'	31451	TBC		MN-020	BE		0	0	1	0	1	yes	
Eucyrtops 'Phoenix0003'	31453	TBC		MN-007	BE		0	0	1	0	1		
Eucyrtops 'Phoenix0003'	31464	TBC		MN-020	BE		0	0	1	0	1		
Eucyrtops 'Phoenix0003'	31466	TBC		MN-003	BE		0	0	1	0	1	yes	
Eucyrtops 'Phoenix0003'	31473	TBC		MN-002	BE		0	0	1	0	1	No	
Eucyrtops 'Phoenix0003'	31575	TBC		H011	BE		0	0	1	0	1	yes	
Eucyrtops 'Phoenix0003'	31666	TBC		H001	BE		0	0	1	0	1	yes	
Eucyrtops 'Phoenix0003'	31703	TBC		RHopp01	BE	~92% similar to *Bungulla harrisonae* from John Forrest NP	0	0	1	0	1	yes	
Eucyrtops 'Phoenix0003'	31815	TBC		MC005	BE		0	0	1	0	1	yes	

Eucyrtops 'Phoenix0003'	32381	TBC		MN-007	For/LS	Under deep buried rock	0	0	1	0	1		
Eucyrtops 'Phoenix0003'	33469	TBC		MN-016	WPp	very flat carapace	0	1	0	0	1	No	
Eucyrtops 'Phoenix0029'	31446	TBC		MN-006	BE		0	0	1	0	1	yes	
Eucyrtops 'Phoenix0029'	31459	TBC		MN-005	BE		0	0	1	0	1	No	
Eucyrtops 'Phoenix0029'	31467	TBC		MN-002	BE		0	0	1	0	1	yes	
Eucyrtops 'Phoenix0030'	31421	TBC		MN-012	BE		0	0	1	0	1	yes	
Eucyrtops 'Phoenix0030'	31424	TBC		MN-012	BE		0	0	1	0	1		
Eucyrtops 'Phoenix0032'	31737	TBC		MC001	BE		0	0	0	0	0	yes	
Eucyrtops 'Phoenix0032'	31738	TBC		MC001	BE		0	0	1	0	1		
Eucyrtops 'Phoenix0032'	31739	TBC		MC001	BE		0	0	1	0	1		
Eucyrtops 'Phoenix0032'	32607	TBC		HR002	BE		0	0	1	0	1	yes	
Eucyrtops 'Phoenix0032'	33477	TBC		MN-027	WPp		0	0	0	1	1		
Eucyrtops 'Phoenix0032'	33478	TBC		MN-027	WPp		0	0	0	1	1	No	
Eucyrtops 'Phoenix0033'	31415	TBC		RH30C	BE		0	0	1	0	1	yes	
Eucyrtops 'Phoenix0033'	31416	TBC		RH30B	BE		0	0	1	0	1	yes	
Eucyrtops 'Phoenix0033'	31417	TBC		RH30D	BE		0	0	1	0	1	yes	
Eucyrtops 'Phoenix0033'	31576	TBC		H011	For/LS		0	0	1	0	1	yes	
Eucyrtops 'Phoenix0033'	31616	TBC		H007	BE		0	0	1	0	1	yes	
Eucyrtops 'Phoenix0033'	31728	TBC		MC005	BE		0	0	1	0	1	yes	
Eucyrtops 'Phoenix0033'	31821	TBC		MC004	BE		0	0	1	0	1	yes	
Eucyrtops 'WorsleyDNA06'	31561	TBC		H008	BE		0	0	1	0	1	yes	
Eucyrtops 'WorsleyDNA06'	31563	TBC		H008	BE		0	0	1	0	1		
Eucyrtops 'WorsleyDNA06'	31565	TBC		H010	BE		0	0	1	0	1	yes	
Eucyrtops 'WorsleyDNA06'	31571	TBC		H016	BE		0	0	1	0	1	yes	
Eucyrtops 'WorsleyDNA06'	31572	TBC		H016	BE	Damaged	0	0	1	0	1		
Eucyrtops 'WorsleyDNA06'	31573	TBC		H016	BE		0	0	1	0	1		
Eucyrtops 'WorsleyDNA06'	31582	TBC		H015	BE		0	0	1	0	1	yes	
Eucyrtops 'WorsleyDNA06'	31583	TBC		H015	BE		0	0	1	0	1		
Euoplos 'Phoenix0011'	31430	TBC		MN-016	BE		0	0	1	0	1	yes	
Euoplos 'Phoenix0011'	31465	TBC		MN-025	BE		0	0	1	0	1	yes	
Euoplos 'Phoenix0012'	31598	TBC		H013	BE	Biting leg of 31599	0	0	1	0	1	yes	
Euoplos 'Phoenix0012'	31600	TBC		H013	BE		0	0	1	0	1		
Eupnoi sp. indet.	31407	TBC		RH20A	For/LS		1	0	0	0	1		
Eupnoi sp. indet.	31746	TBC		HC001	For/LS		2	0	0	0	2		
Eupnoi sp. indet.	32208	TBC		MN-005	For/LS	Under logs. Badly damaged	1	0	0	0	1		
Eupnoi sp. indet.	32455	TBC		MN-011	WPp		2	0		0			
Eupnoi sp. indet.	32465	TBC		MN-003	WPp		3		0	0			
Eupnoi sp. indet.	32475	TBC		MN-021	WPp		1	0	0	0	1		
Eupnoi sp. indet.	32496	TBC		MN-028	WPp		4	0	0	0	4		
Eupnoi sp. indet.	32517	TBC		MN-026	WPp		3	0	0	0	3		
Eupnoi sp. indet.	32701	TBC		RH10A	WPp		1	0	0	0	1		
Eupnoi sp. indet.	32705	TBC		RH30D	WPp		2	0	0	0	2		
Eupnoi sp. indet.	32712	TBC		RH30C	WPp		1	0	0	0	1		
Eupnoi sp. indet.	32722	TBC		RH10C	WPp		3	0	0	0	3		
Eupnoi sp. indet.	32725	TBC		RH05B	WPp	2 missing all legs	3	0	0	0	3		
Eupnoi sp. indet.	32792	TBC		H007	WPp		1	0	0	0	1		
Eupnoi sp. indet.	33147	TBC		MC001	WPp		1	0	0	0	1		
Eupnoi sp. indet.	33449	TBC		H021	WPp		2	0	0	0	2		
Eupnoi sp. indet.	33465	TBC		MN-008	WPp		1	0	0	0	1		
Eupnoi sp. indet.	33490	TBC		MN-017	WPp		2	0	0	0	2		
Eupnoi sp. indet.	33524	TBC		H008	WPp		1	0	0	0	1		
Eupnoi sp. indet.	33535	TBC		H020	WPp		1	0	0	0	1		
Eupnoi sp. indet.	33561	TBC		H007	WPp	Missing legs	1	0	0	0	1		
Eupnoi sp. indet.	33600	TBC		H002	WPp		1	0	0	0	1		
Eupnoi sp. indet.	33604	TBC		H004	WPp		1	0	0	0	1		
Eupnoi sp. indet.	33629	TBC		H012	WPp	missing legs	1	0	0	0	1		
Eupnoi sp. indet.	33667	TBC		MC005	WPp		2	0	0	0	2		
Geogarypus sp. indet.	33766	TBC		MN-021	WPp		0	0	0	1	1		
Geogarypus taylori	32095	TBC		MN-003	For/LS	In/under log. Large and flat	0	1	0	0	1		
Geogarypus taylori	32511	TBC		MN-010	WPp		2	0	0	0	2		
Geogarypus taylori	34199	TBC		RH30C	WPp		0	0	0	1	1		
Geogarypus taylori	34200	TBC		MN-020	WPp		0	0	0	1	1		
Idiopidae sp. indet.	31364	TBC		MN-009	BE		0	0	1	0	1	fail	
Idiopidae sp. indet.	31379	TBC		MN-013	BE		0	0	1	0	1	fail	
Idiopidae sp. indet.	31383	TBC		MN-015	BE		0	0	1	0	1	No	
Idiopidae sp. indet.	31384	TBC		MN-013	BE		0	0	1	0	1		
Idiopidae sp. indet.	31385	TBC		MN-026	BE		0	0	1	0	1		
Idiopidae sp. indet.	31418	TBC		MN-024	BE		0	0	1	0	1	fail	
Idiopidae sp. indet.	31419	TBC		MN-024	BE		0	0	1	0	1		
Idiopidae sp. indet.	31427	TBC		MN-026	BE		0	0	1	0	1	fail	
Idiopidae sp. indet.	31428	TBC		MN-010	BE		0	0	1	0	1		
Idiopidae sp. indet.	31445	TBC		MN-013	BE		0	0	1	0	1	fail	
Idiopidae sp. indet.	31472	TBC		MN-010	BE		0	0	1	0	1		
Idiopidae sp. indet.	31474	TBC		MN-010	BE		0	0	1	0	1	fail	
Idiopidae sp. indet.	31479	TBC		MN-022	BE		0	0	0	1	1		
Idiopidae sp. indet.	31481	TBC		MN-017	BE		0	0	1	0	1	fail	
Idiopidae sp. indet.	31483	TBC		MN-017	BE		0	0	1	0	1		
Idiopidae sp. indet.	31566	TBC		H018	BE		0	0	1	0	1	No	

Idiopidae sp. indet.	31585	TBC		H019	BE		0	0	1	0	1		
Idiopidae sp. indet.	31586	TBC		H019	BE		0	0	1	0	1		
Idiopidae sp. indet.	31587	TBC		H019	BE		0	0	1	0	1		
Idiopidae sp. indet.	31591	TBC		H003	BE		0	0	1	0	1	No	
Idiopidae sp. indet.	31602	TBC		H005	BE		0	0	1	0	1		
Idiopidae sp. indet.	31631	TBC		H004	BE		0	0	1	0	1	No	
Idiopidae sp. indet.	31692	TBC		H003	BE		0	0	0	1	1		
Idiopidae sp. indet.	31693	TBC		H003	BE		0	0	0	1	1		
Idiopidae sp. indet.	33754			MN-002	WPp	missing abdomen, Discarded.	0	0	0	1	1		
Idiosoma jarrah	31357	TBC		H014	BE	On display at Boola Bardip	0	0	1	0	1		
Idiosoma jarrah	31471	TBC		MN-002	BE		0	0	1	0	1	yes	
Idiosoma 'Phoenix0035'	31560	TBC		H008	BE		0	0	1	0	1	No	
Idiosoma 'Phoenix0035'	31569	TBC		H006	BE		0	0	0	1	1	yes	
Idiosoma 'Phoenix0035'	31574	TBC		H007	BE		0	0	1	0	1	yes	
Idiosoma 'Phoenix0035'	31577	TBC		H001	BE		0	0	1	0	1	yes	
Idiosoma 'Phoenix0035'	31599	TBC		H013	BE	Back left leg bitten by 31598	0	0	1	0	1	yes	
Idiosoma 'Phoenix0035'	31643	TBC		H021	For/LS		0	0	1	0	1	yes	
Idiosoma 'Phoenix0035'	31753	TBC		HC001	BE		0	0	1	0	1	yes	
Idiosoma 'Phoenix0035'	31796	TBC		MC004	BE		0	0	1	0	1	yes	
Idiosoma 'Phoenix0035'	31799	TBC		HC002	BE		0	0	1	0	1	yes	
Idiosoma 'Phoenix0035'	31800	TBC		HC002	BE		0	0	1	0	1		
Idiosoma 'Phoenix0035'	31824	TBC		HC003	BE		0	0	0	1	1	yes	
Idiosoma 'Phoenix0035'	31825	TBC		HC003	BE		0	0	0	0	0		
Idiosoma 'Phoenix0035'	33378	TBC		HR001	BE	8cm, closed lid, surrounded by leaves	1	0	1	0	2	yes	
Idiosoma 'WAM T129362'	31365	TBC		MN-019	BE		0	0	1	0	1	yes	
Idiosoma 'WAM T129362'	31433	TBC		MN-004	BE		0	0	1	0	1	yes	
Idiosoma 'WAM T129362'	31441	TBC		MN-008	BE		0	0	1	0	1	yes	
Idiosoma 'WAM T129362'	31444	TBC		MN-021	BE		0	0	1	0	1	yes	
Idiosoma 'WAM T129362'	31526	TBC		MN-022	BE		0	0	1	0	1	yes	
Idiosoma 'WAM T129362'	31733	TBC		MC002	BE		0	0	1	0	1	yes	
Idiosoma 'WAM T129362'	33462	TBC		MN-008	WPp	thick setae	0	1	0	0	1	yes	
Isometroides 'jarrah'	33866	TBC		GHD-TL9	DP		0	0	1	0	1		
Karaops ellenae	31366	TBC		MN-006	For/LS		0	0	0	1	1		
