Short-range endemic terrestrial invertebrate assessment for the East Pilbara Generation Hub

Prepared for Fortescue Ltd

Harry Butler Institute, Murdoch University

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EXECUTIVE SUMMARY

Fortescue's decarbonisation pathway to achieve carbon neutrality across existing and future operations by 2030 is focused on stationary power and the mining fleet, which are Fortescue's largest sources of emissions. Therefore, Fortescue is exploring renewable energy generation opportunities in the Pilbara region of Western Australia including the construction of wind farms. One of these developments is the East Pilbara Generation Hub (EPGH) and its related transmission infrastructure, PEC 6 (together the 'Project'). The Project is situated approximately 60 km east of Marble Bar at its eastern boundaries and 35 km south-west of Marble Bar at its western boundaries.

The Harry Butler Institute, Murdoch University (HBI) was commissioned by Fortescue to undertake a detailed short-range endemic terrestrial invertebrate (SRE) survey for the Project. The Study Area of this assessment extends over 144,825 ha. The objective of the survey was to define the value of the Study Area with respect to terrestrial short-range endemics (SREs) and their habitats.

The SRE assessment included a desktop review and a two-phase field survey utilising standard SRE collecting techniques (foraging, leaf litter sifting and Winkler sack litter extractions). The field survey was undertaken at 34 sites between 11–21 March and 29 April–10 May 2024. Species were identified morphologically and a representative subset of 259 specimens were identified based on molecular data (Cytochrome C oxidase subunit I (COI) barcoding gene). The assessment was conducted in accordance with Environmental Protection Agency (EPA) guidelines and internal Fortescue standards.

The desktop review focussed on Western Australia (WA) Museum and HBI database records from an approximately 40,000^2 km area that was centred in the middle of the Study Area. The desktop review recorded 371 taxa in the SRE target groups in 5,184 records including 11,868 specimens. Of these, seventeen taxa were recorded inside the Study Area and twelve of these were only known from the Study Area: four species of spiders (Araneae), one harvestman (Opiliones), one pseudoscorpion (Pseudoscorpiones), one soil centipede (Geophilomorpha), and five slaters (Isopoda).

A total of 2,434 specimens in the SRE target groups were collected during the field survey, dominated by pseudoscorpions (1,284 specimens) and slaters (735 specimens). A total of 131 taxa from SRE target groups were recorded in the survey. Of these, 99 morphospecies were potential SREs, 14 were widespread, and 18 were not assessed but belong to higher taxonomic ranks or species-complexes that contain SREs.

A total of 91 species from the field survey are Study Area endemics: Spiders (Araneae – 2 species), harvestmen (Opiliones – 5), pseudoscorpions (Pseudoscorpiones – 41), soil centipedes (Geophilomorpha – 9), stone centipedes (Lithobiomorpha – 1), tropical centipedes (Scolopendromorpha – 8), keeled millipedes (Polydesmida – 2), two-pronged bristletails (Diplura – 1), slaters (Isopoda – 17), and land snails (Eupulmonata – 1).

Two Study Area endemics were shared between the desktop review and field survey, resulting in a total of 101 SRE species that are currently only known from the Study Area.

One species collected during the field survey, the Abydos Antichiropus Millipede, *Antichiropus forcipatus*, is a WA Priority 1 conservation-listed species.

The field sites were in four broad habitat types, "Grassland on plain/slope", "Woodland on plain/slope", "Woodland in drainage line" and "Woodland along rockface/gully"; however, habitat was not a good predictor of the SRE target group communities at each site based on a non-parametric ordination analysis. Similar, broad-scale vertebrate fauna habitat types showed poor predictive power for the SRE communities. "Grassland on plain/slope" and "Woodland in drainage line" yielded the most SRE taxa, whereas "Woodland along rockface/gully" and "Woodland on plain/slope" had the fewest records. "Woodland in drainage line" yielded significantly more SRE target taxa than expected by the number of sites within this habitat type.

In summary, the Study Area of the East Pilbara Generation Hub is species rich with respect to terrestrial invertebrates and shows comparatively high abundances of some taxa (harvestmen, keeled millipedes), in comparison with other recent assessments by HBI for Fortescue in the Pilbara. Rainfall before and during the surveys likely contributed to these high numbers.

1 INTRODUCTION

Fortescue Ltd (Fortescue) plans to develop the East Pilbara Energy Generating Hub (the Project) in the Pilbara region of Western Australia. The Project is situated approximately 60 km east of Marble Bar at its eastern boundaries and 35 km south-west of Marble Bar at its western boundaries.

In March 2024 Fortescue commissioned the Harry Butler Institute, Murdoch University (HBI) to conduct a detailed short-range endemic (SRE) survey within a predefined survey area (the Study Area), covering 144,825 ha (Figure 1-1).

1.1 SURVEY OBJECTIVES AND SCOPE OF WORKS

The objective of the survey was to define the value of the Study Area with respect to terrestrial SREs and their habitats.

The scope of works to achieve this objective was to:

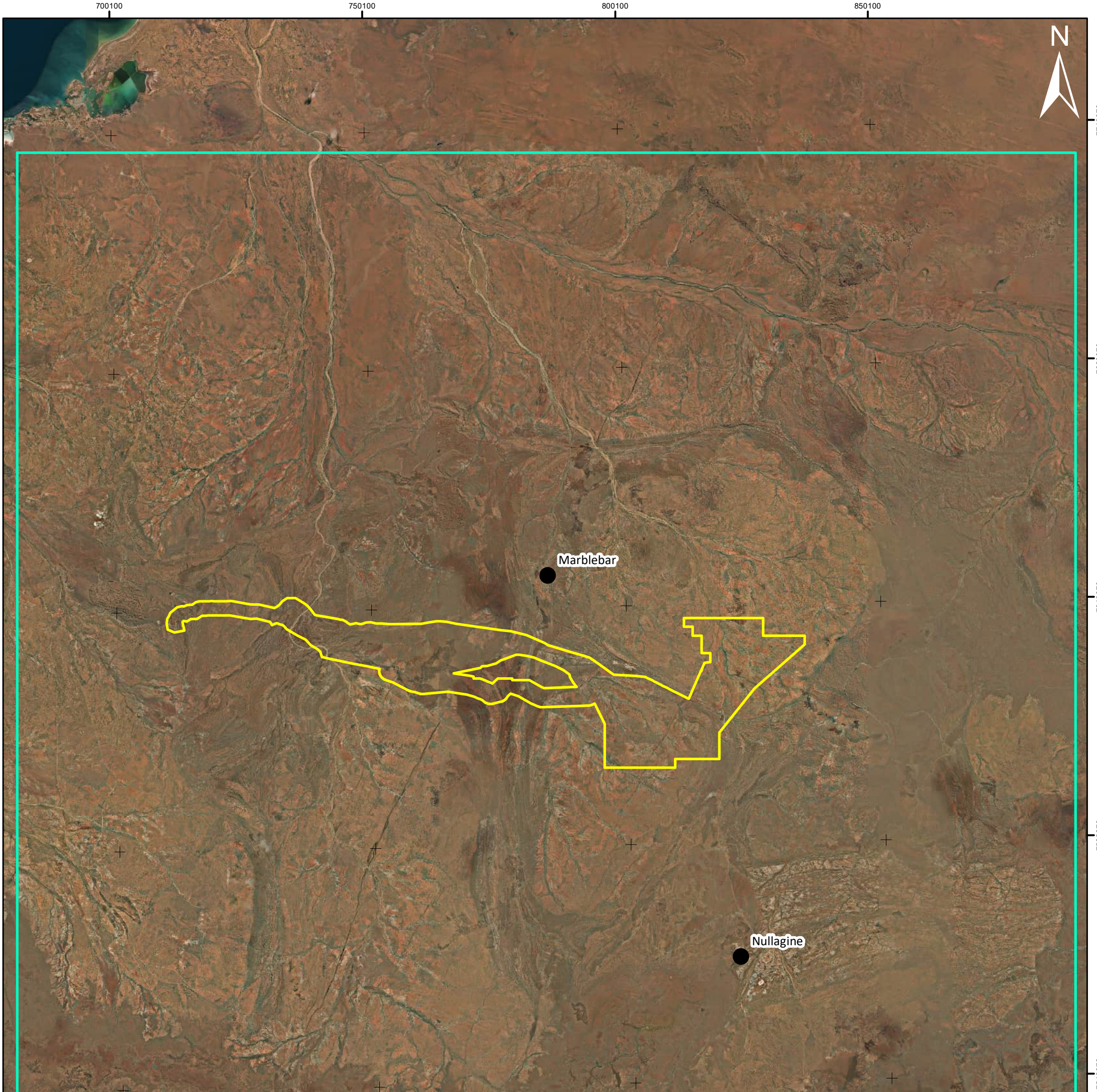
- undertake a desktop review of relevant databases:
    - Western Australian (WA) Museum: Arachnology/Myriapodology Department, Crustacean Department and Mollusc Department.
    - Harry Butler Institute invertebrate database
    - Environment Protection and Biodiversity Conservation (EPBC) database
    - Index of Biodiversity Surveys for Assessments (IBSA), literature review (previous survey reports for the Study Area, taxonomic publications of relevance) and habitat characterisation
- undertake a detailed SRE invertebrate fauna and habitat site assessment of the Study Area
- develop a comprehensive SRE invertebrate fauna inventory
- prepare a technical report outlining survey methods, results, significant fauna habitat and species records and statistical analyses of data to determine survey adequacy and significant variation in patterns or trends of distribution.

1.2 GUIDELINES

This SRE survey adhered to the principles and practices of the Environmental Protection Authority's (EPA) *Technical Guidance*: *Sampling of short-range endemic invertebrate fauna* (EPA 2016a) and *Environmental Factor Guideline: Terrestrial fauna* (EPA 2016b). The limitations of the survey with respect to EPA (2016a; section 3.6.1) are discussed in section 3.7.

This survey also adhered to Fortescue's relevant internal environmental management guidelines and procedures, including:

- *Short range endemic invertebrate fauna assessment guidelines* (Fortescue Metals Group 2020)
- *Environmental datasets - data governance* (Fortescue Metals Group 2012)
- *Geographic information systems and raw data guideline* (Fortescue Metals Group 2011a)
- *Proposal and project management guideline* (Fortescue Metals Group 2011b).



Murdoch University

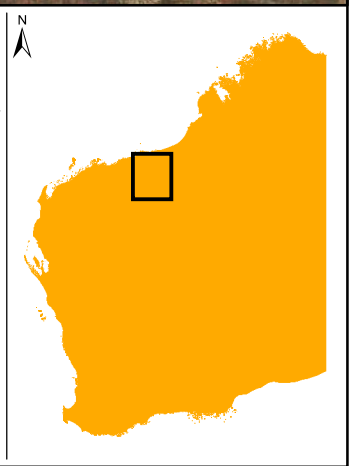
Figure 1-1 Location of Study Area

Client: Fortescue
Project: Short-range Endemic Invertebrate Survey for the East Pilbara Generation Hub
Author: L. Clarke
Coordinate System: GDA2020
Projection: Transverse Mercator
Datum: GDA2020

Towns

Study Area

W.A. Museum database search area



2 EXISTING ENVIRONMENT

2.1 INTERIM BIOGEOGRAPHIC REGIONALISATION OF AUSTRALIA

The Interim Biogeographic Regionalisation of Australia (IBRA7) defines 'bioregions' as large land areas characterised by broad, landscape-scale natural features and environmental processes that influence the functions of entire ecosystems (DCCEEW 2023a; Thackway & Cresswell 1995). Australia contains 89 IBRA bioregions and 419 subregions (DCCEEW 2023a).

Western Australia contains 26 IBRA bioregions and 53 subregions. The Project falls within the Pilbara bioregion which covers an area of 17,823,125 ha and is divided into four subregions: Chichester, Fortescue, Hamersley and Roebourne. The Study Area is entirely within the Chichester subregion which is characterised by Kendrick and McKenzie (2001):

- undulating Archaean granite and basalt plains that support shrub steppe vegetation communities
- predominant vegetation on the steppe of *Acacia* over *Triodia* hummock grasslands
- *Eucalyptus* steppes on the ranges.

Rare features of the Chichester subregion include the Rippon Hills sinkhole, Meentheena Carbonate stromatolite fossils and geographical complexity of the Marble Bar-Nullagine mineral province (Kendrick & McKenzie 2001).

Habitat types that likely support SRE invertebrates in the Chichester subregion include deep litter layers of a variety of woodlands, in particular in ephemeral creek and rivers and south-facing rock faces in the ranges.

2.2 LAND SYSTEMS

The Department of Agriculture and Food Western Australia has mapped the land systems of the Pilbara bioregion from aerial photography, providing the largest-scale interpretation of vegetation units for the Study Area (van Vreeswyk *et al.* 2004) The Study Area intersected 12 land systems, of which Macroy system represented 45.8% and the Rocklea system represented 33.62% of the Study Area (Table 2-1; Figure 2-1).

Typical habitats that are thought to harbour higher proportions of SREs in these land systems include isolated mountain tops (mesas), south-facing rockfaces, riparian habitats and dense *Acacia* woodlands.

Table 2-1 Land systems of the East Pilbara Energy Generating Hub Study Area

Land system	Description (van Vreeswyk *et al.* 2004)	Area in Study area (ha)	Percentage of Study area
Black	Linear ridges of dolerite or basalt supporting hard spinifex grasslands, with unvegetated boulder slopes and rock piles along summits.	1,104.19	0.76
Boolgeeda	Stony lower slopes and plains below hill systems supporting hard and soft spinifex grasslands or mulga shrublands.	2,189.87	1.51
Calcrete	Low calcrete platforms and plains supporting shrubby hard spinifex grasslands.	465.00	0.32
Capricorn	Rugged sandstone hills, ridges, stony foot slopes and interfluves supporting low acacia shrublands or hard spinifex grasslands with scattered shrubs.	10,833.27	7.48
Granitic	Rugged granitic hills supporting shrubby hard and soft spinifex grasslands.	3,459.96	2.39
Macroy	Stony plains and occasional tor fields based on granite supporting hard and soft spinifex shrubby grasslands.	66,335.83	45.80
Platform	Dissected slopes and raised plains supporting shrubby hard spinifex grasslands.	1,455.01	1.00
River	Narrow, seasonally active flood plains and major river channels supporting moderately close, tall shrublands or woodlands of acacias and fringing communities of eucalypts sometimes with tussock grasses or spinifex.	3,549.70	2.45
Rocklea	Basalt hills, plateaux, lower slopes and minor stony plains supporting hard spinifex and occasionally soft spinifex grasslands with scattered shrubs.	50,141.08	34.62
Satirist	Stony plains and low rises supporting hard spinifex grasslands, and Gilgai plains supporting tussock grasslands.	1,018.20	0.70
Talga	Hills and ridges of greenstone and chert and stony plains supporting hard and soft spinifex grasslands.	4,177.94	2.88
Taylor	Stony plains and isolated low hills of sedimentary rocks supporting hard and soft spinifex shrubby grasslands.	95.20	0.07
Total:		**144,825.25**	**100**

712596.71 722492.5 732388.29 742284.07 752179.86 762075.65 771971.44 781867.22 791763.01 801658.8 811554.59 821450.38 831346.16

7663449.43

7647483.85

7631518.26

7615552.68

N

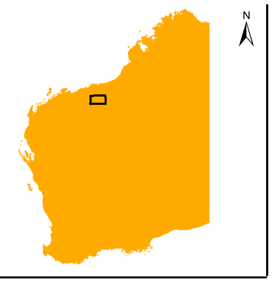
0 10 20
Kilometers

Murdoch University

Figure 2-1 Land systems of the Study Area

Client: Fortescue
Project: Short-range Endemic Invertebrate Survey for the East Pilbara Energy Hub
Author: L. Clarke
Coordinate System: GDA2020 MGA Zone 50
Projection: Transverse Mercator
Datum: GDA2020

- Black System
- Boolgeeda System
- Calcrete System
- Capricorn System
- Granitic System
- Macroy System
- Platform System
- River System
- Rocklea System
- Satirist System
- Talga System
- Taylor System
- Study Area



2.3 CLIMATE AND WEATHER DURING SURVEY

The Pilbara has very hot summers, mild winters, and low and variable rainfall. It is classified as hot desert in northern and inland areas and hot grasslands in the north-west (DPRID 2021). Annual rainfall declines from 300–350 millimetres (mm) in the north-east to less than 250 mm in the south and west.

The Bureau of Meteorology (BOM) weather station nearest to the Study Area is located at Marble Bar [004106], approximately 22 km north-north-west of the Study Area centre. Rainfall events in the Pilbara are frequently localised, therefore these data may not accurately reflect recent weather events in the Study Area. Marble Bar records the highest maximum mean monthly temperature (42.2°C) in December, the lowest maximum mean annual temperature (27.1°C) in June and an average annual rainfall of 383.5 mm (BoM 2024) (Figure 2-2).

During the field survey period (March – May 2024), rainfall was well above the average during March, but below average in May. March received more than double the average for that month (Figure 2-2). Mean daily maximum and minimum temperatures were close to, or slightly below, the monthly mean for March and May (Figure 2-2).

High rainfall conditions before and during the March trip resulted in ideal conditions for surveying many SRE groups such as millipedes, centipedes and snails. In contrast the conditions leading up to and during the May survey were dryer than average and sub-optimal for SRE surveys.

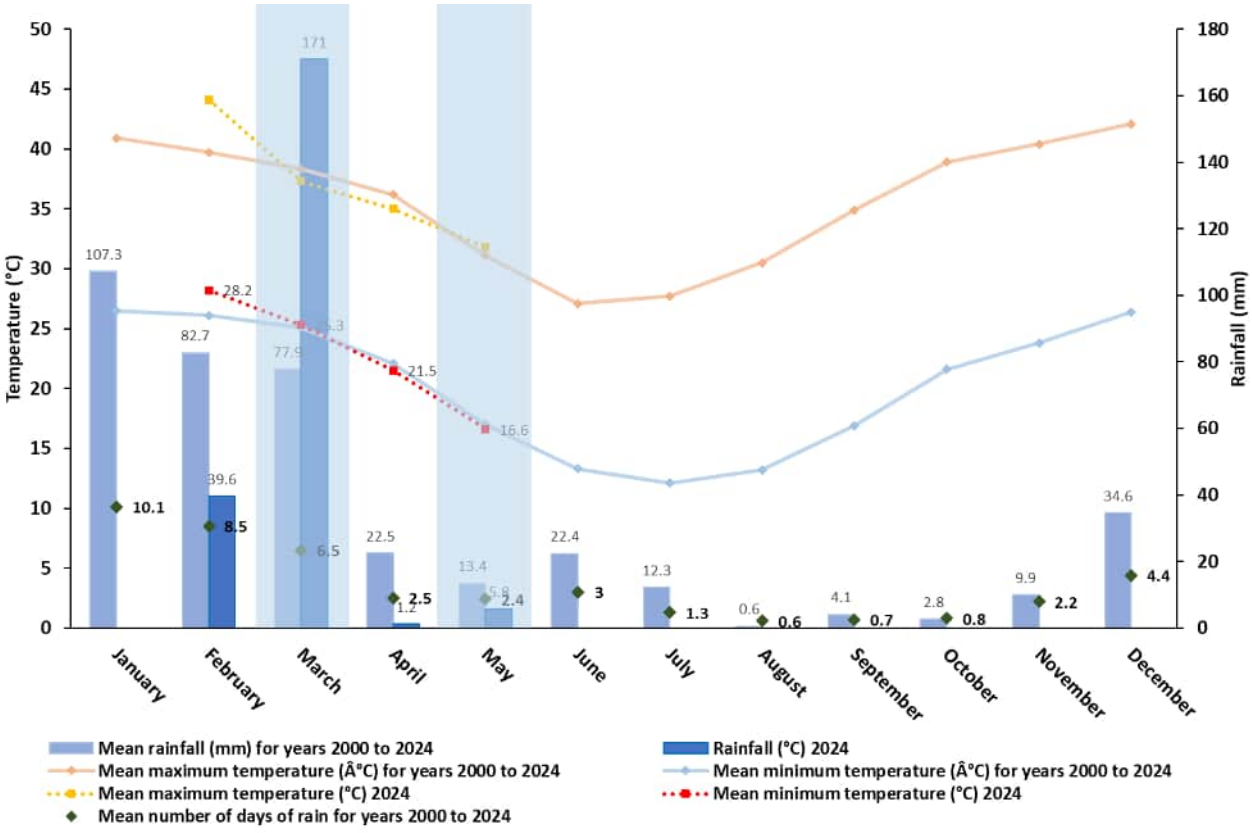


Figure 2-2 **Climate and weather pattern before and during the field survey from BOM weather station 004106 (Marble Bar) (BoM 2024)**

Light blue shaded areas indicate field survey months.

2.3.1 Land use

Dominant land use in the Chichester IBRA subregion include grazing of native pastures, Aboriginal lands and Reserves, Unallocated Crown Land (UCL) and Crown Reserves, conservation, and mining leases (Kendrick & McKenzie 2001).

2.3.2 Conservation Reserves

Purungunya National Park and Conservation Park are approximately 5 km to the east of the Study Area, Mungaroona Range Nature Reserve is approximately 70 km to the south-west.

2.4 BIOLOGICAL CONTEXT

2.4.1 Short-range endemic invertebrates

Short-range endemics (SREs) are organisms with small geographic distributions (Harvey 2002; Ponder & Colgan 2002), nominally less than 10,000 km^2 (Harvey 2002). These organisms are typically characterised by one or more of the following features:

- limited dispersal capabilities
- seasonal activity (cooler or wetter periods)
- slow growth
- low levels of fecundity.

Their limited dispersal capabilities result in small populations being isolated from each other by inhospitable geographic features such as rivers, rocky ridges, or plains. Prolonged isolation between populations eventually results in speciation, with each population becoming genetically and/or morphologically distinct over time. Two types of short-range endemism have been recognised: relictual endemism and habitat specialists (Harvey 2002; Ponder & Colgan 2002).

Relictual SREs result when speciation occurs following the fragmentation of continuous habitat into two or more refugia. In Australia, the primary driver of this over the last 65 million years has been aridification, which acted to isolate formerly widespread species living in mesic forests to small patches of mesic refugia. Relictual SREs, for example, include scorpions in the genus *Aops* (Volschenk & Prendini 2008), pseudoscorpions in the genera *Tyrannochthonius* (Edward & Harvey 2008; Harvey 1991), *Indohya* (Harvey 1993; Harvey & Volschenk 2007b) and *Idioblothrus* (Harvey & Leng 2008; Muchmore 1982), and millipedes in the genus *Antichiropus* (Car & Harvey 2014; Car *et al.* 2019; Car *et al.* 2013).

Habitat specialist SREs are species that have adapted to very specific environment types, including those found in arid environments (e.g., rocky outcrops, isolated dune systems and salt lakes). These habitats are often relatively young (<10 Mio years) and therefore are not refugial. Examples of habitat specialist SREs include spiders in the family Selenopidae (Crews 2023), pseudoscorpions in the genus *Synsphyronus* (Harvey 2011, 2012, 2023), scorpions in the genera *Lychas* and *Urodacus*, and tiger beetles in the genus *Pseudotetracha* (López-López *et al.* 2016).

It is impossible to collect all groups of invertebrates that contain SREs. The main targets of our terrestrial SRE surveys in the Pilbara include:

- Araneae (spiders): all trapdoor spiders (Mygalomorphae) and selected families of Araneomorphae, such as Selenopidae (flatties) and Segestriidae (tub-web spiders)
- Pseudoscorpiones (pseudoscorpions): all families
- Scorpiones (scorpions): all families
- Diplopoda (millipedes): all orders except Polyxenida (pin-cushion millipedes)
- Chilopoda (centipedes): all families of Geophilomorpha (soil centipedes) and the family Cryptopidae from the order Scolopendromorpha (tropical centipedes)
- Isopoda (slaters): all families

- Eupulmonata (land snails): families Camaenidae, Bothriembryontidae and Succineidae
- Diplura (two-pronged bristletails): all families.

2.4.2 Assessment of short-range endemism

Assessment of short-range endemism can be challenging when data for evaluation are absent or limited. Limitations may include any of the following:

- Poor survey coverage, e.g., the fauna of an area has not been sampled extensively enough to enable assessment of species distributions. The absence of a species from survey records may not mean that it is absent from the area.
- Poor taxonomic resolution, e.g., a species has not been subject to systematic investigation. Good taxonomic resolution does not necessarily need to be in the form of published revisions, as it can be facilitated by any of the following:
  - a researcher actively working on the group who can authorise identifications
  - a publicly accessible reference collection
  - assessment of species boundaries using genomic methods such as DNA barcoding (Hebert *et al.* 2003a; Hebert *et al.* 2003b).
- Identification issues, e.g., surveys sampled life stages of SREs that are impossible to identify based on morphological characters. Examples of relevant taxa include juvenile or female millipedes, mygalomorph spiders, and *Urodacus* scorpions.

2.4.3 Categories of short-range endemism

The WA Museum uses a three tier-rating (confirmed, potential and widespread, not SRE) which is employed here (Western Australian Museum 2013):

- Confirmed SRE
  - known distribution of <10 000 km^2
  - taxonomy well known
  - well-represented in collections and/or via comprehensive sampling
- Potential SRE
  - patchy sampling has resulted in incomplete knowledge of the geographic distribution of the group
  - incomplete taxonomic knowledge
  - not well represented in collections
  - most applicable to situations where there are gaps in our knowledge of the taxon
- Widespread (not an SRE)
  - known distribution of >10 000 km^2.
  - taxonomy is well known
  - well-represented in collections and/ or via comprehensive sampling.

As it is difficult to calculate the distribution range of a species, we here use the linear range, i.e. the distance of the two records furthest apart, as surrogate for the range. Species with a linear range of more than 100 km are considered widespread. However, this does not consider patchy distribution patterns of habitat specialists in non-continuous habitats. If in doubt about habitat preferences and small-scale distribution patterns, each species will need to be assessed on its own merits.

3 METHODS

3.1 DESKTOP REVIEW

3.1.1 Database searches

Results of all previous surveys undertaken within the database area searches were accessible through the WA Museum database searches and a search of the HBI invertebrate database. Data that were not based on specimens lodged in public institutions were not considered as these cannot be verified.

The nominal maximum range of short-range endemism, i.e. 100 km x 100 km (Harvey 2002) guided the size of the area for the desktop review. The database search was undertaken to determine if any SRE taxa have previously been recorded in the Study Area or its vicinity. Data were requested from the WA Museum databases from the departments of Arachnology/Myriapodology, Mollusca, and Crustacea, within a rectangle of one degree Latitude (ca. 110 km) and one degree Longitude (ca. 100 km) in each cardinal direction from the approximate centre of the Study Area (NW corner 20.37°S, 118.74°E/SE corner 22.37°S, 120.74°E). The HBI invertebrate database was queried with the same parameters.

The EPBC Act Protected Matters database (DCCEEW 2023b) was searched with a 50 km buffer around the centre of the Study Area (-21.37°S/119.74°E) for matters of national significance.

3.1.1.1 Desktop area data edits and filtering

Database search results provided by the WA Museum for arachnids, myriapods, crustaceans and snails consisted of all records from within the desktop area, i.e., they were not filtered for range-restricted species and no information on each species' overall distribution beyond the desktop review area was provided. These search results were therefore subjected to the following edits:

- Taxonomic groups that are not target groups for SRE surveys were removed.
- Non-terrestrial SRE groups (freshwater/subterranean) were removed by search for respective specialised taxa (i.e., freshwater molluscs, troglobitic schizomids) and the respective sampling type (e.g., habitat traps, troglofaunal scrape, kick-net).
- Obvious misidentifications (i.e., species generally outside their geographic range) were removed.
- Where the higher taxon field was empty or contained the values such as "unknown" or "gen. nov.", the unitalicized next higher rank name was used in place of the genus name.
- All morphospecies names including "sp. n." were renamed without that suffix, e.g., "*Rhagada* 'Pannawonica' sp. n." was renamed to *Rhagada* 'Pannawonica'. Such unpublished morphospecies names were not italicised
- All unidentified species (e.g., "sp.", "sp. indet. (juvenile)", "sp.?", "unknown") were renamed to "sp. indet."
- A new field "Genus and species" was created, into which the genus, species and, for described species, taxon author field values were concatenated. This taxonomic binomial was used in this report and all associated data (i.e., GIS submissions to Fortescue and DBCA).

3.1.2 Previous surveys in the Study Area

One previous survey targeting SREs has been conducted specifically in the Study Area by SLR Consulting (formerly 360 Environmental) in 2022. Short-range endemic invertebrate data for this survey was available through the HBI invertebrate database.

The CALM (now DBCA) Pilbara Biological Survey (McKenzie *et al.* 2009) had five survey areas within the area covered by the SRE desktop review (areas MBW, MBE, PHYC, NW, RHNW, RHNE, BDRS) and its invertebrate data were available through the WA Museum databases. Three survey sites of the MBE survey area were in the Study Area (MBE01, 02, 09) and four in the NW survey area (NW09–12) (Figure 3-1).

3.1.3 Previous surveys in the desktop review area

The WA Museum conducted an ecological survey of Abydos-Woodstock Station, just west of the Study Area, between 1988–1990 (Berry *et al.* 1991). This survey also included invertebrates (Harvey & Waldock 1991) and results were available through the WA Museum database searches.

Several mining projects are in the vicinity of the Study Area for which SRE surveys could be sourced, including:

- Wodgina DSO Project, Atlas Iron (surveys 2010–2011)
- Abydos DSO Project, Atlas Iron (surveys 2011–20213)
- Mt Webber DSO Project, Atlas Iron (surveys 2010–2012)
- McPhee Creek, Roy Hill and Atlas Iron (Biologic 2020)
- Glacier Valley short-range endemic invertebrate survey (Ecologia 2021)
- Bonney Downs Generation Hub (Volschenk *et al.* 2024).

Results of these surveys were generally accessible through the WA Museum and HBI database searches.

3.2 HABITAT ASSESSMENT AND SITE SELECTION

The habitat types in the Study Area that potentially harbour SRE invertebrates were woodlands and grasslands (Table 3-1):

- woodland in drainage line (16 sites) – generally riparian eucalypt and *Acacia* open woodlands in drainage lines
- woodland along rockface/gully (4 sites) – eucalypt and *Acacia* open woodlands along gullies and gorges
- woodland on plain/slope (4 sites) – eucalypt and *Acacia* open woodlands on plains
- grassland on plain/slope (10 sites) – spinifex grasslands on plains and hill slopes

Within these habitats, a total of 34 SRE sites were surveyed, one (site 5) situated slightly outside the Study Area (Table 3-1; Figure 3-1). Site descriptions including habitat type, topography, vegetation, soil, litter, disturbance, fire history and a site photograph are provided in Appendix 1.

Fortescue provided broad scale vertebrate fauna habitat mapping for the Study Area compiled by Ecoscape (2025). These included the following six habitat types (Table 3-1):

- drainage line (minor) (7 sites)
- drainage line (major) (4 sites)
- hills/ranges/plateaux (7 sites)
- plain (isolated boulders) (6 sites)
- plain (sand) (6 sites)
- plain (stony/gibber) (3 sites).

One site (site 5) fell outside the mapped habitat area.

Both habitat categorisations were not entirely consistent with each other (Table 3-1), largely because the broadscale vertebrate mapping, compiled partly on satellite imagery, does not consider more localised habitat conditions and may not have been ground-truthed throughout.

We here analyse the predictive power of both habitat categorisations in relation to the SRE community at each site (see section 0).

Table 3-1 Sites of short-range endemic invertebrate survey and sampling effort

Site no.	Habitat type (HBI)	Habitat (Ecoscape)	Easting	Northing	Zone	Trip 1	Trip 2	Methods	Foraging time (hours)	Litter sifts (no.)
1	woodland along rockface/gully	drainage line (minor)	755421	7646374	50	×	✓	fo, li	3	6
2	woodland in drainage line	drainage line (minor)	786970	7637264	50	✓	✓	fo, li	6	15
3	grassland on plain/slope	plain (isolated boulders)	725013	7650873	50	✓	✓	fo, li	6	15
4	grassland on plain/slope	plain (isolated boulders)	205044	7637718	51	✓	✓	fo, li, Wi	6	15
5	woodland in drainage line	n/a	785371	7633596	50	×	✓	fo, li	3	6
6	woodland in drainage line	hills/ranges/plateaux	764506	7646162	50	×	✓	fo, li, Wi	3	6
7	woodland in drainage line	hills/ranges/plateaux	195276	7619121	51	✓	✓	fo, li	6	15
8	grassland on plain/slope	plain (sand)	804640	7619156	50	✓	✓	fo, li	6	15
9	woodland on plain/slope	plain (stony/gibber)	757672	7634290	50	✓	×	fo, li	3	9
10	woodland on plain/slope	drainage line (major)	200028	7635209	51	×	✓	fo, li, Wi	1.5	6
11	woodland in drainage line	drainage line (minor)	197407	7626358	51	×	✓	fo, li	3	6
12	woodland in drainage line	drainage line (minor)	195885	7646741	51	✓	×	fo, li	3	9
13	woodland in drainage line	plain (isolated boulders)	204312	7643207	51	✓	×	fo, li	3	9
14	grassland on plain/slope	plain (isolated boulders)	723799	7649149	50	✓	✓	fo, li, Wi	6	15
15	grassland on plain/slope	plain (stony/gibber)	783743	7640400	50	×	✓	fo, li	3	6
16	woodland in drainage line	drainage line (major)	727890	7649595	50	×	✓	fo, li	3	6
17	woodland along rockface/gully	drainage line (minor)	771326	7636760	50	×	✓	fo, li, Wi	3	6
18	woodland in drainage line	hills/ranges/plateaux	780507	7641254	50	×	✓	fo, li	3	6
19	woodland in drainage line	hills/ranges/plateaux	783999	7635362	50	×	✓	fo, li	3	6
20	woodland along rockface/gully	hills/ranges/plateaux	734324	7647419	50	✓	×	fo, li	3	9
21	woodland along rockface/gully	drainage line (minor)	734401	7651166	50	✓	×	fo, li	3	9
22	woodland in drainage line	drainage line (minor)	744573	7643169	50	✓	×	fo, li	3	9
23	woodland on plain/slope	plain (stony/gibber)	747158	7640104	50	✓	✓	fo, li, Wi	6	15
24	grassland on plain/slope	hills/ranges/plateaux	752087	7643076	50	✓	×	fo, li	3	9
25	woodland in drainage line	drainage line (major)	756262	7642936	50	✓	×	fo, li	3	9
26	woodland in drainage line	hills/ranges/plateaux	771449	7632613	50	✓	×	fo, li	3	9
27	woodland in drainage line	plain (sand)	784049	7630854	50	✓	✓	fo, li	6	15
28	woodland on plain/slope	plain (sand)	788370	7631029	50	✓	✓	fo, li	6	15

Site no.	Habitat type (HBI)	Habitat (Ecoscape)	Easting	Northing	Zone	Trip 1	Trip 2	Methods	Foraging time (hours)	Litter sifts (no.)
29	grassland on plain/slope	plain (sand)	799785	7632311	50	✓	✓	fo, li	6	15
30	grassland on plain/slope	plain (sand)	796629	7625501	50	✓	✓	fo, li	6	15
31	woodland in drainage line	drainage line (major)	191857	7625298	51	✓	✓	fo, li	6	15
32	grassland on plain/slope	plain (isolated boulders)	196834	7640415	51	✓	✓	fo, li, Wi	6	15
33	grassland on plain/slope	plain (isolated boulders)	200974	7642224	51	✓	✓	fo, li, Wi	6	15
34	woodland in drainage line	plain (sand)	809947	7628397	50	✓	×	fo, li	3	6i
								Total:	**142.5**	**357**

fo – foraging, li – litter and soil sieve, Wi – litter extraction with Winkler sac.

712596.71 722492.5 732388.29 742284.07 752179.86 762075.65 771971.44 781867.22 791763.01 801658.8 811554.59 821450.38 831346.16

7663449.43 7647483.85 7631518.26 7615552.68 7599587.1

N

MBE13
MBE12
MBE11
Site 3
Site 21
Site 16
Site 14
Site 20
Site 1
Site 6
MBE09
Site 24
Site 22
Site 25
MBE01
Site 18
MBE02
Site 15
Site 23
MBE08
Site 17
Site 2
Site 19
MBE07
Site 9
Site 5
Site 26
Site 29
Site 28
Site 27
MBE03
MBE04
MBE05
Site 34
Site 30
Site 31
Site 11
NW09
NW10
NW08
MBE06
Site 8
Site 7
NW07
NW06
NW04
NW05
Site 12
Site 13
Site 33
Site 32
Site 4
Site 10
NW12
NW11

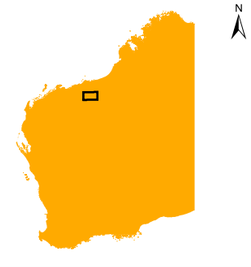
0 10 20
Kilometers

Murdoch University

Figure 3-1 Survey sites within the Study Area

Client: Fortescue
Project: Short-range Endemic Invertebrate Survey for the East Pilbara Generation Hub
Coordinate System: GDA2020 MGA Zone 50
Author: L. Clarke and A.McVeigh
Projection: Transverse Mercator
Datum: GDA2020

CALM (now DPIRD) Pilbara Biodiversity Survey
This survey
Study Area



3.3 FIELD METHODS

The field survey methods were approved by the Department of Biodiversity, Conservation and Attractions (DBCA) and conducted under a Fauna Taking (Biological Assessments) licence number BA27000995.

The field surveys were undertaken over two field trips during 2024:

- Trip 1: 11–21 March
- Trip 2: 29 April – 10 May.

All survey methods per site were standardised either by time (foraging) or number of sample/traps (litter sieving, Winkler sacs) to allow for potential statistical analyses of survey data (Table 3-1).

3.3.1 Foraging

Foraging methods involve actively searching for invertebrates or evidence of them. These methods rely on visual detection of invertebrates (or their burrows and microhabitats) in situ. Areas with leaf litter, under logs and rocks, larger plant debris and the underside of bark of trees were inspected. Each site was sampled for 3 hrs minimum (Table 3-1). Trapdoor spider burrows identified during the searches were excavated if considered inhabited. The time to dig up burrows did not count towards the foraging time.

3.3.2 Litter and soil sieving

Litter and soil sieving targets litter and surface soil dwelling invertebrates. This method utilises a series of sieves (32 cm diameter by 5 cm height), each sieve being progressively finer (top-bottom: 17 mm, 11 mm, 3 mm) through which leaf litter and surface soil below the leaf litter was sieved. The finest particles pass through all sieves into a receiving pan.

Leaf litter was collected from the southern sides of trees or shrubs and from next to the trunk. Where deep litter was present, the more open and exposed surface leaf litter was removed to access the deeper litter. Soil was also sifted, to a depth of approximately 20 cm.

At each litter sieving site, six sifts were carried out, each one targeting a different tree or patch of litter (Table 3-1). During each sift, approximately 5 litres of leaf litter and surface soil were sieved. The retained litter from each sieve and the receiving pan were examined separately and targeted invertebrates were picked using an aspirator or feather forceps. All target taxa were fixed and preserved in 100% ethanol. All sifted litter was returned to the location from which it was obtained.

3.3.3 Winkler sac extraction

Litter samples were collected with a sifter (Bestelmeyer *et al.* 2020) from three spots at each site with each sample representing approximately one square metre of coarse leaf litter and soil. The sifted leaf litter/soil sample was placed inside a mesh bag, which was then transported to camp base to be placed into a Winkler sac. Winkler sacs consisted of two detachable frames made of 20 mm PVC tubes that support a light fabric covering. Each Winkler sac accommodated up to three mesh bags. At the bottom of the Winkler sac, there was a 250 ml plastic container filled halfway with propylene glycol. As the substrate gradually dries, the mobile arthropods within the sample descended into a collection cup filled with propylene glycol.

3.4 TAXONOMY AND NOMENCLATURE

3.4.1 Morphological species identification

Morphological and molecular species identifications and SRE assessments were conducted by E. S. Volschenk. Some dentifications relied on direct comparison with reference material from the WA Museum.

3.4.2 Molecular species identification

Following morphological species identifications, molecular investigations were undertaken on representative specimens of each taxon. Sequence fragments of the COI gene were amplified from muscle tissues obtained from specimens fixed and preserved in >95% ethanol or from samples fixed in propylene glycol and later preserved in >95% ethanol.

Sequence generation from tissues was undertaken by Genotyping Australia Pty Ltd (https://xytovet.com.au) and AGRF Perth (http://www.agrf.org.au). Sequence contigs were assembled from forward and reverse amplicons using Geneious Prime ('Geneious') and were subsequently edited and pruned by eye, prior to consensus sequences being created. Consensus sequences were then assessed for contamination using the NCBI Nucleotide Blast tool (https://blast.ncbi.nlm.nih.gov).

For analyses and alignment, additional sequences of species pairs were obtained from GenBank (Benson *et al.* 2012) to guide alignments and assessment of species boundaries. Species pairs were selected from taxa within the same genus or family of the taxa under investigation, for which DNA sequence fragments were greater than 400 base pairs long. Sequences sourced from GenBank are identified with the GenBank accession code (comprised of two letters followed by a string of six numbers).

Sequence editing, alignment and phylogenetic analyses were performed with Geneious. For each analysis sequences were assembled and aligned using ClustalW or the Geneious alignment tool, implementing the following variable settings: global alignment with free ends, cost matrix, 70% similarity (IUB), open gap penalty, 70, gap extension penalty, 10, refinement iterations, 4.

Phylogenetic analyses were implemented using Geneious and MrBayes (Huelsenbeck & Ronquist 2001; Ronquist *et al.* 2012). Outgroups were selected from (in order of preference): sister-genus, -family or -order to the group under investigation, where systematic relationships were known. Species delimitation was based on an 8% sequence divergence threshold for most taxa (Barrett & Hebert 2005; Hebert *et al.* 2003a; Hebert *et al.* 2003b; Robinson *et al.* 2009). For some trapdoor spiders, the delimiting threshold of 9.5 % was used (Castalanelli *et al.* 2014; Huey *et al.* 2019) and 6 % was used for scorpions and millipedes (E.S. Volschenk unpublished data).

Reference taxa were selected from GenBank in two ways, depending on the number of sequences available for each group. For small groups, all reference COI sequences were sourced from GenBank and a subset of two or three samples were selected to represent each species or morphospecies identified. For groups with many reference COI sequences on GenBank, reference sequences were selected from BLAST (Basic Local Alignment Search Tool) results undertaken for each query sequence. Sequence BLAST was undertaken using the Nucleotide BLAST tool (https://blast.ncbi.nlm.nih.gov/Blast.cgi). Two or three reference sequences were selected from the 20 most similar sequences resulting from a BLAST of each query sequence.

A total of 259 specimens were successfully sequenced, representing more than 10% of all specimens. Orders with a high percentage of specimens sequenced (>70%) include spiders, and soil and tropical centipedes; low sequence coverage (<10% specimens) was for pseudoscorpions, scorpions, snails, and slaters (Table 3-2).

Table 3-2: Number of specimens sequenced for COI

Taxonomic order	No. of specimens collected	No. of specimens successfully sequenced	No. of specimens with failed sequences	% specimen sequenced
Araneae (spiders)	26	21	-	80.8
Opiliones (harvestmen)	68	9	-	13.2
Pseudoscorpiones (pseudoscorpions)	1,286	101	8	7.8
Scorpiones (scorpions)	59	6	-	7.9
Diplura (two-pronged bristletails)	1	1	-	100
Geophilomorpha (soil centipedes)	19	15	1	78.9
Lithobiomorpha (stone centipedes)	3	1	-	33.3
Scolopendromorpha (tropical centipedes)	41	30	-	73.2
Polydesmida (keeled millipedes)	61	26	7	42.6
Isopoda (slaters)	735	43	2	5.9
Eupulmonata (land snails)	135	6	-	4.4
Total:	**2,434**	**259**	**18**	**10.6**

3.4.3 Nomenclature – Fauna Portal Australia

The taxonomic nomenclature of described invertebrates follows established taxonomic publications and catalogues (Table 3-3).

The nomenclature of undescribed invertebrates identified by HBI scientists (but not necessarily desktop species) applied the principles of the Fauna Portal Australia (www.faunaportal.org) (here simply referred to as 'Fauna Portal'), an online identification platform developed by HBI to provide scientific reproducibility and taxonomic stability of undescribed species.

Reproducibility is supported by the requirement that all specimens listed on the Fauna Portal need to be accessible in public institutions (e.g., museums or universities). Observational records are not considered on the Fauna Portal. The only exemption to this rule is specimen data based on a molecular sequence if the specimen was destroyed during molecular analyses.

Taxonomic stability is provided by:

- the designation of 'Fauna Portal Reference' specimen which is equivalent to a Linnean type specimen in zoological nomenclature, and
- a diagnosis against other species on the Fauna Portal, either described or undescribed.

The nomenclature of undescribed genera and species is governed by a simple numerical system that is based on consecutive numbers of the genus and species tables in the underlying Fauna Portal database. Listing of the genus level number is flexible, for example as "Genus 2231", "Myrmecinae gen. 2231" or "Genus 2231 (*acuminatus* group)". The species designation is listed as "FP-5572". To allow backward compatibility with other parataxonomic systems, other species codes can be added as suffix in parentheses, i.e., "*Aname* FP-11621 (WAM MYG231)".

As an identification tool, data on described species are also available on the Fauna Portal. Rapid species identification is possible through innovative morphological and geographic image filters that allow a side-by-side comparison of diagnostic characters of species. A simple molecular module allows downloading of barcoding data, either original data or through links to GenBank.

Selected species collected during this study were uploaded to the Fauna Portal and hyperlinks are provided in the respective results tables (Table 4-2; Table 4-4).

Table 3-3 Nomenclatural references

Taxonomic group	Taxonomic reference for described species and higher taxa
Araneae	World Spider Catalog (2024)
Opiliones	Kury *et al.* (2023)
Pseudoscorpiones	World Pseudoscorpiones Catalog (2025)
Scorpiones	Volschenk and Prendini (2008), Volschenk *et al.* (2000), Volschenk *et al.* (2010), Buzatto *et al.* (2023)
Diplopoda (Polydesmida: *Antichiropus*)	Car *et al.* (2019)
Chilopoda (Geophilomorpha, Cryptopidae only)	Minelli *et al.* (2006 onwards), Bonato *et al.* (2010), Bonato *et al.* (2014)
Eupulmonata	Stanisic *et al.* (2017)
Isopoda	Schotte *et al.* (2008)

3.4.4 Specimen curation

Each sample was assigned a unique registration number of the HBI invertebrate collection (i.e., 240666) to enable specimen tracking until WA Museum lodgement has been completed. All material collected during this survey will be offered to the WA Museum for lodgement.

3.5 STATISTICAL ANALYSES

3.5.1 Species richness estimation curves

There are three general methods of estimating species richness from sample data: extrapolating species-accumulation curves (SACs), fitting parametric models of relative abundance, and using non-parametric estimators (Bunge & Fitzpatrick 1993; Colwell & Coddington 1994). In this report, the level of survey adequacy was estimated using the rarefaction of SACs as computed by Mao Tau estimator to estimate the number of species collected per site [S(est)]. In addition, the following species richness estimators were calculated: ACE, ICE, Chao-1, Chao-2, Jacknife-1, Jackknife-2, Bootstrap. To eliminate features caused by random or periodic temporal variation, the sample order was randomised 999 times. The estimators applied to the data set were calculated using EstimateS (v9.1.0) (Colwell 2013).

Species accumulation curves were calculated based on sample events. The species accumulation estimates are based on all species in the analysed SRE target order, not just those species considered to be SREs.

3.5.2 Habitat association

The similarity of the SRE fauna in different habitat types was explored with non-metric multidimensional scaling (nMDS), which is one of the most powerful ordination methods, especially adept at extracting non-linear gradients in species composition. This creates a two- or three-dimensional ordination space in which all sites are displayed with their distance reflecting their similarity based on the invertebrate community, here species and species-complexes in the SRE target groups. Sites can then be analysed in relation to the habitat type. We used Primer v7 to execute this statistical analysis (Clarke & Gorley 2015). We conducted a nMDS for our own habitat categorisation, but also using fauna habitat mapping compiled by Ecoscape (2025) as supplied by Fortescue on 15 March 2025 (Table 3-1).

The habitat associations of the SRE target groups were explored with contingency tables (χ^2-test). This test is used to determine whether there is a statistically significant difference between the expected frequencies (here number of species in the SRE target groups) in each habitat type compared to the expected number of species if there was no preference for any of the habitat types.

The χ^2 statistics were calculated online (http://www.vassarstats.net/csfit.html; accessed 25 March 2025).

3.6 PROJECT PERSONNEL

HBI personnel involved in the project have extensive experience in invertebrate surveys, including SRE assessments (Table 3-4).

Table 3-4 Project personnel

Name	Qualifications	Experience (years)	Role/s
Dr Erich S. Volschenk	Ph.D. (Zool.)	20+	project management, taxonomy, report writing, GIS, molecular analyses
Farhan Bokhari	B.Sc. (Zool.)	15	field survey, taxonomy
Valentina Cruz Bedon	BAppSci. (Zool. & Botany)	15	field survey, taxonomy, report writing (field data)
Layla Clarke	B.Sc. (Zool.)	2	field survey, taxonomy, report writing (field data, maps)
Ass. Prof. Dr Melissa Thomas	Ph.D. (Zool.)	20+	project management, report review (editorial)
Dr Volker W. Framenau	B.Eng. (Chem. Eng.), M.Sc. (Cons. Biol.), Ph.D. (Zool.)	20+	report review (technical)

3.7 SURVEY LIMITATIONS AND CONSTRAINTS

According to EPA guidelines (EPA 2016b; section 3.3.1), terrestrial fauna surveys may be limited by several aspects. There were no major limitations with respect to the survey in the study area (Table 3-5).

Table 3-5 Survey limitations and constraints

Constraint	Comment
Competency and experience of project team carrying out the survey	All members of the survey team were experienced in undertaking SRE invertebrate fauna surveys (Table 3-4).
Scope (what faunal groups were sampled and were some sampling methods not able to be employed because of constraints such as weather conditions)	The study scope was well-defined, and all target SRE taxa were sampled with method mandated by EPA (2016a).
Proportion of fauna identified, recorded and/or collected	Species accumulation curves did not reach a plateau; however, combined species numbers for this survey and the desktop study suggest the study area is adequately surveyed.
Sources of information e.g. previously available information (whether historic or recent) is distinct from new data	Comprehensive database records, including WAM database and conservation significant species were available and considered adequate. Previous SRE surveys conducted within the study area were interrogated.
Proportion of tasks achieved, and further work which might be needed	The assessment was conducted and completed according to an agreed scope.
Timing/weather/season/cycle	High rainfall conditions before and during the March trip resulted in ideal conditions for surveying many SRE groups such as millipedes, centipedes and snails. In contrast the conditions leading up to and during the May survey were dryer than average and sub-optimal for SRE surveys.
Disturbances (e.g., fire, flood, accidental human intervention) effected results of the survey	Disturbances did not affect results.
Intensity (in retrospect, was the intensity adequate)	The desktop assessment was considered adequate and was appropriate to gather background information. The number of systematically surveyed sites (34) and survey effort are considered appropriate for the purpose of a baseline survey
Completeness (was relevant area fully surveyed)	The Study Area was fully surveyed.
Resources (e.g., degree of expertise available in animal identification to taxon level)	All zoologists were suitably qualified and experienced in SRE collection and identification within the Pilbara.
Remoteness and/or access problems	Access problems were overcome by the use of a helicopter.
Availability of contextual information (e.g. biogeographic) information on region	Broad scale bioregion and land system data were available for the study area and adequate to provide appropriate contextual information.

4 RESULTS

4.1 DESKTOP REVIEW

The desktop review returned 5,184 samples representing 11,868 specimens in 371 taxa within the SRE target groups in the desktop review area (Figure 4-1). Of these, 169 records (370 specimens) were from within the Study Area (Appendix 2).

A total of 37 species in the SRE target groups, and 28 higher taxonomic ranks or species-complexes that may include SREs, were identified from within the Study Area (Table 4-1, Table 4-2). Only six species had official taxonomic names, illustrating the poor taxonomic knowledge of species from the Study Area.

Seventeen potential SREs were identified from the Study Area through the desktop review (Table 4-1; Table 4-2; Figure 4-2 – Figure 4-4). Twenty species in the SRE target groups were widespread and 28 higher taxa were not assessed but may include SREs (Table 4-1).

Table 4-1: Identification and distribution summary of SREs from the Study Area (desktop review)

Order	Described species	Morpho-species	Higher taxa (sp. indet. or species-complex)	Widespread	Potential SRE	Not assessed (higher taxon or species complex)	Study area endemic	Total no. of taxa
Araneae	4	4	7	4	4	7	4	**15**
Opiliones		1			1		1	**1**
Pseudoscorpions	1	3	5	1	3	5	1	**9**
Scorpions		9	4	8	1	4		**13**
Geophilomorpha		1			1		1	**1**
Polydesmida	1		2		1	2		**3**
Isopoda		12	5	6	6	5	5	**17**
Eupulmonata		1	5	1	-	5		**6**
Total:	**6**	**31**	**28**	**20**	**17**	**28**	**12**	**65**

Twelve species were only known from the Study Area, with the majority being spiders and slaters (Table 4-1; Table 4-2). These are:

- Araneae: *Aname* FP-12639 (ESV EP01), *Aname* FP-12640 (ESV EP02), *Aname* FP-12641 (ESV EP03), *Karaops* FP-13455 (ESV cf. *morganoconnelli*)
- Opiliones: Assamiidae FP-12648 (ESV EP01)
- Pseudoscorpions: *Synsphyronus* `8/3 pilbara`
- Myriapoda: *Mecistocephalus* FP-12654 (ESV EP01)
- Isopoda: *Buddelundia* EP01, *Buddelundia* EP02, *Buddelundia* FP-13534 (ESV PE02), Buddelundiinae gen. indet. PE03, Buddelundiinae gen. indet. PE04

Searches of the EPBC database did not reveal any conservation significant invertebrates from the area for the desktop review.

Table 4-2 Invertebrates in the SRE target groups in the Study Area based on the desktop review

Genus and species (blue & underlined with link to Fauna Portal)	No. specimen in Study Area	Wider desktop area	Linear known range	SRE category	Data source	Comment
ARANEAE						
Actinopodidae						
Missulena melissae Miglio et al., 2014	2	yes	> 300 km	widespread	WAM, Miglio *et al.* (2014)	
Missulena rutraspina Faulder, 1995	3	yes	> 2,000 km	widespread	WAM, HBI, Faulder (1995)	type locality is in Victoria
Anamidae						
Aname baileyorum Castalanelli et al., 2020	2	yes	> 200 km	widespread	WAM, HBI, Castalanelli *et al.* (2020)	
Aname mellosa Harvey et al., 2012	17	yes	> 200 km	widespread	WAM, (Harvey *et al.* 2012)	May include cryptic species, genus currently under revision at the WA Museum
Aname FP-12639 (ESV EP01)	2	no	50 km	potential	HBI, WAM	
Aname FP-12640 (ESV EP02)	1	no	single location	potential	HBI, WAM	
Aname FP-12641 (ESV EP03)	1	no	single location	potential	HBI, WAM	
Aname mellosa-complex	18	yes	n/a	not assessed (species complex, may contain SREs)	WAM, HBI	genus currently under revision at the WA Museum
Aname sp. indet.	5	yes	n/a	not assessed (higher taxonomic level, may contain SREs)	WAM	
Anamidae gen. indet. sp. indet.	1	yes	n/a	not assessed (higher taxonomic level, may contain SREs)	WAM	
Teyl sp. indet.	1	yes	n/a	not assessed (higher taxonomic level, may contain SREs)	WAM	
Barychelidae						
Barychelidae gen. indet. sp. indet.	1	yes	n/a	not assessed (higher taxonomic level, may contain SREs)	WAM	
Idiopidae						
Idiopidae gen. indet. sp. indet	5	yes	n/a	not assessed (higher taxonomic level, may contain SREs)	WAM	
Selenopidae						
Karaops FP-13455 (ESV cf. *morganoconnelli*)	2	no	57 km	potential	HBI	
Karaops sp. indet	1	yes	n/a	not assessed (higher taxonomic level, may contain SREs)	WAM	

Genus and species (blue & underlined with link to Fauna Portal)	No. specimen in Study Area	Wider desktop area	Linear known range	SRE category	Data source	Comment
OPILIONES						
Assamiidae						
Assamiidae gen. indet. FP-12648 (ESV EP01)	1	no	single location	potential	HBI	
PSEUDOSCORPIONES						
Atemnidae						
Oratemnus FP-11861 (PSE121)	1	yes	>150 km	widespread	HBI	
Feaellidae						
Feaella tealei Harvey et al., 2016	1	yes	58 km	potential	WAM, Harvey *et al.* (2016)	
Garypidae						
Synsphyronus `8/3 pilbara`	3	no	single location	potential	WAM	
Olpiidae						
Beierolpium `8/4 large`	1	yes	10 km	potential	WAM	
Genus 7/4 sp. indet.	1	yes	n/a	not assessed (higher taxonomic level, may contain SREs)	WAM	
Beierolpium sp. indet.	1	yes	n/a	not assessed (higher taxonomic level, may contain SREs)	WAM	
Indolpium sp. indet.	4	yes	n/a	not assessed (higher taxonomic level, may contain SREs)	HBI, WAM	
Xenolpium sp. indet.	3	yes	n/a	not assessed (higher taxonomic level, may contain SREs)	WAM	
Olpiidae gen. indet. sp. indet.	2	yes	n/a	not assessed (higher taxonomic level, may contain SREs)	WAM	
SCORPIONES						
Buthidae						
Lychas `2`	28	yes	> 200 km	widespread	WAM	
Lychas `3`	4	yes	> 200 km	widespread	WAM	
Lychas `4`	23	yes	> 200 km	widespread	WAM	
Lychas `6`	9	yes	> 200 km	widespread	WAM	
Lychas `*bituberculatus*-complex`	19	yes	n/a	not assessed (species complex, may contain SREs)	HBI, WAM	
Lychas `hairytail-complex`	3	yes	n/a	not assessed (species complex, may contain SREs)	WAM	
Lychas `*multipunctatus*-complex`	3	yes	n/a	not assessed (species complex, may contain SREs)	HBI	

Genus and species (blue & underlined with link to Fauna Portal)	No. specimen in Study Area	Wider desktop area	Linear known range	SRE category	Data source	Comment
Lychas `pilbara 1`	1	yes	115 km	widespread	WAM	
Urodacidae						
Urodacus `pilbara 4`	1	yes	75 km	potential	WAM	
Urodacus `pilbara 5`	1	yes	> 200 km	widespread	WAM	
Urodacus `pilbara 8`	2	yes	140 km	widespread	HBI	
Urodacus `SCO010, pearcei`	5	yes	150 km	widespread	WAM	
Urodacus sp. indet.	12	yes	n/a	not assessed (higher taxonomic level, may contain SREs)	HBI, WAM	
GEOPHILOMORPHA						
Mecistocephalidae						
Mecistocephalus FP-12654 (ESV EP01)	1	no	single location	potential	HBI	
POLYDESMIDA						
Paradoxosomatidae						
Antichiropus cunicularis Car, 2019	17	yes	45 km	Potential	WAM, Car *et al.* (2019)	
Antichiropus sp. indet.	10	yes	n/a	not assessed (higher taxonomic level, may contain SREs)	WAM	
Paradoxosomatidae gen. indet. sp. indet.	1	yes	n/a	not assessed (higher taxonomic level, may contain SREs)	WAM	
ISOPODA						
Armadillidae						
Acanthodillo sp. indet.	2	yes	n/a	not assessed (higher taxonomic level, may contain SREs)	WAM	
Armadillidae gen. indet. `abydos`	1	yes	120 km	widespread	WAM	
Armadillidae gen. indet. `mw`	15	yes	45 km	potential	WAM	
Buddelundia FP-11773 (SJ 10MA)	1	yes	120 km	widespread	HBI	
Buddelundia SJ 14fm	2	yes	130 km	widespread	HBI	
Buddelundia `EP01`	3	no	10 km	potential	HBI	
Buddelundia `EP02`	3	no	15 km	potential	HBI	
Buddelundia FP-13534 (ESV PE02)	1	no	single location	potential	HBI	
Buddelundia `SJ 11	3	yes	120 km	widespread	WAM	
Buddelundia `SJ 13 indet.`	3	yes	n/a	not assessed (species complex, may contain SREs)	WAM	
Armadillidae gen. indet. sp. indet.	6	yes	n/a	not assessed (higher taxonomic level, may contain SREs)	WAM	

Genus and species (blue & underlined with link to Fauna Portal)	No. specimen in Study Area	Wider desktop area	Linear known range	SRE category	Data source	Comment
Buddelundia `SJ 14`	2	yes	n/a	not assessed (species complex, may contain SREs)	WAM	multiple species of the group on Fauna Portal
Buddelundia `SJ 14mw`	33	yes	150 km	widespread	WAM	
Buddelundia `SJ 18`	14	yes	140 km	widespread	WAM	
Buddelundia sp. indet.	47	yes	n/a	not assessed (higher taxonomic level, may contain SREs)	HBI	
Buddelundiinae gen. indet. `PE03`	1	no	single location	potential	HBI	
Buddelundiinae gen. indet. `PE04`	2	no	6.5 km	potential	HBI	
Pulmonata						
Camaenidae						
Rhagada cf. *richardsonii*	4	yes	> 200 km	widespread	WAM	
Rhagada richardsonii-complex	3	yes		not assessed (species complex, may contain SREs)	HBI	
Rhagada sp. indet.	15	yes	n/a	not assessed (higher taxonomic level, may contain SREs	HBI, WAM	
Camaenidae sp. indet.	2	yes	n/a	not assessed (higher taxonomic level, may contain SREs	HBI	
Charopidae						
Charopidae gen. indet. sp. indet.	5	yes	n/a	not assessed (higher taxonomic level, may contain SREs	HBI	
Gastropoda gen. indet. sp. indet.	4	yes	n/a	not assessed (higher taxonomic level, may contain SREs	HBI	

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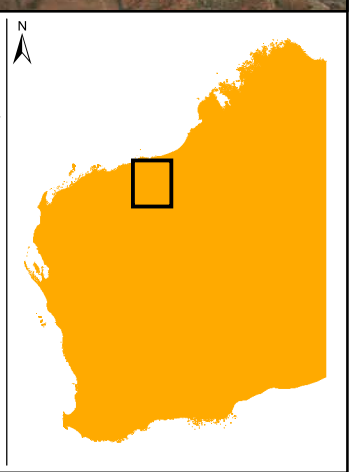
Figure 4-1 Records of SRE target groups in the desktop review

Client: Fortescue
Project: Short-range Endemic Invertebrate Survey for the East Pilbara Generation Hub
Author: L. Clarke
Coordinate System: GDA2020
Projection: Transverse Mercator
Datum: GDA2020

Records of SRE target groups
Towns
Study Area
Desktop review area



712596.71 722492.5 732388.29 742284.07 752179.86 762075.65 771971.44 781867.22 791763.01 801658.8 811554.59 821450.38 831346.16

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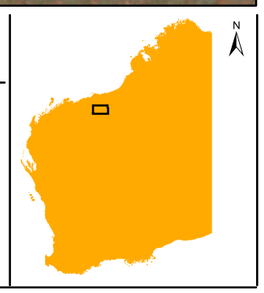
Murdoch University

Figure 4-2 SRE desktop review records (Araneae, Opiliones) in the Study Area

Client: Fortescue
Project: Short-range Endemic Invertebrate Survey for the East Pilbara Generation Hub
Coordinate System: GDA2020 MGA Zone 50
Author: L. Clarke
Projection: Transverse Mercator
Datum: GDA2020

- *Aname* 'mellosa-complex'
- *Aname* FP-12639
- *Aname* FP-12640
- *Aname* FP-12641
- *Aname* sp. indet.
- Anamidae gen. indet. sp. indet.
- Assamidae gen. indet. FP-12648
- Barychelidae gen. indet. sp. indet.
- Idiopidae gen. indet. sp. indet.
- *Karaops* FP-13455
- *Karaops* sp. indet.
- *Teyl* sp. indet.
- Study Area



712596.71 722492.5 732388.29 742284.07 752179.86 762075.65 771971.44 781867.22 791763.01 801658.8 811554.59 821450.38 831346.16

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Figure 4-3 SRE desktop review records (Pseudoscorpiones, Scorpiones, Geophilomorpha) in the Study Area

Client: Fortescue
Project: Short-range Endemic Invertebrate Survey for the East Pilbara Generation Hub
Author: L. Clarke
Coordinate System: GDA2020 MGA Zone 50
Projection: Transverse Mercator
Datum: GDA2020

- *Beierolpium* `8/4 lge`
- *Beierolpium* sp. indet.
- *Feaella tealei*
- *Indolpium* sp. indet.
- *Lychas* `bituberculatus complex`
- *Lychas* `hairytail complex`
- *Lychas* `multipunctatus complex`
- *Mecistocephalus* FP-12654
- Olpiidae gen. indet. sp. indet.
- *Synsphyronus* `8/3 pilbara`
- *Urodacus* `pilbara 4`
- *Urodacus* sp. indet.
- *Xenolpium* sp. indet.
- `Genus 7/4` sp. indet.
- Study Area

712596.71 722492.5 732388.29 742284.07 752179.86 762075.65 771971.44 781867.22 791763.01 801658.8 811554.59 821450.38 831346.16

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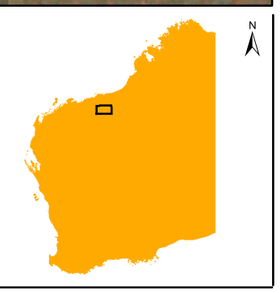
Murdoch University

Figure 4-4 SRE desktop review records (Polydesmida, Isopoda, Eupulmonata) in the Study Area

Client: Fortescue
Project: Short-range Endemic Invertebrate Survey for the East Pilbara Generation Hub
Author: L. Clarke
Coordinate System: GDA2020 MGA Zone 50
Projection: Transverse Mercator
Datum: GDA2020

- *Acanthodillo* sp. indet.
- *Antichiropus cunicularis*
- *Antichiropus* sp. indet.
- Armadillidae `mw`
- Armadillidae sp. indet.
- *Buddelundia* FP-13534
- *Buddelundia* `EP01`
- *Buddelundia* `EP02`
- *Buddelundia* `SJ 13 indet.`
- *Buddelundia* `SJ 14`
- *Buddelundia* sp. indet.
- Buddelundiinae `PE03`
- Buddelundiinae `PE04`
- Camaenidae sp. indet.
- Charopidae sp. indet.
- Paradoxosomatidae gen. indet. sp. indet.
- *Rhagada* `richardsonii-complex`
- *Rhagada* sp. indet.
- Study Area



4.2 FIELD SURVEY

A total of 2,434 specimens in the SRE target groups were collected during the field survey, dominated by pseudoscorpions (1,284 specimens) and slaters (735 specimens) (Table 4-3; Table 4-4; Appendix 3). The distribution of these records is mapped in Figure 4-5 – Figure 4-13.