Karaops ellenae	31426	TBC		MN-012	For/LS		0	0	0	1	1		
Karaops ellenae	32123	TBC		MN-001	For/LS	Under rock on granite outcrop	0	1	0	0	1		
Karaops ellenae	32142	TBC		RH10C	For/LS	Under laterite rock on laterite	0	0	0	1	1		
Karaops ellenae	32335	TBC		H022	For/LS	Under logs	0	1	0	0	1		
Karaops jarrit	31689	TBC		H011	For/LS		0	0	1	0	1		
Karaops jarrit	31694	TBC		H007	For/LS		0	0	1	0	1		
Kwonkan 'Phoenix0005'	33736	TBC		MN-006	WPp		0	1	0	0	1	yes	
Kwonkan 'Phoenix0005'	34213	TBC		MN-006	BE		0	0	1	0	1		
Kwonkan 'Phoenix0008'	33125	TBC		H019	WPp		0	1	0	0	1	No	
Laevophiloscia '1'	31360			MN-009	For/LS	Discarded	0	0	1	0	1		
Laevophiloscia '1'	31362			MN-005	For/LS	Discarded	0	0	1	0	1		
Laevophiloscia '1'	31368			MN-021	For/LS	Gravid. Discarded	0	0	1	0	1		
Laevophiloscia '1'	31395			RH10A	For/LS	Discarded	0	0	3	0	3		
Laevophiloscia '1'	31402	TBC		RH10C	For/LS		0	1	4	0	5		
Laevophiloscia '1'	31487	TBC		RH30D	For/LS		0	0	4	0	4		
Laevophiloscia '1'	31556			MN-023	For/LS	Discarded	0	0	1	0	1		
Laevophiloscia '1'	31608	TBC		H003	For/LS		0	2	1	0	3		
Laevophiloscia '1'	31621	TBC		H009	For/LS		0	0	2	0	2		
Laevophiloscia '1'	31626			H010	For/LS	Discarded	0	0	1	0	1		
Laevophiloscia '1'	31630			H001	For/LS	Discarded	0	1	0	0	1		
Laevophiloscia '1'	31635			H020	For/LS	Discarded	0	0	1	0	1		
Laevophiloscia '1'	31640			H008	For/LS	Discarded	0	0	1	0	1		
Laevophiloscia '1'	31650			H021	For/LS	Discarded	0	0	1	0	1		
Laevophiloscia '1'	31664			H011	For/LS	Gravid. Discarded	0	0	1	0	1		
Laevophiloscia '1'	31673	TBC		H016	For/LS		0	1	0	0	1		
Laevophiloscia '1'	31677	TBC		H022	For/LS		0	1	1	0	2		
Laevophiloscia '1'	31695	TBC		H007	For/LS	poor specimen	0	1	1	0	2		
Laevophiloscia '1'	31705			H006	For/LS	Gravid. Discarded	0	0	2	0	2		
Laevophiloscia '1'	31710	TBC		H017	For/LS	Unusual, long and thin with long antennae. Missing appendages, falling apart.	0	0	1	0	1		
Laevophiloscia '1'	31798			MC001	For/LS	Discarded	0	0	1	0	1		
Laevophiloscia '1'	31803	TBC		HC003	For/LS		0	0	1	0	1		
Laevophiloscia '1'	31806	TBC		HC002	For/LS		0	0	2	0	2		
Laevophiloscia '1'	31814			MC005	For/LS	Gravid. Discarded	0	0	1	0	1		
Laevophiloscia '1'	32001			MN-016	For/LS	Under logs. Discarded	0	0	2	0	2		
Laevophiloscia '1'	32017			MN-006	For/LS	Leaf Litter. Gravid. Discarded	0	0	1	0	1		
Laevophiloscia '1'	32072	TBC		RH20A	For/LS	Under leaf litter. Gravid	0	0	2	0	2		
Laevophiloscia '1'	32073	TBC		RH10A	For/LS		0	1	1	0	2		

Laevophiloscia '1'	32089	TBC		RH20B	For/LS	Gravid	0	0	2	0	2		
Laevophiloscia '1'	32094			MN-023	For/LS	Under log. Discarded	0	0	2	0	2		
Laevophiloscia '1'	32117	TBC		MN-023	For/LS	Debris in tree stump. Very smooth, no setae. Discarded	0	0	1	0	1		
Laevophiloscia '1'	32125			RH30D	For/LS	Under log. Discarded	0	0	1	0	1		
Laevophiloscia '1'	32127			RH30C	For/LS	Leaf litter at base of tree. Discarded	0	0	1	0	1		
Laevophiloscia '1'	32137	TBC		RH30B	For/LS	Under log	0	1	0	0	1		
Laevophiloscia '1'	32143			RH10C	For/LS	Leaf litter. Gravid. Discarded	0	0	2	0	2		
Laevophiloscia '1'	32211			MN-006	For/LS	Under logs/bark. Gravid. Discarded	0	0	1	0	1		
Laevophiloscia '1'	32227			MN-028	For/LS	Jarrah log litter. Discarded	0	0	1	0	1		
Laevophiloscia '1'	32229	TBC		MN-005	For/LS	Burnt tree hollow. Gravid. Discarded	0	0	1	0	1		
Laevophiloscia '1'	32232			H003	For/LS	Under logs. Discarded	0	0	1	0	1		
Laevophiloscia '1'	32235			H001	For/LS	Under logs/bark. Discarded	0	0	2	0	2		
Laevophiloscia '1'	32240	TBC		H002	For/LS	Under rocks (laterite). Gravid	0	0	2	0	2		
Laevophiloscia '1'	32244	TBC		H016	For/LS	Under log. Gravid	0	0	1	0	1		
Laevophiloscia '1'	32252			H001	For/LS	Under rocks (laterite). Gravid. Discarded	0	0	1	0	1		
Laevophiloscia '1'	32255			H002	For/LS	Discarded	0	0	1	0	1		
Laevophiloscia '1'	32267			H015	For/LS	Under logs. Discarded	0	0	1	0	1		
Laevophiloscia '1'	32282	TBC		H021	For/LS	Gravid	1	0	1	0	2		
Laevophiloscia '1'	32290	TBC		H007	For/LS	Under logs. 2 Gravid, 1 with parasitic insect larvae	0	0	3	0	3		
Laevophiloscia '1'	32294	TBC		H010	For/LS	Under logs. Gravid	0	0	1	0	1		
Laevophiloscia '1'	32301			H014	For/LS	Under leaf litter. Gravid. Discarded	0	0	1	0	1		
Laevophiloscia '1'	32302			H015	For/LS	Under rocks (laterite). Gravid. Discarded	0	0	1	0	1		
Laevophiloscia '1'	32307			H005	For/LS	Discarded	0	0	1	0	1		
Laevophiloscia '1'	32319	TBC		H006	For/LS	Gravid	0	0	1	0	1		
Laevophiloscia '1'	32325			H020	For/LS	Under rocks (laterite). Discarded	0	0	1	0	1		
Laevophiloscia '1'	32330			H009	For/LS	Under logs. Gravid. Discarded	0	0	5	0	5		
Laevophiloscia '1'	32338			H006	For/LS	Under logs. Discarded	0	1	1	0	2		
Laevophiloscia '1'	32350			H003	For/LS	Under rocks (laterite). Discarded	0	0	1	0	1		
Laevophiloscia '1'	32357			H015	For/LS	Under logs/bark. Gravid Discarded	0	0	3	0	3		
Laevophiloscia '1'	32366			MN-028	For/LS	Under logs. Discarded	0	0	4	0	4		
Laevophiloscia '1'	32396			MN-020	For/LS	Gravid. Discarded	0	0	1	0	1		
Laevophiloscia '1'	32420	TBC		MN-026	For/LS	Gravid	0	0	1	0	1		
Laevophiloscia '1'	32429	TBC		MN-025	For/LS	Under logs	0	0	1	0	1		
Laevophiloscia '1'	32434	TBC		MN-001	WPp	Gravid, 1 antenna missing	0	0	1	0	1		
Laevophiloscia '1'	32530			RH20C	WPp	Good condition, Discarded	0	1	1	0	2		
Laevophiloscia '1'	32555	TBC		MN-005	WPp	Gravid	0	0	1	0	1		
Laevophiloscia '1'	32563	TBC		MN-019	WPp	Gravid	0	0	1	0	1		
Laevophiloscia '1'	32702	TBC		RH10A	WPp		0	4	1	0	5		
Laevophiloscia '1'	32706	TBC		RH30D	WPp	One very small	0	3	1	0	4		
Laevophiloscia '1'	32715	TBC		RH30C	WPp	One very small	0	1	2	0	3		
Laevophiloscia '1'	32721	TBC		RH10C	WPp		0	1	1	0	2		
Laevophiloscia '1'	32723	TBC		RH05C	WPp		0	1	0	0	1		
Laevophiloscia '1'	32724	TBC		RH10B	WPp		0	1	5	0	6		
Laevophiloscia '1'	32726			RH05B	WPp	Discarded	0	1	0	0	1		
Laevophiloscia '1'	32761	TBC		RH10B	WPp		0	2	8	0	10		
Laevophiloscia '1'	32764	TBC		RH10A	WPp		0	1	8	0	9		
Laevophiloscia '1'	32769	TBC		RH20B	WPp		0	0	2	0	2		
Laevophiloscia '1'	32770			RH30D	WPp	Discarded	33	0	0	0	33		
Laevophiloscia '1'	32771	TBC		RH20C	WPp	Good condition	0	1	5	0	6		
Laevophiloscia '1'	32772	TBC		RH30C	WPp		0	0	7	0	7		
Laevophiloscia '1'	32774	TBC		RH30B	WPp		0	0	8	0	8		
Laevophiloscia '1'	32781	TBC		HR002	WPp	Poor condition	0	0	6	0	6		
Laevophiloscia '1'	32786			H001	WPp	Discarded	0	0	2	2	4		
Laevophiloscia '1'	32794	TBC		H010	WPp		0	0	6	0	6		
Laevophiloscia '1'	32800	TBC		H010	WPp	Good condition	0	2	16	0	18		

Laevophiloscia '1'	32805	TBC		H022	WPp		0	0	13	0	13		
Laevophiloscia '1'	32824	TBC		H008	WPp		0	0	2	0	2		
Laevophiloscia '1'	32831	TBC		H005	WPp		0	1	0	1	2		
Laevophiloscia '1'	32835	TBC		H020	WPp		0	0	6	0	6		
Laevophiloscia '1'	32845	TBC		H015	WPp		0	0	8	0	8		
Laevophiloscia '1'	32850	TBC		H003	WPp		19	0	0	0	19		
Laevophiloscia '1'	32856	TBC		H013	WPp		0	0	1	0	1		
Laevophiloscia '1'	33123	TBC		H014	WPp		0	0	6	0	6		
Laevophiloscia '1'	33135	TBC		H021	WPp		0	0	17	0	17		
Laevophiloscia '1'	33143	TBC		MC004	WPp	Good condition	0	0	5	0	5		
Laevophiloscia '1'	33151	TBC		HC002	WPp		0	5	9	0	14		
Laevophiloscia '1'	33206	TBC		RH05A	WPp	female (antennae missing)	0	1	1	0	2		
Laevophiloscia '1'	33207	TBC		RH05A	WPp	1 Gravid	0	0	2	0	2		
Laevophiloscia '1'	33208	TBC		RH05B	WPp		0	1	1	0	2		