A total of 131 taxa from SRE groups were recorded in the survey. Of these, eight were described species, 105 were morphospecies and 18 represented higher taxonomic ranks or species complexes that cannot be assessed. 99 of these are potential SREs and 14 are widespread (Table 4-3, Table 4-4).

Of the 105 morphospecies identified in the survey, 87 (82.9%) were new to science and could not be matched to known species based on morphological or molecular data. A total of 91 species (68.4% of all morphospecies) are Study Area endemics, i.e. they are only known from the Study Area. Almost half of these are pseudoscorpions (Table 4-3).

One species collected in the Study Area, the Cloudbreak Antichiropus Millipede (*Antichiropus forcipatus*), is listed as a Priority 1 species according to WA conservation legislation.

The survey increased the distribution ranges of several species. The pseudoscorpion *Feaella tealei* was considered a potential SRE in the desktop review, but the field records extended its linear range to over 100 km, so it is now considered widespread within our determination of SREs. Habitat preferences should be considered for such species to determine potential impacts.

Table 4-3 Identification and distribution summary of SREs collected in the Study Area (field survey)

Higher taxon	Described species	Morpho-species	Higher taxa (sp. indet. or species-complex)	Widespread	Potential SRE	Not assessed (higher taxon or species complex)	Study Area endemic	Total no. of taxa
Araneae		7	2	1	6	2	6	**9**
Opiliones		5	1		5	1	5	**6**
Pseudoscorpions	3	47	5	7	43	5	41	**55**
Scorpions	1	1	2	2		2		**6**
Geophilomorpha		9	2		9	2	9	**11**
Lithobiomorpha		1			1		1	**1**
Scolopendromorpha		9	1		9	1	8	**10**
Polydesmida	3	2	1		5	1	2	**6**
Diplura		1			1		1	**1**
Isopoda	`	21	2	2	19	2	17	**23**
Eupulmonata	1	2	2	2	1	2	1	**5**
Total:	**8**	**105**	**18**	**14**	**99**	**18**	**91**	**131**

Table 4-4 Invertebrates in the SRE target groups in the Study Area based on the field survey

Genus and species (with hyperlinks to Fauna Portal)	Abundance in Study Area	Records desktop review	Linear range	Study Area endemic	SRE Status	Comment on distribution
ARANEAE						
Anamidae						
Aname FP-12641 (ESV EP03)	1		single location	yes	potential	Study Area endemic in desktop review
Aname FP-13324 (ESV BoDo01)	8	3	120 km	no	widespread	reported in Volschenk *et al.* (2024)
Aname FP-13453 (ESV *mellosa*-complex EP)	2		7 km	yes	potential	
Anamidae sp. indet.	1		n/a	n/a	not assessed (higher taxonomic level)	
Halonoproctidae						
Conothele FP-13454 (ESV EP01)	2		single location	yes	potential	
Selenopidae						
Karaops FP-13326 (2 ADL2023a)	4	1	15 km	yes	potential	GenBank ref.: OR653510
Karaops FP-13455 (ESV cf. *morganoconnelli*)	3	2	60 km	yes	potential	
Karaops FP-13546 (ESV EP01)	4		single location	yes	potential	
Karaops sp. indet.	1		n/a	n/a	not assessed (higher taxonomic level)	
OPILIONES						
Assamiidae						
Assamiidae gen. indet. FP-12648 (ESV EP01)	2		10 km	yes	potential	Study Area endemic in desktop review
Assamiidae gen. indet. FP-13457 (ESV EP02)	1		single location	yes	potential	
Assamiidae gen. indet. FP-13458 (ESV EP03)	2		10 km	yes	potential	

Genus and species (with hyperlinks to Fauna Portal)	Abundance in Study Area	Records desktop review	Linear range	Study Area endemic	SRE Status	Comment on distribution
Assamiidae gen. indet. FP-13459 (ESV EP04)	1		single location	yes	potential	
Assamiidae gen. indet. FP-13460 (ESV EP05)	2		2 km	yes	potential	
Assamiidae gen. indet. sp. indet.	60		n/a	n/a	not assessed (higher taxonomic level)	
PSEUDOSCORPIONES						
Atemnidae						
Atemnidae gen. indet. FP-13461 (Biologic PSEU 096)	18	1	> 150 km	no	widespread	GenBank ref.: OR653826
Oratemnus FP-11861 (WAM PSE121)	183	many	> 150 km	no	widespread	
Cheiridiidae						
Cheiridiidae gen. indet. FP-13462 (ESV EP01)	1		single location	yes	potential	-
Chernetidae						
Austrochernes sp. indet.	1		n/a	n/a	not assessed (higher taxonomic level)	
Haplochernes FP-13464 (ESV EP02)	13		70 km	yes	potential	
Chernetidae gen. indet. FP-13463 (ESV EP01)	2		single location	yes	potential	
Chthoniidae						
Austrochthonius sp. indet.	3		n/a	n/a	not assessed (higher taxonomic level)	
Tyrannochthonius FP-13465 (ESV EP01)	2		single location	yes	potential	
Tyrannochthonius FP-13466 (ESV EP02)	1		single location	yes	potential	
Tyrannochthonius FP-13467 (ESV EP03)	1		single location	yes	potential	

Genus and species (with hyperlinks to Fauna Portal)	Abundance in Study Area	Records desktop review	Linear range	Study Area endemic	SRE Status	Comment on distribution
Tyrannochthonius FP-13468 (ESV EP04)	1		single location	yes	potential	
Tyrannochthonius FP-13469 (ESV EP05)	2		single location	yes	potential	
Feaellidae						
Feaella tealei Harvey, Abrams, Beavis, Hillyer & Huey, 2016	25	3	100 km	no	widespread	Harvey *et al.* (2016)
Garypidae						
Synsphyronus xynus Cullen & Harvey, 2021	2	> 10	180 km	no	widespread	Cullen and Harvey (2021b)
Synsphyronus FP-13471 (ESV BoDo01)	44	3	75 km	no	potential	reported in Volschenk *et al.* (2024)
Hyidae						
Indohya boltoni Harvey & Burger, 2023	8	> 10	150 km	no	widespread	Harvey *et al.* (2023)
Olpiidae						
Austrohorus FP-13474 (ESV EP01)	3		6 km	yes	potential	
Austrohorus FP-13475 (ESV EP02)	1		single location	yes	potential	
Austrohorus FP-13476 (ESV EP03)	1		single location	yes	potential	
Austrohorus FP-13477 (ESV EP04)	2		95 km	yes	potential	
Austrohorus FP-13478 (ESV EP05)	2		21 km	yes	potential	
Austrohorus FP-13479 (ESV EP06)	1		single location	yes	potential	
Austrohorus FP-13480 (ESV EP07)	3		12 km	yes	potential	
Austrohorus FP-13481 (ESV EP09)	1		single location	yes	potential	
Austrohorus FP-13482 (ESV EP10)	1		single location	yes	potential	

Genus and species (with hyperlinks to Fauna Portal)	Abundance in Study Area	Records desktop review	Linear range	Study Area endemic	SRE Status	Comment on distribution
Austrohorus FP-13483 (ESV EP11)	3		2 km	yes	potential	
Austrohorus FP-13484 (ESV EP12)	1		single location	yes	potential	
Austrohorus FP-13485 (ESV EP13)	3		single location	yes	potential	
Austrohorus FP-13486 (ESV EP14)	1		single location	yes	potential	
Austrohorus FP-13487 (ESV EP15)	1		single location	yes	potential	
Austrohorus sp. indet.	419		n/a	n/a	not assessed (higher taxonomic level)	
Beierolpium FP-13333 (Biologic PSEU115)	3	3	35 km	no	potential	GenBank ref.: OR653886, OR653883, OR653877
Beierolpium FP-13488 (ESV EP16)	1		single location	yes	potential	
Beierolpium FP-13489 (ESV EP17)	6		70 km	yes	potential	
Beierolpium FP-13490 (ESV EP18)	1		single location	yes	potential	
Beierolpium sp. indet.	32		n/a	n/a	not assessed (higher taxonomic level)	
Indolpium FP-13491 (BoDo07)	3	1	105 km	no	widespread	reported in Volschenk *et al.* (2024)
Indolpium FP-13492 (ESV EP08)	5		32 km	yes	potential	
Indolpium FP-13493 (ESV EP19)	1		single location	yes	potential	
Indolpium FP-13494 (ESV EP23)	1		single location	yes	potential	
Indolpium FP-13495 (ESV EP24)	1		single location	yes	potential	

Genus and species (with hyperlinks to Fauna Portal)	Abundance in Study Area	Records desktop review	Linear range	Study Area endemic	SRE Status	Comment on distribution
Indolpium FP-13496 (ESV EP25)	1		single location	yes	potential	
Indolpium FP-13497 (ESV EP26)	1		single location	yes	potential	
Indolpium FP-13498 (ESV EP28)	2		single location	yes	potential	
Indolpium FP-13499 (ESV EP29)	1		single location	yes	potential	
Indolpium FP-13500 (ESV EP30)	6		23 km	yes	potential	
Indolpium FP-13501 (ESV EP31)	3		4.5 km	yes	potential	
Indolpium FP-13502 (ESV EP32)	1		single location	yes	potential	
Indolpium FP-13503 (ESV EP33)	2		single location	yes	potential	
Indolpium FP-13504 (ESV EP34)	1		single location	yes	potential	
Indolpium FP-13505 (ESV EP35)	2		42 km	yes	potential	
Indolpium FP-13506 (ESV EP36)	1		single location	yes	potential	
Indolpium FP-13548 (ESV EP37)	1		single location	yes	potential	
Indolpium sp. indet.	447		n/a	n/a	not assessed (higher taxonomic level)	
Sternophoridae						
Afrosternophorus FP-13292 (Biologic PSEU076)	11		190 km	no	widespread	GenBank ref.: OR653827, OR653639
SCORPIONES						
Buthidae						
Lychas FP-12652 (*multipunctatus* Pilbara)	1	> 20	> 200 km	no	widespread	

Genus and species (with hyperlinks to Fauna Portal)	Abundance in Study Area	Records desktop review	Linear range	Study Area endemic	SRE Status	Comment on distribution
Lychas FP-13185 (*bituberculatus*-complex)	42		n/a	n/a	not assessed (species complex)	complex of cryptic species
Lychas FP-13186 (hairytail-complex)	4		n/a	n/a	not assessed (species complex)	complex of cryptic species
Urodacidae						
Urodacus butleri Volschenk, Harvey & Prendini, 2012	2	> 10	> 200 km	no	widespread	Volschenk *et al.* (2012)
Urodacus FP-12656 (ESV pilbara 8)	12	> 10	150 km	no	widespread	
GEOPHILOMORPHA						
Geophilidae						
Sepedonophilus FP-13520 (ESV EP01)	5		single location	yes	potential	
Sepedonophilus FP-13521 (ESV EP02)	2		single location	yes	potential	
Sepedonophilus FP-13522 (ESV EP03)	1		single location	yes	potential	
Sepedonophilus FP-13523 (ESV EP04)	1		single location	yes	potential	
Sepedonophilus FP-13524 (ESV EP06)	1		single location	yes	potential	
Sepedonophilus sp. indet.	5		n/a	n/a	not assessed (higher taxonomic level)	
Mecistocephalidae						
Mecistocephalus FP-12654 (ESV EP01)	1		single location	yes	potential	Study Area endemic in desktop review
Oryidae						
Orphnaeus FP-13519 (ESV EP01)	1		single location	yes	potential	
Schendylidae						

Genus and species (with hyperlinks to Fauna Portal)	Abundance in Study Area	Records desktop review	Linear range	Study Area endemic	SRE Status	Comment on distribution
Ballophilus FP-13508 (ESV EP01)	2		single location	yes	potential	
Geophilomorpha fam. indet.						
Geophilomorpha gen. indet. FP-13517 (ESV EP01)	1		single location	yes	potential	
Geophilomorpha gen. indet. sp. indet.	2		n/a	n/a	not assessed (higher taxonomic level)	
LITHOBIOMORPHA						
Henicopidae						
Paralamyctes FP-13507 (ESV EP01)	3		single location	yes	potential	
Scolopendromorpha						
Cryptopidae						
Cryptops FP-13353 (ESV BoDo04)	2	1	95 km	no	potential	reported in Volschenk *et al.* (2024)
Cryptops FP-13509 (ESV EP01)	1		single location	yes	potential	
Cryptops FP-13510 (ESV EP02)	1		single location	yes	potential	
Cryptops FP-13511 (ESV EP03)	1		single location	yes	potential	
Cryptops FP-13512 (ESV EP04)	2		single location	yes	potential	
Cryptops FP-13513 (ESV EP05)	2		5 km	yes	potential	
Cryptops FP-13514 (ESV EP06)	6		27 km	yes	potential	
Cryptops FP-13515 (ESV EP07)	1		single location	yes	potential	
Cryptops FP-13516 (ESV EP08)	12		45 km	yes	potential	

Genus and species (with hyperlinks to Fauna Portal)	Abundance in Study Area	Records desktop review	Linear range	Study Area endemic	SRE Status	Comment on distribution
Cryptops sp. indet.	13		n/a	n/a	not assessed (higher taxonomic level)	
POLYDESMIDA						
Paradoxosomatidae						
Antichiropus apricus Car, 2019	2	2	95 km	no	potential	Car *et al.* (2019)
Antichiropus cunicularis Car, 2019	5	> 10	90 km	no	potential	Car *et al.* (2019)
***Antichiropus forcipatus* Car, 2019**	**14**	**10**	**45 km**	**no**	**potential**	**WA Priority 1**
Antichiropus FP-13525 (ESV cf. *nimbus*)	2		single location	yes	potential	*Antichiropus* nimbus (distance 120 km) is WA Priority 1
Antichiropus FP-13526 (ESV EP01)	1		single location	yes	potential	
Antichiropus sp. indet.	37		n/a	n/a	not assessed (higher taxonomic level)	
DIPLURA						
Japygidae						
Japygidae gen. indet. FP-13527 (ESV EP01)	1		single location	yes	potential	
ISOPODA						
Armadillidae						
Acanthodillo FP-13528 (ESV EP08)	1		single location	yes	potential	
Buddelundia FP-11773 (SJ 10MA)	1	> 10	> 200 km	no	widespread	
Buddelundia FP-11798 (SJ 14fm)	7	> 10	170 km	no	widespread	
Buddelundia FP-13358 (ESV BoDo05)	1	1	85 km	no	potential	reported in Volschenk *et al.* (2024)
Buddelundia FP-13529 (ESV EP09)	3		11 km	yes	potential	

Genus and species (with hyperlinks to Fauna Portal)	Abundance in Study Area	Records desktop review	Linear range	Study Area endemic	SRE Status	Comment on distribution
Buddelundia FP-13530 (ESV EP11)	1		single location	yes	potential	
Buddelundia FP-13531 (ESV EP12)	1		single location	yes	potential	
Buddelundia FP-13532 (ESV EP18)	1		single location	yes	potential	
Buddelundia FP-13533 (ESV EP19)	1		single location	yes	potential	
Buddelundia FP-13534 (ESV PE02)	2		30 km	yes	potential	Study Area endemic in desktop review
Buddelundia FP-13535 (ESV 14EP)	1		single location	yes	potential	
Buddelundiinae gen. indet. FP-13365 (BoDo08)	1	2	65 km	no	potential	reported in Volschenk *et al.* (2024)
Buddelundiinae gen. indet. FP-13536 (ESV EP06)	5		70 km	yes	potential	
Buddelundiinae gen. indet. FP-13537 (ESV EP07)	3		11 km	yes	potential	
Troglarmadillo FP-13538 (ESV EP13)	1		single location	yes	potential	
Troglarmadillo FP-13539 (ESV EP14)	2		3 km	yes	potential	
Troglarmadillo FP-13540 (ESV EP15)	2		6 km	yes	potential	
Troglarmadillo FP-13541 (ESV EP16)	1		single location	yes	potential	
Troglarmadillo FP-13542 (ESV EP17)	2		single location	yes	potential	
Troglarmadillo sp. indet.	5		n/a	n/a	not assessed (higher taxonomic level)	
Armadillidae gen. indet. sp. indet.	3		n/a	n/a	not assessed (higher taxonomic level)	

Genus and species (with hyperlinks to Fauna Portal)	Abundance in Study Area	Records desktop review	Linear range	Study Area endemic	SRE Status	Comment on distribution
Philosciidae						
Laevophiloscia FP-13543 (ESV EP02)	2		single location	yes	potential	
Philosciidae gen. indet. FP-13544 (ESV EP01)	2		25 km	yes	potential	
EUPULMONATA						
Camaenidae						
Quistrachia turneri Solem, 1997	53	> 10	> 200 km	no	widespread	O'Neill *et al.* (2014)
Rhagada FP-13545 (ESV cf. convicta)	66		60 km	yes	potential	
Rhagada sp. indet.	4		n/a	n/a	not assessed (higher taxonomic level)	
Succineidae						
Austrosuccinea FP-13370 (ESV BoDo01)	4	10	115 km	No	widespread	reported in Volschenk *et al.* (2024)
Austrosuccinea sp. indet.	8				not assessed (higher taxonomic level)	

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0 10 20
Kilometers

Figure 4-5 Survey records of SRE Araneae (spiders) and Opiliones (harvestmen) from the Study Area

Client: Fortescue
Project: Short-range Endemic Invertebrate Survey for the East Pilbara Generation Hub
Author: L. Clarke
Coordinate System: GDA2020 MGA Zone 50
Projection: Transverse Mercator
Datum: GDA2020

- *Aname* FP-12641
- *Aname* FP-13324
- *Aname* FP-13453
- Anamidae gen. indet. sp. indet.
- Assamiidae FP-12648
- Assamiidae FP-13457
- Assamiidae FP-13458
- Assamiidae FP-13459
- Assamiidae FP-13460
- Assamiidae gen. indet. sp. indet.
- *Conothele* FP-13454
- *Karaops* FP-13326
- *Karaops* FP-13455
- *Karaops* FP-13546
- *Karaops* sp. indet.
- Study Area

712596.71 722492.5 732388.29 742284.07 752179.86 762075.65 771971.44 781867.22 791763.01 801658.8 811554.59 821450.38 831346.16

7663449.43 7647483.85 7631516.26 7615552.68

N

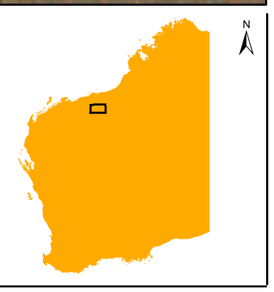
0 10 20
Kilometers

Murdoch University

Figure 4-6 Survey records of SRE Pseudoscorpiones (pseudoscorpions) from the Study Area

Client: Fortescue
Project: Short-range Endemic Invertebrate Survey for the East Pilbara Generation Hub
Author: L. Clarke
Coordinate System: GDA2020 MGA Zone 50
Projection: Transverse Mercator
Datum: GDA2020

- *Afrosternophorus* FP-13292
- Atemnidae FP-13461
- *Austrochernes* sp. indent.
- *Austrochthonius* sp. indet.
- *Beierolpium* FP-13333
- *Beierolpium* FP-13488
- *Beierolpium* FP-13489
- *Beierolpium* FP-13490
- *Beierolpium* sp. indet.
- Cheiridiidae FP-13462
- Chernetidae FP-13463
- *Feaella tealei*
- *Haplochernes* FP-13464
- *Synsphyronus* FP-13471
- Study Area



712596.71 722492.5 732388.29 742284.07 752179.86 762075.65 771971.44 781867.22 791763.01 801658.8 811554.59 821450.38 831346.16

7663449.43 7647483.85 7631516.26 7615552.68

N

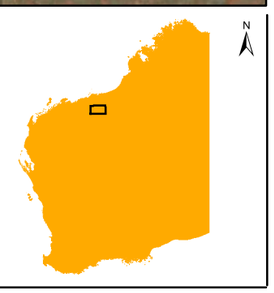
0 10 20
Kilometers

Murdoch University

Figure 4-7 Survey records of SRE Pseudoscorpiones (pseudoscorpions) from the Study Area

Client: Fortescue
Project: Short-range Endemic Invertebrate Survey for the East Pilbara Generation Hub
Author: L. Clarke
Coordinate System: GDA2020 MGA Zone 50
Projection: Transverse Mercator
Datum: GDA2020

Austrohorus FP-13474
Austrohorus FP-13475
Austrohorus FP-13476
Austrohorus FP-13477
Austrohorus FP-13478
Austrohorus FP-13479
Austrohorus FP-13480
Austrohorus FP-13481
Austrohorus FP-13482
Austrohorus FP-13483
Austrohorus FP-13484
Austrohorus FP-13485
Austrohorus FP-13486
Austrohorus FP-13487
Austrohorus sp. indet.
Study Area



712596.71 722492.5 732388.29 742284.07 752179.86 762075.65 771971.44 781867.22 791763.01 801658.8 811554.59 821450.38 831346.16

7663449.43 7647483.85 7631516.26 7615552.68

N

0 10 20
Kilometers

Figure 4-8 Survey records of SRE Pseudoscorpiones (pseudoscorpions) from the Study Area

Client: Fortescue
Project: Short-range Endemic Invertebrate Survey for the East Pilbara Generation Hub
Author: L. Clarke
Coordinate System: GDA2020 MGA Zone 50
Projection: Transverse Mercator
Datum: GDA2020

- *Indolpium* FP-13491
- *Indolpium* FP-13492
- *Indolpium* FP-13493
- *Indolpium* FP-13494
- *Indolpium* FP-13495
- *Indolpium* FP-13496
- *Indolpium* FP-13497
- *Indolpium* FP-13498
- *Indolpium* FP-13499
- *Indolpium* FP-13500
- *Indolpium* FP-13501
- *Indolpium* FP-13502
- *Indolpium* FP-13503
- *Indolpium* FP-13504
- *Indolpium* FP-13505
- *Indolpium* FP-13506
- *Indolpium* FP-13548
- *Indolpium* sp. indet.
- Study Area

712596.71 722492.5 732388.29 742284.07 752179.86 762075.65 771971.44 781867.22 791763.01 801658.8 811554.59 821450.38 831346.16

7663449.43 7647483.85 7631516.26 7615552.68

N

0 10 20
Kilometers

Figure 4-9 Survey records of SRE Pseudoscorpiones (pseudoscorpions) and Scorpiones (scorpions) from the Study Area

Client: Fortescue
Project: Short-range Endemic Invertebrate Survey for the East Pilbara Generation Hub
Author: L. Clarke
Coordinate System: GDA2020 MGA Zone 50
Projection: Transverse Mercator
Datum: GDA2020

Lychas FP-13185
Lychas FP-13186
Lychas sp. indet.
Tyrannochthonius FP-13465
Tyrannochthonius FP-13466
Tyrannochthonius FP-13467
Tyrannochthonius FP-13468
Tyrannochthonius FP-13469
Study Area

712596.71 722492.5 732388.29 742284.07 752179.86 762075.65 771971.44 781867.22 791763.01 801658.8 811554.59 821450.38 831346.16

7663449.43 7647483.85 7631516.26 7615552.68

N

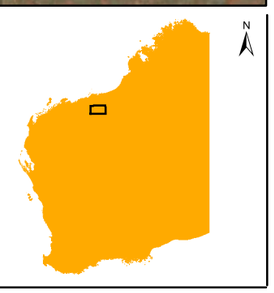
0 10 20
Kilometers

Murdoch University

Figure 4-10 Survey records of SRE Geophilomorpha, Lithobiomorpha and Scolopendromorpha (soil, stone and tropical centipedes) from the Study Area

Client: Fortescue
Project: Short-range Endemic Invertebrate Survey for the East Pilbara Generation Hub
Author: L. Clarke
Coordinate System: GDA2020 MGA Zone 50
Projection: Transverse Mercator
Datum: GDA2020

- *Ballophilus* FP-13508
- *Cryptops* FP-13353
- *Cryptops* FP-13509
- *Cryptops* FP-13510
- *Geophilomorpha* FP-13517
- *Geophilomorpha* gen. indet. sp. indet.
- *Mecistocephalus* FP-12654
- *Orphnaeus* FP-13519
- *Paralamyctes* FP-13507
- *Sepedonophilus* FP-13520
- *Sepedonophilus* FP-13521
- *Sepedonophilus* FP-13522
- *Sepedonophilus* FP-13523
- *Sepedonophilus* FP-13524
- *Sepedonophilus* sp. indet.
- Study Area



712596.71 722492.5 732388.29 742284.07 752179.86 762075.65 771971.44 781867.22 791763.01 801658.8 811554.59 821450.38 831346.16

7663449.43 7647483.85 7631516.26 7615552.68

N

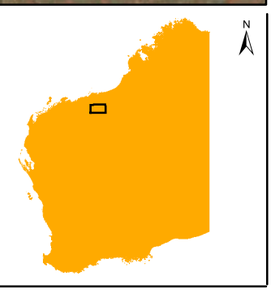
0 10 20
Kilometers

Murdoch University

Figure 4-11 Survey records of SRE Scolopendromorpha (tropical centipedes), Polydesmida (keeled millipedes), and Diplura (two-pronged bristletails) from the Study Area

Client: Fortescue
Project: Short-range Endemic Invertebrate Survey for the East Pilbara Generation Hub
Author: L. Clarke
Coordinate System: GDA2020 MGA Zone 50
Projection: Transverse Mercator
Datum: GDA2020

- *Antichiropus* FP-13525
- *Antichiropus* FP-13526
- *Antichiropus apricus*
- *Antichiropus cunicularis*
- *Antichiropus forcipatus*
- *Antichiropus* sp. indet.
- *Cryptops* FP-13511
- *Cryptops* FP-13512
- *Cryptops* FP-13513
- *Cryptops* FP-13514
- *Cryptops* FP-13515
- *Cryptops* FP-13516
- *Cryptops* sp. indet.
- Japygidae FP-13527
- Study Area



712596.71 722492.5 732388.29 742284.07 752179.86 762075.65 771971.44 781867.22 791763.01 801658.8 811554.59 821450.38 831346.16

7663449.43 7647483.85 7631516.26 7615552.68

N

0 10 20
Kilometers

Figure 4-12 Survey records of SRE Isopoda (slaters) from the Study Area

Client: Fortescue
Project: Short-range Endemic Invertebrate Survey for the East Pilbara Generation Hub
Author: L. Clarke
Coordinate System: GDA2020 MGA Zone 50
Projection: Transverse Mercator
Datum: GDA2020

- *Acanthodillo* FP-13528
- Armadillidae gen. indet. sp. indet.
- *Buddelundia* FP-13350
- *Buddelundia* FP-13351
- *Buddelundia* FP-13358
- *Buddelundia* FP-13529
- *Buddelundia* FP-13530
- *Buddelundia* FP-13531
- *Buddelundia* FP-13532
- *Buddelundia* FP-13533
- *Buddelundia* FP-13534
- *Buddelundia* FP-13535
- *Buddelundia* FP-13549
- Buddelundia sp. indet.
- Study Area

712596.71 722492.5 732388.29 742284.07 752179.86 762075.65 771971.44 781867.22 791763.01 801658.8 811554.59 821450.38 831346.16

N

7663449.43
7647483.85
7631516.26
7615552.68

0 10 20
Kilometers

Figure 4-13 Survey records of SRE Isopoda (slaters) and Gastropoda (land snails) from the Study Area

Client: Fortescue
Project: Short-range Endemic Invertebrate Survey for the East Pilbara Generation Hub
Author: L. Clarke
Coordinate System: GDA2020 MGA Zone 50
Projection: Transverse Mercator
Datum: GDA2020

- *Austrosuccinea* FP-13370
- *Austrosuccinea* sp. indet.
- *Laevophiloscia* FP-13543
- Philosciidae FP-13544
- *Rhagada* FP-13545
- *Rhagada* sp. indet.
- *Troglarmadillo* FP-13538
- *Troglarmadillo* FP-13539
- *Troglarmadillo* FP-13540
- *Troglarmadillo* FP-13541
- *Troglarmadillo* FP-13542
- *Troglarmadillo* sp. indet.
- Study Area

4.3 SHORT-RANGE ENDEMIC INVERTEBRATES KNOWN FROM THE STUDY AREA

4.3.1 Order Araneae (spiders)

Spiders represent one of the most diverse and abundant orders of Arachnida with more than 50,000 described species worldwide (World Spider Catalog 2025) and more than 4,000 species named from Australia (Framenau 2024).

Trapdoor spiders (infraorder Mygalomorphae) represent one of the focal groups in surveys of SRE taxa and all families are targeted (Harvey 2002). Several mygalomorph spiders are listed as Threatened on Schedule 1 of the *Biodiversity Conservation Act 2016 – Biodiversity Conservation (Listing of Native Species) Fauna Order 2022 (October 2022)*.

Modern spiders (infraorder Araneomorphae) are also likely to contain many groups that display narrow-range endemism. Families generally targeted for SRE surveys in the Pilbara include flatties (family Selenopidae) and tube-web spiders (Segestriidae).

4.3.1.1 Family Anamidae (wishbone trapdoor spider)

Members of the mygalomorph spider family Anamidae are represented in Western Australia by several genera, including *Aname*, *Chenistonia*, *Hesperonatalius*, *Kwonkan*, *Proshermacha*, *Swolnpes*, *Teyl*, and *Troglodiplura* (Harvey *et al.* 2018; Harvey *et al.* 2020). They usually dig burrows in the soil, and do not cover their burrow entrances with lids.

4.3.1.1.1 Genus *Aname*

With approximately 50 described species, *Aname* is the most speciose genus in the family Anamidae and new species are frequently described (Wilson *et al.* 2023). It is currently subject to an Australia-wide revision at the Western Australian and Queensland Museums and the University of Western Australia. In Western Australia, *Aname* are regularly the most diverse mygalomorph genera in biological spider surveys. Many *Aname* species appear to have restricted distributions as shown by two studies from northern Australia, including the Pilbara (Harvey *et al.* 2012; Raven 1985a). Unidentifiable specimens are therefore potential SREs.

***Aname* FP-12641 (ESV EP03)** – 1 site (33), Study Area endemic

***Aname* FP-13453 (ESV *mellosa*-complex EP)** – 1 site (K)

Aname mellosa is widespread in the Pilbara; however, the species is currently under revision at the Western Australian Museum and is known to contain numerous cryptic species, some of which appear to be SRE. For this reason, until that revision is published, this taxon is treated as a species complex.

4.3.1.2 Family Halonoproctidae (cork-lid trapdoor spiders)

4.3.1.2.1 Genus *Conothele*

The Halonoproctidae are represented in Australia by a single genus, *Conothele*. Spiders in this genus can be identified by a distinct dorsal depression in the tibia of the third leg (Raven 1985b).

Members of the genus *Conothele* are found across much of arid and semi-arid Western Australia. The burrows are usually difficult to find as they are sealed with a tight-fitting lid. As in the genus *Missulena*, juvenile *Conothele* are believed to disperse via ballooning (Main 1957, 1976) limiting their predisposition as short-range endemics.

Three species of *Conothele* are currently described, but the taxonomic status of the Western Australian fauna is uncertain. A recent molecular study identified 61 molecular Operational Taxonomic Units (OTUs) in a sample of 224 specimens from Western Australia, most of them with highly restricted ranges (Huey *et al.* 2019).

***Conothele* FP-13454** – 1 site (1), Study Area endemic

4.3.1.3 Family Selenopidae (wall crab spiders)

4.3.1.3.1 Genus Karaops

Wall crab spiders (or Flatties) are small, flat like spiders. They include habitat specialist SREs. The Australian fauna is moderately well known with 54 described species, all in the genus *Karaops*, but many more remain to be undescribed (Crews 2013, 2023; Crews & Harvey 2011)

***Karaops* FP-13326 (2 ADL2023a)** – 1 site (17), Study Area endemic

This species was identified from its COI sequence and was matched with samples from GenBank.

***Karaops* FP-13455** (ESV cf. *morganoconnelli*) – 3 sites (23, 25, 27), Study Area endemic

This species was molecularly similar to *K. morganoconnelli* but is here considered a different species.

***Karaops* FP-13546** – 1 site (3), Study Area endemic

4.3.2 Order Opiliones (Harvestman)

Harvestmen are spider-like arachnids but differ from spiders by the lack of a constriction between cephalothorax and abdomen, and the lack of spinnerets. The harvestmen fauna of Western Australia is composed of eight families with Assamiidae and Zalmoxidae restricted to northern tropical areas. Although many harvestmen possess small ranges, these are often larger than the nominal SRE range threshold (Harvey 2002).

4.3.2.1 Family Assamiidae

Few species within the family have been described, most in the genus *Dampetrus* (Shear 2001). Owing to their poor taxonomic resolution, WA species are most reliably assessed using their DNA sequences.

Assamiidae FP-12648 (ESV EP01) – 2 sites (23, 25), Study Area endemic

Assamiidae FP-13457 (ESV EP02) – 1 site (5), Study Area endemic

Assamiidae FP-13458 (ESV EP03) – 2 sites (11, 34), Study Area endemic

Assamiidae FP-13459 (ESV EP04) – 1 site (21), Study Area endemic

Assamiidae FP-13460 (ESV EP05) – 2 sites (3, 14), Study Area endemic

4.3.3 Order Pseudoscorpiones (Pseudoscorpions)

Pseudoscorpions are very small arachnids resembling scorpions but lacking the sting bearing ‘tail’. The Western Australian pseudoscorpion fauna is diverse with representatives of 19 different families (World Pseudoscorpiones Catalog 2025). They are found in a variety of biotopes, but can be most commonly collected from the bark of trees, from the underside of rocks, or from leaf litter habitats (Harvey 1992).

4.3.3.1 Family Cheiridiidae

Cheiridiids are very small pseudoscorpions that are usually found in litter (Harvey 1985). A single, cave-dwelling species of pseudoscorpion in this family is currently described from Australia (World Pseudoscorpiones Catalog 2025), a taxonomically poorly known group in the country.

Cheiridiidae gen. indet. FP-13462 (ESV EP01) – 1 site (32), Study Area endemic

4.3.3.2 Family Chernetidae

The Australian chernetid fauna is moderately well developed, with representatives of about 20 genera currently described (World Pseudoscorpiones Catalog 2025). Few genera, however, contain more than a handful of

species, and many are inadequately defined with crucial details, such as the internal female genitalia, often unknown (Harvey & Volschenk 2007a).

***Haplochernes* FP-13464 (ESV EP02)** – 3 sites (9, 13, 25), Study Area endemic

Chernetidae gen. indet. FP-13463 (ESV EP01) – 1 site (32), Study area endemic

4.3.3.3 Family Chthoniidae

In Western Australia, this family is represented by the genera *Tyrannochthonius*, *Lagynochthonius*, *Austrochthonius* and *Sathrochthonius*. Many representatives of the family troglobitic (Edward & Harvey 2008; Harms & Harvey 2013; Harrison *et al.* 2014). The taxonomy of most of these genera, including their epigean representatives, is poorly resolved and has not been reviewed using molecular data.

4.3.3.3.1 Genus *Tyrannochthonius*

A number of species in the genus *Tyrannochthonius* have recently been described from hypogean habitats (Edward & Harvey 2008), but the genus also includes epigean representatives. The epigean *T. aridus* was believed to be widespread, but molecular data suggest that several cryptic species exist.

***Tyrannochthonius* FP-13465 (ESV EP01)** – 1 site (7), Study Area endemic

***Tyrannochthonius* FP-13466 (ESV EP02)** – 1 site (13), Study Area endemic

***Tyrannochthonius* FP-13467 (ESV EP03)** – 1 site (25), Study Area endemic

***Tyrannochthonius* FP-13468 (ESV EP04)** – 1 site (21), Study Area endemic

***Tyrannochthonius* FP-13469 (ESV EP05)** – 1 site (34), Study Area endemic

4.3.3.4 Family Garypidae

In Western Australia, this family is represented by the genera *Garypus*, *Anagarypus* and *Synsphyronus* (Harvey 1987). These genera are relatively well studied; however, many undescribed species are known from WA, especially from *Synsphyronus*.

4.3.3.4.1 Genus *Synsphyronus*

This taxonomy of *Synsphyronus* is poorly resolved. Both widespread and SRE species are known (Cullen & Harvey 2021a; Harvey 1986, 2011, 2012).

***Synsphyronus* FP-13471 (ESV BoDo1)** – 2 sites (4, 32), considered SRE but known from outside the study area

4.3.3.5 Family Olpiidae

In Western Australia, this family is represented by the genera *Austrohorus*, *Beierolpium*, *Euryolpium*, *Linnaeolpium* and *Indolpium*; however, only *Beierolpium* and *Austrohorus* were originally described from Australia and the genus level identification of the other genera remains doubtful. With the application of DNA barcoding techniques, many undescribed and cryptic species have been identified, mainly from the Pilbara region. Many of these species appear to be SREs. Only ten species are currently described in Australia (World Pseudoscorpiones Catalog 2025). Little is known about the species of the most common of these genera. Owing to the uncertainty about the diversity of most species within these genera, they are all potential SREs.

4.3.3.5.1 Genus *Austrohorus*

All representatives of this genus were new and did not match any sequences from GenBank.

***Austrohorus* FP-13474 (ESV EP01)** – 3 sites (4, 13, 33), Study Area endemic

***Austrohorus* FP-13475 (ESV EP02)** – 1 site (31), Study Area endemic

***Austrohorus* FP-13476 (ESV EP03)** – 1 site (15), Study Area endemic

***Austrohorus* FP-13477 (ESV EP04)** – 2 sites (3), Study Area endemic

***Austrohorus* FP-13478 (ESV EP05)** – 2 sites (29, 32), Study Area endemic

***Austrohorus* FP-13479 (ESV EP06)** – 1 site (17), Study Area endemic

***Austrohorus* FP-13480 (ESV EP07)** – 3 sites (1, 9, 23), Study Area endemic

***Austrohorus* FP-13481 (ESV EP09)** – 1 site (24), Study Area endemic

***Austrohorus* FP-13482 (ESV EP10)** – 1 site (26), Study Area endemic

***Austrohorus* FP-13483 (ESV EP11)** – 2 sites (3, 14), Study Area endemic

***Austrohorus* FP-13484 (ESV EP12)** – 1 site (33), Study Area endemic

***Austrohorus* FP-13485 (ESV EP13)** – 1 site (23), Study Area endemic

***Austrohorus* FP-13486 (ESV EP14)** – 1 site (18), Study Area endemic

***Austrohorus* FP-13487 (ESV EP15)** – 1 site (2), Study Area endemic

4.3.3.5.2 Genus *Beierolpium*

***Beierolpium* FP-13333 (Biologic PSEU115)** – 3 sites (13, 29), this species was matched with sequences from GenBank.

***Beierolpium* FP-13488 (ESV EP16)** – 1 site (20), Study Area endemic

***Beierolpium* FP-13489 (ESV EP17)** – 6 sites (9, 23, 24, 28, 30, 31), Study Area endemic

***Beierolpium* FP-13490 (ESV EP18)** – 1 site (33), Study Area endemic

4.3.3.5.3 Genus *Indolpium*

All representatives of this genus were new and did not match any sequences from GenBank.

***Indolpium* FP-13491 (ESV BoDo07)** – 3 sites (14, 23, 26)

***Indolpium* FP-13492 (ESV EP08)** – 4 sites (1, 14, 23, 24), Study Area endemic

***Indolpium* FP-13493 (ESV EP19)** – 1 site (28), Study Area endemic

***Indolpium* FP-13494 (ESV EP23)** – 1 site (23), Study Area endemic

***Indolpium* FP-13495 (ESV EP24)** – 1 site (26), Study Area endemic

***Indolpium* FP-13496 (ESV EP25)** – 1 site (18), Study Area endemic

***Indolpium* FP-13497 (ESV EP26)** – 1 site (3), Study Area endemic

***Indolpium* FP-13498 (ESV EP28)** – 1 site (25), Study Area endemic

***Indolpium* FP-13499 (ESV EP29)** – 1 site (33), Study Area endemic

***Indolpium* FP-13500 (ESV EP30)** – 4 sites (8, 11, 30, 31), Study Area endemic

***Indolpium* FP-13501 (ESV EP31)** – 2 site (32, 33), Study Area endemic

***Indolpium* FP-13502 (ESV EP32)** – 1 site (1), Study Area endemic

***Indolpium* FP-13503 (ESV EP33)** – 1 site (2), Study Area endemic

***Indolpium* FP-13504 (ESV EP34)** – 1 site (9), Study Area endemic

***Indolpium* FP-13505 (ESV EP35)** – 2 sites (11, 18), Study Area endemic

***Indolpium* FP-13496 (ESV EP36)** – 1 site (16), Study Area endemic

***Indolpium* FP-13497 (ESV EP37)** – 1 site (16), Study Area endemic

4.3.4 Order Geophilomorpha (soil centipedes)

All five orders of centipedes can be found in Australia (Colloff *et al.* 2005). The orders Geophilomorpha, Lithobiomorpha and the family Cryptopidae (within the Scolopendromorpha) appear to contain many SREs. Geophilomorphan inhabit soil, leaf litter and under rocks. The Australian fauna contains representatives of four families: Geophilidae, Mecistocephalidae, Oryidae and Schendylidae (Bonato *et al.* 2014).

Geophilomorpha represents the most speciose of centipede orders, but it is also the least well-known owing to their highly reduced mouth parts, features heavily relied on for diagnosing species in other centipede orders. The application of DNA sequencing to this group of centipedes has exposed numerous species in Western Australia and most appear to be SRE. Identification of all WA soil centipedes is heavily dependent on assessment of their DNA sequence.

Geophilomorpha gen. indet. FP-13517 (ESV EP-1) – 1 site (4), Study Area endemic

This morphospecies was placed in a clade containing sequences of both Oryidae and Schendylidae, therefore it's higher taxonomic ranking was set to order level.

4.3.4.1 Family Geophilidae

4.3.4.1.1 Genus *Sepedonophilus*

All representatives of this genus were new and did not match any sequences from GenBank.

***Sepedonophilus* FP-13520 (ESV EP01)** – 4 sites (31, 34), Study Area endemic

***Sepedonophilus* FP-13521 (ESV EP02)** – 2 sites (23, 25), Study Area endemic

***Sepedonophilus* FP-13522 (ESV EP03)** – 1 site (26), Study Area endemic

***Sepedonophilus* FP-13523 (ESV EP04)** – 1 site (9), Study Area endemic

***Sepedonophilus* FP-13524 (ESV EP06)** – 2 sites (3, 14), Study Area endemic

4.3.4.2 Family Mecistocephalidae

4.3.4.2.1 Genus *Mecistocephalus*

***Mecistocephalus* FP-12654 (ESV EP01)** – 1 site (25), Study Area endemic, also found in desktop review from Study Area

4.3.4.3 Family Schendylidae

4.3.4.3.1 Genus *Ballophilus* (clubbed soil centipedes)

This genus was previously placed in its own family (Ballophilidae); however, Bonato *et al.* (2014) placed this genus in Schendylidae. This genus is very poorly known in Australia and only one species is formally described: *Ballophilus australiae* from Far North Queensland. In Western Australia, this genus is only known from undescribed specimens from the Pilbara region.

***Ballophilus* FP-13508 (ESV EP01) –** 1 site (31), Study Area endemic

4.3.4.4 Family Oryidae

Oryidae contains comparatively large centipedes with short, basally wide antennae. Only one genus in the family is currently known from Australia, *Orphnaeus*.

4.3.4.4.1 Genus *Orphnaeus*

***Orphnaeus* FP-13519 (ESV EP01)** – 1 site (21), Study Area endemic

4.3.5 Order Lithobiomorpha (stone centipedes)

Lithobiomorpha are characterised by their pronounced heterotergy, i.e. the fourth, seventh, ninth and eleventh tergite (body segment) (of 15 in total) are much shorter than the others. They reach 4 to 40 mm in length (Zapparoli & Edgecombe 2011).

The Australian fauna contains two families, the Henicopidae with approximately 20 described species and the Lithobiidae with four described species. The WA fauna includes four species of stone centipedes in the Henicopidae, of which two, *Henicops dentatus* and *Dichelobius flavens*, are endemic to the state, whereas the others, *Lamyctes emarginatus* and *Lamyctes africanus*, are cosmopolitan (Hollington & Edgecombe 2004) .

4.3.5.1 Family Henicopidae

4.3.5.1.1 Genus *Paralamyctes*

***Paralamyctes* FP-13507 (ESV EP01)** – 1 site (29), Study Area endemic

4.3.6 Order Scolopendromorpha (tropical centipedes)

The Australian fauna has been comprehensively revised (Koch 1982, 1983a, b, c, d; Koch 1985; Koch & Burgman 1984). Almost all species are widespread and therefore these centipedes do not belong to the target groups of SRE surveys, except for the Cryptopidae, that includes blind litter-dwellers and may include range-restricted species (Edgecombe 2005).

4.3.6.1 Family Cryptopidae

Cryptopidae are small blind and pale centipedes. In Australia, *Cryptops* is currently the only genus in the family (Edgecombe 2011). Six species are currently known from Australia, of which *Cryptops roeplainensis* was most recently described from caves on the Nullarbor Plain (Edgecombe 2005). The taxonomy of the group is poorly resolved and recent molecular analyses using COI sequence data revealed high genetic divergence suggesting considerable species diversity in the Pilbara region of WA. Unidentified specimens within the Cryptopidae are therefore considered potential SREs.

4.3.6.1.1 Genus *Cryptops*

***Cryptops* FP-13353 (ESV BoDo04)** – 1 site (8), also known from outside the Study Area

***Cryptops* FP-13509 (ESV EP01)** – 1 site (4), Study Area endemic

***Cryptops* FP-13510 (ESV EP02)** – 1 site (3), Study Area endemic

***Cryptops* FP-13511 (ESV EP03)** – 1 site (33), Study Area endemic

***Cryptops* FP-13512 (ESV EP04)** – 1 site (7), Study Area endemic

***Cryptops* FP-13513 (ESV EP05)** – 2 sites (19, 7), Study Area endemic

***Cryptops* FP-13514 (ESV EP06)** – 5 sites (9, 20, 23, 24, 25), Study Area endemic

***Cryptops* FP-13515 (ESV EP07)** – 1 site (8), Study Area endemic

***Cryptops* FP-13516 (ESV EP08)** – 5 sites (4, 27, 28, 30, 31), Study Area endemic

4.3.7 Order Polydesmida (flat-back millipedes)

The Australian millipedes are poorly studied and biogeographic patterns remain largely unresolved (Black 1997; Shelley & Golovatch 2011). At least eight orders of millipedes are native to Australia; all species in the order Julida are introduced. Millipedes belong to one of the main target groups of SRE surveys. Short-range endemism is particularly common within the orders Sphaerotheriida (rolling millipedes), Polydesmida, and Chordeumatida (not known from WA) (EPA 2009; Harvey 2002).

Keeled millipedes have 19 or 20 body segments and some of these have lateral flanges or triangular swellings ('paranota'). They don't have eyes and are generally between 20 and 40 mm long, although smaller and much larger species are known.

Polydesmida are the largest of all millipede orders. In Australia, the order is represented by four families, the Dalodesmidae, Haplodesmidae, Paradoxosomatidae, and Pyrgodesmidae (Mesibov 2012).

Polydesmida are poor dispersers under natural conditions and seem to be very good at evolving new species. As a result, many polydesmidan species have small geographical ranges (100–1000 km^2). Polydesmidan genera are also good at forming distribution mosaics, in which each species occupies its own patch on the map and overlaps very little (or not at all) with other species in the same genus.

4.3.7.1 Family Paradoxosomatidae

Members of the family Paradoxosomatidae are abundant and occur widely within Australia; some 170 species in forty genera are currently described from this country (Car *et al.* 2013). They differ from the other two Australian families within the Polydesmida, Dalodesmidae and Haplodesmidae, by the separated bases of the male gonopods. Many paradoxomatids are relatively large with adults that range from 20 to 40 mm in length (Mesibov 2006). The described Western Australian fauna consists of eight genera, of which four (*Akamptogonus*, *Orthomorpha*, *Oxidus*, *Solaenodolichopus*) are represented by introduced species (Car *et al.* 2013). The remaining four indigenous genera are *Boreohesperus*, the only member of the Australiosomatini in WA (Car & Harvey 2013), and the antichiropodini genera *Helicopodosma* (one described species from Kununurra), *Stygiochiropus*, a troglobitic genus from Cape Range (Humphreys & Shear 1993) and the diverse genus *Antichiropus* (Car & Harvey 2014; Car *et al.* 2013; Wojcieszek *et al.* 2011). There are many undescribed species in particular in the genus *Antichiropus*, from diverse habitats and most appear to have very small ranges. Most indigenous genera contain SRE taxa although they may be locally abundant.

4.3.7.1.1 Genus *Antichiropus*

Antichiropus apricus – 2 sites (29, 32)

Antichiropus cunicularis – 2 sites (23, 26)

Antichiropus forcipatus 4 sites (3, 16, 20, 21)

The species is listed as **Priority 1 (P1)** under WA conservation legislation.

***Antichiropus* FP-13525 (ESV cf. *nimbus*)** – 1 site (L), Study Area endemic

This species is molecularly similar to *A. nimbus*, a species that occurs more than 100 km distance to the Study Area. On current best evidence, it is here considered a separate species.

***Antichiropus* FP-13526 (ESV EP01)** – 1 site (24), Study Area endemic

4.3.8 Order Diplura (Two-pronged Bristletails)

In the Pilbara, epigean diplurans are rarely collected and are usually represented by the families Japygidae, Parajapygidae, Projapygidae and Campodeidae. The taxonomy of species in all these families is poor for WA species and species assessments rely on assessment of their DNA sequences.

4.3.8.1 Family Japygidae

***Japygidae* gen. indet. FP-13527 (ESV EP01)** – 1 site (21), Study Area endemic

4.3.9 Order Isopoda (Slaters)

Isopoda represents the only order of epigean crustaceans known to contain SREs. The suborder Oniscidea represents terrestrial and secondarily aquatic isopods with approximately 190 species described in Australia (Merrin *et al.* 2011). The WA fauna is comparatively poorly known with many undescribed species (Judd &

Horwitz 2003). The WA terrestrial isopod fauna is largely undescribed and is diverse (Judd & Horwitz 2003; Judd & Perina 2013). Isopods have poor dispersal capabilities and often have specific habitat preferences, making them target SRE taxa.

4.3.9.1 Family Armadillidae

Armadillidae typically have a convex dorsal surface and can roll up into a ball. The family is diverse in Australia, currently 24 genera are described, many species live in litter or under wood and stones in forest or woodland or near the coast.

4.3.9.1.1 Genus *Acanthodillo*

***Acanthodillo* FP-13528 (ESV EP08)** – 1 site (26), Study Area endemic

4.3.9.1.2 Genus *Buddelundia*

Buddelundia is endemic to Australia (Lewis 1998) and is the most common terrestrial isopod in WA (Judd 2004). Many undescribed species are known from morphological and molecular data, and both widespread and SRE taxa are known.

***Buddelundia* FP-13358 (ESV BoDo05)** – 1 site (17), considered SRE, but also known from outside the Study Area

***Buddelundia* FP-13529 (ESV EP09)** – 2 sites (14, 20), Study Area endemic

***Buddelundia* FP-13530 (ESV EP11)** – 1 site (21), Study Area endemic

***Buddelundia* FP-13531 (ESV EP12)** – 1 site (31), Study Area endemic

***Buddelundia* FP-13532 (ESV EP18)** – 1 site (1), Study Area endemic

***Buddelundia* FP-13533 (ESV EP19)** – 1 site (34), Study Area endemic

***Buddelundia* FP-13534 (ESV PE02)** – 2 sites (27, 31), Study Area endemic

***Buddelundia* FP-13535 (ESV 14EP)** – 1 site (14), Study Area endemic

4.3.9.1.3 Genus Buddelundiinae gen. indet.

This rank of Armadillidae is morphologically similar to *Buddelundia* and several morphospecies are known from the Pilbara region. Species boundaries are currently assessed using DNA sequences.

Buddelundiinae FP-13365 (BoDo08) – 1 site (28), considered SRE, but also known from outside the Study Area

Buddelundiinae FP-13536 (ESV EP06) – 3 sites (23, 27, 31), Study Area endemic

Buddelundiinae FP-13537 (ESV EP07) – 2 sites (14, 20), Study Area endemic

4.3.9.1.4 Genus *Troglarmadillo*

Apart from the obvious troglobitic characters, *Troglarmadillo* is very similar to *Spherillo* and the systematic position of the two genera is unclear.

All representatives of this genus were new and did not match any sequences from GenBank.

***Troglarmadillo* FP-13538 (ESV EP13)** – 1 site (23), Study Area endemic

***Troglarmadillo* FP-13539 (ESV EP14)** – 2 sites (27), Study Area endemic

***Troglarmadillo* FP-13540 (ESV EP15)** – 2 sites (4, 33), Study Area endemic

***Troglarmadillo* FP-13541 (ESV EP16)** – 1 site (33), Study Area endemic

***Troglarmadillo* FP-13542 (ESV EP17)** – 1 site (29), Study Area endemic

4.3.9.2 Family Philosciidae

Members of the family Philosciidae cannot roll into a ball. Five of ten genera described from Australia are endemic and *Laevophiloscia* and *Plymophiloscia* are mainly Australian. These isopods are rarely collected in WA

and their taxonomy is poorly known with numerous undescribed species revealed from DNA sequence data. Specimens are fragile and easily damaged, and they are best investigated by molecular methods. All philosciids found in the Pilbara are potential SRE species.

***Laevophiloscia* FP-13543 (ESV EP02)** – 1 site (1), Study Area endemic

Philosciidae gen. indet. FP-13544 (ESV EP01) – 2 sites (21, 25), Study Area endemic

4.3.9.3 Order Eupulmonata

Molluscs are one of the most diverse groups of invertebrates and the Australian fauna is characterised by a high degree of endemism (Beesley *et al.* 1998). Lands snails belong to the target groups for SRE surveys due to their limited dispersal capabilities, in combination with often strict dependencies on particular soils (EPA 2016a; Harvey 2002). These characteristics have also resulted in a significant global decline of non-marine molluscs (Lydeard *et al.* 2004).

4.3.9.4 Family Camaenidae

The Camaenidae are a dominant land snail family of northern and eastern Australia, including Western Australia's Pilbara region, where the genus *Rhagada* is very diverse; local endemism is high within the genus. Morphology often fails to identify species which must rely on molecular methods (Johnson *et al.* 2016).

4.3.9.4.1 Genus *Rhagada*

The genus *Rhagada* is endemic to WA and the second most diverse genus of the Camaenidae in the state (Johnson *et al.* 2004; Solem 1997).

***Rhagada* FP-13545 (ESV cf. *convicta*)** – 9 sites (6, 14, 15, 16, 20, 21, 23, 24, 25)

4.4 HABITATS FOR SHORT-RANGE ENDEMIC SPECIES

Based on the habitat types defined for the field site during our survey (Table 3-1) the communities of the SRE target groups do not cluster well by habitat. Sites of the same habitat type are fairly evenly distributed across the two-dimensional ordination space with the exception of "Woodlands along rockface/gully" which are situated towards the left top corner of the graph (Figure 4-14). But even those are fairly widely spaced indicating that there remain considerable differences in the SRE communities between sites. The ordination stress of 0.16 is very low indicating that the ordination is a very good representation of the sample pattern.

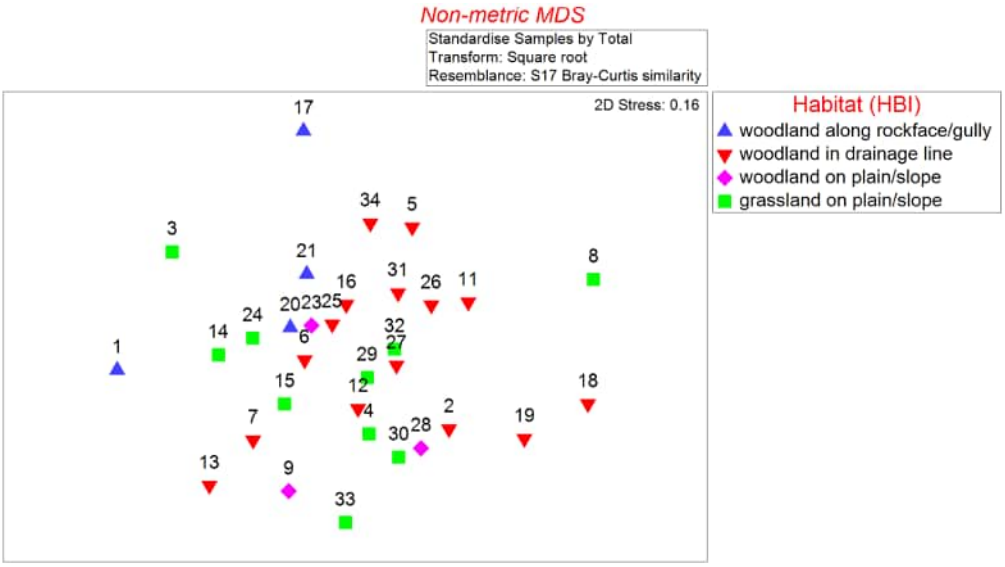


Figure 4-14 Non-metric multi-dimensional scaling (nMDS) of SRE target group communities per site (habitat types as determined during field survey)

A similar pattern is evident when the ordination is categorised by the habitat types compiled by Ecoscape (2025) (Figure 4-15). Sites are widely spaced in the ordination space independent of their habitat categorisation.

Neither the habitat characterisation during the SRE survey nor that provided by Ecoscape (2025) are good predictors for SRE communities found at these sites.

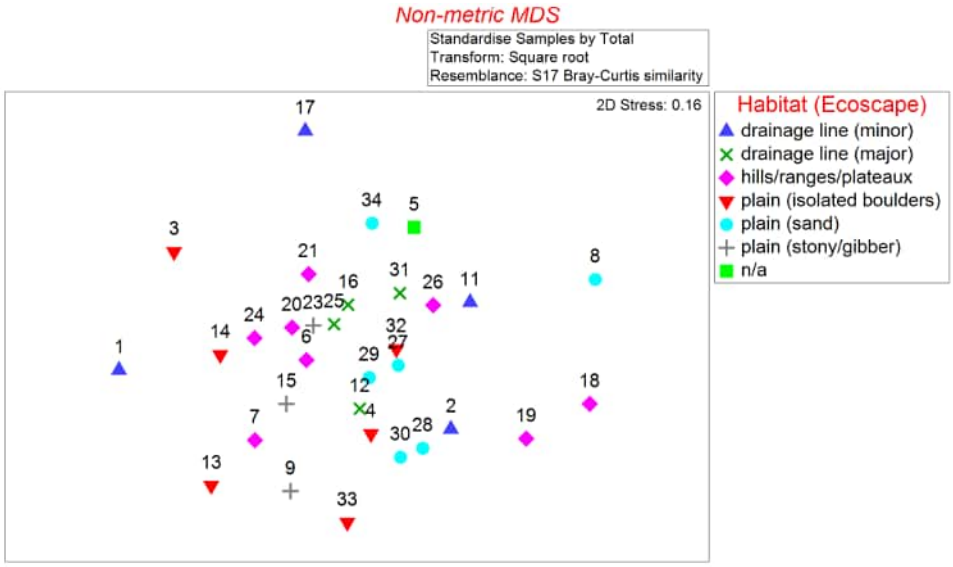


Figure 4-15 Non-metric multi-dimensional scaling (nMDS) of SRE target group communities per site (fauna habitat types as compiled by Ecoscape (2025))

The survey sites in the Study Area were situated in four habitat categories, with "Woodland in drainage line" having the most sites (Table 4-5). However, most SREs (of a total of 99 species) were collected in "Grassland on plain/slope" during the survey (Table 4-5). The least SREs were collected in those habitats with less sites in them, "Woodland along rockface/gully" and "Woodland on plain/slope". However, there was a significant difference between the number of SRE target groups found in each habitat compared to the expected number based on number of field sites in this habitat ($\chi^2 = 12.74$; df = 3; p = 0.0052) (Table 4-5).

Based on the taxon numbers, it appears that "Woodland in drainage line" yielded more SRE target taxa than expected and all other habitat types less. This does is not surprising for "Grassland on plain/slope" as it is generally not considered a prospective habitat type for SREs.

Table 4-5 Observed and expected number of short-range endemics in each habitat type

Habitat type	No. of sites surveyed (% of all sites surveyed)	SRE species in habitat type	Expected occurrence of SREs target groups in habitat type (based on frequency of habitat)
Grassland on plain/slope	10 (30 %)	44	38.4
Woodland along rockface/gully	4 (12 %)	23	15.36
Woodland in drainage line	15 (45 %)	40	58.88
Woodland on plain/slope	4 (12 %)	21	15.36

Only two SRE species were found in all four habitat types (*Cryptops* FP-13514 (ESV EP06), *Rhagada* FP-13545 (ESV cf. *convicta*) and three species in three habitat types (*Beierolpium* FP-13489 (ESV EP17, *Cryptops* FP-13516 (ESV EP08), *Indolpium* FP-13492 (ESV EP08)). A further 15 species were found in two habitat types and the remainder (80 species) in a single habitat type.

4.5 SPECIES RICHNESS ESTIMATION

Some 115 SRE target taxa, including species complexes, have been collected from 109 samples during the field survey (S(est) in Figure 4-16). Species estimators range from approximately 140 and to 200 species with only ICE Mean (196 species) and ACE Mean and Chao 2 Mean (both 170 species) reaching a plateau. Therefore, conservative estimates would put the number of species at the sample sites at ca. 140 – 200.

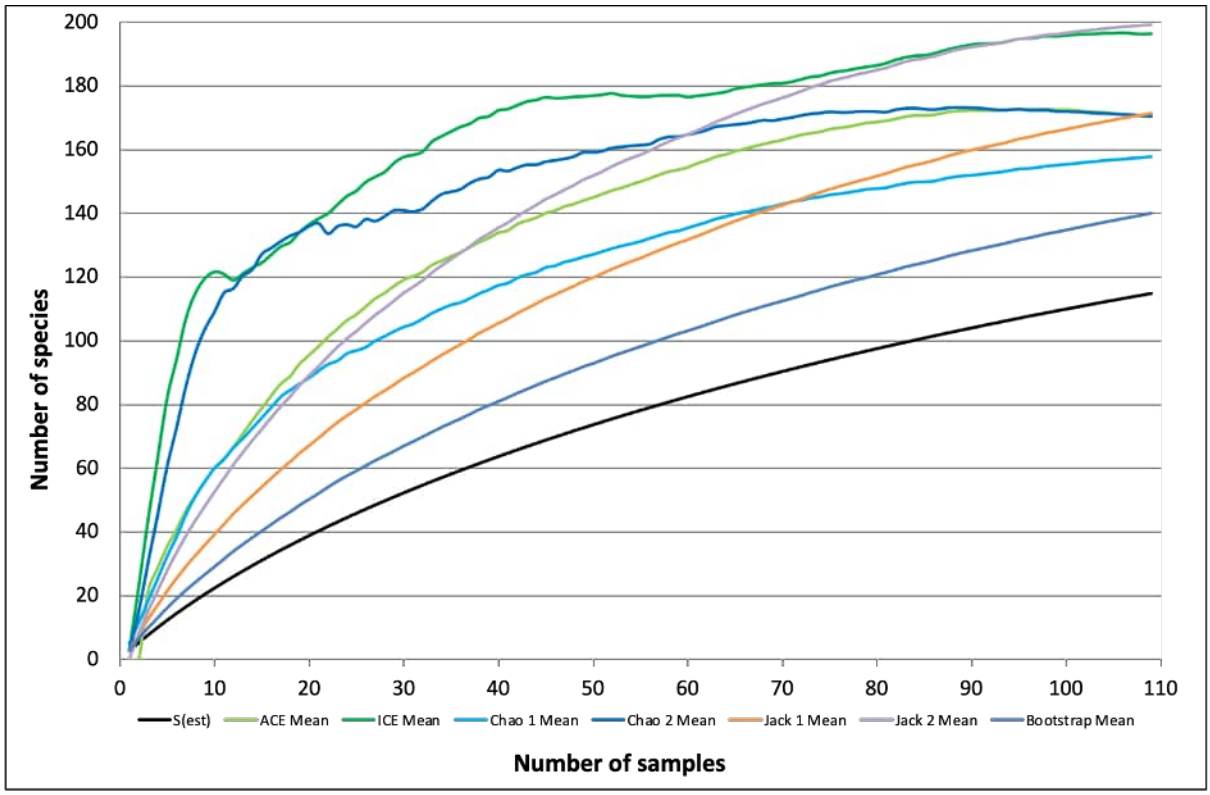


Figure 4-16 Species accumulation curves, with observed species richness (S(est)) and species estimators for all species and species groups in SRE target groups

5 DISCUSSION

5.1 SURVEY EFFORT

The field survey component consisted of 34 systematically selected survey sites that were sampled over two trips, which is appropriate for a baseline survey in an area the size of the Study Area. Seven CALM (today DBCA) Pilbara survey sites were previously installed inside the Study Area between 2003–2006, all having had wet formalin pitfall traps exposed for at least 12 months (Figure 3-1). The results from these traps contributed to the desktop review that revealed 370 specimens of SRE target groups in the Study Area (Figure 4-1). Combining the field survey and data from the desktop review, we consider that the Study Area has been surveyed reasonably well to evaluate its SRE fauna.

The taxonomic resolution of species identifications is limited. There remain many specimens identified at higher taxonomic levels collected in the Study Area as evidenced by the desktop review (Table 4-2) and the field survey results (Table 4-4). Of the 2,434 specimens sampled in this survey, 1,785 specimens (approximately 72.9%) remain unresolved at the species level. The percentage of molecularly identified specimens in the current survey was relatively high for most taxa, but is still less than 10% for pseudoscorpions, scorpions, slaters and land snails (the latter, however, was represented by many dead shells that are not suitable for molecular analyses). Comparatively large numbers of harvestmen and keeled millipedes were collected during the survey, both groups are known for high tendencies for short-range endemism; however, species-level identification was also fairly low (13.3 % and 61.7 % respectively). Unidentified specimens in these groups represent an important pool for reference specimens that can be molecularly identified if needed to show wider distribution of species.