Laevophiloscia '1'	33215	TBC		RH10A	WPp		0	0	6	0	6		
Laevophiloscia '1'	33219			RH10C	WPp	Discarded	0	0	1	0	1		
Laevophiloscia '1'	33221	TBC		RH20A	WPp	18 best specimens retained.	18	0	0	0	18		
Laevophiloscia '1'	33222	TBC		RH20B	WPp		0	0	6	0	6		
Laevophiloscia '1'	33229			HR002	WPp	Discarded	0	0	3	0	3		
Laevophiloscia '1'	33238			H006	WPp	Discarded	0	0	1	0	1		
Laevophiloscia '1'	33239			H007	WPp	Discarded	0	0	1	0	1		
Laevophiloscia '1'	33293			H011	WPp	Discarded	0	0	2	0	2		
Laevophiloscia '1'	33302	TBC		H021	For/LS	Ex PES 33357	0	1	0	0	1		
Laevophiloscia '1'	33314			MC004	For/LS	Gravid. Discarded	0	0	1	0	1		
Laevophiloscia '1'	33321	TBC		MC005	WPp		0	4	0	0	4		
Laevophiloscia '1'	33322	TBC		MC005	WPp		0	0	28	0	28		
Laevophiloscia '1'	33339	TBC		H022	For/LS	Under bark. Poor condition, 1 female with larval parasite in marsupium	0	1	2	0	3		
Laevophiloscia '1'	33342			H014	For/LS	Under rocks (laterite). Gravid. Discarded	0	0	1	0	1		
Laevophiloscia '1'	33380			HR002	For/LS	Under rocks/logs. With mankas. Discarded	0	0	1	0	1		
Laevophiloscia '1'	33398			MC004	For/LS	Discarded	0	0	2	0	2		
Laevophiloscia '1'	33404			MC005	For/LS	Discarded	0	0	1	0	1		
Laevophiloscia '1'	33407			HC003	For/LS	Discarded	0	1	4	0	5		
Laevophiloscia '1'	33414			MC005	For/LS	Gravid, discarded	0	0	2	0	2		
Laevophiloscia '1'	33419			HC002	For/LS	Discarded	0	0	1	0	1		
Laevophiloscia '1'	33423			MC004	For/LS	1 female with parastic insect larvae. Discarded	0	0	1	0	1		
Laevophiloscia '1'	33446	TBC		H021	WPp		0	2	2	0	4		
Laevophiloscia '1'	33456	TBC		MN-025	WPp		0	1	2	0	3		
Laevophiloscia '1'	33467			MN-008	WPp	Discarded	0	0	2	0	2		
Laevophiloscia '1'	33471	TBC		MN-016	WPp		0	1	0	0	1		
Laevophiloscia '1'	33482			MN-007	WPp	Gravid. Discarded	0	0	1	0	1		
Laevophiloscia '1'	33496	TBC		MN-004	WPp		0	2	0	0	2		
Laevophiloscia '1'	33516	TBC		H022	WPp		0	2	1	0	3		
Laevophiloscia '1'	33543	TBC		H015	WPp	Good condition	0	2	0	0	2		
Laevophiloscia '1'	33548	TBC		H014	WPp		0	3	3	0	6		
Laevophiloscia '1'	33573	TBC		H001	WPp		0	0	2	0	2		
Laevophiloscia '1'	33599	TBC		H002	WPp		0	1	1	0	2		
Laevophiloscia '1'	33605	TBC		H004	WPp		0	0	1	0	1		
Laevophiloscia '1'	33610	TBC		H009	WPp		0	1	0	0	1		
Laevophiloscia '1'	33613			H003	WPp	Discarded	0	0	2	0	2		
Laevophiloscia '1'	33640	TBC		MC004	WPp		0	1	0	0	1		
Laevophiloscia '1'	33644	TBC		MC001	WPp	Good condition	0	1	0	0	1		
Laevophiloscia '1'	33648	TBC		HC002	WPp		0	2	0	0	2		
Laevophiloscia '1'	33652	TBC		HC003	WPp	Gravid	0	0	1	0	1		
Laevophiloscia '1'	33665	TBC		MC005	WPp		0	1	1	0	2		
Laevophiloscia '1'	33685	TBC		MN-001	WPp	Mostly good condition	0	1	3	0	4		
Laevophiloscia '1'	33694			MN-018	WPp	Discarded	0	0	1	0	1		
Laevophiloscia '1'	33763	TBC		MN-021	WPp		0	0	1	0	1		
Laevophiloscia '1'	33783	TBC		MN-028	WPp		0	0	4	0	4		
Laevophiloscia '1'	33845	TBC		HC003	WPp		0	0	6	0	6		
Laevophiloscia '2'	31371			MN-009	For/LS	Discarded	0	0	1	0	1		
Laevophiloscia '2'	31381			MN-014	For/LS	Discarded	0	0	1	0	1		
Laevophiloscia '2'	31396	TBC		RH05B	For/LS	Gravid	0	0	4	0	4		
Laevophiloscia '2'	31398			RH05B	For/LS	Discarded	0	0	1	0	1		
Laevophiloscia '2'	31403	TBC		RH30C	For/LS		0	0	1	0	1		
Laevophiloscia '2'	31409	TBC		RH20B	For/LS	Gravid	0	0	1	0	1		
Laevophiloscia '2'	31461	TBC		MN-015	For/LS	Gravid	0	0	1	0	1		
Laevophiloscia '2'	31505	TBC		MN-017	For/LS	Gravid	0	0	1	0	1		
Laevophiloscia '2'	31517	TBC		MN-022	For/LS	Dark form	0	0	1	0	1		
Laevophiloscia '2'	31521			MN-011	For/LS	Discarded	0	0	1	0	1		
Laevophiloscia '2'	31611	TBC		H014	For/LS		0	0	2	0	2		

Laevophiloscia '2'	31684	TBC		H013	For/LS		0	0	1	0	1		
Laevophiloscia '2'	31819	TBC		MC002	For/LS	Gravid	0	0	1	0	1		
Laevophiloscia '2'	32066	TBC		MN-024	For/LS		0	2	0	0	2		
Laevophiloscia '2'	32074	TBC		RH10A	For/LS	Gravid	0	0	2	0	2		
Laevophiloscia '2'	32114	TBC		MN-012	For/LS	Under bark and leaf litter. Female with mancas. Discarded	0	0	1	10	11		
Laevophiloscia '2'	32135			RH05B	For/LS	Leaf litter. Discarded	0	0	4	0	4		
Laevophiloscia '2'	32141			RH05B	For/LS	Leaf litter. Discarded	0	0	3	0	3		
Laevophiloscia '2'	32199	TBC		MN-010	For/LS	Grass tree leaves	0	1	0	0	1		
Laevophiloscia '2'	32303			H017	For/LS	Under logs. Discarded	0	0	1	0	1		
Laevophiloscia '2'	32343	TBC		H020	For/LS		0	0	1	0	1		
Laevophiloscia '2'	32378	TBC		MN-009	For/LS	Under logs/rocks. Gravid	0	0	1	0	1		
Laevophiloscia '2'	32392			MN-010	For/LS	Under rocks. Discarded	0	0	1	0	1		
Laevophiloscia '2'	32404			MN-010	For/LS	Under logs. Discarded	0	0	1	0	1		
Laevophiloscia '2'	32439	TBC		MN-023	WPp		0	0	1	0	1		
Laevophiloscia '2'	32488	TBC		MN-009	WPp		0	0	3	0	3		
Laevophiloscia '2'	32513	TBC		MN-010	WPp	Mancas discarded	0	1	2	4	7		
Laevophiloscia '2'	32546	TBC		MN-001	WPp	good cond.	0	0	1	0	1		
Laevophiloscia '2'	32608	TBC		MN-013	WPp	site was burnt approximately halfway (3 weeks) into phase 2	0	0	4	0	4		
Laevophiloscia '2'	32704	TBC		RH05A	WPp		0	1	1	0	2		
Laevophiloscia '2'	32707	TBC		RH20B	WPp	Female no antennae	0	1	1	0	2		
Laevophiloscia '2'	32743	TBC		MN-024	WPp		0	0	1	2	3		
Laevophiloscia '2'	32756	TBC		MN-010	WPp		7	0	0	0	7		
Laevophiloscia '2'	32762	TBC		RH05B	WPp		0	1	5	0	6		
Laevophiloscia '2'	32766	TBC		RH20A	WPp	21 Best specimens retained	50	0	0	0	50		
Laevophiloscia '2'	32777	TBC		RH05C	WPp		0	0	3	2	5		
Laevophiloscia '2'	32819	TBC		H012	WPp		0	0	1	0	1		
Laevophiloscia '2'	32841	TBC		H009	WPp		0	2	1	0	3		
Laevophiloscia '2'	33140	TBC		H006	WPp		0	0	2	0	2		
Laevophiloscia '2'	33159	TBC		MC005	WPp		0	0	2	0	2		
Laevophiloscia '2'	33202	TBC		MN-027	WPp		0	1	0	0	1		
Laevophiloscia '2'	33209	TBC		RH05C	WPp		0	1	0	0	1		
Laevophiloscia '2'	33211	TBC		RH10A	WPp		0	0	2	0	2		
Laevophiloscia '2'	33213	TBC		RH10A	WPp		0	0	4	0	4		
Laevophiloscia '2'	33217	TBC		RH10B	WPp	Discarded	0	0	1	0	1		
Laevophiloscia '2'	33218	TBC		RH10B	WPp		0	0	2	0	2		
Laevophiloscia '2'	33220			RH10C	WPp	Discarded	0	0	1	0	1		
Laevophiloscia '2'	33223			RH20C	WPp	ok condition. Discarded	0	0	5	0	5		
Laevophiloscia '2'	33224	TBC		RH30B	WPp		0	0	1	0	1		
Laevophiloscia '2'	33225	TBC		RH30C	WPp		0	1	1	0	2		
Laevophiloscia '2'	33226	TBC		RH30D	For/LS		0	0	1	0	1		
Laevophiloscia '2'	33228			RH30D	WPp	Discarded	0	1	4	0	5		
Laevophiloscia '2'	33230			H001	For/LS	Discarded	0	0	1	0	1		
Laevophiloscia '2'	33233	TBC		H003	WPp	Discarded	0	0	1	0	1		
Laevophiloscia '2'	33235			H005	WPp	Discarded	0	0	1	0	1		
Laevophiloscia '2'	33240	TBC		H008	WPp		0	0	1	0	1		
Laevophiloscia '2'	33241			H009	WPp	Discarded	0	1	0	0	1		
Laevophiloscia '2'	33288			H010	WPp	gravid. Discarded	0	0	1	0	1		
Laevophiloscia '2'	33300	TBC		H020	WPp		0	0	2	0	2		
Laevophiloscia '2'	33301	TBC		H021	WPp		0	0	2	0	2		
Laevophiloscia '2'	33303	TBC		H021	WPp		0	0	4	0	4		
Laevophiloscia '2'	33305	TBC		H022	WPp		0	0	1	0	1		
Laevophiloscia '2'	33307	TBC		H022	WPp		0	0	5	0	5		
Laevophiloscia '2'	33308	TBC		HC002	WPp		0	0	1	0	1		
Laevophiloscia '2'	33310	TBC		HC003	WPp		0	0	1	0	1		
Laevophiloscia '2'	33315			MC004	WPp	Discarded	0	0	1	0	1		
Laevophiloscia '2'	33329	TBC		H005	For/LS	Under rock. 1 Pereopod detached	0	0	1	0	1		
Laevophiloscia '2'	33358	TBC		H021	For/LS	3 pereopods missing	0	0	1	0	1		
Laevophiloscia '2'	33386	TBC		HR002	For/LS	Gravid	0	0	1	0	1		
Laevophiloscia '2'	33387			HR001	For/LS	Discarded	0	0	1	0	1		