Species rarefaction statistics suggest that between 60% and 80% of species in the SRE target groups present at the sites were collected during the survey (Figure 4-16). This is somewhat consistent with the results of the desktop review, which had an additional eight Study Area endemics in comparison to the 91 species from the field survey. However, to perform the species accumulation analysis, all samples from different habitat types were combined. This was necessary because analysing each habitat type separately resulted in samples sizes that were too small, making the statistical estimates unreliable. Colwell and Coddington (1994) recommend that species richness extrapolations should be restricted to areas of reasonably homogenous habitat. If a project area has four broad fauna habitats, then one species accumulation curve should be calculated for each habitat type. Therefore, the lumping approach used in this report may reduce the accuracy of the species accumulation statistics because it ignores potential differences between habitat types and assumes all habitat types have a similar species composition. Furthermore, species rarefaction curves are very susceptible to the presence of singletons and ideally sampling should continue until 'singletons vanish' (Chao *et al.* 2009). In this report, forty-nine of 131 species (37.4 %) in the SRE target groups were represented by singletons. This is greater than the recommended 21% of singletons, as a minimum sampling effort to produce reliable richness estimates of diverse ecosystems using corrected non-parametric estimators (Lopez *et al.* 2012).

5.2 SHORT-RANGE ENDEMICS

This discussion concentrates on the SREs that are currently only known from the study area as those occurring outside are considered less likely to be impacted by any future development. In total, some 140 SREs were recorded in the Study Area based on the desktop review and field survey combined, with a total of 101 Study Area endemics now known. Ten SREs from the field survey were also recovered in the desktop review, two of which being Study Area endemics – *Karaops* FP-13326 *and Karaops* FP-13455 (ESV cf. *morganoconnelli*) (Table 4-4).

With respect to conservation significant species, *Antichiropus forcipatus* is a potential SRE that was collected in the Study Area during the field survey, but it is also known from outside. It is listed as **Priority 1** under Western Australian conservation legislation.

The record of a lithobiomorphan centipede is noteworthy as the desktop review, specifically the WAM database, did not recover a record of the order Lithobiomorpha within 100 km of the study area. This survey also recovered a comparatively high abundance and diversity of harvestmen (Opiliones); the 68 specimens collected during the

survey are more than recorded in the whole desktop review area based on WA Museum records (56 specimens). Similarly, the number of *Antichiropus* millipedes is comparative high for a single survey.

The pseudoscorpion *Feaella tealei* was considered a potential SRE in the desktop review, but the field records extended its linear range to over 100 km, so it is now considered widespread within our determination of SREs. This updated rating remains debatable as habitat preferences of each species need to be considered when estimating their area of distribution.

5.3 HABITATS

Four major habitat types were sampled during the survey. However, based on the communities of the SRE target groups in each site, habitat type does not appear to be a good predictor of species composition (Figure 4-14). There is some evidence that within the habitat "Woodland along rockface/gully" there are some similarities in the SRE community, which may be caused by their generally high levels of rockiness or shade. But ecological factors potentially influencing SRE distribution have not been analysed in detail. Similarly, Ecoscape's (2025) broadscale vertebrate fauna habitat types applied to each site, do not cluster by habitat in the two-dimensional ordination space (Figure 4-15). This suggests that these habitats also have low predictive value for the SRE composition at each site. Ecoscape's (2025) habitats are largely based on broad-scale geomorphological features (i.e. types of 'plain' or 'drainage line') (Table 3-1) not considering vegetation cover or soil type at a much smaller spatial scale, factors likely to be important for invertebrates, specifically those living in leaf litter and the upper layers of soil. Mapping habitat qualities at that scale in a study area of approximately 125 km length is challenging, particularly when based on aerial imaging alone.

Another factor that influences any ordination technique to compare species composition between sites is the high number of singletons. If many sites have unique communities, with some species found only at a single site, this creates statistical challenges regardless of data transformation. Additionally, if a species is recorded in a habitat only once, it is questionable if it can truly be considered a habitat specialist. In contrast, rare species are often of conservation significance and require special consideration. One way to potentially improve the habitat correlations between sites is to increase the number of identified specimens. In this study, there remain a large number of unidentified specimens of apparently cryptic species, in particular in olpiid pseudoscorpions and armadillid slaters. Further identification using molecular techniques could improve our understanding of the habitat requirements of some of these species.

Based purely on taxon numbers, it appears that "Woodland in drainage line" yielded more SRE target taxa than expected and all other habitat types less (Table 4-5). Again, these results should be tested by increasing the taxonomic resolution of the many unidentified specimens.

5.4 SIGNIFICANCE OF STUDY AREA FOR SHORT-RANGE ENDEMIC INVERTEBRATES

There is no absolute scale to assess an area for conservation value in relation to SREs. One way to conduct such an assessment is by comparing the results of this study with those from other surveys in the Pilbara. This comparison remains difficult, as overall survey effort and methods often differ between surveys. With SRE surveys reaching back almost 15 years, there have been considerable taxonomic advances, specifically following the introduction of molecular methods. With more and more surveys conducted, our knowledge increases and our understanding of the distribution of species changes.

This study is compared to other recent SRE assessments conducted by HBI for Fortescue, as they were conducted using similar methods both in the field (although some have been conducted using pitfall traps and others not), in the laboratory (specimen sorting), and during taxonomic assessments (morphological and molecular identifications). We analysed the number of SREs collected in relation to study area size (Figure 5-1), which is likely one of the most important factors determining the number of species present (e.g., Tjørve *et al.* 2008). With 100 potential SREs collected, the current survey resulted in the highest number of range-restricted species, followed by 63 SREs collected as part of the Bonney Downs Generating Hub 2024 assessment (Volschenk *et al.* 2024) (Figure 5-1). There appears to be a correlation between study area size and number of SREs collected; however, the SRE assessment of the Nydinghu Iron Ore mine 2024 (Framenau *et al.* 2023) breaks this trend with a comparatively low number of SREs on the largest study area in the sample (Figure 5-1). Habitat likely plays a

role, as the survey of the Nyidinghu Iron Ore mine was conducted in a topographically less varied area. Overall, the selection of studies is too small to detect reliable trends; however, the Study Area of the East Pilbara Generation Hub harbours a comparatively large number of SREs and should be highly valued in relation to terrestrial invertebrates.

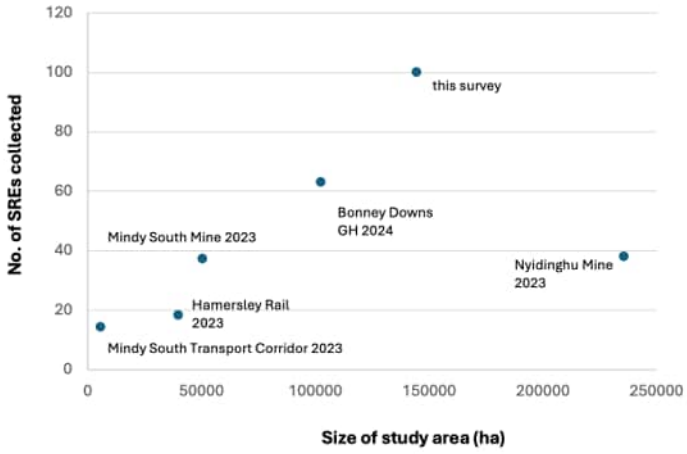


Figure 5-1: Number of SREs collected in recent SRE assessments by HBI for Fortescue

6 CONCLUSION

The SRE survey in the Study Area of the East Pilbara Energy Generating Hub resulted in a comparatively large number of SRE species in relation to other surveys for Fortescue and some taxa, such as assamiid harvestmen and *Antichiropus* millipedes were also found in comparatively high abundances. The diversity of olpiid pseudoscorpions was particularly high. Optimal conditions due to rainfall before and during the surveys are likely contributing to these high numbers. The survey was characterised by a large number of singletons that made species richness estimates and habitat correlations difficult. Improving the taxonomic resolution by sequencing more of the many unidentified specimens could help to improve these statistics; however, these unidentified specimens provide an important pool of material to show wider distributions if singleton species are impacted by future developments.

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8 APPENDICES

Appendix 1 Site descriptions

Site 1

Habitat

Type: *Acacia*/eucalypt open woodland

Topography: gorge, moderate slope

Vegetation: eucalypt and *Acacia* trees over *Acacia* shrubs, over spinifex grass

Soil: rocks on brown soil

Rockiness: stones and boulders, 51–75% coverage

Litter: 1–25%, accumulations under trees and in drifts

Disturbance and fire: fire >5 years

Site 2

Habitat

Type: riparian *Acacia*/eucalypt open woodland

Topography: drainage line, moderate slope

Vegetation: tall, sparse eucalypt trees over sparse *Acacia* shrubs, over spinifex grass

Soil: rocks on brown sand

Rockiness: loose soil, stones, and boulders, 26–50% coverage

Litter: 1–25%, accumulations under trees and in drifts

Disturbance and fire: fire >5 years

Site 3

Habitat

Type: spinifex grassland

Topography: hilltop, moderate slope

Vegetation: eucalypt and *Acacia* trees over *Acacia* shrubs, over spinifex grass

Soil: rocks on red soil

Rockiness: stones and boulders, 26–50% coverage

Litter: 1–25%, accumulations under trees

Disturbance and fire: fire >5 years

Site 4

Habitat

Type: spinifex grassland

Topography: plain

Vegetation: *Hakea* shrubs over spinifex grass

Soil: rocks on red sand

Rockiness: loose soil, stones, and boulders, 1–25% coverage

Litter: 1–25%, accumulations under trees and in drifts

Disturbance and fire: fire >5 years

Site 5

No image and habitat data available (outside study area)

Site 6

Habitat

Type: riparian *Acacia*/eucalypt open woodland

Topography: drainage line, gentle slope

Vegetation: eucalypt and *Acacia* trees over *Acacia* shrubs, over spinifex and buffelgrass

Soil: rocks on a brown, sandy soil

Rockiness: fine gravel, coarse gravel, stones, and boulders, 1–25% coverage

Litter: 26–50%, accumulations under trees and in drifts

Disturbance and fire: invasive grasses, vehicle tracks, livestock tracks, low grazing, fire >5 years

Site 7

Habitat

Type: riparian eucalypt/*Acacia* open woodland

Topography: drainage line, gentle slope

Vegetation: eucalypt, *Acacia* and scattered Mallee eucalypt trees over *Acacia* shrubs, over spinifex grass

Soil: brown, sandy soil

Rockiness: loose soil, and stones, 1–25% coverage

Litter: 26–50%, accumulations under trees

Disturbance and fire: fire >5 years

Site 8

Habitat

Type: spinifex grassland

Topography: hilltop, moderate slope

Vegetation: very sparse *Acacia* shrubs over spinifex grass

Soil: rocks on red sand

Rockiness: loose soil, stones, and boulders, 51–75% coverage

Litter: 1–25%, accumulations under trees

Disturbance and fire: fire >5 years

Site 9

Habitat

Type: eucalypt/*Acacia* open woodland

Topography: plain

Vegetation: sparse eucalypt and *Acacia* trees over mixed *Acacia* shrubs, over tall spinifex grass

Soil: gravel in brown soil

Rockiness: loose soil, fine gravel, coarse gravel, and stones, 1–25% rock coverage

Litter: 1–25%, accumulations under trees

Disturbance and fire: fire >5 years

Site 10

Type: eucalypt/*Hakea*/*Acacia* open woodland

Topography: plain

Vegetation: sparse eucalypt, *Acacia* and *Hakea* trees over *Hakea* and mixed *Acacia* shrubs, over spinifex grass

Soil: rocks on brown soil

Rockiness: loose soil, fine gravel, coarse gravel, and stones, 25–30% rock coverage

Litter: 1–25%, accumulations under trees

Disturbance and fire: fire >5 years

Site 11

Habitat

Type: riparian *Acacia*/eucalypt open woodland

Topography: drainage line

Vegetation: eucalypt and *Acacia* trees over mixed *Acacia* shrubs, over buffelgrass and sedge grasses

Soil: brown, sandy clay

Rockiness: loose soil and stones, 1–25% rock coverage

Litter: 1–25%, accumulations under trees and in drifts

Disturbance and fire: invasive grasses, livestock tracks, high grazing, fire 1-5 years

Site 12

Habitat

Type: riparian *Melaleuca*/*Acacia* woodland

Topography: drainage line, gentle slope

Vegetation: *Melaleuca* and *Acacia* trees over *Acacia* shrubs, over rushes and sedge grasses

Soil: brown sand

Rockiness: loose soil and stones, 1–25% coverage

Litter: 1–25%, accumulations under trees

Disturbance and fire: fire >5 years

Site 13

Habitat

Type: riparian *Acacia* open woodland

Topography: drainage line, gentle slope

Vegetation: *Acacia* trees over *Acacia* shrubs over spinifex grass

Soil: red sand

Rockiness: loose soil, stones and boulders, 26–50% coverage

Litter: 1–25%, under trees

Disturbance and fire: low grazing, livestock tracks, fire >5 years

Site 14

Habitat

Type: spinifex grassland

Topography: hill slope, moderate slope

Vegetation: *Acacia* shrubs over spinifex grass

Soil: brown, sandy soil

Rockiness: loose soil, stones, and boulders, 26–50% coverage

Litter: 1–25%, accumulations under trees

Disturbance and fire: low grazing, fire >5 years

Site 15

Habitat

Type: spinifex grassland

Topography: hill slope, gentle slope

Vegetation: sparse *Acacia* trees over sparse *Acacia* shrubs, over spinifex grass

Soil: rocks on brown soil

Rockiness: loose soil, stones, and boulders, 26–50% coverage

Litter: 1–25%, accumulations under trees

Disturbance and fire: fire >5 years

Site 16

Habitat

Type: riparian eucalypt/*Acacia* open woodland

Topography: drainage line

Vegetation: eucalypt and *Acacia* trees over *Acacia* shrubs, over spinifex grass

Soil: brown, sandy soil

Rockiness: stones and boulders, 1–25% coverage

Litter: 1–25%, accumulations under trees and in drifts

Disturbance and fire: fire >5 years

Site 17

Habitat

Type: *Acacia*/eucalypt/*Melaleuca* open woodland

Topography: gorge, moderate slope

Vegetation: eucalypt, *Acacia* and *Melaleuca* trees over *Acacia* shrubs, over spinifex grass

Soil: rocks on red sand

Rockiness: loose soil, stones, and boulders, 26–50% coverage

Litter: 1–25%, accumulations under trees and in drifts

Disturbance and fire: vehicle tracks, fire >5 years

Site 18

Habitat

Type: riparian *Acacia* open woodland

Topography: drainage line

Vegetation: *Acacia* and sparse *Hakea* trees over *Acacia* shrubs, over spinifex and buffelgrass

Soil: rocks on a red, sandy soil

Rockiness: loose soil, and stones, 1–25% coverage

Litter: 1–25%, accumulations under trees and in drifts

Disturbance and fire: invasive grasses**,** livestock tracks, medium grazing, fire >5 years

Site 19

Habitat

Type: riparian *Acacia*/eucalypt open woodland

Topography: drainage line, gentle slope

Vegetation: tall eucalypt and *Acacia* trees over *Acacia* shrubs, over spinifex and sedge grasses

Soil: rocks on brown soil

Rockiness: loose soil, and stones, 26–50% coverage

Litter: 1–25%, even distribution, accumulations under trees and in drifts

Disturbance and fire: fire >5 years

Site 20

Habitat

Type: riparian eucalypt/*Acacia* open woodland

Topography: gully, gentle slope

Vegetation: eucalypt and *Acacia* trees over *Acacia* shrubs, over spinifex and buffelgrass

Soil: brown, sandy clay

Rockiness: loose soil, fine gravel, coarse gravel, and stones, 26-50% coverage

Litter: 1–25%, accumulations under trees

Disturbance and fire: low grazing, invasive grasses, fire >5 years

Site 21

Habitat

Type: eucalypt/*Melaleuca*/*Acacia* open woodland

Topography: gully, gentle slope

Vegetation: *Melaleuca* and tall eucalypt trees over *Acacia* shrubs, over spinifex and buffelgrass

Soil: brown, sandy clay

Rockiness: stones, 1–25% coverage

Litter: 26–50%, even distribution, accumulations under trees and in drifts

Disturbance and fire: invasive grasses, low grazing, livestock tracks, fire >5 years

Site 22

Habitat

Type: riparian *Acacia* open woodland

Topography: drainage line, gentle slope

Vegetation: sparse *Acacia* trees over *Acacia* shrubs, over spinifex grass

Soil: rocks on a red, sandy soil

Rockiness: coarse gravel, stones, and boulders, 51–75% coverage

Litter: 1–25%, accumulations under trees and in drifts

Disturbance and fire: fire >5 years

Site 23

Habitat

Type: *Acacia*/eucalypt open woodland

Topography: hill slope, moderate slope

Vegetation: sparse eucalypt and *Acacia* trees over *Acacia* shrubs, over spinifex and buffelgrass

Soil: rocks on red soil

Rockiness: stones and boulders, 76–100% coverage

Litter: 1–25%, accumulations under trees

Disturbance and fire: invasive grasses, low grazing, fire >5 years

Site 24

Habitat

Type: spinifex grassland

Topography: hilltop, moderate slope

Vegetation: sparse *Acacia* trees over *Acacia* shrubs, over spinifex grass

Soil: rocks on red soil

Rockiness: stones and boulders, 26–50% coverage

Litter: 1–25%, accumulations under trees

Disturbance and fire: fire >5 years

Site 25

Habitat

Type: riparian *Acacia*/eucalypt open woodland

Topography: drainage line, gentle slope

Vegetation: eucalypt and *Acacia* trees over *Acacia* shrubs, over spinifex and buffelgrass

Soil: brown, sandy clay

Rockiness: stones, 1–25% coverage

Litter: 26–50%, accumulations under trees and in drifts

Disturbance and fire: invasive grasses, low grazing, livestock tracks, fire >5 years

Site 26

Habitat

Type: riparian eucalypt/*Melaleuca*/*Acacia* open woodland

Topography: drainage line, moderate slope

Vegetation: eucalypt and *Melaleuca* trees over *Acacia* shrubs, over spinifex and buffelgrass

Soil: brown, sandy loam

Rockiness: loose soil, stones, and boulders, 1–25% coverage

Litter: 1–25%, accumulations under trees

Disturbance and fire: invasive grasses, low grazing, livestock tracks, fire >5 years

Site 27

Habitat

Type: riparian *Acacia*/eucalypt/*Melaleuca* open woodland

Topography: drainage line

Vegetation: tall eucalypt and *Melaleuca* trees over *Acacia* shrubs, over spinifex and sedge grasses

Soil: brown, sandy soil

Rockiness: stones, 26–50% coverage

Litter: 1–25%, accumulations under trees and in drifts

Disturbance and fire: fire >5 years

Site 28

Habitat

Type: *Acacia*/eucalypt open woodland

Topography: plain

Vegetation: sparse *Acacia* and eucalypt trees over mixed *Acacia* shrubs, over tall spinifex grass and scattered buffelgrass

Soil: red, sandy clay

Rockiness: loose soil, 1–25% coverage

Litter: 26–50%, accumulations under trees

Disturbance and fire: invasive grasses, low grazing, livestock tracks, fire >5 years

Site 29

Habitat

Type: spinifex grassland

Topography: plain

Vegetation: sparse *Hakea* and *Acacia* shrubs over spinifex grass and weeds

Soil: rocks on red sand

Rockiness: loose soil, fine gravel, stones, and boulders, 1–25% coverage

Litter: 1–25%, accumulations under shrubs

Disturbance and fire: invasive grasses, fire >5 years

Site 30

Habitat

Type: spinifex grassland

Topography: plain

Vegetation: sparse *Acacia* and *Hakea* trees over *Acacia* shrubs, over tall spinifex grass

Soil: red, sandy clay

Rockiness: loose soil, 0% coverage

Litter: 1–25%, accumulations under trees

Disturbance and fire: medium grazing, livestock tracks, fire >5 years

Site 31

Habitat

Type: riparian river gum/*Acacia* open woodland

Topography: drainage line

Vegetation: tall *Acacia* and river gum trees over *Acacia* shrubs, over buffelgrass and other grasses

Soil: red sand

Rockiness: loose soil, coarse gravel, and stones 1–25% coverage

Litter: 1–25%, accumulations under trees and in drifts

Disturbance and fire: low grazing, fire >5 years

Site 32

Habitat

Type: spinifex grassland

Topography: plain

Vegetation: sparse *Hakea* trees over *Hakea* shrubs, over spinifex grass and weeds

Soil: brown, sandy soil

Rockiness: loose soil, stones, and boulders 1–25% coverage

Litter: 1–25%, accumulations under trees

Disturbance and fire: invasive grasses, fire >5 years

Site 33

Habitat

Type: spinifex grassland

Topography: breakaway, gentle slope

Vegetation: fig trees over *Acacia* shrubs, over spinifex and buffelgrass

Soil: rocks on red soil

Rockiness: fine gravel, stones, and boulders, 1–25% coverage

Litter: 1-25%, accumulations under trees and in drifts

Disturbance and fire: invasive grasses, fire >5 years

Site 34

Habitat

Type: riparian eucalypt/*Acacia* open woodland

Topography: drainage line, gentle slope

Vegetation: eucalypt and *Acacia* trees over *Acacia* shrubs, over spinifex grass

Soil: rocks on brown sand

Rockiness: fine gravel, stones, and boulders, 26–50% coverage

Litter: 1–25%, accumulations under trees and in drifts

Disturbance and fire: low grazing, fire >5 years

Harry Butler Institute, Murdoch University

Appendix 2 Short-range endemic invertebrate target taxa in the Study Area (desktop review)

Data source	Registration	Genus and species	Locations	Latitude	Longitude	No. of specimens
Araneae						
Actinopodidae						
WAM	T120931	*Missulena melissae*	Corunna Downs Station, 52.5 km N. of Nullagine, Pilbara Biological Survey site NW11	-21.40769	120.0713	2
WAM	T120908	*Missulena rutraspina*	Corunna Downs Station, E. of homestead, Pilbara Biological Survey site NW9	-21.46194	120.0136	3
Anamidae						
WAM	T109372	*Aname baileyorum*	Corunna Downs Station, 52.5 km N. of Nullagine, Pilbara Biological Survey site NW11	-21.40769	120.0713	2
WAM	T162918	*Aname mellosa*	ca. 23.8 km S. of Marble Bar	-21.33019	119.5898	17
HBI	N30383-1	Aname 'mellosa complex'	ca. 23.5 km S. of Marble Bar	-21.371574	119.820611	1
WAM	T162804	*Aname* FP-12639 (EP01)	ca. 45 km SW. Marble Bar	-21.32837	119.3445	1
WAM	T162803	*Aname* FP-12639 (EP01)	ca. 23.5 km S. Marble Bar	-21.37157	119.8206	1
WAM	T162806	Aname FP-12641 (EP03)	ca. 37.2 km SE Marble Bar	-21.23932	119.1619	1
WAM	T162805	*Aname* `EP02`	ca. 41 km SE. Marble Bar	-21.31862	120.1085	1
WAM	T136179	*Aname* sp. indet.	Corunna Downs Station, ca. 75 km NW. of Nullagine	-21.38808	119.6522	1
WAM	T135089	*Aname* sp. indet.	14.5 km of Dresser Mining Centre, Pilbara Biological Survey site MBE09	-21.27944	119.4119	2
WAM	T135098	*Aname* sp. indet.	47 km NNW. of Nullagine, Pilbara Biological Survey site NW10	-21.46844	120.0065	1
WAM	T109332	*Aname* sp. indet.	14.5 km of Dresser Mining Centre, Pilbara Biological Survey site MBE09	-21.27944	119.4119	1
WAM	T163058	Anamidae sp. indet.	ca. 45 km SW. of Marble Bar	-21.32834	119.3445	1
WAM	T135099	*Teyl* sp. indet.	Corunna Downs Station, 52.5 km N. of Nullagine, Pilbara Biological Survey site NW11	-21.40769	120.0713	1
Barychelidae						
WAM	T135001	Barychelidae gen. indet. sp. indet.	Corunna Downs Station, 52.5 km N. of Nullagine, Pilbara Biological Survey site NW11	-21.40769	120.0713	1
Idiopidae						
WAM	T135101	Idiopidae gen. indet. sp. indet.	56 km N. of Nullagine, Corunna Downs Stn, Pilbara Biological Survey site NW12	-21.39228	120.0709	3
WAM	T135002	Idiopidae gen. indet. sp. indet.	47 km NNW. of Nullagine, Pilbara Biological Survey site NW10	-21.46844	120.0065	1

Data source	Registration	Genus and species	Locations	Latitude	Longitude	No. of specimens
WAM	T135100	Idiopidae gen. indet. sp. indet.	Corunna Downs Station, 52.5 km N. of Nullagine, Pilbara Biological Survey site NW11	-21.40769	120.0713	1
Selenopidae						
HBI	N30361-1	*Karaops* 'cf. *morganoconnelli'*	ca. 38.1 km SW. of Marble bar	-21.32311	119.40547	1
HBI	N30394-1	*Karaops* 'cf. *morganoconnelli'*	ca. 35.2 km SE. of Marble Bar	-21.4196997	119.95617	1
WAM	T141888	Karaops sp. indet.	Corunna Downs Station, site M, ca. 30 km SSW. of Marble Bar	-21.37536	119.688	1
Opiliones						
Assamiidae						
HBI	N30373-1	*Dampetrus* 'EP01'	ca. 23.8 km S. of Marble Bar	-21.330188	119.589799	1
Pseudoscorpiones						
Atemnidae						
HBI	N30358-1	*Oratemnus* 'PSE121'	ca. 47 km SE. of Marble Bar	-21.30042	119.31198	1
Feaellidae						
WAM	T133719	*Feaella tealei*	Corunna Downs Station, ca. 160 km SE. of Port Hedland	-21.38872	119.6185	1
Garypidae						
WAM	T134246	*Synsphyronus* `8/3 pilbara`	Corunna Downs Station, ca. 160 km SE. of Port Hedland	-21.38872	119.6185	3
Olpiidae						
WAM	T117759	`Genus 7/4` sp.	ca. 150 km SE. of Port Hedland, Glacier Valley	-21.22733	119.0592	1
WAM	T117755	*Beierolpium* `8/4 lge`	ca. 150 km SE. of Port Hedland, Glacier Valley	-21.22733	119.0592	1
WAM	T134230	*Beierolpium* sp. indet.	Corunna Downs Station, ca. 160 km SE. of Port Hedland	-21.38808	119.6522	1
WAM	T117761	*Indolpium* sp. indet.	ca. 150 km SE. of Port Hedland, Glacier Valley	-21.24383	119.0894	1
WAM	T137635	*Indolpium* sp. indet.	55 km N. of Nullagine, Pilbara Biological Survey site NW12	-21.39228	120.0709	1
WAM	T113152	*Indolpium* sp. indet.	North Star, Pilbara	-21.23936	119.0514	1
HBI	N30348-2	*Indolpium* sp. indet.	ca. 45 km SW. of Marble Bar	-21.328344	119.344458	1
WAM	T134250	Xenolpium sp. indet.	Corunna Downs Station, ca. 70 km NW. of Nullagine	-21.38808	119.6522	3
WAM	T76087	Olpiidae gen. indet. sp. indet.	Corunna Downs Station, NE. of homestead, Pilbara Biological Survey site NW12	-21.39228	120.0709	1
WAM	T117748	Olpiidae gen. indet. sp. indet.	ca. 150 km SE. of Port Hedland, Glacier Valley	-21.24383	119.0894	1

Data source	Registration	Genus and species	Locations	Latitude	Longitude	No. of specimens
Scorpiones						
Buthidae						
HBI	N30358-3	*Lychas 'bituberculatus*-complex'	ca. 47 km SE. of Marble Bar	-21.30042	119.31198	2
HBI	N30364-1	*Lychas 'bituberculatus*-complex'	ca. 34.3 km SE. of Marble Bar	-21.28837	119.43842	1
HBI	N30380-2	*Lychas 'bituberculatus*-complex'	ca. 24 km S. of Marble Bar	-21.38218	119.80339	1
HBI	N30377-2	*Lychas 'bituberculatus*-complex'	ca. 24 km S. of Marble Bar	-21.38218	119.80339	1
HBI	N30374-2	*Lychas 'bituberculatus*-complex'	ca. 23.8 km S. of Marble Bar	-21.330188	119.589799	1
HBI	N30375-1	*Lychas 'bituberculatus*-complex'	ca. 23.8 km S. of Marble Bar	-21.330188	119.589799	1
HBI	N30391-1	*Lychas 'bituberculatus*-complex'	ca. 28.2 km S. of Marble Bar	-21.40125	119.860423	1
WAM	T140545	*Lychas 'bituberculatus*-complex'	Corunna Downs Station, ca. 160 km SE. of Port Hedland	-21.38808	119.6522	2
WAM	T140532	*Lychas 'bituberculatus*-complex'	Corunna Downs Station, ca. 160 km SE. of Port Hedland	-21.38808	119.6522	5
WAM	T140534	*Lychas 'bituberculatus*-complex'	Corunna Downs Station, ca. 160 km SE. of Port Hedland	-21.38808	119.6522	4
HBI	N30357-1	*Lychas 'multipunctatus*-complex'	ca. 47 km SE. of Marble Bar	-21.30042	119.31198	1
HBI	N30355-1	*Lychas 'multipunctatus*-complex'	ca. 37.2 km SE. of Marble Bar	-21.239317	119.161889	1
HBI	N30360-1	*Lychas 'multipunctatus*-complex'	ca. 47 km SE. of Marble Bar	-21.30042	119.31198	1
WAM	T140583	*Lychas* `hairytail-complex`	Corunna Downs Station, ca. 160 km SE. of Port Hedland	-21.38808	119.6522	1
WAM	T105613	*Lychas* `hairytail-complex`	W. edge of North Star mine site, ca. 72 km W. of Marble Bar	-21.23936	119.0514	2
WAM	T80046	*Lychas* `2`	47 km NNW. of Nullagine, Pilbara Biological Survey site NW10	-21.4684	120.0064	7
WAM	T80180	*Lychas* `2`	Corunna Downs Station, 52.5 km N. of Nullagine, Pilbara Biological Survey site NW11	-21.40769	120.0713	3
WAM	T80118	*Lychas* `2`	21 km SW. of Marble Bar, Pilbara Biological Survey site MBE02	-21.3108	119.6042	3
WAM	T80144	*Lychas* `2`	Corunna Downs Station, 52.5 km N. of Nullagine, Pilbara Biological Survey site NW11	-21.40769	120.0713	2
WAM	T80059	*Lychas* `2`	55 km N. of Nullagine, Pilbara Biological Survey site NW12	-21.39228	120.0709	9
WAM	T80077	*Lychas* `2`	55 km N. of Nullagine, Pilbara Biological Survey site NW12	-21.39228	120.0709	4
WAM	T79737	*Lychas* `3`	Corunna Downs Station, 52.5 km N. of Nullagine, Pilbara Biological Survey site NW11	-21.40769	120.0713	1
WAM	T79746	*Lychas* `3`	55 km N. of Nullagine, Pilbara Biological Survey site NW12	-21.39256	120.0709	1
WAM	T79726	*Lychas* `3`	47 km NNW. of Nullagine, Pilbara Biological Survey site NW10	-21.4684	120.0065	2

Data source	Registration	Genus and species	Locations	Latitude	Longitude	No. of specimens
WAM	T79687	*Lychas* `4`	21 km SW. of Marble Bar, Pilbara Biological Survey site MBE02	-21.3108	119.6042	1
WAM	T79570	*Lychas* `4`	47.5 km NNW. of Nullagine, Pilbara Biological Survey site NW09B	-21.4619	120.0135	13
WAM	T79611	*Lychas* `4`	21 km SW. of Marble Bar, Pilbara Biological Survey site MBE02	-21.3108	119.6042	1
WAM	T79553	*Lychas* `4`	47 km NNW. of Nullagine, Pilbara Biological Survey site NW10	-21.4684	120.0065	5
WAM	T79565	*Lychas* `4`	47.5 km NNW. of Nullagine, Pilbara Biological Survey site NW09B	-21.4619	120.0135	3
WAM	T79823	*Lychas* `6`	21 km SW. of Marble Bar, Pilbara Biological Survey site MBE02	-21.3108	119.6042	3
WAM	T79824	*Lychas* `6`	14.5 km of Dresser Mining Centre, Pilbara Biological Survey site MBE09	-21.27944	119.4119	1
WAM	T79804	*Lychas* `6`	21 km SW. of Marble Bar, Pilbara Biological Survey site MBE02	-21.3108	119.6042	5
WAM	T105617	*Lychas* `pilbara 1`	W. edge of Wodgina mine site, North Star	-21.23936	119.0514	1
Urodacidae						
WAM	T79536	*Urodacus* `Pilbara 4`	Corunna Downs Station, 52.5 km N. of Nullagine, Pilbara Biological Survey site NW11	-21.40769	120.0713	1
WAM	T79463	*Urodacus* `Pilbara 5`	14.5 km of Dresser Mining Centre, Pilbara Biological Survey site MBE09	-21.27944	119.4119	1
HBI	N30358-2	*Urodacus* 'pilbara 8'	ca. 47 km SE. of Marble Bar	-21.30042	119.31198	1
HBI	N30353-1	*Urodacus* 'pilbara 8'	ca. 28.2 km S. of Marble Bar	-21.2295	119.08048	1
WAM	T79535	*Urodacus* `SCO010, pearcei`	Corunna Downs Station, 52.5 km N. of Nullagine, Pilbara Biological Survey site NW11	-21.40769	120.0713	1
WAM	T79533	*Urodacus* `SCO010, pearcei`	Corunna Downs Station, 52.5 km N. of Nullagine, Pilbara Biological Survey site NW11	-21.40769	120.0713	3
WAM	T79534	*Urodacus* `SCO010, pearcei`	Corunna Downs Station, 52.5 km N. of Nullagine, Pilbara Biological Survey site NW11	-21.40769	120.0713	1
WAM	T79445	*Urodacus* sp. indet.	Corunna Downs Station, 52.5 km N. of Nullagine, Pilbara Biological Survey site NW11	-21.40769	120.0713	1
WAM	T105629	*Urodacus* sp. indet.	c. 73 km WSW. of Marble Bar, North Star mine lease	-21.23936	119.0514	1
WAM	T79443	*Urodacus* sp. indet.	47.5 km NNW. of Nullagine, Pilbara Biological Survey site NW09B	-21.4619	120.0135	2
HBI	N30351-1	*Urodacus* sp. indet.	ca. 28.2 km S. of Marble Bar	-21.2295	119.08048	1
HBI	N30371-1	*Urodacus* sp. indet.	ca. 28.7 km SE. of Marble Bar	-21.315	119.51367	1
HBI	N30369-1	*Urodacus* sp. indet.	ca. 28.7 km SE. of Marble Bar	-21.315	119.51367	2