Laevophiloscia '2'	33403			HC002	For/LS	Discarded	0	0	1	0	1		
Laevophiloscia '2'	33487	TBC		MN-013	WPp		0	1	0	0	1		
Laevophiloscia '2'	33523	TBC		H018	WPp	1 male (1 antenna missing), 1 female both antennae missing.	0	0	2	0	2		
Laevophiloscia '2'	33532	TBC		H020	WPp		0	0	3	0	3		
Laevophiloscia '2'	33559			H006	WPp	Discarded	0	0	1	0	1		

Laevophiloscia '2'	33589	TBC		H011	WPp		0	0	3	0	3		
Laevophiloscia '2'	33596	TBC		H010	WPp	Gravid and large	0	0	1	0	1		
Laevophiloscia '2'	33676	TBC		MN-026	WPp	Gravid	0	0	1	0	1		
Laevophiloscia '2'	33690	TBC		MN-017	WPp		0	0	2	0	2		
Laevophiloscia '2'	33719	TBC		MN-022	WPp	Right antenna missing	0	0	1	0	1		
Laevophiloscia '2'	33728	TBC		RH05A	WPp		0	5	2	0	7		
Laevophiloscia '2'	33729	TBC		RH10A	WPp		0	0	2	0	2		
Laevophiloscia '2'	33746	TBC		MN-015	WPp		0	0	3	1	4		
Laevophiloscia '2'	33774	TBC		MN-014	WPp		2	0	0	2	4		
Laevophiloscia '2'	33833	TBC		MC002	WPp		0	0	3	0	3		
Laevophiloscia '2'	33839			MC003	WPp	Discarded	0	0	1	0	1		
Laevophiloscia sp. indet.	32075			RH10A	For/LS	Tiny and pale coloured. Mancas. Discarded	0	0	0	26	26		
Laevophiloscia sp. indet.	32379			MN-009	For/LS	Under logs/rocks. Mancas. Discarded	0	0	0	4	4		
Laevophiloscia sp. indet.	32435			MN-001	WPp	Discarded	0	0	0	2	2		
Laevophiloscia sp. indet.	33362			H013	For/LS	Discarded	0	0	0	1	1		
Laevophiloscia sp. indet.	33425			MC005	For/LS	Discarded	0	0	1	0	1		
Laevophiloscia sp. indet.	33635			MC002	WPp	Discarded	0	0	0	1	1		
Laevophiloscia sp. indet.	33680			MN-025	WPp	Discarded	0	0	0	1	1		
Laevophiloscia sp. indet.	33705			MN-011	WPp	Discarded	0	0	0	1	1		
Lagynochthonius australicus	32449	TBC		MN-022	WPp		0	0		3			
Lagynochthonius australicus	32718	TBC		RH30B	WPp		0	1	0	0	1		
Lagynochthonius australicus	32750	TBC		MN-027	WPp		0	1	0	0	1		
Lagynochthonius australicus	32753	TBC		MN-010	WPp		0	1	0	0	1		
Lagynochthonius australicus	33663	TBC		MC003	WPp		0	1	0	0	1		
Lagynochthonius australicus	33697	TBC		MN-011	WPp		0	1	0	0	1		
Lagynochthonius australicus	33770	TBC		MN-007	WPp		0	1	0	0	1		
Lagynochthonius australicus	34198	TBC		MN-023	WPp		0	0	0	1	1		
Lychas 'austroccidentalis'	31401	TBC		RH10C	For/LS		0	0	1	0	1		
Lychas 'austroccidentalis'	31504	TBC		MN-017	For/LS		0	0	1	0	1		
Lychas 'austroccidentalis'	32010	TBC		MN-014	For/LS	Grass tree	0	0	0	1	1		
Lychas 'austroccidentalis'	32336	TBC		H020	For/LS	Under Jarrah bark	0	0	1	0	1		
Lychas 'austroccidentalis'	32397	TBC		MN-020	For/LS		0	1	1	0	2		
Lychas 'austroccidentalis'	32776	TBC		RH05C	WPp		0	1	0	0	1		
Lychas 'austroccidentalis'	32796	TBC		H010	WPp		0	0	1	0	1		
Lychas 'austroccidentalis'	33843	TBC		MC003	WPp		0	1	0	0	1		
Missulena 'MYG198'	31570	TBC		H016	BE		0	0	1	0	1	yes	
Nunciella sp. indet.	32510	TBC		MN-015	WPp		4	0	0	0	4		
Occipperipatoides gilesii	31639	TBC		H008	For/LS		2	0	0	0	2		
Occipperipatoides gilesii	31661	TBC		H012	For/LS		1	0	0	0	1		
Occipperipatoides gilesii	31675	TBC		H016	For/LS		1	0	0	0	1		
Occipperipatoides gilesii	31820	TBC		MC004	For/LS		1	0	0	0	1		
Occipperipatoides gilesii	32087	TBC		RH20B	For/LS		1	0	0	0	1		
Occipperipatoides gilesii	32113	TBC		MN-012	For/LS	Under bark and leaf litter	1	0	0	0	1		
Olpiidae sp. indet.	33726	TBC		MN-012	WPp		0	0	0	1	1		
Opiliones sp. indet.	32610	TBC		MN-013	WPp	site was burnt approximately halfway (3 weeks) into phase 2	6	0	0	0	6		
Opiliones sp. indet.	32775	TBC		RH30B	WPp		1	0	0	0	1		
Opiliones sp. indet.	33444	TBC		MC003	For/LS		4	0	0	0	4		
Opiliones sp. indet.	33777	TBC		MN-014	WPp		1	0	0	0	1		
Oratemnus sp. indet.	33445	TBC		H021	WPp		0	0	1	0	1		
Oratemnus sp. indet.	34176	TBC		H019	For/LS	Grass tree	0	0	1	0	1		
Paraplatyarthridae sp. indet.	32086	TBC		MN-011	For/LS	Elongated, full pigment. Prominent eyes. Unusual.	1	0	0	0	1		
	32547	TBC		MN-001	WPp	wide, some pigment. Usual type.	0	0	2	0	2		
	32548	TBC		MN-001	WPp	narrow, full pigment. Small.	0	1	0	0	1		
	32565	TBC		MN-022	WPp	elongated, pigmented, eyes.	1	0	0	0	1		
	32571	TBC		MN-025	WPp	1 female? Missing appendages, karri forest type?	0	0	1	0	1		
Paraplatyarthrus sp. indet.	33522	TBC		H018	WPp	Very wide and pale. Left uropod exopdite and 1 pereopod	0	1	0	0	1		

						missing, otherwise good.							
Philosciidae 's'	31996	TBC		MN-025	For/LS	Under rock	0	1	0	0	1		
Philosciidae 's'	32315			H009	For/LS	Gravid, Poor. Discarded	0	0	1	0	1		
Philosciidae 's'	32448	TBC		MN-022	WPp		0	1	0	3	4		
Philosciidae 's'	32460	TBC		MN-011	WPp		0	0	2	1	3		
Philosciidae 's'	32472			MN-005	WPp	1 Discarded	5	0	0	0	5		
Philosciidae 's'	32477	TBC		MN-021	WPp		0	0	0	1	1		
Philosciidae 's'	32493	TBC		MN-014	WPp		0	0	1	1	2		
Philosciidae 's'	32497	TBC		MN-028	WPp		0	2	1	0	3		
Philosciidae 's'	32550	TBC		MN-001	WPp		0	0	0	1	1		
Philosciidae 's'	32551	TBC		MN-004	WPp		0	0	0	1	1		
Philosciidae 's'	32560	TBC		MN-015	WPp		0	0	1	0	1		
Philosciidae 's'	32566	TBC		MN-022	WPp		0	0	1	0	1		
Philosciidae 's'	32572	TBC		MN-025	WPp		0	0	1	0	1		
Philosciidae 's'	32747	TBC		MN-027	WPp		0	2	1	0	3		
Philosciidae 's'	33453			MN-002	WPp	Good condition. Discarded	0	0	3	0	3		
Philosciidae 's'	33476	TBC		MN-027	WPp		6	0	0	0	6		
Philosciidae 's'	33488	TBC		MN-019	WPp		0	2	0	1	3		
Philosciidae 's'	33495	TBC		MN-012	WPp		5	0	0	0	5		
Philosciidae 's'	33503	TBC		MN-018	WPp		0	0	3	0	3		
Philosciidae 's'	33510	TBC		MN-017	WPp		0	0	1	0	1		
Philosciidae 's'	33684	TBC		MN-016	WPp		0	1	0	0	1		
Philosciidae 's'	33687	TBC		MN-005	WPp		0	0	1	1	2		
Philosciidae 's'	33724	TBC		MN-012	WPp		0	1	0	0	1		
Philosciidae 's'	33739			MN-006	WPp	Discarded	0	1	1	0	2		
Philosciidae 's'	33749			HR002	WPp	Antenna missing. Discarded	0	1	0	0	1		
Philosciidae 's'	33753	TBC		MN-002	WPp	1 Gravid	0	0	2	0	2		
Philosciidae 's'	33757	TBC		MN-019	WPp		0	1	0	1	2		
Philosciidae 's'	33768			MN-007	WPp	Discarded	0	0	0	1	1		
Philosciidae sp. indet.	32131	TBC		RH20B	For/LS	2 gravid	2	0	0	5	7		
Philosciidae sp. indet.	32140	TBC		RH10B	For/LS	Under leaf litter. 2 gravid popped	4	0	0	5	9		
Philosciidae sp. indet.	32527	TBC		RH20A	WPp		7	0	0	0	7		
Philosciidae sp. indet.	32719	TBC		RH30B	WPp		1	0	0	3	4		
Philosciidae sp. indet.	33416	TBC		HC003	For/LS		1	0	0	0	1		
Philosciidae sp. indet.	33631	TBC		H012	WPp		1	0	0	1	2		
Podykipus leptoiuloides	31378	TBC		MN-013	For/LS		0	0	0	1	1		
Podykipus leptoiuloides	31388	TBC		RH30B	For/LS		1	0	0	0	1		
Podykipus leptoiuloides	31458	TBC		MN-015	For/LS		0	0	1	0	1		
Podykipus leptoiuloides	31470	TBC		MN-020	For/LS		0	0	5	0	5		
Podykipus leptoiuloides	31507	TBC		MN-017	For/LS		0	0	1	0	1		
Podykipus leptoiuloides	31552	TBC		MN-001	For/LS		0	0	3	0	3		
Podykipus leptoiuloides	31607	TBC		H019	For/LS		1	0	0	0	1		
Podykipus leptoiuloides	31613	TBC		H014	For/LS		3	0	0	0	3		
Podykipus leptoiuloides	31658	TBC		H001	For/LS		3	0	0	0	3		
Podykipus leptoiuloides	31660	TBC		H012	For/LS		2	0	0	0	2		
Podykipus leptoiuloides	31674	TBC		H016	For/LS		2	0	0	0	2		
Podykipus leptoiuloides	31742	TBC		HC001	For/LS		6	0	0	0	6		
Podykipus leptoiuloides	31811	TBC		MC005	For/LS		2	0	0	0	2		
Podykipus leptoiuloides	32004	TBC		MN-024	For/LS	Under rocks	2	0	0	0	2		
Podykipus leptoiuloides	32019	TBC		MN-004	For/LS	Under rocks/bark	1	0	0	0	1		
Podykipus leptoiuloides	32100	TBC		MN-003	For/LS	In/under log	1	0	0	0	1		