Data source	Registration	Genus and species	Locations	Latitude	Longitude	No. of specimens
HBI	N30370-1	*Urodacus* sp. indet.	ca. 28.7 km SE. of Marble Bar	-21.315	119.51367	2
HBI	N30363-1	*Urodacus* sp. indet.	ca. 38.1 km SE. of Marble bar	-21.32311	119.40547	1
HBI	N30362-1	*Urodacus* sp. indet.	ca. 38.1 km SE. of Marble bar	-21.32311	119.40547	1
Geophilomorpha						
Mecistocephalidae						
HBI	N30348-1	*Mecistocephalus* 'EP01'	ca. 45 km SW. of Marble Bar	-21.328344	119.344458	1
Polydesmida						
Paradoxosomatidae						
WAM	T112614	*Antichiropus cunicularis*	55 km N. of Nullagine, Pilbara Biological Survey site NW12	-21.39228	120.0709	1
WAM	T76081	*Antichiropus cunicularis*	55 km N. of Nullagine, Pilbara Biological Survey site NW12	-21.39228	120.0709	8
WAM	T146705	*Antichiropus cunicularis*	Corunna Downs Station, E. of homestead, Pilbara Biological Survey site NW9	-21.46194	120.0136	7
WAM	T109964	*Antichiropus cunicularis*	Corunna Downs Station, E. of homestead, Pilbara Biological Survey site NW9	-21.46194	120.0136	1
WAM	T76165	*Antichiropus* sp. indet.	Pilbara Biological Survey site NW10, Corunna Downs Station, E. of homestead	-21.46833	120.0064	5
WAM	T76050	*Antichiropus* sp. indet.	Corunna Downs Station, 52.5 km N. of Nullagine, Pilbara Biological Survey site NW11	-21.40769	120.0713	1
WAM	T76066	*Antichiropus* sp. indet.	Pilbara Biological Survey site NW10, Corrina Downs Station, E. of homestead	-21.46833	120.0064	1
WAM	T76049	*Antichiropus* sp. indet.	Corunna Downs Station, 52.5 km N. of Nullagine, Pilbara Biological Survey site NW11	-21.40769	120.0713	3
WAM	T136194	Paradoxosomatidae gen. indet. sp. indet	Corunna Downs Station, ca. 75 km NW. of Nullagine	-21.38872	119.6185	1
Isopoda						
Armadillidae						
WAM	C66346	Acanthodillo sp. indet.	Corunna Stn. ca. 160 km SE Port Hedland WA	-21.388722	119.618472	2
HBI	N30368-2	*Buddelundia* 'SJ 10MA'	ca. 28.7 km SE. of Marble Bar	-21.315	119.51367	1
HBI	N30350-1	*Buddelundia* 'SJ 14FM'	ca. 28.2 km S. of Marble Bar	-21.2295	119.08048	1
HBI	N30378-1	*Buddelundia* 'SJ 14FM'	ca. 24 km S. of Marble Bar	-21.38218	119.80339	1
WAM	C66407	*Buddelundia* `SJ11`	Corunna Stn. ca. 160 km SE Port Hedland WA	-21.388722	119.618472	2
WAM	C66408	*Buddelundia* `SJ11`	Corunna Stn. ca. 160 km SE Port Hedland WA	-21.388722	119.618472	1

Data source	Registration	Genus and species	Locations	Latitude	Longitude	No. of specimens
WAM	C63221	*Buddelundia* `SJ13 indet.`	North Star, Shaw River, 150 km SE Port Hedland	-21.24383	119.08939	3
WAM	C62776	*Buddelundia* `SJ14`	North Star	-21.239444	119.051389	2
WAM	C66381	*Buddelundia* `SJ14mw`	Corunna Stn. ca. 160 km SE Port Hedland WA	-21.388722	119.618472	20
WAM	C66380	*Buddelundia* `SJ14mw`	Corunna Stn. ca. 160 km SE Port Hedland WA	-21.388722	119.618472	1
WAM	C66391	*Buddelundia* `SJ14mw`	Corunna Stn. ca. 160 km SE Port Hedland WA	-21.379722	119.587722	12
WAM	C66360	*Buddelundia* `SJ18`	Corunna Stn. ca. 160 km SE Port Hedland WA	-21.388083	119.652222	5
WAM	C66358	*Buddelundia* `SJ18`	Corunna Stn. ca. 160 km SE Port Hedland WA	-21.388083	119.652222	2
WAM	C66362	*Buddelundia* `SJ18`	Corunna Stn. ca. 160 km SE Port Hedland WA	-21.388083	119.652222	1
WAM	C66361	*Buddelundia* `SJ18`	Corunna Stn. ca. 160 km SE Port Hedland WA	-21.388083	119.652222	3
WAM	C66359	*Buddelundia* `SJ18`	Corunna Stn. ca. 160 km SE Port Hedland WA	-21.388083	119.652222	3
WAM	C63225	*Buddelundia* `SJ18`	North Star, Shaw River, 150 km SE Port Hedland	-21.24383	119.08939	
HBI	N30388-2	*Buddelundia* 'EP01'	ca. 28.2 km S. of Marble Bar	-21.40125	119.860423	1
HBI	N30395-1	*Buddelundia* 'EP01'	ca. 35.2 km SE. of Marble Bar	-21.4196997	119.95617	1
HBI	N30396-1	*Buddelundia* 'EP01'	ca. 35.2 km SE. of Marble Bar	-21.4196997	119.95617	1
HBI	N30379-2	*Buddelundia* 'EP02'	ca. 24 km S. of Marble Bar	-21.38218	119.80339	1
HBI	N30382-2	*Buddelundia* 'EP02'	ca. 24 km S. of Marble Bar	-21.38218	119.80339	1
HBI	N30397-1	*Buddelundia* 'EP02'	ca. 35.2 km SE. of Marble Bar	-21.4196997	119.95617	1
HBI	N30388-1	*Buddelundia* 'PE02'	ca. 28.2 km S. of Marble Bar	-21.40125	119.860423	1
HBI	N30347-1	*Buddelundia* sp. indet.	ca. 24 km S. of Marble Bar	-21.368163	119.841897	1
HBI	N30356-1	*Buddelundia* sp. indet.	ca. 37.2 km SE. of Marble Bar	-21.239317	119.161889	1
HBI	N30352-2	*Buddelundia* sp. indet.	ca. 28.2 km S. of Marble Bar	-21.2295	119.08048	1
HBI	N30349-1	*Buddelundia* sp. indet.	ca. 18 km S. of Marble Bar	-21.324135	119.391145	2
HBI	N30368-1	*Buddelundia* sp. indet.	ca. 28.7 km SE. of Marble Bar	-21.315	119.51367	1
HBI	N30364-2	*Buddelundia* sp. indet.	ca. 34.3 km SE. of Marble Bar	-21.28837	119.43842	1
HBI	N30380-3	*Buddelundia* sp. indet.	ca. 24 km S. of Marble Bar	-21.38218	119.80339	2
HBI	N30381-1	*Buddelundia* sp. indet.	ca. 24 km S. of Marble Bar	-21.38218	119.80339	3
HBI	N30380-1	*Buddelundia* sp. indet.	ca. 24 km S. of Marble Bar	-21.38218	119.80339	4

Data source	Registration	Genus and species	Locations	Latitude	Longitude	No. of specimens
HBI	N30379-3	*Buddelundia* sp. indet.	ca. 24 km S. of Marble Bar	-21.38218	119.80339	1
HBI	N30379-1	*Buddelundia* sp. indet.	ca. 24 km S. of Marble Bar	-21.38218	119.80339	1
HBI	N30377-1	*Buddelundia* sp. indet.	ca. 24 km S. of Marble Bar	-21.38218	119.80339	3
HBI	N30376-1	*Buddelundia* sp. indet.	ca. 24 km S. of Marble Bar	-21.38218	119.80339	3
HBI	N30376-2	*Buddelundia* sp. indet.	ca. 24 km S. of Marble Bar	-21.38218	119.80339	2
HBI	N30374-1	*Buddelundia* sp. indet.	ca. 23.8 km S. of Marble Bar	-21.330188	119.589799	2
HBI	N30393-1	*Buddelundia* sp. indet.	ca. 37.2 km SE. of Marble Bar	-21.466	119.91683	1
HBI	N30389-1	*Buddelundia* sp. indet.	ca. 28.2 km S. of Marble Bar	-21.40125	119.860423	2
HBI	N30386-1	*Buddelundia* sp. indet.	ca. 23.5 km S. of Marble Bar	-21.371574	119.820611	5
HBI	N30384-1	*Buddelundia* sp. indet.	ca. 23.5 km S. of Marble Bar	-21.371574	119.820611	4
HBI	N30385-1	*Buddelundia* sp. indet.	ca. 23.5 km S. of Marble Bar	-21.371574	119.820611	2
HBI	N30382-3	*Buddelundia* sp. indet.	ca. 24 km S. of Marble Bar	-21.38218	119.80339	2
HBI	N30382-1	*Buddelundia* sp. indet.	ca. 24 km S. of Marble Bar	-21.38218	119.80339	3
HBI	N30352-1	Buddelundiinae 'PE03'	ca. 28.2 km S. of Marble Bar	-21.2295	119.08048	0
HBI	N30392-1	Buddelundiinae 'PE04'	ca. 37.2 km SE. of Marble Bar	-21.466	119.91683	1
HBI	N30397-2	Buddelundiinae 'PE04'	ca. 35.2 km SE. of Marble Bar	-21.4196997	119.95617	1
WAM	C66412	Armadillidae `abydos`	Corunna Stn. ca. 160 km SE Port Hedland WA	-21.379722	119.587722	1
WAM	C66437	Armadillidae `mw`	Corunna Stn. ca. 160 km SE Port Hedland WA	-21.388083	119.652222	15
WAM	C63229	Armadillidae gen. indet. sp. indet.	North Star, Shaw River, 150 km SE Port Hedland	-21.22733	119.05918	
WAM	C62790	Armadillidae gen. indet. sp. indet.	North Star	-21.239444	119.051389	6
WAM	C63230	Armadillidae gen. indet. sp. indet.	North Star, Shaw River, 150 km SE Port Hedland	-21.24383	119.08939	
Eupulmonata						
Camaenidae						
HBI	N30349-2	*Rhagada* 'richardsonii-complex'	ca. 18 km S. of Marble Bar	-21.324135	119.391145	1
HBI	N30366-1	*Rhagada* richardsonii-complex	ca. 36.1 km SE. of Marble Bar	-21.338924	119.445612	1
HBI	N30390-2	*Rhagada* richardsonii-complex	ca. 28.2 km S. of Marble Bar	-21.40125	119.860423	1
WAM	S92046	*Rhagada* cf. richardsonii	WA: c. 150km W of Marble Bar	-21.2422	119.2704	1

Data source	Registration	Genus and species	Locations	Latitude	Longitude	No. of specimens
WAM	S92047	*Rhagada* cf. richardsonii	WA: c. 150km W of Marble Bar	-21.2422	119.2704	1
WAM	S83207	*Rhagada* cf. richardsonii	WA: c. 150km W of Marble Bar	-21.2422	119.2704	1
WAM	S92045	*Rhagada* cf. richardsonii	WA: c. 150km W of Marble Bar	-21.2422	119.2704	1
HBI	N30345-1	*Rhagada* sp. indet.	ca. 33.9 km SW. of Marble Bar	-21.348822	119.478028	1
HBI	N30349-3	*Rhagada* sp. indet.	ca. 18 km S. of Marble Bar	-21.324135	119.391145	2
HBI	N30367-1	*Rhagada* sp. indet.	ca. 36.1 km SE. of Marble Bar	-21.338924	119.445612	2
HBI	N30365-1	*Rhagada* sp. indet.	ca. 34.3 km SE. of Marble Bar	-21.28837	119.43842	3
WAM	S88273	*Rhagada* sp. indet.	Corunna Stn ca. 160km SE Port Hedland WA	-21.3887	119.6185	1
WAM	S88281	*Rhagada* sp. indet.	Corunna Stn ca. 160km SE Port Hedland WA	-21.3887	119.6185	1
WAM	S88276	*Rhagada* sp. indet.	Corunna Stn ca. 160km SE Port Hedland WA	-21.3887	119.6185	1
WAM	S88279	*Rhagada* sp. indet.	Corunna Stn ca. 160km SE Port Hedland WA	-21.3887	119.6185	1
WAM	S88280	*Rhagada* sp. indet.	Corunna Stn ca. 160km SE Port Hedland WA	-21.3887	119.6185	1
WAM	S88277	*Rhagada* sp. indet.	Corunna Stn ca. 160km SE Port Hedland WA	-21.3887	119.6185	1
WAM	S88278	*Rhagada* sp. indet.	Corunna Stn ca. 160km SE Port Hedland WA	-21.3887	119.6185	1
HBI	N30390-1	Camaenidae sp.	ca. 28.2 km S. of Marble Bar	-21.40125	119.860423	2
Charopidae						
HBI	N30349-4	Charopidae sp.	ca. 18 km S. of Marble Bar	-21.324135	119.391145	5

Appendix 3 Short-range endemic invertebrate target taxa in the Study Area (field survey)

HBI Reg.	Genus and species	Site	Easting	Northing	Zone	No. of specimens
ARANEAE						
Anamidae						
242591	*Aname* FP-12641 (EP03)	33	200974	7642224	51	1
241597	*Aname* FP-13324 (BoDo01)	9	757672	7634290	50	1
242528	*Aname* FP-13324 (BoDo01)	19	783999	7635362	50	1
242584	*Aname* FP-13324 (BoDo01)	25	756262	7642936	50	1
242592	*Aname* FP-13324 (BoDo01)	28	788370	7631029	50	1
242531	*Aname* FP-13324 (BoDo01)	28	788370	7631029	50	1
243314	*Aname* FP-13324 (BoDo01)	28	788370	7631029	50	1
242463	*Aname* FP-13324 (BoDo01)	31	191857	7625298	51	1
242482	*Aname* FP-13324 (BoDo01)	31	191857	7625298	51	1
242593	*Aname* FP-13453 (ESV *mellosa*-complex EP03)	22	744573	7643169	50	1
241599	*Aname* FP-13453 (ESV *mellosa*-complex EP03)	24	752087	7643076	50	1
241598	Anamidae gen. indet. sp. indet.	31	191857	7625298	51	1
Halonoproctidae						
242469	*Conothele* FP-13454 (ESV EP01)	1	755421	7646374	50	1
242468	*Conothele* FP-13454 (ESV EP01)	1	755421	7646374	50	1
Selenopidae						
242586	*Karaops* FP-13326 (2 ADL2023a)	5	785371	7633496	50	1
243559	*Karaops* FP-13326 (2 ADL2023a)	5	785371	7633496	50	1
243102	*Karaops* FP-13326 (2 ADL2023a)	17	771326	7636760	50	1
243106	*Karaops* FP-13326 (2 ADL2023a)	17	771326	7636760	50	1
243292	*Karaops* FP-13455 (ESV cf. morgonoconolli)	23	747158	7640104	50	1
243245	*Karaops* FP-13455 (ESV cf. morgonoconolli)	25	756262	7642936	50	1
243275	*Karaops* FP-13455 (ESV cf. morgonoconolli)	27	784049	7630854	50	1
243195	*Karaops* FP-13546 (ESV EP01)	3	725013	7650873	50	1
243353	*Karaops* FP-13546 (ESV EP01)	3	725013	7650873	50	1
243354	*Karaops* FP-13546 (ESV EP01)	3	725013	7650873	50	1
243355	*Karaops* FP-13546 (ESV EP01)	3	725013	7650873	50	1
243329	*Karaops* sp. indet.	1	755421	7646374	50	1
OPILIONES						
Assamiidae						
243533	Assamiidae gen. indet. FP-12648 (EP01)	23	747158	7640104	50	1
243561	Assamiidae gen. indet. FP-12648 (EP01)	25	756262	7642936	50	1
242448	Assamiidae gen. indet. FP-13457 (ESV EP02)	5	785371	7633496	50	1
243113	Assamiidae gen. indet. FP-13458 (ESV EP03)	11	197407	7626358	51	1
242587	Assamiidae gen. indet. FP-13458 (ESV EP03)	34	809947	7628397	50	1
242504	Assamiidae gen. indet. FP-13459 (ESV EP04)	21	734401	7651166	50	1
242585	Assamiidae gen. indet. FP-13460 (ESV EP05)	3	725013	7650873	50	1
243175	Assamiidae gen. indet. FP-13460 (ESV EP05)	14	723799	7649149	50	1
243364	Assamiidae gen. indet. sp. indet.	2	786970	7637264	50	1
243305	Assamiidae gen. indet. sp. indet.	6	764506	7646162	50	3
243114	Assamiidae gen. indet. sp. indet.	11	197407	7626358	51	12
243099	Assamiidae gen. indet. sp. indet.	19	783999	7635362	50	2

HBI Reg.	Genus and species	Site	Easting	Northing	Zone	No. of specimens
243356	Assamiidae gen. indet. sp. indet.	3	725013	7650873	50	10
243189	Assamiidae gen. indet. sp. indet.	3	725013	7650873	50	1
243199	Assamiidae gen. indet. sp. indet.	3	725013	7650873	50	2
243567	Assamiidae gen. indet. sp. indet.	14	723799	7649149	50	3
243211	Assamiidae gen. indet. sp. indet.	14	723799	7649149	50	1
242520	Assamiidae gen. indet. sp. indet.	21	734401	7651166	50	1
243517	Assamiidae gen. indet. sp. indet.	21	734401	7651166	50	2
242511	Assamiidae gen. indet. sp. indet.	21	734401	7651166	50	1
243566	Assamiidae gen. indet. sp. indet.	21	734401	7651166	50	1
243293	Assamiidae gen. indet. sp. indet.	23	747158	7640104	50	10
242552	Assamiidae gen. indet. sp. indet.	23	747158	7640104	50	3
242562	Assamiidae gen. indet. sp. indet.	23	747158	7640104	50	1
242572	Assamiidae gen. indet. sp. indet.	24	752087	7643076	50	1
243241	Assamiidae gen. indet. sp. indet.	25	756262	7642936	50	1
243250	Assamiidae gen. indet. sp. indet.	25	756262	7642936	50	1
243553	Assamiidae gen. indet. sp. indet.	25	756262	7642936	50	2
243562	Assamiidae gen. indet. sp. indet.	25	756262	7642936	50	1
PSEUDOSCORPIONES						
Atemnidae						
241646	Atemnidae gen. indet. FP-13461 (Biologic PSEU096)	12	195885	7646741	51	2
243298	Atemnidae gen. indet. FP-13461 (Biologic PSEU096)	23	747158	7640104	50	3
243127	Atemnidae gen. indet. FP-13461 (Biologic PSEU096)	27	784049	7630854	50	4
243460	Atemnidae gen. indet. FP-13461 (Biologic PSEU096)	27	784049	7630854	50	1
241656	Atemnidae gen. indet. FP-13461 (Biologic PSEU096)	27	784049	7630854	50	6
243576	Atemnidae gen. indet. FP-13461 (Biologic PSEU096)	28	788370	7631029	50	1
241657	Atemnidae gen. indet. FP-13461 (Biologic PSEU096)	32	196834	7640415	51	1
243535	*Oratemnus* FP-11861 (ESV PSE121)	4	205044	7637718	51	1
243308	*Oratemnus* FP-11861 (ESV PSE121)	6	764506	7646162	50	1
243115	*Oratemnus* FP-11861 (ESV PSE121)	11	197407	7626358	51	2
243204	*Oratemnus* FP-11861 (ESV PSE121)	12	195885	7646741	51	1
243378	*Oratemnus* FP-11861 (ESV PSE121)	16	727890	7649595	50	6
242980	*Oratemnus* FP-11861 (ESV PSE121)	20	734324	7647419	50	9
242524	*Oratemnus* FP-11861 (ESV PSE121)	21	734401	7651166	50	2
243451	*Oratemnus* FP-11861 (ESV PSE121)	21	734401	7651166	50	21
243461	*Oratemnus* FP-11861 (ESV PSE121)	23	747158	7640104	50	20
241671	*Oratemnus* FP-11861 (ESV PSE121)	23	747158	7640104	50	11
243079	*Oratemnus* FP-11861 (ESV PSE121)	23	747158	7640104	50	1
243080	*Oratemnus* FP-11861 (ESV PSE121)	23	747158	7640104	50	1
243505	*Oratemnus* FP-11861 (ESV PSE121)	25	756262	7642936	50	27
243267	*Oratemnus* FP-11861 (ESV PSE121)	26	771449	7632613	50	14
243124	*Oratemnus* FP-11861 (ESV PSE121)	27	784049	7630854	50	1
243274	*Oratemnus* FP-11861 (ESV PSE121)	27	784049	7630854	50	9
243507	*Oratemnus* FP-11861 (ESV PSE121)	27	784049	7630854	50	13
243315	*Oratemnus* FP-11861 (ESV PSE121)	29	799785	7632311	50	5
242580	*Oratemnus* FP-11861 (ESV PSE121)	31	191857	7625298	51	10

HBI Reg.	Genus and species	Site	Easting	Northing	Zone	No. of specimens
243534	*Oratemnus* FP-11861 (ESV PSE121)	32	196834	7640415	51	1
243546	*Oratemnus* FP-11861 (ESV PSE121)	32	196834	7640415	51	6
243238	*Oratemnus* FP-11861 (ESV PSE121)	32	196834	7640415	51	17
243604	*Oratemnus* FP-11861 (ESV PSE121)	32	196834	7640415	51	3
243420	*Oratemnus* FP-11861 (ESV PSE121)	34	809947	7628397	50	1
Cheiridiidae						
241654	Cheiridiidae gen. indet. FP-13462 (ESV EP01)	32	196834	7640415	51	1
Chernetidae						
243283	*Austrochernes* sp. indet.	8	804640	7619156	50	1
243285	Cheiridiidae gen. indet. FP-13462 (ESV EP01)	8	804640	7619156	50	2
241378	*Haplochernes* FP-13464 (ESV EP02)	7	195276	7619121	51	1
243143	*Haplochernes* FP-13464 (ESV EP02)	7	195276	7619121	51	2
242954	*Haplochernes* FP-13464 (ESV EP02)	9	757672	7634290	50	2
242955	*Haplochernes* FP-13464 (ESV EP02)	9	757672	7634290	50	1
242956	*Haplochernes* FP-13464 (ESV EP02)	9	757672	7634290	50	1
242957	*Haplochernes* FP-13464 (ESV EP02)	9	757672	7634290	50	1
243454	*Haplochernes* FP-13464 (ESV EP02)	9	757672	7634290	50	1
243164	*Haplochernes* FP-13464 (ESV EP02)	13	204312	7643207	51	2
243499	*Haplochernes* FP-13464 (ESV EP02)	13	204312	7643207	51	1
243242	*Haplochernes* FP-13464 (ESV EP02)	25	756262	7642936	50	0
243257	*Haplochernes* FP-13464 (ESV EP02)	25	756262	7642936	50	1
Chthoniidae						
243472	*Austrochthonius* sp. indet.	21	734401	7651166	50	1
243573	*Austrochthonius* sp. indet.	21	734401	7651166	50	2
243146	*Tyrannochthonius* FP-13465 (ESV EP01)	7	195276	7619121	51	1
243539	*Tyrannochthonius* FP-13465 (ESV EP01)	7	195276	7619121	51	1
243169	*Tyrannochthonius* FP-13465 (ESV EP01)	13	204312	7643207	51	1
243254	*Tyrannochthonius* FP-13465 (ESV EP01)	25	756262	7642936	50	1
242513	*Tyrannochthonius* FP-13465 (ESV EP01)	21	734401	7651166	50	1
242624	*Tyrannochthonius* FP-13465 (ESV EP01)	34	809947	7628397	50	1
243537	*Tyrannochthonius* FP-13465 (ESV EP01)	34	809947	7628397	50	1
Feaellidae						
242447	*Feaella tealei* Harvey et al., 2016	5	785371	7633496	50	7
243091	*Feaella tealei* Harvey et al., 2016	17	771326	7636760	50	4
242972	*Feaella tealei* Harvey et al., 2016	20	734324	7647419	50	5
242503	*Feaella tealei* Harvey et al., 2016	23	747158	7640104	50	1
252550	*Feaella tealei* Harvey et al., 2016	23	747158	7640104	50	0
242571	*Feaella tealei* Harvey et al., 2016	24	752087	7643076	50	4
242581	*Feaella tealei* Harvey et al., 2016	31	191857	7625298	51	2
242502	*Feaella tealei* Harvey et al., 2016	34	809947	7628397	50	1
242617	*Feaella tealei* Harvey et al., 2016	34	809947	7628397	50	1
Garypidae						
243226	*Synsphyronus* FP-13471 (ESV BoDo01)	4	205044	7637718	51	1
242984	*Synsphyronus* FP-13471 (ESV BoDo01)	32	196834	7640415	51	1
242443	*Synsphyronus xynus* Cullen & Harvey, 2021	5	785371	7633496	50	2
242451	*Synsphyronus xynus* Cullen & Harvey, 2021	5	785371	7633496	50	16
243141	*Synsphyronus xynus* Cullen & Harvey, 2021	7	195276	7619121	51	2
243288	*Synsphyronus xynus* Cullen & Harvey, 2021	7	195276	7619121	51	1

HBI Reg.	Genus and species	Site	Easting	Northing	Zone	No. of specimens
242462	*Synsphyronus xynus* Cullen & Harvey, 2021	3	725013	7650873	50	5
242565	*Synsphyronus xynus* Cullen & Harvey, 2021	21	734401	7651166	50	2
242523	*Synsphyronus xynus* Cullen & Harvey, 2021	21	734401	7651166	50	6
242546	*Synsphyronus xynus* Cullen & Harvey, 2021	23	747158	7640104	50	5
242559	*Synsphyronus xynus* Cullen & Harvey, 2021	23	747158	7640104	50	1
243243	*Synsphyronus xynus* Cullen & Harvey, 2021	25	756262	7642936	50	4
Hyidae						
242973	*Indohya boltoni* Harvey & Burger, 2023	20	734324	7647419	50	4
242979	*Indohya boltoni* Harvey & Burger, 2023	20	734324	7647419	50	1
242981	*Indohya boltoni* Harvey & Burger, 2023	20	734324	7647419	50	1
243574	*Indohya boltoni* Harvey & Burger, 2023	20	734324	7647419	50	1
242522	*Indohya boltoni* Harvey & Burger, 2023	21	734401	7651166	50	1
Olpiidae						
242439	*Austrohorus* FP-13474 (ESV EP01)	4	205044	7637718	51	1
243555	*Austrohorus* FP-13474 (ESV EP01)	13	204312	7643207	51	1
243463	*Austrohorus* FP-13474 (ESV EP01)	33	200974	7642224	51	1
243509	*Austrohorus* FP-13475 (ESV EP02)	31	191857	7625298	51	1
242993	*Austrohorus* FP-13476 (ESV EP03)	15	783743	7640400	50	1
243586	*Austrohorus* FP-13477 (ESV EP04)	7	195276	7619121	51	1
243192	*Austrohorus* FP-13477 (ESV EP04)	3	725013	7650873	50	1
243457	*Austrohorus* FP-13478 (ESV EP05)	29	799785	7632311	50	1
241662	*Austrohorus* FP-13478 (ESV EP05)	32	196834	7640415	51	1
241641	*Austrohorus* FP-13479 (ESV EP06)	17	771326	7636760	50	1
243496	*Austrohorus* FP-13480 (ESV EP07)	1	755421	7646374	50	1
243560	*Austrohorus* FP-13480 (ESV EP07)	9	757672	7634290	50	1
241341	*Austrohorus* FP-13480 (ESV EP07)	23	747158	7640104	50	1
243602	*Austrohorus* FP-13481 (ESV EP09)	24	752087	7643076	50	1
243446	*Austrohorus* FP-13482 (ESV EP10)	26	771449	7632613	50	1
243357	*Austrohorus* FP-13483 (ESV EP11)	3	725013	7650873	50	1
243191	*Austrohorus* FP-13483 (ESV EP11)	3	725013	7650873	50	1
243176	*Austrohorus* FP-13483 (ESV EP11)	14	723799	7649149	50	1
242428	*Austrohorus* FP-13484 (ESV EP12)	33	200974	7642224	51	1
242547	*Austrohorus* FP-13485 (ESV EP13)	23	747158	7640104	50	1
241645	*Austrohorus* FP-13485 (ESV EP13)	23	747158	7640104	50	1
243449	*Austrohorus* FP-13485 (ESV EP13)	23	747158	7640104	50	1
243591	*Austrohorus* FP-13486 (ESV EP14)	18	780507	7641254	50	1
243371	*Austrohorus* FP-13487 (ESV EP15)	2	786970	7637264	50	1
242437	*Austrohorus* sp. indet.	4	205044	7637718	51	1
243222	*Austrohorus* sp. indet.	4	205044	7637718	51	1
243475	*Austrohorus* sp. indet.	4	205044	7637718	51	25
243227	*Austrohorus* sp. indet.	4	205044	7637718	51	18
243089	*Austrohorus* sp. indet.	4	205044	7637718	51	1
243363	*Austrohorus* sp. indet.	2	786970	7637264	50	4
243094	*Austrohorus* sp. indet.	2	786970	7637264	50	23
242444	*Austrohorus* sp. indet.	5	785371	7633496	50	1
242445	*Austrohorus* sp. indet.	5	785371	7633496	50	2
242449	*Austrohorus* sp. indet.	5	785371	7633496	50	2
242536	*Austrohorus* sp. indet.	5	785371	7633496	50	2

HBI Reg.	Genus and species	Site	Easting	Northing	Zone	No. of specimens
243492	*Austrohorus* sp. indet.	5	785371	7633496	50	1
243527	*Austrohorus* sp. indet.	5	785371	7633496	50	1
243528	*Austrohorus* sp. indet.	5	785371	7633496	50	3
243529	*Austrohorus* sp. indet.	5	785371	7633496	50	1
243286	*Austrohorus* sp. indet.	7	195276	7619121	51	1
243606	*Austrohorus* sp. indet.	7	195276	7619121	51	2
243291	*Austrohorus* sp. indet.	7	195276	7619121	51	2
243153	*Austrohorus* sp. indet.	8	804640	7619156	50	0
243160	*Austrohorus* sp. indet.	8	804640	7619156	50	1
242962	*Austrohorus* sp. indet.	9	757672	7634290	50	17
243549	*Austrohorus* sp. indet.	9	757672	7634290	50	20
243330	*Austrohorus* sp. indet.	10	200028	7635209	51	1
241644	*Austrohorus* sp. indet.	12	195885	7646741	51	8
243167	*Austrohorus* sp. indet.	13	204312	7643207	51	47
241681	*Austrohorus* sp. indet.	18	780507	7641254	50	0
241678	*Austrohorus* sp. indet.	19	783999	7635362	50	4
243194	*Austrohorus* sp. indet.	3	725013	7650873	50	1
241946	*Austrohorus* sp. indet.	3	725013	7650873	50	1
243358	*Austrohorus* sp. indet.	3	725013	7650873	50	1
243483	*Austrohorus* sp. indet.	3	725013	7650873	50	1
241670	*Austrohorus* sp. indet.	14	723799	7649149	50	1
243456	*Austrohorus* sp. indet.	14	723799	7649149	50	4
242975	*Austrohorus* sp. indet.	20	734324	7647419	50	2
243494	*Austrohorus* sp. indet.	20	734324	7647419	50	2
243468	*Austrohorus* sp. indet.	21	734401	7651166	50	4
242459	*Austrohorus* sp. indet.	22	744573	7643169	50	4
241385	*Austrohorus* sp. indet.	23	747158	7640104	50	1
240973	*Austrohorus* sp. indet.	23	747158	7640104	50	1
243448	*Austrohorus* sp. indet.	23	747158	7640104	50	2
243450	*Austrohorus* sp. indet.	23	747158	7640104	50	1
243530	*Austrohorus* sp. indet.	23	747158	7640104	50	4
243571	*Austrohorus* sp. indet.	24	752087	7643076	50	3
243253	*Austrohorus* sp. indet.	25	756262	7642936	50	2
243256	*Austrohorus* sp. indet.	25	756262	7642936	50	1
243458	*Austrohorus* sp. indet.	26	771449	7632613	50	5
243470	*Austrohorus* sp. indet.	26	771449	7632613	50	3
243510	*Austrohorus* sp. indet.	27	784049	7630854	50	1
243352	*Austrohorus* sp. indet.	27	784049	7630854	50	3
243487	*Austrohorus* sp. indet.	28	788370	7631029	50	0
243488	*Austrohorus* sp. indet.	28	788370	7631029	50	1
242590	*Austrohorus* sp. indet.	29	799785	7632311	50	1
243506	*Austrohorus* sp. indet.	29	799785	7632311	50	13
241666	*Austrohorus* sp. indet.	29	799785	7632311	50	10
242306	*Austrohorus* sp. indet.	30	796629	7625501	50	7
243508	*Austrohorus* sp. indet.	31	191857	7625298	51	17
243341	*Austrohorus* sp. indet.	31	191857	7625298	51	16
243548	*Austrohorus* sp. indet.	32	196834	7640415	51	33
242435	*Austrohorus* sp. indet.	33	200974	7642224	51	1