Podykipus leptoiuloides	32209	TBC		MN-015	For/LS		2	0	0	0	2		
Podykipus leptoiuloides	32225	TBC		MN-028	For/LS	Jarrah log litter	1	0	0	0	1		
Podykipus leptoiuloides	32233	TBC		H001	For/LS	Under logs/bark	1	0	0	0	1		
Podykipus leptoiuloides	32236	TBC		H001	For/LS	Under logs/bark	1	0	0	0	1		
Podykipus leptoiuloides	32237	TBC		H001	For/LS	Under logs/bark	1	0	0	0	1		
Podykipus leptoiuloides	32238	TBC		H002	For/LS	Under rocks (laterite)	2	0	0	0	2		
Podykipus leptoiuloides	32245	TBC		H012	For/LS	Under rocks (laterite)	3	0	0	0	3		
Podykipus leptoiuloides	32251	TBC		H018	For/LS	Under rocks (laterite)	5	0	0	0	5		
Podykipus leptoiuloides	32253	TBC		H001	For/LS	Under rocks (laterite)	3	0	0	0	3		
Podykipus leptoiuloides	32257	TBC		H012	For/LS		2	0	0	0	2		
Podykipus leptoiuloides	32260	TBC		H001	For/LS		2	0	0	0	2		
Podykipus leptoiuloides	32263	TBC		H012	For/LS	Under logs/bark	3	0	0	0	3		
Podykipus leptoiuloides	32273	TBC		H019	For/LS	Under logs	1	0	0	0	1		
Podykipus leptoiuloides	32275	TBC		H018	For/LS	Under logs	5	0	0	0	5		
Podykipus leptoiuloides	32276	TBC		H013	For/LS	Broken, under bark	1	0	0	0	1		
Podykipus leptoiuloides	32277	TBC		H007	For/LS	Under rocks (laterite)	1	0	0	0	1		
Podykipus leptoiuloides	32286	TBC		H018	For/LS		2	0	0	0	2		
Podykipus leptoiuloides	32289	TBC		H004	For/LS	Small	1	0	0	0	1		
Podykipus leptoiuloides	32300	TBC		H014	For/LS	Under leaf litter	4	0	0	0	4		
Podykipus leptoiuloides	32304	TBC		H017	For/LS	Under logs	7	0	0	0	7		
Podykipus leptoiuloides	32313	TBC		H008	For/LS	Under logs	3	0	0	0	3		

Podykipus leptoiuloides	32317	TBC		H009	For/LS		2	0	0	0	2		
Podykipus leptoiuloides	32322	TBC		H008	For/LS		1	0	0	0	1		
Podykipus leptoiuloides	32324	TBC		H020	For/LS	Under rocks (laterite)	1	0	0	0	1		
Podykipus leptoiuloides	32334	TBC		H014	For/LS	Under logs/bark	3	0	0	0	3		
Podykipus leptoiuloides	32346	TBC		H017	For/LS		1	0	0	0	1		
Podykipus leptoiuloides	32351	TBC		H017	For/LS	Under granite	5	0	0	0	5		
Podykipus leptoiuloides	32373	TBC		MN-021	For/LS	Under rocks	4	0	0	0	4		
Podykipus leptoiuloides	32385	TBC		MN-024	For/LS	Under logs (moist)	3	0	0	0	3		
Podykipus leptoiuloides	32394	TBC		MN-015	For/LS	Under logs/bark	1	0	0	0	1		
Podykipus leptoiuloides	32416	TBC		MN-026	For/LS		3	0	0	0	3		
Podykipus leptoiuloides	32417	TBC		MN-026	For/LS		1	0	0	0	1		
Podykipus leptoiuloides	32418	TBC		MN-026	For/LS		1	0	0	0	1		
Podykipus leptoiuloides	32426	TBC		MN-027	For/LS	Small	1	0	0	0	1		
Podykipus leptoiuloides	32427	TBC		MN-025	For/LS	Under logs	1	0	0	0	1		
Podykipus leptoiuloides	32457	TBC		MN-011	WPp		1	0		0			
Podykipus leptoiuloides	32614	TBC		MN-025	For/LS	under rocks	3	0	0	0	3		
Podykipus leptoiuloides	32778	TBC		HR001	WPp		3	0	0	0	3		
Podykipus leptoiuloides	32817	TBC		H012	WPp		1	0	0	0	1		
Podykipus leptoiuloides	32818	TBC		H012	WPp		2	0	0	0	2		
Podykipus leptoiuloides	32832	TBC		H002	WPp		1	0	0	0	1		
Podykipus leptoiuloides	32854	TBC		H013	WPp		1	0	0	0	1		
Podykipus leptoiuloides	32865	TBC		H004	WPp		2	0	0	0	2		
Podykipus leptoiuloides	33118	TBC		H004	WPp		2	0	0	0	2		
Podykipus leptoiuloides	33128	TBC		H019	WPp		1	0	0	0	1		
Podykipus leptoiuloides	33328	TBC		H005	For/LS	Under rock	1	0	0	0	1		
Podykipus leptoiuloides	33334	TBC		H006	For/LS	Grass tree	1	0	0	0	1		
Podykipus leptoiuloides	33344	TBC		H014	For/LS	Under rocks (laterite)	1	0	0	0	1		
Podykipus leptoiuloides	33360	TBC		H013	For/LS		1	0	0	0	1		
Podykipus leptoiuloides	33373	TBC		H021	For/LS	Grass tree	1	0	0	0	1		
Podykipus leptoiuloides	33375	TBC		H013	For/LS	Grass tree	2	0	0	0	2		
Podykipus leptoiuloides	33377	TBC		H004	For/LS	Grass tree	1	0	0	0	1		
Podykipus leptoiuloides	33401	TBC		HC002	For/LS		5	0	0	0	5		
Podykipus leptoiuloides	33408	TBC		MC002	For/LS	Under rocks (laterite)	2	0	0	0	2		
Podykipus leptoiuloides	33418	TBC		HC002	For/LS		2	0	0	0	2		
Podykipus leptoiuloides	33433	TBC		MC002	For/LS		1	0	0	0	1		
Podykipus leptoiuloides	33470	TBC		MN-016	WPp		1	0	0	0	1		
Podykipus leptoiuloides	33483	TBC		MN-006	WPp		3	0	0	0	3		
Podykipus leptoiuloides	33493	TBC		MN-017	WPp		4	0	0	0	4		
Podykipus leptoiuloides	33499	TBC		MN-004	WPp		1	0	0	0	1		
Podykipus leptoiuloides	33502	TBC		MN-018	WPp		1	0	0	0	1		
Podykipus leptoiuloides	33517	TBC		H018	WPp		42	0	0	0	42		
Podykipus leptoiuloides	33563	TBC		H007	WPp		1	0	0	0	1		
Podykipus leptoiuloides	33572	TBC		H001	WPp		8	0	0	0	8		
Podykipus leptoiuloides	33591	TBC		H011	WPp		1	0	0	0	1		
Podykipus leptoiuloides	33597	TBC		H010	WPp		1	0	0	0	1		
Podykipus leptoiuloides	33598	TBC		H002	WPp		1	0	0	0	1		
Podykipus leptoiuloides	33612	TBC		H009	WPp		1	0	0	0	1		
Podykipus leptoiuloides	33621	TBC		H013	WPp		6	0	0	0	6		
Podykipus leptoiuloides	33625	TBC		H019	WPp		4	0	0	3	7		
Podykipus leptoiuloides	33628	TBC		H012	WPp		16	0	0	0	16		
Podykipus leptoiuloides	33638	TBC		MC004	WPp		1	0	0	0	1		
Podykipus leptoiuloides	33647	TBC		HC002	WPp		1	0	0	0	1		
Podykipus leptoiuloides	33776	TBC		MN-014	WPp		1	0	0	0	1		
Polydesmida sp. indet.	31646	TBC		H018	For/LS		1	0	0	0	1		
Polyzoniida 'Phoenix0039'	32345	TBC		H013	WPp	ex PES33621; very small legs taken for DNA	3	0	0	0	3	yes	
Polyzoniida 'Phoenix0040'	33473	TBC		MN-027	WPp	part of body mid-section taken for DNA	3	1	0	0	4	yes	
Polyzoniida 'Phoenix0041'	33466	TBC		MN-008	WPp	very small legs taken for DN	1	0	0	0	1	yes	
Polyzoniida 'Phoenix0041'	33481	TBC		MN-007	WPp	smaller, thicker, with pointy antenna; part of body mid-section taken for DNA	1	0	0	0	1	yes	
Polyzoniida 'Phoenix0042'	32371	TBC		MN-008	For/LS	Under logs	1	0	0	0	1	yes	
Proshermacha 'MYG485'	31414	TBC		RH30C	BE	Poor condition - brittle	0	0	1	0	1		
Proshermacha 'MYG485'	31527	TBC		MN-023	BE		0	0	1	0	1	yes	
Proshermacha 'MYG485'	31564	TBC		H015	BE		0	0	1	0	1	yes	
Proshermacha 'MYG485'	31601	TBC		H005	BE		0	0	1	0	1	yes	
Proshermacha 'MYG485'	31612	TBC		H014	For/LS		0	0	1	0	1	yes	
Proshermacha 'MYG485'	31655	TBC		H020	BE		0	0	0	1	1	No	
Proshermacha 'MYG485'	31656	TBC		H020	BE		0	0	0	1	1		
Proshermacha 'MYG485'	32136	TBC		RH30C	BE	No lid, fine silk, 20cm deep. Dug at site of previous *Aname* burrow from first trip.	0	0	1	0	1	yes	

Proshermacha 'MYG485'	32241	TBC		H002	For/LS	Under rocks (laterite)	0	0	0	1	1	yes	
Proshermacha 'MYG485'	32242	TBC		H016	For/LS	Under rocks, olive	0	0	1	0	1	yes	
Proshermacha 'MYG485'	32281	TBC		H021	For/LS	Under logs	0	0	0	1	1	yes	
Proshermacha 'MYG485'	32292	TBC		H005	For/LS	Organic litter on decomposing jarrah log, flat carapace	0	0	0	1	1		
Proshermacha 'MYG485'	32297	TBC		H011	For/LS	Open tunnel with web curtain under log/bark	0	0	1	0	1	yes	
Proshermacha 'MYG485'	32298	TBC		H011	For/LS	Open tunnel with web curtain under log/bark, WHITE carapace, pedipalps missing	0	0	1	0	1	yes	
Proshermacha 'MYG485'	32327	TBC		H009	For/LS	Under logs	1	0	1	0	2	yes	
Proshermacha 'MYG485'	32352	TBC		HR001	BE	10-15cm	0	0	1	0	1		
Proshermacha 'MYG485'	32358	TBC		H015	For/LS	Under logs/bark (curtain web)	1	0	1	0	2		
Proshermacha 'MYG485'	32361	TBC		H005	For/LS	Under logs/bark (curtain web)	0	0	0	1	1		
Proshermacha 'MYG485'	32847	TBC		H015	WPp		1	0	1	0	2		
Proshermacha 'MYG485'	33126	TBC		H019	WPp		0	1	0	0	1	yes	
Proshermacha 'MYG485'	33341	TBC		H005	For/LS	Jarrah stump, 5cm deep, inside chamber 3cm	0	0	0	1	1	yes	