HBI Reg.	Genus and species	Site	Easting	Northing	Zone	No. of specimens
242429	*Austrohorus* sp. indet.	33	200974	7642224	51	0
243493	*Austrohorus* sp. indet.	33	200974	7642224	51	29
243498	*Austrohorus* sp. indet.	33	200974	7642224	51	2
243234	*Austrohorus* sp. indet.	33	200974	7642224	51	11
243491	*Austrohorus* sp. indet.	33	200974	7642224	51	2
243476	*Austrohorus* sp. indet.	34	809947	7628397	50	39
243142	*Beierolpium* FP-13333 (PSEU115)	7	195276	7619121	51	1
243597	*Beierolpium* FP-13333 (PSEU115)	13	204312	7643207	51	1
242314	*Beierolpium* FP-13333 (PSEU115)	29	799785	7632311	50	1
242982	*Beierolpium* FP-13488 (ESV EP16)	20	734324	7647419	50	1
242953	*Beierolpium* FP-13489 (ESV EP17)	9	757672	7634290	50	1
243565	*Beierolpium* FP-13489 (ESV EP17)	23	747158	7640104	50	1
243504	*Beierolpium* FP-13489 (ESV EP17)	24	752087	7643076	50	1
243139	*Beierolpium* FP-13489 (ESV EP17)	28	788370	7631029	50	1
243605	*Beierolpium* FP-13489 (ESV EP17)	30	796629	7625501	50	1
243473	*Beierolpium* FP-13489 (ESV EP17)	31	191857	7625298	51	1
243235	*Beierolpium* FP-13490 (ESV EP18)	33	200974	7642224	51	1
243482	*Beierolpium* sp. indet.	5	785371	7633496	50	1
243090	*Beierolpium* sp. indet.	6	764506	7646162	50	1
243145	*Beierolpium* sp. indet.	7	195276	7619121	51	1
243150	*Beierolpium* sp. indet.	7	195276	7619121	51	1
243593	*Beierolpium* sp. indet.	8	804640	7619156	50	8
241390	*Beierolpium* sp. indet.	14	723799	7649149	50	1
242983	*Beierolpium* sp. indet.	20	734324	7647419	50	1
243478	*Beierolpium* sp. indet.	23	747158	7640104	50	5
243572	*Beierolpium* sp. indet.	30	796629	7625501	50	1
243587	*Beierolpium* sp. indet.	30	796629	7625501	50	1
243462	*Beierolpium* sp. indet.	31	191857	7625298	51	2
241604	*Beierolpium* sp. indet.	32	196834	7640415	51	1
241653	*Beierolpium* sp. indet.	32	196834	7640415	51	5
243085	*Beierolpium* sp. indet.	32	196834	7640415	51	3
243220	*Indolpium* FP-13491 (BoDo07)	14	723799	7649149	50	1
243477	*Indolpium* FP-13491 (BoDo07)	23	747158	7640104	50	1
243607	*Indolpium* FP-13491 (BoDo07)	26	771449	7632613	50	1
243323	*Indolpium* FP-13492 (ESV EP08)	1	755421	7646374	50	1
241371	*Indolpium* FP-13492 (ESV EP08)	14	723799	7649149	50	1
243082	*Indolpium* FP-13492 (ESV EP08)	14	723799	7649149	50	1
243484	*Indolpium* FP-13492 (ESV EP08)	23	747158	7640104	50	1
243595	*Indolpium* FP-13492 (ESV EP08)	24	752087	7643076	50	1
243603	*Indolpium* FP-13493 (ESV EP19)	28	788370	7631029	50	1
243452	*Indolpium* FP-13494 (ESV EP23)	23	747158	7640104	50	1
243266	*Indolpium* FP-13495 (ESV EP24)	26	771449	7632613	50	1
241674	*Indolpium* FP-13496 (ESV EP25)	18	780507	7641254	50	1
243186	*Indolpium* FP-13497 (ESV EP26)	3	725013	7650873	50	1
243255	*Indolpium* FP-13498 (ESV EP28)	25	756262	7642936	50	1
243570	*Indolpium* FP-13498 (ESV EP28)	25	756262	7642936	50	1
243232	*Indolpium* FP-13499 (ESV EP29)	33	200974	7642224	51	1
243162	*Indolpium* FP-13500 (ESV EP30)	8	804640	7619156	50	1

HBI Reg.	Genus and species	Site	Easting	Northing	Zone	No. of specimens
243563	*Indolpium* FP-13500 (ESV EP30)	8	804640	7619156	50	1
241962	*Indolpium* FP-13500 (ESV EP30)	11	197407	7626358	51	1
241965	*Indolpium* FP-13500 (ESV EP30)	11	197407	7626358	51	1
242305	*Indolpium* FP-13500 (ESV EP30)	30	796629	7625501	50	1
241650	*Indolpium* FP-13500 (ESV EP30)	31	191857	7625298	51	1
241610	*Indolpium* FP-13501 (ESV EP31)	32	196834	7640415	51	1
243520	*Indolpium* FP-13501 (ESV EP31)	33	200974	7642224	51	1
243233	*Indolpium* FP-13501 (ESV EP31)	33	200974	7642224	51	1
241679	*Indolpium* FP-13502 (ESV EP32)	1	755421	7646374	50	1
243372	*Indolpium* FP-13503 (ESV EP33)	2	786970	7637264	50	1
243542	*Indolpium* FP-13503 (ESV EP33)	5	785371	7633496	50	1
243598	*Indolpium* FP-13504 (ESV EP34)	9	757672	7634290	50	1
241680	*Indolpium* FP-13505 (ESV EP35)	11	197407	7626358	51	1
241673	*Indolpium* FP-13505 (ESV EP35)	18	780507	7641254	50	1
243380	*Indolpium* FP-13506 (ESV EP36)	16	727890	7649595	50	1
243381	*Indolpium* FP-13548 (ESV EP37)	16	727890	7649595	50	1
243321	*Indolpium* sp. indet.	1	755421	7646374	50	5
242974	*Indolpium* sp. indet.	4	205044	7637718	51	4
243600	*Indolpium* sp. indet.	4	205044	7637718	51	7
243228	*Indolpium* sp. indet.	4	205044	7637718	51	1
243088	*Indolpium* sp. indet.	4	205044	7637718	51	3
243370	*Indolpium* sp. indet.	2	786970	7637264	50	4
243464	*Indolpium* sp. indet.	5	785371	7633496	50	1
243485	*Indolpium* sp. indet.	5	785371	7633496	50	4
243152	*Indolpium* sp. indet.	8	804640	7619156	50	2
243158	*Indolpium* sp. indet.	8	804640	7619156	50	9
241958	*Indolpium* sp. indet.	8	804640	7619156	50	18
242963	*Indolpium* sp. indet.	9	757672	7634290	50	3
243551	*Indolpium* sp. indet.	9	757672	7634290	50	4
243556	*Indolpium* sp. indet.	9	757672	7634290	50	1
243557	*Indolpium* sp. indet.	9	757672	7634290	50	1
243558	*Indolpium* sp. indet.	9	757672	7634290	50	1
243168	*Indolpium* sp. indet.	13	204312	7643207	51	0
242992	*Indolpium* sp. indet.	15	783743	7640400	50	2
241639	*Indolpium* sp. indet.	17	771326	7636760	50	2
243107	*Indolpium* sp. indet.	17	771326	7636760	50	2
243092	*Indolpium* sp. indet.	17	771326	7636760	50	1
241606	*Indolpium* sp. indet.	18	780507	7641254	50	1
241647	*Indolpium* sp. indet.	19	783999	7635362	50	3
243185	*Indolpium* sp. indet.	3	725013	7650873	50	1
243193	*Indolpium* sp. indet.	3	725013	7650873	50	2
243198	*Indolpium* sp. indet.	3	725013	7650873	50	3
243200	*Indolpium* sp. indet.	3	725013	7650873	50	1
243543	*Indolpium* sp. indet.	3	725013	7650873	50	4
243578	*Indolpium* sp. indet.	3	725013	7650873	50	1
241954	*Indolpium* sp. indet.	3	725013	7650873	50	1
241955	*Indolpium* sp. indet.	3	725013	7650873	50	13
243214	*Indolpium* sp. indet.	14	723799	7649149	50	1

HBI Reg.	Genus and species	Site	Easting	Northing	Zone	No. of specimens
243180	*Indolpium* sp. indet.	14	723799	7649149	50	1
243181	*Indolpium* sp. indet.	14	723799	7649149	50	118
243584	*Indolpium* sp. indet.	14	723799	7649149	50	3
241388	*Indolpium* sp. indet.	14	723799	7649149	50	26
241394	*Indolpium* sp. indet.	14	723799	7649149	50	18
241618	*Indolpium* sp. indet.	14	723799	7649149	50	38
241929	*Indolpium* sp. indet.	16	727890	7649595	50	1
243379	*Indolpium* sp. indet.	16	727890	7649595	50	1
242506	*Indolpium* sp. indet.	21	734401	7651166	50	2
242512	*Indolpium* sp. indet.	21	734401	7651166	50	3
242525	*Indolpium* sp. indet.	21	734401	7651166	50	2
243465	*Indolpium* sp. indet.	21	734401	7651166	50	3
243582	*Indolpium* sp. indet.	21	734401	7651166	50	0
243583	*Indolpium* sp. indet.	22	744573	7643169	50	10
243294	*Indolpium* sp. indet.	23	747158	7640104	50	2
242551	*Indolpium* sp. indet.	23	747158	7640104	50	3
243471	*Indolpium* sp. indet.	23	747158	7640104	50	3
243480	*Indolpium* sp. indet.	23	747158	7640104	50	11
241652	*Indolpium* sp. indet.	23	747158	7640104	50	4
241664	*Indolpium* sp. indet.	23	747158	7640104	50	1
242570	*Indolpium* sp. indet.	24	752087	7643076	50	15
243489	*Indolpium* sp. indet.	24	752087	7643076	50	1
243497	*Indolpium* sp. indet.	24	752087	7643076	50	1
243581	*Indolpium* sp. indet.	24	752087	7643076	50	22
243577	*Indolpium* sp. indet.	25	756262	7642936	50	1
243589	*Indolpium* sp. indet.	25	756262	7642936	50	1
243265	*Indolpium* sp. indet.	26	771449	7632613	50	1
243269	*Indolpium* sp. indet.	26	771449	7632613	50	2
243590	*Indolpium* sp. indet.	26	771449	7632613	50	1
243128	*Indolpium* sp. indet.	27	784049	7630854	50	4
241351	*Indolpium* sp. indet.	29	799785	7632311	50	1
243455	*Indolpium* sp. indet.	29	799785	7632311	50	1
243467	*Indolpium* sp. indet.	29	799785	7632311	50	3
243541	*Indolpium* sp. indet.	29	799785	7632311	50	1
241667	*Indolpium* sp. indet.	29	799785	7632311	50	7
241668	*Indolpium* sp. indet.	29	799785	7632311	50	4
243340	*Indolpium* sp. indet.	31	191857	7625298	51	5
242986	*Indolpium* sp. indet.	32	196834	7640415	51	1
242426	*Indolpium* sp. indet.	32	196834	7640415	51	2
243545	*Indolpium* sp. indet.	32	196834	7640415	51	2
243239	*Indolpium* sp. indet.	32	196834	7640415	51	1
243486	*Indolpium* sp. indet.	33	200974	7642224	51	2
241512	*Indolpium* sp. indet.	33	200974	7642224	51	2
243086	*Indolpium* sp. indet.	33	200974	7642224	51	3
242623	*Indolpium* sp. indet.	34	809947	7628397	50	3
243547	*Indolpium* sp. indet.	34	809947	7628397	50	4
Sternophoridae						
243365	*Afrosternophorus* FP-13292 (Biologic PSEU076)	2	786970	7637264	50	1

HBI Reg.	Genus and species	Site	Easting	Northing	Zone	No. of specimens
242453	*Afrosternophorus* FP-13292 (Biologic PSEU076)	5	785371	7633496	50	1
243111	*Afrosternophorus* FP-13292 (Biologic PSEU076)	18	780507	7641254	50	1
243100	*Afrosternophorus* FP-13292 (Biologic PSEU076)	19	783999	7635362	50	2
241655	*Afrosternophorus* FP-13292 (Biologic PSEU076)	27	784049	7630854	50	1
243133	*Afrosternophorus* FP-13292 (Biologic PSEU076)	28	788370	7631029	50	3
243140	*Afrosternophorus* FP-13292 (Biologic PSEU076)	28	788370	7631029	50	2
SCORPIONES						
Buthidae						
242518	*Lychas* FP-12652 (*multipunctatus*-complex)	21	734401	7651166	50	1
243225	*Lychas* FP-13185 (*bituberculatus*-complex)	4	205044	7637718	51	1
243093	*Lychas* FP-13185 (*bituberculatus*-complex)	2	786970	7637264	50	1
243302	*Lychas* FP-13185 (*bituberculatus*-complex)	6	764506	7646162	50	1
243147	*Lychas* FP-13185 (*bituberculatus*-complex)	7	195276	7619121	51	2
242958	*Lychas* FP-13185 (*bituberculatus*-complex)	9	757672	7634290	50	1
243203	*Lychas* FP-13185 (*bituberculatus*-complex)	12	195885	7646741	51	2
242991	*Lychas* FP-13185 (*bituberculatus*-complex)	15	783743	7640400	50	2
243182	*Lychas* FP-13185 (*bituberculatus*-complex)	14	723799	7649149	50	1
243217	*Lychas* FP-13185 (*bituberculatus*-complex)	14	723799	7649149	50	1
243343	*Lychas* FP-13185 (*bituberculatus*-complex)	14	723799	7649149	50	1
242455	*Lychas* FP-13185 (*bituberculatus*-complex)	20	734324	7647419	50	1
242970	*Lychas* FP-13185 (*bituberculatus*-complex)	20	734324	7647419	50	1
242976	*Lychas* FP-13185 (*bituberculatus*-complex)	20	734324	7647419	50	1
242548	*Lychas* FP-13185 (*bituberculatus*-complex)	23	747158	7640104	50	2
243297	*Lychas* FP-13185 (*bituberculatus*-complex)	23	747158	7640104	50	2
242566	*Lychas* FP-13185 (*bituberculatus*-complex)	24	752087	7643076	50	1
243240	*Lychas* FP-13185 (*bituberculatus*-complex)	25	756262	7642936	50	1
243276	*Lychas* FP-13185 (*bituberculatus*-complex)	27	784049	7630854	50	1
243130	*Lychas* FP-13185 (*bituberculatus*-complex)	27	784049	7630854	50	3
243351	*Lychas* FP-13185 (*bituberculatus*-complex)	27	784049	7630854	50	1
243136	*Lychas* FP-13185 (*bituberculatus*-complex)	28	788370	7631029	50	3
242309	*Lychas* FP-13185 (*bituberculatus*-complex)	29	799785	7632311	50	1
242310	*Lychas* FP-13185 (*bituberculatus*-complex)	29	799785	7632311	50	1
243318	*Lychas* FP-13185 (*bituberculatus*-complex)	29	799785	7632311	50	1
242302	*Lychas* FP-13185 (*bituberculatus*-complex)	30	796629	7625501	50	1
242544	*Lychas* FP-13185 (*bituberculatus*-complex)	30	796629	7625501	50	1
242422	*Lychas* FP-13185 (*bituberculatus*-complex)	32	196834	7640415	51	1
242430	*Lychas* FP-13185 (*bituberculatus*-complex)	33	200974	7642224	51	3
243231	*Lychas* FP-13185 (*bituberculatus*-complex)	33	200974	7642224	51	3
243163	*Lychas* FP-13186 (hairytail-complex)	13	204312	7643207	51	1
243196	*Lychas* FP-13186 (hairytail-complex)	3	725013	7650873	50	1
242558	*Lychas* FP-13186 (hairytail-complex)	23	747158	7640104	50	1
242795	*Lychas* FP-13186 (hairytail-complex)	24	752087	7643076	50	1
Urodacidae						
243335	*Urodacus butleri* Volschenk et al., 2012	31	191857	7625298	51	1
243337	*Urodacus butleri* Volschenk et al., 2012	31	191857	7625298	51	1
242529	*Urodacus* FP-12656 (ESV pilbara 8)	1	755421	7646374	50	1
242530	*Urodacus* FP-12656 (ESV pilbara 8)	1	755421	7646374	50	1
243325	*Urodacus* FP-12656 (ESV pilbara 8)	1	755421	7646374	50	2

HBI Reg.	Genus and species	Site	Easting	Northing	Zone	No. of specimens
243326	*Urodacus* FP-12656 (ESV pilbara 8)	1	755421	7646374	50	1
243327	*Urodacus* FP-12656 (ESV pilbara 8)	1	755421	7646374	50	1
243328	*Urodacus* FP-12656 (ESV pilbara 8)	1	755421	7646374	50	1
243332	*Urodacus* FP-12656 (ESV pilbara 8)	31	191857	7625298	51	1
243333	*Urodacus* FP-12656 (ESV pilbara 8)	31	191857	7625298	51	1
243334	*Urodacus* FP-12656 (ESV pilbara 8)	31	191857	7625298	51	1
243336	*Urodacus* FP-12656 (ESV pilbara 8)	31	191857	7625298	51	1
243338	*Urodacus* FP-12656 (ESV pilbara 8)	31	191857	7625298	51	1
GEOPHILOMORPHA						
Schendylidae						
242577	*Ballophilus* FP-13508 (ESV EP01)	31	191857	7625298	51	1
242787	*Ballophilus* FP-13508 (ESV EP01)	31	191857	7625298	51	1
Geophilidae						
243367	*Sepedonophilus* FP-13520 (ESV EP01)	2	786970	7637264	50	1
243290	*Sepedonophilus* FP-13520 (ESV EP01)	7	195276	7619121	51	1
242578	*Sepedonophilus* FP-13520 (ESV EP01)	31	191857	7625298	51	1
243342	*Sepedonophilus* FP-13520 (ESV EP01)	31	191857	7625298	51	1
242620	*Sepedonophilus* FP-13520 (ESV EP01)	34	809947	7628397	50	1
242791	*Sepedonophilus* FP-13521 (ESV EP02)	23	747158	7640104	50	1
243248	*Sepedonophilus* FP-13521 (ESV EP02)	25	756262	7642936	50	1
243271	*Sepedonophilus* FP-13522 (ESV EP03)	26	771449	7632613	50	1
242960	*Sepedonophilus* FP-13523 (ESV EP04)	9	757672	7634290	50	1
243190	*Sepedonophilus* FP-13524 (ESV EP06)	3	725013	7650873	50	1
243184	*Sepedonophilus* FP-13524 (ESV EP06)	14	723799	7649149	50	1
243218	*Sepedonophilus* sp. indet.	14	723799	7649149	50	1
Mecistocephalidae						
242661	*Mecistocephalus* FP-12654 (EP01)	25	756262	7642936	50	1
Oryidae						
242510	*Orphnaeus* FP-13519 (ESV EP01)	21	734401	7651166	50	1
Geophilomorpha fam. indet.						
243224	Geophilomorpha gen. indet. FP-13517 (ESV EP01)	4	205044	7637718	51	1
243170	Geophilomorpha gen. indet. sp. indet.	13	204312	7643207	51	1
242662	Geophilomorpha gen. indet. sp. indet.	26	771449	7632613	50	1
LITHOBIOMORPHA						
Lithobiidae						
242588	*Paralamyctes* FP-13507 (ESV EP01)	29	799785	7632311	50	2
242627	*Paralamyctes* FP-13507 (ESV EP01)	29	799785	7632311	50	1
SCOLOPENDROMORPHA						
Cryptopidae						
242786	*Cryptops* FP-13353 (BoDo04)	8	804640	7619156	50	1
243155	*Cryptops* FP-13353 (BoDo04)	8	804640	7619156	50	1
242441	*Cryptops* FP-13509 (ESV EP01)	4	205044	7637718	51	1
243202	*Cryptops* FP-13510 (ESV EP02)	3	725013	7650873	50	1
242431	*Cryptops* FP-13511 (ESV EP03)	33	200974	7642224	51	1
243148	*Cryptops* FP-13512 (ESV EP04)	7	195276	7619121	51	1
243149	*Cryptops* FP-13512 (ESV EP04)	7	195276	7619121	51	1
243097	*Cryptops* FP-13513 (ESV EP05)	19	783999	7635362	50	1
243348	*Cryptops* FP-13513 (ESV EP05)	27	784049	7630854	50	1

HBI Reg.	Genus and species	Site	Easting	Northing	Zone	No. of specimens
242959	*Cryptops* FP-13514 (ESV EP06)	9	757672	7634290	50	1
242978	*Cryptops* FP-13514 (ESV EP06)	20	734324	7647419	50	1
242553	*Cryptops* FP-13514 (ESV EP06)	23	747158	7640104	50	1
242643	*Cryptops* FP-13514 (ESV EP06)	23	747158	7640104	50	1
242568	*Cryptops* FP-13514 (ESV EP06)	24	752087	7643076	50	1
243246	*Cryptops* FP-13514 (ESV EP06)	25	756262	7642936	50	1
242782	*Cryptops* FP-13515 (ESV EP07)	8	804640	7619156	50	1
242440	*Cryptops* FP-13516 (ESV EP08)	4	205044	7637718	51	1
242545	*Cryptops* FP-13516 (ESV EP08)	5	785371	7633496	50	1
243347	*Cryptops* FP-13516 (ESV EP08)	27	784049	7630854	50	1
243349	*Cryptops* FP-13516 (ESV EP08)	27	784049	7630854	50	1
242760	*Cryptops* FP-13516 (ESV EP08)	28	788370	7631029	50	1
243137	*Cryptops* FP-13516 (ESV EP08)	28	788370	7631029	50	1
243138	*Cryptops* FP-13516 (ESV EP08)	28	788370	7631029	50	1
242300	*Cryptops* FP-13516 (ESV EP08)	30	796629	7625501	50	1
242304	*Cryptops* FP-13516 (ESV EP08)	30	796629	7625501	50	1
243095	*Cryptops* FP-13516 (ESV EP08)	30	796629	7625501	50	1
242576	*Cryptops* FP-13516 (ESV EP08)	31	191857	7625298	51	1
242747	*Cryptops* FP-13516 (ESV EP08)	31	191857	7625298	51	1
243366	*Cryptops* sp. indet.	2	786970	7637264	50	1
242452	*Cryptops* sp. indet.	5	785371	7633496	50	1
243156	*Cryptops* sp. indet.	8	804640	7619156	50	1
243157	*Cryptops* sp. indet.	8	804640	7619156	50	1
242797	*Cryptops* sp. indet.	23	747158	7640104	50	1
243129	*Cryptops* sp. indet.	27	784049	7630854	50	1
243134	*Cryptops* sp. indet.	28	788370	7631029	50	1
243313	*Cryptops* sp. indet.	28	788370	7631029	50	1
242297	*Cryptops* sp. indet.	30	796629	7625501	50	1
242442	*Cryptops* sp. indet.	30	796629	7625501	50	1
242299	*Cryptops* sp. indet.	30	796629	7625501	50	1
242307	*Cryptops* sp. indet.	30	796629	7625501	50	1
242308	*Cryptops* sp. indet.	30	796629	7625501	50	1
ISOPODA						
Armadillidae						
243270	*Acanthodillo* FP-13528 (ESV EP08)	26	771449	7632613	50	1
242446	Armadillidae gen. indet. sp. indet.	5	785371	7633496	50	1
242988	Armadillidae gen. indet. sp. indet.	15	783743	7640400	50	1
243346	Armadillidae gen. indet. sp. indet.	27	784049	7630854	50	1
242549	*Buddelundia* FP-11773 (SJ 10MA)	23	747158	7640104	50	1
241387	*Buddelundia FP-11798 (SJ 14fm)*	12	195885	7646741	51	1
241937	*Buddelundia FP-11798 (SJ 14fm)*	12	195885	7646741	51	1
240972	*Buddelundia FP-11798 (SJ 14fm)*	13	204312	7643207	51	1
241382	*Buddelundia FP-11798 (SJ 14fm)*	13	204312	7643207	51	1
242556	*Buddelundia FP-11798 (SJ 14fm)*	23	747158	7640104	50	1
241381	*Buddelundia FP-11798 (SJ 14fm)*	28	788370	7631029	50	1
243084	*Buddelundia FP-11798 (SJ 14fm)*	32	196834	7640415	51	1
243105	*Buddelundia* FP-13358 (BoDo05)	17	771326	7636760	50	1
241945	*Buddelundia* FP-13529 (ESV EP09)	14	723799	7649149	50	1

HBI Reg.	Genus and species	Site	Easting	Northing	Zone	No. of specimens
241941	*Buddelundia* FP-13529 (ESV EP09)	20	734324	7647419	50	1
242971	*Buddelundia* FP-13529 (ESV EP09)	20	734324	7647419	50	1
241950	*Buddelundia* FP-13530 (ESV EP11)	21	734401	7651166	50	1
243531	*Buddelundia* FP-13531 (ESV EP12)	31	191857	7625298	51	1
243322	*Buddelundia* FP-13532 (ESV EP18)	1	755421	7646374	50	1
242619	*Buddelundia* FP-13533 (ESV EP19)	34	809947	7628397	50	1
241661	*Buddelundia* FP-13534 (PE02)	27	784049	7630854	50	1
243445	*Buddelundia* FP-13534 (PE02)	31	191857	7625298	51	1
243183	*Buddelundia* FP-13535 (SJ 14EP)	14	723799	7649149	50	1
242438	*Buddelundia* sp. indet.	4	205044	7637718	51	32
243229	*Buddelundia* sp. indet.	4	205044	7637718	51	18
241935	*Buddelundia* sp. indet.	5	785371	7633496	50	3
242543	*Buddelundia* sp. indet.	5	785371	7633496	50	10
242303	*Buddelundia* sp. indet.	5	785371	7633496	50	6
242454	*Buddelundia* sp. indet.	5	785371	7633496	50	2
243459	*Buddelundia* sp. indet.	5	785371	7633496	50	15
243303	*Buddelundia* sp. indet.	6	764506	7646162	50	1
243154	*Buddelundia* sp. indet.	8	804640	7619156	50	1
243159	*Buddelundia* sp. indet.	8	804640	7619156	50	25
243284	*Buddelundia* sp. indet.	8	804640	7619156	50	1
242964	*Buddelundia* sp. indet.	9	757672	7634290	50	11
243544	*Buddelundia* sp. indet.	9	757672	7634290	50	12
241663	*Buddelundia* sp. indet.	11	197407	7626358	51	17
243112	*Buddelundia* sp. indet.	11	197407	7626358	51	22
241938	*Buddelundia* sp. indet.	12	195885	7646741	51	35
241939	*Buddelundia* sp. indet.	12	195885	7646741	51	21
243205	*Buddelundia* sp. indet.	12	195885	7646741	51	32
241949	*Buddelundia* sp. indet.	13	204312	7643207	51	29
243165	*Buddelundia* sp. indet.	13	204312	7643207	51	13
243166	*Buddelundia* sp. indet.	13	204312	7643207	51	1
243580	*Buddelundia* sp. indet.	13	204312	7643207	51	7
241658	*Buddelundia* sp. indet.	15	783743	7640400	50	22
241665	*Buddelundia* sp. indet.	15	783743	7640400	50	13
242990	*Buddelundia* sp. indet.	15	783743	7640400	50	1
243110	*Buddelundia* sp. indet.	17	771326	7636760	50	1
243098	*Buddelundia* sp. indet.	19	783999	7635362	50	2
243187	*Buddelundia* sp. indet.	3	725013	7650873	50	1
243197	*Buddelundia* sp. indet.	3	725013	7650873	50	4
243177	*Buddelundia* sp. indet.	14	723799	7649149	50	2
243213	*Buddelundia* sp. indet.	14	723799	7649149	50	13
241928	*Buddelundia* sp. indet.	14	723799	7649149	50	58
241944	*Buddelundia* sp. indet.	14	723799	7649149	50	1
243219	*Buddelundia* sp. indet.	14	723799	7649149	50	2
243081	*Buddelundia* sp. indet.	14	723799	7649149	50	1
241931	*Buddelundia* sp. indet.	20	734324	7647419	50	3
241942	*Buddelundia* sp. indet.	20	734324	7647419	50	8
243481	*Buddelundia* sp. indet.	20	734324	7647419	50	8
242521	*Buddelundia* sp. indet.	21	734401	7651166	50	1

HBI Reg.	Genus and species	Site	Easting	Northing	Zone	No. of specimens
242457	*Buddelundia* sp. indet.	22	744573	7643169	50	2
242564	*Buddelundia* sp. indet.	23	747158	7640104	50	1
241952	*Buddelundia* sp. indet.	23	747158	7640104	50	6
243247	*Buddelundia* sp. indet.	25	756262	7642936	50	1
243264	*Buddelundia* sp. indet.	26	771449	7632613	50	2
243268	*Buddelundia* sp. indet.	26	771449	7632613	50	2
241659	*Buddelundia* sp. indet.	27	784049	7630854	50	13
243350	*Buddelundia* sp. indet.	27	784049	7630854	50	11
243135	*Buddelundia* sp. indet.	28	788370	7631029	50	14
243575	*Buddelundia* sp. indet.	29	799785	7632311	50	7
243317	*Buddelundia* sp. indet.	29	799785	7632311	50	0
242298	*Buddelundia* sp. indet.	30	796629	7625501	50	7
243530	*Buddelundia* sp. indet.	31	191857	7625298	51	1
243339	*Buddelundia* sp. indet.	31	191857	7625298	51	2
242423	*Buddelundia* sp. indet.	32	196834	7640415	51	8
242424	*Buddelundia* sp. indet.	32	196834	7640415	51	26
242425	*Buddelundia* sp. indet.	32	196834	7640415	51	10
243237	*Buddelundia* sp. indet.	32	196834	7640415	51	5
242433	*Buddelundia* sp. indet.	33	200974	7642224	51	2
242427	*Buddelundia* sp. indet.	33	200974	7642224	51	73
241651	*Buddelundia* sp. indet.	34	809947	7628397	50	6
242618	*Buddelundia* sp. indet.	34	809947	7628397	50	1
243312	Buddelundiinae gen. indet. FP-13365 (BoDo08)	28	788370	7631029	50	1
241964	Buddelundiinae gen. indet. FP-13536 (ESV EP06)	23	747158	7640104	50	1
241956	Buddelundiinae gen. indet. FP-13536 (ESV EP06)	23	747158	7640104	50	1
243608	Buddelundiinae gen. indet. FP-13536 (ESV EP06)	23	747158	7640104	50	1
241660	Buddelundiinae gen. indet. FP-13536 (ESV EP06)	27	784049	7630854	50	1
243532	Buddelundiinae gen. indet. FP-13536 (ESV EP06)	31	191857	7625298	51	1
241933	Buddelundiinae gen. indet. FP-13537 (ESV EP07)	14	723799	7649149	50	1
241940	Buddelundiinae gen. indet. FP-13537 (ESV EP07)	20	734324	7647419	50	1
242977	Buddelundiinae gen. indet. FP-13537 (ESV EP07)	20	734324	7647419	50	1
241943	Buddelundiinae gen. indet. sp. indet.	14	723799	7649149	50	14
242456	Buddelundiinae gen. indet. sp. indet.	20	734324	7647419	50	1
242508	Buddelundiinae gen. indet. sp. indet.	21	734401	7651166	50	1
242751	Buddelundiinae gen. indet. sp. indet.	25	756262	7642936	50	5
242569	Buddelundiinae gen. indet. sp. indet.	31	191857	7625298	51	1
242579	Buddelundiinae gen. indet. sp. indet.	31	191857	7625298	51	1
243540	Buddelundiinae gen. indet. sp. indet.	31	191857	7625298	51	1
242648	Buddelundiinae gen. indet. sp. indet.	34	809947	7628397	50	7
241675	*Troglarmadillo* FP-13538 (ESV EP13)	23	747158	7640104	50	1
242450	*Troglarmadillo* FP-13539 (ESV EP14)	5	785371	7633496	50	1
243126	*Troglarmadillo* FP-13539 (ESV EP14)	27	784049	7630854	50	1
241332	*Troglarmadillo* FP-13540 (ESV EP15)	4	205044	7637718	51	1
241367	*Troglarmadillo* FP-13540 (ESV EP15)	33	200974	7642224	51	1