Proshermacha 'MYG485'	33381	TBC		HR001	BE	7cm deep, no lid, orange legs, golden hairs	0	1	1	0	2	yes	
Proshermacha 'MYG485'	33624	TBC		H019	WPp		0	1	0	0	1	yes	
Proshermacha 'MYG485'	33850	TBC		GHD-TL5	DP		0	1	0	0	1		
Proshermacha 'MYG485'	33855	TBC		GHD-Site9	DP		1	0	0	0	1		
Proshermacha 'MYG485'	33859	TBC		GHD-Site8	DP		0	2	0	0	2		
Proshermacha 'MYG485'	33860	TBC		GHD-Site8	DP		0	1	0	0	1		
Proshermacha 'MYG485'	33861	TBC		GHD-TLSite2	DP		0	1	0	0	1		
Proshermacha 'MYG485'	33862	TBC		GHD-TLSite2	DP		0	0	1	0	1	yes	
Proshermacha 'MYG485'	33863	TBC		GHD-Site12	DP		0	1	0	0	1		
Proshermacha 'MYG485'	33864	TBC		GHD-TL8	DP		0	1	0	0	1		
Proshermacha 'MYG485'	33867	TBC		GHD-Site4	DP		0	1	0	0	1		
Proshermacha 'MYG485'	33868	TBC		GHD-Site1	DP		0	0	1	0	1	yes	
Proshermacha 'MYG485'	33869	TBC		GHD-TL7	DP		0	2	0	0	2		
Proshermacha 'MYG485'	33870	TBC		GHD-Site3	DP		0	2	0	0	2		
Proshermacha 'Phoenix0023'	31588	TBC		H022	BE		0	0	1	0	1	yes	
Proshermacha 'Phoenix0023'	31589	TBC		H022	BE		0	0	1	0	1		
Proshermacha 'Phoenix0023'	32432	TBC		MN-001	WPp		0	1	0	0	1	yes	
Proshermacha 'Phoenix0024'	32489	TBC		MN-014	WPp		0	0	1	0	1	yes	
Proshermacha 'Phoenix0027'	31522	TBC		MN-011	For/LS		0	0	1	0	1	yes	
Proshermacha 'Phoenix0027'	32490	TBC		MN-014	WPp	very flat carapace	0	1	0	0	1	yes	
Proshermacha 'Phoenix0028'	31420	TBC		MN-012	BE		0	0	1	0	1	yes	
Proshermacha 'Phoenix0028'	32463	TBC		MN-003	WPp		0	1	0	0	1	yes	
Protochelifer 'boddington'	32011	TBC		MN-014	For/LS	Grass tree	0	1	1	0	2		
Protochelifer 'boddington'	32078	TBC		MN-011	For/LS	Tree bark debris	0	1	0	0	1		
Protochelifer 'boddington'	32084	TBC		MN-011	For/LS	Grass tree	0	1	4	0	5		
Protochelifer 'boddington'	32091	TBC		MN-002	For/LS	Grass tree	0	2	0	0	2		
Protochelifer 'boddington'	32092	TBC		MN-002	For/LS	Grass tree	0	0	0	1	1		
Protochelifer 'boddington'	32107	TBC		MN-023	For/LS	Grass tree	0	2	2	3	7		
Protochelifer 'boddington'	32111	TBC		MN-012	For/LS	Grass tree	0	3	1	1	5		
Protochelifer 'boddington'	32116	TBC		MN-023	For/LS	Debris in tree stump.	0	0	1	0	1		
Protochelifer 'boddington'	32119	TBC		MN-017	For/LS	Grass tree	0	3	1	0	4		
Protochelifer 'boddington'	32122	TBC		MN-001	For/LS	Grass tree at base of granite outcrop	0	2	3	1	6		
Protochelifer 'boddington'	32198	TBC		MN-010	For/LS	Grass tree leaves		5	10	0			
Protochelifer 'boddington'	32219	TBC		MN-024	For/LS	Grass tree	0	2	4	1	7		
Protochelifer 'boddington'	32224	TBC		MN-016	For/LS	Grass tree	0	0	2	1	3		
Protochelifer 'boddington'	32230	TBC		MN-021	For/LS	Grass tree	0	2	2	4	8		
Protochelifer 'boddington'	32269	TBC		H012	For/LS	Grass tree	0	1	1	0	2		
Protochelifer 'boddington'	32270	TBC		H003	For/LS	Grass tree	0	0	0	3	3		
Protochelifer 'boddington'	32308	TBC		H022	For/LS	Grass tree	0	1	1	5	7		
Protochelifer 'boddington'	32408	TBC		MN-022	For/LS		0	0	0	3	3		
Protochelifer 'boddington'	32437	TBC		MN-023	WPp		0	1	1	2	4		
Protochelifer 'boddington'	32452	TBC		MN-022	WPp	flat wide	0	0	1	0	1		
Protochelifer 'boddington'	32575	TBC		H021	For/LS	Grass tree	0	0	3	2	5		
Protochelifer 'boddington'	32784	TBC		H001	WPp		0	1	1	0	2		
Protochelifer 'boddington'	33331	TBC		H002	For/LS	Grass tree	0	0	1	0	1		
Protochelifer 'boddington'	33332	TBC		H006	For/LS	Grass tree	0	2	5	0	7		

Protochelifer 'boddington'	33335	TBC		H020	For/LS	Grass tree	0	1	1	0	2		
Protochelifer 'boddington'	33345	TBC		H017	For/LS	Grass tree	0	1	1	0	2		
Protochelifer 'boddington'	33346	TBC		H007	For/LS	Grass tree	0	0	2	1	3		
Protochelifer 'boddington'	33353	TBC		H019	For/LS	Grass tree	0	2	2	0	4		
Protochelifer 'boddington'	33367	TBC		H011	For/LS	Grass tree	0	1	0	0	1		
Protochelifer 'boddington'	33369	TBC		H018	For/LS	Grass tree	0	0	1	0	1		
Protochelifer 'boddington'	33371	TBC		H019	For/LS	Grass tree	0	0	1	0	1		
Protochelifer 'boddington'	33374	TBC		H013	For/LS	Grass tree	0	3	3	0	6		
Protochelifer 'boddington'	33382	TBC		HR001	For/LS	Grass tree	0	1	1	0	2		
Protochelifer 'boddington'	33429	TBC		MC005	For/LS		0	0	2	0	2		
Protochelifer 'boddington'	33436	TBC		HC002	For/LS		0	1	2	0	3		
Protochelifer 'boddington'	33438	TBC		HC003	For/LS		0	2	1	0	3		
Protochelifer 'boddington'	33440	TBC		MC003	For/LS		0	1	1	0	2		
Protochelifer 'boddington'	33721	TBC		MN-022	WPp		0	0	0	1	1		
Protochelifer 'boddington'	34177	TBC		HC002	WPp		0	1	0	0	1		
Protochelifer 'boddington'	34187	TBC		HC003	For/LS		0	0	1	0	1		
Protochelifer 'boddington'	34267	TBC		MN-018	For/LS	Grass tree	0	1	1	0	2		
Protogarypinus giganteus	34186	TBC		H018	For/LS	Grass tree	0	0	1	0	1		
Pseudodiploexochus sp. indet.	31375	TBC		MN-026	For/LS	Very small	0	0	1	0	1		
Pseudodiploexochus sp. indet.	32104	TBC		MN-017	For/LS	Damaged	1	0	0	0	1		
Pseudodiploexochus sp. indet.	32487	TBC	SJ5790	MN-009	WPp		3	0	0	0	3		
Pseudodiploexochus sp. indet.	32512	TBC		MN-010	WPp	Very small	1	0	0	0	1		
Pseudodiploexochus sp. indet.	32836	TBC	SJ5769	H020	WPp	Very small	0	0	2	0	2		
Pseudodiploexochus sp. indet.	33242	TBC		H009	For/LS	Very small sex indet. adult with unusual scale-setae. SRE.	1	0	0	0	1		
Pseudodiploexochus sp. indet.	33296	TBC		H017	WPp	Very small, relatively lge eyes	1	0	0	0	1		
Pseudodiploexochus sp. indet.	33312	TBC		MC002	WPp	very small.	0	0	1	0	1		
Pseudodiploexochus sp. indet.	33323	TBC	SJ5794	MN-026	WPp		0	1	0	0	1		
Pseudodiploexochus sp. indet.	33352	TBC		H022	For/LS	Very pale, tightly rolled	1	0	0	0	1		
Pseudodiploexochus sp. indet.	33361	TBC	SJ5780	H013	For/LS	Definite scale-setae, unusual, not previously seen.	0	0	1	0	1		
Pseudodiploexochus sp. indet.	33457	TBC	SJ5792	MN-025	WPp	1 antenna missing	1	0	0	0	1		
Pseudodiploexochus sp. indet.	33504	TBC	SJ5786	MN-018	WPp		1	0	0	0	1		
Pseudodiploexochus sp. indet.	33626	TBC	SJ5782	H019	WPp	poorly preserved. Unrolled, characters visible.	0	1	0	0	1		
Pseudotyrannochthonius 'DS2'	32090	TBC		RH20B	For/LS	gravid?	0	1	0	0	1		
Pseudotyrannochthonius 'DS2'	32453	TBC		MN-011	WPp		0	1	2	0	3		
Pseudotyrannochthonius 'DS2'	32471	TBC		MN-005	WPp		0	1	0	1	2		
Pseudotyrannochthonius 'DS2'	32520	TBC		MN-026	WPp		0	0	0	1	1		
Pseudotyrannochthonius 'DS2'	32703	TBC		RH10A	WPp		0	0	0	1	1		
Pseudotyrannochthonius 'DS2'	32785	TBC		H001	WPp		0	0	1	0	1		
Pseudotyrannochthonius 'DS2'	33124	TBC		H014	WPp		0	0	1	0	1		
Pseudotyrannochthonius 'DS2'	33550	TBC		H014	WPp		0	1	0	0	1		
Pseudotyrannochthonius 'DS2'	33556	TBC		H006	WPp		0	1	0	0	1		
Pseudotyrannochthonius 'DS2'	33585	TBC		H011	WPp		0	0	2	0	2	yes	
Pseudotyrannochthonius 'DS2'	33771	TBC		MN-007	WPp		0	0	0	1	1		
Pseudotyrannochthonius 'DS2'	33772	TBC		MN-007	WPp		0	0	0	1	1		
Pseudotyrannochthonius 'DS2'	34179	TBC		H010	WPp		0	2	0	0	2		
Pseudotyrannochthonius 'DS2'	34202	TBC		MN-023	WPp		0	0	0	1	1		
Pseudotyrannochthonius 'DS2'	34203	TBC		MN-021	WPp		0	0	0	2	2		
Pseudotyrannochthonius 'DS2'	34236	TBC		MN-015	WPp		0	0	0	1	1		
Siphonotidae DIPAAG DIP189 collie	31662	TBC		H005	WPp		1	0	0	0	1		
Siphonotidae DIPAAG DIP189 collie	32804	TBC		H022	WPp		2	0	0	0	2		
Siphonotidae DIPAAG DIP189 collie	32821	TBC		H016	WPp		1	0	0	0	1		
Siphonotidae DIPAAG DIP189 collie	33340	TBC		H022	For/LS	Under bark	2	0	0	0	2		
Siphonotidae DIPAAG DIP189 collie	33515	TBC		H022	WPp		8	0	0	0	8		
Siphonotidae DIPAAG DIP189 collie	33554	TBC		H017	WPp		24	0	0	0	24		
Siphonotidae DIPAAG DIP189 collie	33582	TBC		H016	WPp		5	0	0	0	5		
Siphonotidae DIPAAG DIP189 collie	33614	TBC		H003	WPp		2	0	0	0	2		
Spherillo '1'	32380	TBC	SJ5788	MN-009	For/LS	Under logs/rocks	1	0	0	0	1		
Spherillo '1'	32443	TBC	SJ5787	MN-022	WPp		0	0	1	0	1		
Spherillo '1'	32458	TBC	SJ5789	MN-011	WPp	White. Uropod exopodites unusual.	0	0	1	0	1		
Spherillo '1'	32556	TBC	SJ5785	MN-009	WPp		0	0	0	1	1		
Spherillo '5'	32012	TBC		MN-014	For/LS	Grass tree	1	0	0	2	3		
Spherillo '5'	32077	TBC		MN-011	For/LS	Tree bark debris	6	0	0	0	6		
Spherillo '5'	32085	TBC		MN-011	For/LS	Grass tree	0	0	0	3	3		
Spherillo '5'	32106	TBC		MN-023	For/LS	Grass tree	3	0	0	0	3		
Spherillo '5'	32110	TBC		MN-012	For/LS	Grass tree. Gravid	0	0	1	0	1		
Spherillo '5'	32118	TBC		MN-017	For/LS	Grass tree	6	0	0	0	6		
Spherillo '5'	32121	TBC		MN-001	For/LS	Under marri bark	0	1	1	0	2		
Spherillo '5'	32231	TBC		MN-021	For/LS	Grass tree	0	0	1	1	2		
Spherillo '5'	32433	TBC		MN-001	WPp		0	0	1	0	1		
Spherillo '5'	32442	TBC		MN-022	WPp		7	0	0	0	7		
Spherillo '5'	32476			MN-021	WPp	Discarded	0	0	0	1	1		
Spherillo '5'	32553	TBC		MN-004	WPp		11	0	0	0	11		

Spherillo '5'	32559	TBC		MN-015	WPp		0	0	0	2	2		
Spherillo '5'	32564	TBC		MN-021	WPp		0	0	1	0	1		
Spherillo '5'	32748	TBC		MN-027	WPp		0	1	0	0	1		
Spherillo '5'	33205	TBC		MN-028	WPp	Ex PES 33784. Small	3	0	0	0	3		
Spherillo '5'	33237	TBC		H006	For/LS	Grass tree. Discarded	0	0	1	0	1		
Spherillo '5'	33298	TBC		H019	For/LS	Grass tree.	0	0	2	1	3		
Spherillo '5'	33306	TBC		H022	For/LS	Grass tree.	0	1	0	0	1		
Spherillo '5'	33311	TBC		MC001	WPp	very small.	0	0	0	1	1		
Spherillo '5'	33354	TBC		H019	For/LS	Grass tree. Gravid	0	0	1	0	1		
Spherillo '5'	33368	TBC		H018	For/LS	Grass tree. Gravid	0	0	1	0	1		
Spherillo '5'	33497	TBC		MN-004	WPp		0	0	0	1	1		
Spherillo '5'	33681	TBC		MN-025	WPp		0	1	1	0	2		
Spherillo '5'	33686	TBC		MN-001	WPp	Good condition	0	0	1	1	2		
Spherillo '5'	33688	TBC		MN-005	WPp		0	0	1	0	1		
Spherillo '5'	33691	TBC		MN-017	WPp		0	0	0	2	2		
Spherillo '5'	33706	TBC		MN-011	WPp	Small	2	0	0	0	2		
Spherillo '5'	33720	TBC		MN-022	WPp		8	0	0	0	8		
Spherillo '5'	33723	TBC		MN-012	WPp		0	0	3	0	3		
Spherillo '5'	33751	TBC		MN-004	WPp		0	0	0	1	1		
Spherillo '5'	33764	TBC		MN-021	WPp		0	0	1	1	2		
Spherillo '5'	33775	TBC		MN-014	WPp		0	0	0	3	3		
Styloniscus '1'	31373	TBC		MN-003	For/LS	Gravid	0	0	1	0	1		
Styloniscus '1'	31512	TBC		MN-024	For/LS	Gravid	0	0	1	0	1		
Styloniscus '1'	31547	TBC		MN-001	For/LS	Gravid. Good condition	0	0	1	0	1		
Styloniscus '1'	31735	TBC		MC005	For/LS	Gravid	0	0	2	0	2		
Styloniscus '1'	31750	TBC		MC004	For/LS	Gravid	0	0	1	0	1		
Styloniscus '1'	32082	TBC		MN-012	For/LS	Debris in tree stump. Very small	1	0	0	0	1		
Styloniscus '1'	32098			MN-003	For/LS	In/under log. Poor condition, some discards	5	0	0	0	5		
Styloniscus '1'	32103			MN-017	For/LS	Discarded	5	0	0	0	5		
Styloniscus '1'	32139	TBC		RH30C	For/LS	Under/in leaf litter soil/lateritic gravel	0	1	0	0	1		
Styloniscus '1'	32258			H012	For/LS	Discarded	2	0	0	0	2		
Styloniscus '1'	32386			MN-024	For/LS	Under logs (moist). Discarded	0	0	1	0	1		
Styloniscus '1'	32505			MN-015	WPp	Damaged. Discarded	1	0	0	0	1		
Styloniscus '1'	32519	TBC		MN-026	WPp		0	0	0	1	1		
Styloniscus '1'	32549	TBC		MN-001	WPp	gravid.	0	0	1	0	1		
Styloniscus '1'	32552	TBC		MN-004	WPp		0	0	1	0	1		
Styloniscus '1'	32554	TBC		MN-005	WPp		0	0	1	0	1		
Styloniscus '1'	32557	TBC		MN-011	WPp		0	0	1	0	1		
Styloniscus '1'	32558	TBC		MN-015	For/LS	1 gravid	0	0	2	0	2		
Styloniscus '1'	32562	TBC		MN-018	WPp		0	0	2	0	2		
Styloniscus '1'	32567	TBC		MN-022	WPp		2	0	0	0	2		
Styloniscus '1'	32568	TBC		MN-023	WPp		2	0	0	0	2		
Styloniscus '1'	32569	TBC		MN-024	WPp		1	0	0	0	1		
Styloniscus '1'	32570	TBC		MN-024	WPp		0	0	2	0	2		
Styloniscus '1'	32573	TBC		MN-026	WPp		0	0	1	6	7		
Styloniscus '1'	32793	TBC		H007	WPp	Good condition	0	0	2	2	4		
Styloniscus '1'	32833			H002	WPp	Discarded	0	0	1	0	1		
Styloniscus '1'	33203	TBC		MN-027	WPp		0	1	0	0	1		
Styloniscus '1'	33204	TBC		MN-028	WPp		0	0	1	3	4		
Styloniscus '1'	33210	TBC		RH10A	WPp	Under logs/bark. gravid.	0	0	1	0	1		
Styloniscus '1'	33212	TBC		RH10A	WPp		4	0	0	0	4		
Styloniscus '1'	33214	TBC		RH10A	WPp		0	1	2	0	3		
Styloniscus '1'	33216	TBC		RH10A	WPp		4	0	0	0	4		
Styloniscus '1'	33231			H001	WPp	Discarded	0	0	1	0	1		
Styloniscus '1'	33236			H006	For/LS	Discarded	0	1	0	0	1		
Styloniscus '1'	33289			H010	WPp	Discarded	0	0	1	0	1		
Styloniscus '1'	33292			H010	WPp	Discarded	0	1	0	0	1		
Styloniscus '1'	33294	TBC		H011	WPp	Very small. Discarded	0	1	0	0	1		
Styloniscus '1'	33297	TBC		H018	WPp		0	1	0	0	1		
Styloniscus '1'	33299	TBC		H020	WPp		0	0	1	0	1		
Styloniscus '1'	33313	TBC		MC002	WPp	very small	0	0	1	0	1		
Styloniscus '1'	33316	TBC		MC004	WPp	Good condition	0	0	1	0	1		
Styloniscus '1'	33317	TBC		MC005	WPp		0	1	2	0	3		
Styloniscus '1'	33320			MC005	WPp	Discarded	0	0	1	0	1		
Styloniscus '1'	33350	TBC		H007	For/LS	Damaged	0	0	1	0	1		
Styloniscus '1'	33363	TBC		H010	For/LS	some juveniles Discarded	6	0	0	0	6		
Styloniscus '1'	33410	TBC		MC004	For/LS	Gravid, 1 poor condition	0	0	2	0	2		
Styloniscus '1'	33434			MC002	For/LS	Discarded	2	0	0	0	2		
Styloniscus '1'	33583			H016	WPp	Discarded	2	0	0	0	2		
Styloniscus '1'	33730			RH10C	WPp	Discarded	4	0	0	0	4		

Styloniscus '7'	32076			MN-011	For/LS	Tree bark debris. Gravid. Heavily damaged	0	0	1	0	1		
Styloniscus '7'	32222	TBC		MN-007	For/LS	Under grass tree. Gravid	0	0	1	0	1		
Styloniscus '7'	32259	TBC		H001	For/LS	Gravid	0	0	3	0	3		
Styloniscus '7'	33286	TBC		H010	For/LS	tuberculate setae.	0	1	0	0	1		
Styloniscus '7'	33304	TBC		H022	For/LS		0	0	1	0	1		
Styloniscus '7'	33309	TBC		HC003	WPp	Good con.	0	1	0	0	1		
Styloniscus '7'	33351	TBC		H022	For/LS	1 Gravid,	0	3	2	1	6		
Styloniscus sp. indet.	32470			MN-003	WPp	Incomplete damaged specimen. Discarded	1	0	0	0	1		
Styloniscus sp. indet.	32561	TBC		MN-015	WPp	Pe2 pereopod detached. No antennae. Tuberculate/setae	1	0	0	0	1		
Styloniscus sp. indet.	32708	TBC		RH20B	WPp	Very small	2	0	0	0	2		
Styloniscus sp. indet.	33227	TBC		RH30D	WPp	very tiny	0	0	0	1	1		
Synothele michaelseni	31568	TBC		H006	BE		0	0	1	0	1	yes	
Synothele michaelseni	32464	TBC		MN-003	WPp		0	0	1	0	1	No	
Synothele michaelseni	33773	TBC		MN-014	WPp		0	1	0	0	1	No	
Synothele 'Phoenix0015'	31476	TBC		MN-025	BE		0	0	1	0	1	yes	
Synothele 'Phoenix0015'	31567	TBC		H018	BE		0	0	1	0	1	yes	
Synothele 'Phoenix0015'	31578	TBC		H001	BE	close to *S.rubripes*	0	0	1	0	1	yes	
Synothele 'Phoenix0015'	31579	TBC		H001	BE		0	0	1	0	1		
Synothele 'Phoenix0015'	31580	TBC		H015	BE		0	0	1	0	1	yes	
Synothele 'Phoenix0015'	31581	TBC		H015	BE		0	0	1	0	1		
Synothele 'Phoenix0015'	31584	TBC		H019	BE		0	0	1	0	1	yes	
Synothele 'Phoenix0015'	31590	TBC		H022	BE		0	0	1	0	1	yes	
Synothele 'Phoenix0015'	31592	TBC		H012	BE		0	0	1	0	1	yes	
Synothele 'Phoenix0015'	31593	TBC		H017	For/LS		0	0	1	0	1	yes	
Synothele 'Phoenix0015'	31603	TBC		H005	BE		0	0	1	0	1	yes	
Synothele 'Phoenix0015'	31604	TBC		H005	BE		0	0	1	0	1		
Synothele 'Phoenix0015'	31605	TBC		H005	BE		0	0	1	0	1		
Synothele 'Phoenix0015'	31617	TBC		H007	BE		0	0	1	0	1	yes	
Synothele 'Phoenix0015'	31822	TBC		HC003	BE		0	0	0	1	1	yes	
Synothele 'Phoenix0015'	32020	TBC		MN-004	For/LS	Under rocks/bark	0	0	0	1	1	yes	
Synothele 'Phoenix0016'	31367	TBC		MN-007	BE		0	0	1	0	1	yes	
Synothele 'Phoenix0016'	31370	TBC		MN-007	BE		0	0	0	1	1		
Synothele 'Phoenix0016'	31431	TBC		MN-027	BE		0	0	1	0	1	yes	
Synothele 'Phoenix0016'	31435	TBC		MN-018	BE		0	0	1	0	1	yes	
Synothele 'Phoenix0016'	31454	TBC		MN-006	BE		0	0	1	0	1	No	
Synothele 'Phoenix0016'	31502	TBC		MN-001	BE		0	0	1	0	1		
Synothele 'Phoenix0016'	31534	TBC		MN-001	BE		0	0	1	0	1	yes	
Synothele 'Phoenix0016'	31535	TBC		MN-001	BE		0	0	1	0	1		
Synothele 'Phoenix0016'	31538	TBC		MN-001	BE		0	0	1	0	1		
Synothele 'Phoenix0016'	31544	TBC		MN-001	BE		0	0	1	0	1		
Synothele 'Phoenix0016'	31595	TBC		H014	BE		0	0	1	0	1	yes	
Synothele 'Phoenix0016'	31596	TBC		H014	BE		0	0	0	1	1		
Teyl 'MYG355'	31437	TBC		MN-007	BE		0	0	1	0	1	yes	
Teyl 'MYG355'	33846	TBC		MC005	BE		0	0	1	0	1	yes	
Teyl 'Phoenix0007'	32758	TBC		RH10B	WPp		0	1	0	0	1	yes	
Teyl 'Phoenix0007'	33491	TBC		MN-017	WPp		0	1	0	0	1	yes	
Teyl 'Phoenix0007'	33637	TBC		MC004	WPp		0	1	0	0	1	yes	
Teyl 'Phoenix0007'	33732	TBC		MN-009	WPp		0	1	0	0	1	yes	
Teyl 'Phoenix0019'	31533	TBC		MN-001	BE		0	0	1	0	1	yes	
Teyl 'Phoenix0021'	33758	TBC		MN-019	WPp		0	0	1	0	1	yes	
Trianonychidae 'genus 008' sp.	31394	TBC		RH10A	For/LS		1	0	0	0	1		
Trianonychidae 'genus 008' sp.	31460	TBC		MN-015	For/LS		1	0	0	0	1		
Trianonychidae 'genus 008' sp.	31515	TBC		MN-023	For/LS		1	0	0	0	1		
Trianonychidae 'genus 008' sp.	31548	TBC		MN-001	For/LS		1	0	0	0	1		
Trianonychidae 'genus 008' sp.	31649	TBC		H021	For/LS		1	0	0	0	1		
Trianonychidae 'genus 008' sp.	31659	TBC		H012	For/LS		1	0	0	0	1		
Trianonychidae 'genus 008' sp.	31749	TBC		MC004	For/LS		3	0	0	0	3		
Trianonychidae 'genus 008' sp.	31752	TBC		HC003	For/LS		1	0	0	0	1		
Trianonychidae 'genus 008' sp.	32088	TBC		RH20B	For/LS		1	0	0	0	1		
Trianonychidae 'genus 008' sp.	32112	TBC		MN-012	For/LS	Under bark and leaf litter	1	0	0	0	1		
Trianonychidae 'genus 008' sp.	32128	TBC		RH20B	For/LS		1	0	0	0	1		
Trianonychidae 'genus 008' sp.	32200	TBC		MN-010	For/LS	Grass tree leaves	2	0	0	0	2		
Trianonychidae 'genus 008' sp.	32223	TBC		MN-007	For/LS	Under grass tree	1	0	0	0	1		
Trianonychidae 'genus 008' sp.	32254	TBC		H002	For/LS		1	0	0	0	1		
Trianonychidae 'genus 008' sp.	32287	TBC		H018	For/LS		1	0	0	0	1		
Trianonychidae 'genus 008' sp.	32305	TBC		H005	For/LS		2	0	0	0	2		
Trianonychidae 'genus 008' sp.	32310	TBC		H022	For/LS		3	0	0	0	3		
Trianonychidae 'genus 008' sp.	32347	TBC		H017	For/LS		1	0	0	0	1		
Trianonychidae 'genus 008' sp.	32348	TBC		H003	For/LS	Under rocks (laterite)	1	0	0	0	1		
Trianonychidae 'genus 008' sp.	32391	TBC		MN-010	For/LS	Under rocks	1	0	0	0	1		
Trianonychidae 'genus 008' sp.	32501	TBC		MN-015	WPp		1	0	0	0	1		
Trianonychidae 'genus 008' sp.	32749	TBC		MN-027	WPp		2	0	0	0	2		

Trianonychidae 'genus 008' sp.	32755	TBC		MN-010	WPp		2	0	0	0	2		
Trianonychidae 'genus 008' sp.	32760	TBC		RH10B	WPp		1	0	0	0	1		
Trianonychidae 'genus 008' sp.	32767	TBC		RH20A	WPp		1	0	0	0	1		
Trianonychidae 'genus 008' sp.	32806	TBC		H022	WPp		1	0	0	0	1		
Trianonychidae 'genus 008' sp.	32826	TBC		H008	WPp		1	0	0	0	1		
Trianonychidae 'genus 008' sp.	32863	TBC		H004	WPp		1	0	0	0	1		
Trianonychidae 'genus 008' sp.	33127	TBC		H019	WPp		1	0	0	0	1		
Trianonychidae 'genus 008' sp.	33132	TBC		H021	WPp		2	0	0	0	2		
Trianonychidae 'genus 008' sp.	33146	TBC		MC001	WPp		1	0	0	0	1		
Trianonychidae 'genus 008' sp.	33356	TBC		H021	For/LS		1	0	1	0	2		
Trianonychidae 'genus 008' sp.	33399	TBC		MC004	For/LS		2	0	0	0	2		
Trianonychidae 'genus 008' sp.	33409	TBC		MC004	For/LS		3	0	0	0	3		
Trianonychidae 'genus 008' sp.	33412	TBC		MC005	For/LS		1	0	0	0	1		
Trianonychidae 'genus 008' sp.	33415	TBC		HC003	For/LS		1	0	0	0	1		
Trianonychidae 'genus 008' sp.	33679	TBC		MN-025	WPp		2	0	0	0	2		
Trianonychidae 'genus 008' sp.	33745	TBC		MN-015	WPp		1	0	0	0	1		
Trianonychidae 'genus 008' sp.	33834	TBC		MC002	WPp		2	0	0	0	2		
Trianonychidae 'genus 008' sp.	33852	TBC		GHD-TL5	DP		1	0	0	0	1		
Trianonychidae sp. indet.	32079	TBC		MN-011	For/LS	Tree bark debris	1	0	0	0	1		
Trianonychidae sp. indet.	32080	TBC		MN-012	For/LS	Debris in tree stump	1	0	0	0	1		
Trianonychidae sp. indet.	32102	TBC		MN-003	For/LS	In/under log. Brown colour	2	0	0	0	2		
Trianonychidae sp. indet.	32218	TBC		MN-024	For/LS	Grass tree	1	0	0	0	1		
Trianonychidae sp. indet.	32306	TBC		H005	For/LS		1	0	0	0	1		
Trianonychidae sp. indet.	32318	TBC		H006	For/LS		1	0	0	0	1		
Trianonychidae sp. indet.	33677	TBC		MN-026	WPp		1	0	0	0	1		
Urodacus novaehollandiae	31429	TBC		MN-016	For/LS		0	0	0	2	2		
Urodacus novaehollandiae	31468	TBC		MN-020	For/LS		0	0	0	1	1		
Urodacus novaehollandiae	31708	TBC		H017	For/LS		0	0	0	2	2		
Urodacus novaehollandiae	32002	TBC		MN-016	For/LS	Under logs	0	0	0	1	1		
Urodacus novaehollandiae	32015	TBC		MN-022	For/LS	Under logs	0	0	1	0	1		
Urodacus novaehollandiae	32018	TBC		MN-004	For/LS	Under rocks/bark	0	1	1	0	2		
Urodacus novaehollandiae	32395	TBC		MN-020	For/LS		0	0	0	1	1		
Urodacus novaehollandiae	32421	TBC		MN-020	For/LS	Under rock	0	0	0	1	1		
Urodacus novaehollandiae	33714	TBC		MN-008	WPp		0	1	1	0	2		
Urodacus novaehollandiae	33727	TBC		MN-012	WPp		0	1	0	0	1		
Urodacus planimanus	31386	TBC		MN-015	For/LS		0	0	0	1	1		
Urodacus planimanus	31425	TBC		MN-012	For/LS		0	0	0	1	1		
Urodacus planimanus	31442	TBC		MN-008	For/LS		0	0	0	1	1		
Urodacus planimanus	31484	TBC		MN-011	For/LS		0	0	0	1	1		
Urodacus planimanus	31508	TBC		MN-001	For/LS		0	0	1	3	4		
Urodacus planimanus	31509	TBC		MN-024	For/LS		0	1	0	1	2		
Urodacus planimanus	31531	TBC		MN-022	For/LS		0	0	1	0	1		
Urodacus planimanus	31532	TBC		MN-023	For/LS		0	0	0	1	1		
Urodacus planimanus	31670	TBC		H002	For/LS		0	0	0	1	1		
Urodacus planimanus	31993	TBC		MN-025	For/LS	Under rock	0	0	0	2	2		
Urodacus planimanus	31997	TBC		MN-006	For/LS	under grass tree	0	0	0	1	1		
Urodacus planimanus	31998	TBC		MN-008	For/LS	Under rocks	0	0	0	2	2		
Urodacus planimanus	32005	TBC		MN-024	For/LS	Under rocks	0	0	0	1	1		
Urodacus planimanus	32006	TBC		MN-024	For/LS	Under rocks	1	0	0	0	1		
Urodacus planimanus	32007	TBC		MN-024	For/LS	Under rocks	0	1	0	0	1		
Urodacus planimanus	32008	TBC		MN-008	For/LS	Under granite	0	0	0	1	1		
Urodacus planimanus	32013	TBC		MN-025	For/LS	Under rocks	0	0	0	1	1		
Urodacus planimanus	32093	TBC		MN-023	For/LS	Under laterite rock, SRE	0	0	0	1	1		
Urodacus planimanus	32120	TBC		MN-001	For/LS	Under sheet of granite	0	0	0	1	1		
Urodacus planimanus	32203	TBC		MN-024	For/LS	Under rocks, SRE	0	0	0	2	2		
Urodacus planimanus	32204	TBC		MN-024	For/LS	Under rocks (larger specimen)	0	0	0	1	1		
Urodacus planimanus	32212	TBC		MN-019	For/LS		0	0	0	1	1		
Urodacus planimanus	32370	TBC		MN-008	For/LS	Dead grass tree, SRE	0	0	0	1	1		
Urodacus planimanus	32372	TBC		MN-021	For/LS	Under rocks, SRE	0	0	0	2	2		
Urodacus planimanus	32389	TBC		MN-026	For/LS	Under log, SRE	0	1	0	0	1		
Urodacus planimanus	32415	TBC		MN-021	For/LS	Under logs, SRE	0	0	0	1	1		
Urodacus planimanus	32428	TBC		MN-025	For/LS	Under logs, SRE	0	0	0	1	1		
Urodacus planimanus	33390	TBC		MC003	For/LS	Under rocks (laterite)	0	0	0	1	1		