HBI Reg.	Genus and species	Site	Easting	Northing	Zone	No. of specimens
242434	*Troglarmadillo* FP-13541 (ESV EP16)	33	200974	7642224	51	1
242589	*Troglarmadillo* FP-13542 (ESV EP17)	29	799785	7632311	50	1
242312	*Troglarmadillo* FP-13542 (ESV EP17)	29	799785	7632311	50	1
241932	*Troglarmadillo* sp. indet.	3	725013	7650873	50	1
241676	*Troglarmadillo* sp. indet.	23	747158	7640104	50	1
241331	*Troglarmadillo* sp. indet.	26	771449	7632613	50	1
241953	*Troglarmadillo* sp. indet.	26	771449	7632613	50	2
Philosciidae						
243495	*Laevophiloscia* FP-13543 (ESV EP02)	21	734401	7651166	50	1
243594	*Laevophiloscia* FP-13543 (ESV EP02)	21	734401	7651166	50	1
242505	Philosciidae gen. indet. FP-13544 (ESV EP01)	21	734401	7651166	50	1
243251	Philosciidae gen. indet. FP-13544 (ESV EP01)	25	756262	7642936	50	1
POLYDESMIDA						
Paradoxosomatidae						
242311	*Antichiropus apricus* Car, 2019	29	799785	7632311	50	1
242461	*Antichiropus apricus* Car, 2019	32	196834	7640415	51	1
242554	*Antichiropus cunicularis* Car, 2019	23	747158	7640104	50	1
242561	*Antichiropus cunicularis* Car, 2019	23	747158	7640104	50	1
242563	*Antichiropus cunicularis* Car, 2019	23	747158	7640104	50	1
242811	*Antichiropus cunicularis* Car, 2019	23	747158	7640104	50	1
242794	*Antichiropus cunicularis* Car, 2019	26	771449	7632613	50	1
242626	*Antichiropus forcipatus* Car, 2019	3	725013	7650873	50	1
243201	*Antichiropus forcipatus* Car, 2019	3	725013	7650873	50	1
242629	*Antichiropus forcipatus* Car, 2019	14	723799	7649149	50	1
242633	*Antichiropus forcipatus* Car, 2019	14	723799	7649149	50	1
242773	*Antichiropus forcipatus* Car, 2019	14	723799	7649149	50	1
242805	*Antichiropus forcipatus* Car, 2019	14	723799	7649149	50	1
242816	*Antichiropus forcipatus* Car, 2019	14	723799	7649149	50	1
243174	*Antichiropus forcipatus* Car, 2019	14	723799	7649149	50	1
243568	*Antichiropus forcipatus* Car, 2019	14	723799	7649149	50	1
242635	*Antichiropus forcipatus* Car, 2019	20	734324	7647419	50	1
242710	*Antichiropus forcipatus* Car, 2019	20	734324	7647419	50	1
242815	*Antichiropus forcipatus* Car, 2019	20	734324	7647419	50	1
242519	*Antichiropus forcipatus* Car, 2019	21	734401	7651166	50	1
242639	*Antichiropus forcipatus* Car, 2019	21	734401	7651166	50	1
243244	*Antichiropus* FP-13525 (ESV cf. *nimbus*)	25	756262	7642936	50	1
243262	*Antichiropus* FP-13525 (ESV cf. *nimbus*)	25	756262	7642936	50	1
242567	*Antichiropus* FP-13526 (ESV EP01)	24	752087	7643076	50	1
243221	*Antichiropus* sp. indet.	4	205044	7637718	51	1
243287	*Antichiropus* sp. indet.	7	195276	7619121	51	1
243188	*Antichiropus* sp. indet.	3	725013	7650873	50	1
243359	*Antichiropus* sp. indet.	3	725013	7650873	50	1
242634	*Antichiropus* sp. indet.	14	723799	7649149	50	1
242640	*Antichiropus* sp. indet.	14	723799	7649149	50	1
242644	*Antichiropus* sp. indet.	14	723799	7649149	50	1
242659	*Antichiropus* sp. indet.	14	723799	7649149	50	1
242709	*Antichiropus* sp. indet.	14	723799	7649149	50	1
242712	*Antichiropus* sp. indet.	14	723799	7649149	50	1

HBI Reg.	Genus and species	Site	Easting	Northing	Zone	No. of specimens
242767	*Antichiropus* sp. indet.	14	723799	7649149	50	1
242778	*Antichiropus* sp. indet.	14	723799	7649149	50	1
242790	*Antichiropus* sp. indet.	14	723799	7649149	50	1
242792	*Antichiropus* sp. indet.	14	723799	7649149	50	1
243178	*Antichiropus* sp. indet.	14	723799	7649149	50	1
243212	*Antichiropus* sp. indet.	14	723799	7649149	50	2
243304	*Antichiropus* sp. indet.	14	723799	7649149	50	1
243216	*Antichiropus* sp. indet.	14	723799	7649149	50	2
242628	*Antichiropus* sp. indet.	20	734324	7647419	50	1
242819	*Antichiropus* sp. indet.	20	734324	7647419	50	1
242966	*Antichiropus* sp. indet.	20	734324	7647419	50	1
243550	*Antichiropus* sp. indet.	23	747158	7640104	50	1
243552	*Antichiropus* sp. indet.	23	747158	7640104	50	1
243554	*Antichiropus* sp. indet.	23	747158	7640104	50	1
242636	*Antichiropus* sp. indet.	25	756262	7642936	50	1
242638	*Antichiropus* sp. indet.	25	756262	7642936	50	1
242647	*Antichiropus* sp. indet.	25	756262	7642936	50	1
242763	*Antichiropus* sp. indet.	25	756262	7642936	50	1
242802	*Antichiropus* sp. indet.	25	756262	7642936	50	1
243249	*Antichiropus* sp. indet.	25	756262	7642936	50	2
243252	*Antichiropus* sp. indet.	25	756262	7642936	50	1
243263	*Antichiropus* sp. indet.	26	771449	7632613	50	2
243319	*Antichiropus* sp. indet.	29	799785	7632311	50	1
DIPLURA						
Japygidae						
242509	Japygidae gen. indet. FP-13527 (ESV EP01)	21	734401	7651166	50	1
EUPULMONATA						
Camaenidae						
243324	*Quistrachia turneri* Solem, 1997	1	755421	7646374	50	29
241975	*Quistrachia turneri* Solem, 1997	14	723799	7649149	50	1
241983	*Quistrachia turneri* Solem, 1997	14	723799	7649149	50	1
242010	*Quistrachia turneri* Solem, 1997	14	723799	7649149	50	1
242014	*Quistrachia turneri* Solem, 1997	14	723799	7649149	50	1
242052	*Quistrachia turneri* Solem, 1997	14	723799	7649149	50	1
243173	*Quistrachia turneri* Solem, 1997	14	723799	7649149	50	7
242464	*Quistrachia turneri* Solem, 1997	14	723799	7649149	50	1
242465	*Quistrachia turneri* Solem, 1997	14	723799	7649149	50	1
242466	*Quistrachia turneri* Solem, 1997	14	723799	7649149	50	1
242467	*Quistrachia turneri* Solem, 1997	14	723799	7649149	50	1
242470	*Quistrachia turneri* Solem, 1997	14	723799	7649149	50	1
243208	*Quistrachia turneri* Solem, 1997	14	723799	7649149	50	1
243209	*Quistrachia turneri* Solem, 1997	14	723799	7649149	50	1
243210	*Quistrachia turneri* Solem, 1997	14	723799	7649149	50	1
241957	*Quistrachia turneri* Solem, 1997	23	747158	7640104	50	1
242575	*Quistrachia turneri* Solem, 1997	23	747158	7640104	50	3
243306	*Rhagada* FP-13545 (ESV cf. *convicta*)	6	764506	7646162	50	6
243307	*Rhagada* FP-13545 (ESV cf. *convicta*)	6	764506	7646162	50	4
242989	*Rhagada* FP-13545 (ESV cf. *convicta*)	15	783743	7640400	50	4

HBI Reg.	Genus and species	Site	Easting	Northing	Zone	No. of specimens
243083	*Rhagada* FP-13545 (ESV cf. *convicta*)	14	723799	7649149	50	2
243215	*Rhagada* FP-13545 (ESV cf. *convicta*)	14	723799	7649149	50	2
243374	*Rhagada* FP-13545 (ESV cf. *convicta*)	16	727890	7649595	50	2
242596	*Rhagada* FP-13545 (ESV cf. *convicta*)	20	734324	7647419	50	2
242597	*Rhagada* FP-13545 (ESV cf. *convicta*)	20	734324	7647419	50	3
242598	*Rhagada* FP-13545 (ESV cf. *convicta*)	20	734324	7647419	50	1
242599	*Rhagada* FP-13545 (ESV cf. *convicta*)	20	734324	7647419	50	1
242600	*Rhagada* FP-13545 (ESV cf. *convicta*)	20	734324	7647419	50	1
242601	*Rhagada* FP-13545 (ESV cf. *convicta*)	20	734324	7647419	50	1
242602	*Rhagada* FP-13545 (ESV cf. *convicta*)	20	734324	7647419	50	1
242608	*Rhagada* FP-13545 (ESV cf. *convicta*)	20	734324	7647419	50	1
242609	*Rhagada* FP-13545 (ESV cf. *convicta*)	20	734324	7647419	50	1
242612	*Rhagada* FP-13545 (ESV cf. *convicta*)	20	734324	7647419	50	5
242613	*Rhagada* FP-13545 (ESV cf. *convicta*)	20	734324	7647419	50	1
242614	*Rhagada* FP-13545 (ESV cf. *convicta*)	20	734324	7647419	50	1
242615	*Rhagada* FP-13545 (ESV cf. *convicta*)	20	734324	7647419	50	1
242594	*Rhagada* FP-13545 (ESV cf. *convicta*)	21	734401	7651166	50	2
242595	*Rhagada* FP-13545 (ESV cf. *convicta*)	21	734401	7651166	50	1
242603	*Rhagada* FP-13545 (ESV cf. *convicta*)	21	734401	7651166	50	1
242526	*Rhagada* FP-13545 (ESV cf. *convicta*)	21	734401	7651166	50	3
243309	*Rhagada* FP-13545 (ESV cf. *convicta*)	23	747158	7640104	50	4
243479	*Rhagada* FP-13545 (ESV cf. *convicta*)	23	747158	7640104	50	1
242573	*Rhagada* FP-13545 (ESV cf. *convicta*)	24	752087	7643076	50	6
242604	*Rhagada* FP-13545 (ESV cf. *convicta*)	25	756262	7642936	50	1
242605	*Rhagada* FP-13545 (ESV cf. *convicta*)	25	756262	7642936	50	1
242606	*Rhagada* FP-13545 (ESV cf. *convicta*)	25	756262	7642936	50	1
242607	*Rhagada* FP-13545 (ESV cf. *convicta*)	25	756262	7642936	50	1
242610	*Rhagada* FP-13545 (ESV cf. *convicta*)	25	756262	7642936	50	1
242611	*Rhagada* FP-13545 (ESV cf. *convicta*)	25	756262	7642936	50	1
243258	*Rhagada* FP-13545 (ESV cf. *convicta*)	25	756262	7642936	50	2
243296	*Rhagada* sp. indet.	23	747158	7640104	50	1
243311	*Rhagada* sp. indet.	23	747158	7640104	50	3
Succineidae						
242985	*Austrosuccinea* FP-13370 (BoDo01)	32	196834	7640415	51	1
242987	*Austrosuccinea* FP-13370 (BoDo01)	32	196834	7640415	51	1
242998	*Austrosuccinea* FP-13370 (BoDo01)	32	196834	7640415	51	2
243003	*Austrosuccinea* sp. indet.	3	725013	7650873	50	1
240961	*Austrosuccinea* sp. indet.	24	752087	7643076	50	1
243041	*Austrosuccinea* sp. indet.	24	752087	7643076	50	2
243001	*Austrosuccinea* sp. indet.	25	756262	7642936	50	1
243260	*Austrosuccinea* sp. indet.	25	756262	7642936	50	1
243075	*Austrosuccinea* sp. indet.	29	799785	7632311	50	1
242235	*Austrosuccinea* sp. indet.	31	191857	7625298	51	1

Appendix 4 COI data for specimens sequenced for this survey

>--->Acanthodillo_EP08-HBIID243270 Assembly of 2 reads: 463498_R_A01.ab1 (reversed), 463498_F_A01.ab1

AACTTTATATTTTATTTTTGGGGCTTGGGCTGGGGCGGTTGGCACCTCTTTGAGGCTTATCATTCGTATCGAACTAGGTCAGCCAGGAAG
GTTTATTGGGGATGACCAGGTCTATAATGTGGTTGTAACTGCTCATGCTTTTGTTATAATTTTTTTTATGGTAATACCTGTGATAATTGGA
GGGTTCGGAAACTGGTTAGTCCCTTTAATACTTGGGGCTCCTGATATAGCTTTTCCACGGATAAATAACCTCAGGTTTTGACTCTTACCAC
CTTCTCTTACTCTGCTATTGATAAGAGGTTTGGTAGAAGGTGGGGTGGGCACGGGGTGGACCGTTTACCCGCCTCTGGCTGCAAATATT
GCACACAGAGGAAGGGCTGTAGATCTTAGGATTTTTTCTCTTCATCTTGCTGGAGCTTCCTCTATCTTAGGGGCTGTAAATTTTATTTCAA
CAACTATAAACATGCGTGTTACAGGAATAAAAACAGATCGTATAACTTTATTCACTTGATCTGTGCTTATTACTGCTATTTTATTGCTTTTG
TCTTTGCCTGTGTTAGCAGGTGCTATTACTATATTGTTGGCGGATCGAAACTTCAACACTTCTTTTTTTGACCCAAGAGGTGGGGGGGAC
CCTGTCTTATACCAACACCTCTTT

>--->Afrosternophorus_PSEU076-HBIID241655 Assembly of 2 reads: 463501_R_A04.ab1 (reversed), 463501_F_A04.ab1

ACAATATATTTAATTTTTGGGATTTTAGCAGGTTTTGTGGGGATAGGATATAGAATATTAATTCGATTAGAATTAAGTTTCCCGGGGCAT
TTTTTATCTGAGCATTCTTATAATGTAGTAATTACTGCTCATGCTTTAATTATGATTTTTTTTATAGTAATGCCAATTATAATTGGAGGATTT
GGAAATTGGCTAATTCCCCTAATAATTGGATCGATTGACATAGCTTTTCCTCGAATAAATAATATGAGTTTTTGACTATTAATTCCGTCTTT
TTCTTTGTTGTTATTGTCGGGAGTGGTAGCAATGGGGTGTGGAGCTGGTTGGACTCTTTACCCTCCTCTTACTTCTTTAAATGCTCATTCA
GATGTGGCTGTAGATTTAGCGATTTTTTCTCTTCATCTAGCGGGAATTTCTTCTATTTTGGGGGCAGTGAATTTTATTTCTACAATTTTAAA
CATACGTTCTCCCTTAGTGTCTTATAGTCAAATACCTTTATTTGTATGATCAGTGCTTATTACAATAATTTTAATTTTATTAGCTATACCAGT
TTTGGCGGGAGCTATTACTATACTTTTAACTGACCGAAACTTTAGAACATCATTTTTTAATCCTACGGGAGGAGGAGATCCAATTTTATTT
CAACATTTATTT

>--->Afrosternophorus_PSEU076-HBIID243111 Assembly of 2 reads: 463499_R_A02.ab1 (reversed), 463499_F_A02.ab1

ACAATATATTTAATTTTTGGAATTTTAGCAGGTTTTGTGGGGATAGGATATAGAATATTAATTCGATTAGAATTAAGTTTCCCGGGGCATT
TTTTATCTGAGCATTCTTATAATGTAGTGATTACTGCTCATGCTTTAATTATGATTTTTTTTATAGTAATGCCAATTATAATTGGAGGATTT
GGAAATTGGCTAATTCCCCTAATAATTGGATCAATTGACATAGCTTTTCCTCGAATAAATAATATGAGTTTTTGACTATTAATTCCGTCTTT
TTCTTTGTTGTTATTGTCGGGAGTGGTAGCAATGGGGTGTGGAGCTGGTTGGACCCTTTATCCTCCTCTTACTTCTTTAAATGCTCATTCA
RATGTGGCTGTAGATTTAGCGATTTTTTCTCTTCATCTAGCGGGAATTTCTTCTATTTTGGGGGCAGTGAATTTTATTTCTACAATTTTAAA
CATACGTTCTCCCTTAGTGTCTTATAGTCAAATACCTTTATTTGTATGATCAGTGCTTATTACAATAATTTTAATTTTATTAGCTATACCAGT
TTTGGCGGGAGCTATTACTATACTTTTAACTGACCGAAACTTTAGAACATCATTCTTTAATCCTACGGGAGGGGGAGATCCAATTTTATTT
CAACATTTATTT

>--->Afrosternophorus_PSEU076-HBIID243365 Assembly of 2 reads: 463500_R_A03.ab1 (reversed), 463500_F_A03.ab1

ACAATATATTTAATTTTTGGAATTTTAGCAGGTTTTGTGGGGATAGGATATAGAATATTAATTCGATTAGAATTAAGTTTCCCGGGGCATT
TTTTATCTGAGCATTCTTATAATGTAGTGATTACTGCTCATGCTTTAATTATGATTTTTTTTATAGTAATGCCAATTATAATTGGAGGATTT
GGAAATTGGCTAATTCCCCTAATAATTGGATCGATTGACATAGCTTTTCCTCGAATAAATAATATGAGTTTTTGACTATTAATTCCGTCTTT
TTCTTTGTTGTTATTGTCGGGAGTGGTAGCAATGGGGTGTGGAGCTGGTTGGACTCTTTACCCCCCTCTTACTTCTTTAAATGCTCATTCA
GATGTGGCTGTAGATTTAGCGATTTTTTCTCTTCATCTAGCGGGAATTTCTTCTATTTTGGGGGCAGTGAATTTTATTTCTACAATTTTAAA
CATACGTTCTCCCTTAGTGTCTTATAGTCAAATACCTTTATTTGTATGATCAGTGCTTATTACAATAATTTTAATTTTATTAGCTATACCAGT
TTTGGCGGGAGCTATTACTATACTTTTAACTGACCGAAACTTTAGAACATCATTCTTTAATCCTACGGGAGGAGGAGATCCAATTTTATTT
CAACATTTATTT

>--->Aname_BoDo01-HBIID241597 Assembly of 2 reads: 463504_R_A07.ab1 (reversed), 463504_F_A07.ab1

GACTTTATATTTGGTTTTTGGTGTGTGATCTGCTATGGTAGGGACTGCTATGAGAGTAATTATTCGTACTGAATTAGGGCAGGTTGGGAG
ATTTTTAGGGGATGATCATTTGTATAATGTTGTAGTAACAGCTCATGCTTTGGTTATAATTTTTTTTATAGTTATGCCTATCATGATTGGGG
GGTTTGGTAATTGATTAGTTCCTTTGATGTTAGGGGCACCGGATATGGCTTTTCCTCGTATGAATAATTTGAGTTTTTGATTGCTTCCTCCT
TCATTGTTTTTGTTAATTTTATCTTCTCTAACTGATGTGGGGGTAGGGGCGGGATGAACAATTTACCCTCCTTTGTCTTCAGTTATTGGGC
ATGGTGGGGGAGGGATAGATTTTGCTATTTTTTCATTGCATTTGGCGGGGGCATCTTCTATTATAGGGGCTATTAATTTTATTTCTACTAT
TATTAATATGCGCATGGTAGGAATGAGAATAGAACGGGTTCCTTTGTTTGTGTGATCAGTTTTGATTACTGCTATTTTATTGTTATTATCT
CTTCCAGTGTTAGCGGGGGCTATCACTATACTTTTAACAGATCGAAATTTTAATACTTCTTTTTTTGATCCCGCTGGGGGGGGCGATCCTA
TTTTGTTTCAACATTTGTTT

>--->Aname_BoDo01-HBIID242463 Assembly of 2 reads: 463512_R_B03.ab1 (reversed), 463512_F_B03.ab1

AACTTTATATTTGGTTTTTGGTGTGTGATCTGCTATGGTAGGAACTGCTATGAGAGTAATTATTCGTACTGAATTAGGACAGGTTGGGAG
ATTCTTAGGGGATGATCATTTGTATAATGTTGTAGTGACAGCTCATGCTTTAGTAATAATTTTTTTTATAGTGATGCCTATTATGATTGGG
GGGTTTGGAAATTGATTGGTTCCTTTGATGTTGGGGGCGCCGGATATAGCTTTTCCTCGAATGAATAATTTGAGTTTTTGGTTGCTTCCCC
CTTCTTTATTTTTGTTAGTATTATCTTCTTTAACTGATGTGGGGGTGGGGGCAGGATGAACTATTTATCCTCCTTTATCTTCAGTTATTGGG

CATGGAGGAGGGGGAATGGATTTTGCTATTTTTTCATTGCATTTGGCGGGAGCATCTTCTATTATGGGGGCTATTAATTTTATTTCAACTA
TTATTAATATGCGAATGGTAGGAATAAGAATAGAACGGGTTCCTCTTTTTGTGTGATCGGTTTTGATTACTGCTATTTTATTGTTGTTATCT
CTTCCAGTGTTAGCGGGGGCTATTACTATACTTTTGACAGATCGAAATTTTAATACTTCTTTTTTTGATCCGGCTGGGGGGGGGGATCCA
ATTTTGTTTCAACATTTATTT

>--->Aname_BoDo01-HBIID242482 Assembly of 2 reads: 463513_R_B04.ab1 (reversed), 463513_F_B04.ab1

AACTTTATATTTGGTTTTTGGTGTGTGATCTGCTATGGTAGGAACTGCTATGAGAGTAATTATTCGTACTGAATTAGGGCAGGTTGGGAG
ATTCTTAGGGGATGATCATTTGTATAATGTTGTAGTGACAGCTCATGCTTTAGTAATAATTTTTTTTATAGTTATGCCTATTATGATTGGG
GGGTTTGGAAATTGATTGGTTCCTTTGATGTTGGGGGCGCCGGATATAGCTTTTCCTCGTATGAATAATTTGAGTTTTTGGTTGCTTCCCC
CCTCTTTATTTTTGTTAGTATTATCTTCTTTAACTGATGTAGGGGTGGGGGCAGGATGAACTATTTACCCTCCTTTATCTTCAGTTATTGGG
CATGGGGGTGGGGGAATAGATTTTGCTATTTTTTCATTACATTTGGCGGGAGCATCTTCTATTATGGGGGCTATTAATTTTATTTCAACTA
TTATTAATATGCGAATGGTAGGAATAAGAATAGAACGGGTTCCTCTTTTTGTGTGATCGGTTTTGATCACTGCTATTTTATTGTTGTTATC
TCTTCCAGTGTTAGCGGGGGCTATTACTATACTTTTGACAGATCGAAATTTTAATACTTCTTTTTTTGATCCGGCTGGGGGGGGGGATCC
AATTTT

>--->Aname_BoDo01-HBIID242528 Assembly of 2 reads: 463503_R_A06.ab1 (reversed), 463503_F_A06.ab1

AACTTTATATTTGGTTTTTGGTGTATGGTCTGCTATGGTAGGGACTGCTATAAGAGTAATTATTCGTACTGAATTAGGGCAGGTTGGGAG
ATTTTTAGGGGATGATCATTTGTATAATGTTGTAGTAACAGCTCATGCTTTAGTTATAATTTTTTTTATAGTGATACCTATTATGATTGGGG
GATTTGGAAATTGATTAGTTCCTTTAATGTTAGGGGCACCGGATATAGCTTTTCCTCGTATGAATAATTTGAGTTTTTGGTTGCTTCCTCCT
TCTTTATTTTTGTTAATTTTATCTTCTTTAACTGATGTTGGGGTGGGGGCAGGATGAACAATTTACCCTCCTTTATCTTCAGTAATTGGACA
TGGGGGAGGGGGGATGGATTTTGCTATTTTTTCATTGCATTTGGCGGGGGCATCTTCAATTATAGGGGCTATTAATTTTATTTCAACTAT
TATTAATATGCGTATGATAGGAATGAGAATAGAACGGGTTCCTCTTTTTGTGTGATCGGTTTTGATTACTGCTATTTTATTGTTGTTATCTC
TTCCAGTGTTAGCGGGAGCTATTACTATACTTTTGACAGACCGAAATTTTAATACTTCTTTTTTTGACCCTGCGGGGGGTGGGGATCCTAT
TTTGTTTCAACATTTATTT

>--->Aname_BoDo01-HBIID242531 Assembly of 2 reads: 463509_R_A12.ab1 (reversed), 463509_F_A12.ab1

AACTTTATATTTGGTTTTTGGTGTATGGTCTGCTATGGTAGGGACTGCTATAAGAGTAATTATTCGTACTGAATTAGGGCAGGTTGGGAG
ATTTTTAGGGGATGATCATTTGTATAATGTTGTGGTAACAGCTCATGCTTTAGTTATAATTTTTTTTATAGTGATACCTATTATGATTGGGG
GATTTGGAAATTGATTAGTTCCTTTAATGTTAGGGGCACCGGATATAGCTTTTCCTCGTATGAATAACTTGAGTTTTTGGTTACTTCCTCCT
TCTTTATTTTTGTTAATTTTATCTTCTTTAACTGATGTTGGGGTGGGGGCAGGATGAACTATTTACCCTCCTTTATCTTCAGTAATTGGACA
TGGGGGAGGGGGGATGGATTTTGCTATTTTTTCATTGCATTTGGCGGGGGCATCTTCAATTATAGGGGCTATTAATTTTATTTCAACTAT
TATTAATATGCGTATGATAGGAATGAGAATAGAACGGGTCCCTCTTTTTGTGTGATCGGTTTTGATTACTGCTATTTTATTGTTGTTATCTC
TTCCAGTGTTAGCGGGGGCTATTACTATACTTTTGACAGACCGAAATTTTAATACTTC

>--->Aname_BoDo01-HBIID242584 Assembly of 2 reads: 463507_R_A10.ab1 (reversed), 463507_F_A10.ab1

GACTTTATATCTGGTTTTTGGTGTGTGATCTGCTATGGTAGGGACTGCTATGAGAGTAATTATTCGTACTGAATTAGGGCAGGTTGGGA
GATTTTTAGGGGATGATCATTTGTATAATGTTGTAGTAACAGCTCATGCTTTGGTTATAATTTTTTTTATAGTTATGCCTATCATGATTGGG
GGGTTTGGAAATTGATTAGTTCCTTTGATGTTAGGGGCACCGGATATGGCTTTTCCTCGTATAAATAATTTGAGTTTTTGATTGCTTCCTC
CTTCGTTGTTTTTGTTAATTTTATCTTCTCTAACTGATGTGGGGGTAGGGGCGGGATGAACGATTTACCCTCCTTTGTCTTCAGTTATTGG
GCATGGTGGGGGAGGGATAGATTTTGCTATTTTTTCATTGCATTTGGCGGGGGCATCTTCTATTATAGGGGCTATTAATTTTATTTCTACT
ATTATTAATATGCGCATGGTAGGAATGAGAATAGAACGGGTTCCTTTGTTTGTGTGATCAGTTTTGATTACTGCTATTTTATTGTTATTAT
CTCTTCCAGTGTTAGCGGGGGCTATCACTATACTTTTAACAGATCGAAATTTTAATACTTCTTTTTTTGATCCCGCTGGGGGGGGCGATCC
TATTTTGTTTCAACATTTGTTT

>--->Aname_BoDo01-HBIID242592 Assembly of 2 reads: 463508_R_A11.ab1 (reversed), 463508_F_A11.ab1

AACTTTATATTTGGTTTTTGGTGTATGGTCTGCTATGGTAGGGACTGCTATAAGAGTAATTATTCGAACTGAATTAGGGCAGGTTGGGAG
ATTTTTAGGGGATGATCATTTGTATAATGTTGTAGTAACAGCTCATGCTTTAGTTATAATTTTTTTTATAGTGATACCTATTATGATTGGGG
GATTTGGAAATTGATTAGTTCCTTTAATGTTAGGGGCACCGGATATAGCTTTTCCTCGTATGAATAATTTGAGTTTTTGGTTGCTTCCTCCT
TCTTTATTTTTGTTAATTTTATCTTCTTTAACTGATGTTGGGGTGGGGGCAGGATGAACTATTTACCCTCCTTTATCTTCAGTAATTGGACA
TGGGGGAGGGGGGATGGATTTTGCTATTTTTTCATTGCATTTGGCGGGGGCATCTTCAATTATAGGGGCTATTAATTTTATTTCAACTAT
TATTAATATGCGTATGATAGGAATGAGAATAGAACGGGTTCCTCTTTTTGTGTGATCGGTTTTGATTACTGCTATTTTATTGTTGTTATCTC
TTCCAGTGTTAGCGGGGGCTATTACTATACTTTTGACAGACCGAAATTTTAATACTTCTTTTTTTGACCCTGCGGGGGGTGGGGATCCTAT
TTTGTTTCAACATTTATTT

>--->Aname_BoDo01-HBIID243314 Assembly of 2 reads: 463510_R_B01.ab1 (reversed), 463510_F_B01.ab1

AACTTTATATTTGGTTTTTGGTGTATGGTCTGCTATGGTAGGGACTGCTATAAGAGTAATTATTCGTACTGAATTAGGGCAGGTTGGGAG
ATTTTTAGGGGATGATCATTTGTATAATGTTGTAGTAACAGCTCATGCTTTAGTTATAATTTTTTTTATAGTGATACCTATTATGATTGGGG
GATTTGGAAATTGATTAGTTCCTTTAATGTTAGGGGCACCGGATATAGCTTTTCCTCGTATGAATAATTTGAGTTTTTGGTTACTTCCTCCT

TCTTTATTTTTGTTAATTTTATCTTCTTTAACTGATGTTGGGGTGGGGGCAGGATGAACTATTTACCCTCCTTTATCTTCAGTAATTGGACA
TGGGGGAGGGGGGATGGATTTTGCTATTTTTTCATTGCATTTGGCGGGGGCATCTTCAATTATAGGGGCTATTAATTTTATTTCAACTAT
TATTAATATGCGTATGATAGGAATGAGAATAGAACGGGTCCCTCTTTTTGTGTGATCGGTTTTGATTACTGCTATTTTATTGTTGTTATCTC
TTCCAGTGTTAGCGGGGGCTATTACTATACTTTTGACAGACCGAAATTTTAATACTTCTTTTTTTGACCCTGCGGGGGGTGGGGATCCTAT
TTTGTTTCAACATTTATTT

>--->Aname_mellosa_complex_(EP)-HBIID241599 Assembly of 2 reads: 463506_R_A09.ab1 (reversed), 463506_F_A09.ab1

AACTTTATATTTAATATTTGGGGTGTGATCTGCTATAGTGGGGACGGCTATGAGAGTAATTATTCGAATAGAATTAGGACAGGTAGGAA
GATTTTTAGGAGATGATCATTTGTATAATGTCATTGTGACTGCACATGCTTTAATTATAATTTTTTTTATAGTAATGCCAATTATAATTGGG
GGGTTTGGAAACTGGTTAGTACCTTTAATATTGGGGGCGCCTGATATAGCATTTCCTCGAATGAATAATTTAAGATTTTGGTTGCTTCCTC
CTTCGTTGTTTCTTCTGATTTTGTCTTCTTTAACTGATGTAGGAGTTGGGGCTGGATGAACAATTTATCCACCTCTATCTTCGGTGGTAGG
GCATAGAGGTGGGGGAATAGATTTTGCTATTTTTTCGTTGCATTTAGCGGGAGCCTCTTCGATTATAGGGGCAATCAATTTTATCTCTACT
ATTGTAAATATACGTTCGATAGGGATATCTATAGAACGGGTACCTTTATTTGTGTGGTCGGTTTTAATCACTGCTATTTTACTTTTATTATC
TTTACCAGTTTTAGCAGGGGCGATTACTATATTATTGACAGATCGTAATTTTAATACATCCTTTTTTGATCCTGCGGGAGGGGGGGATCCT
ATTTTATTTCAACATTTGTTT

>--->Aname_mellosa_complex_(EP)-HBIID242593 Assembly of 2 reads: 463505_R_A08.ab1 (reversed), 463505_F_A08.ab1

AACTTTATATTTAATATTTGGGGTGTGATCTGCTATAGTGGGGACGGCTATGAGAGTAATTATTCGAATAGAATTAGGACAGGTAGGAA
GATTTTTAGGAGATGATCATTTGTATAATGTCGTTGTGACTGCACATGCTTTAGTTATAATTTTTTTTATAGTAATGCCAATTATAATTGGG
GGGTTTGGAAACTGGTTAGTACCTTTAATATTGGGGGCGCCTGATATAGCATTTCCTCGAATGAATAATTTAAGATTTTGGTTGCTTCCTC
CTTCGTTGTTTCTTCTGATTTTGTCTTCTTTAACTGATGTAGGAGTTGGGGCTGGATGAACAATTTATCCACCTTTATCTTCGGTGGTAGG
GCATAGAGGTGGGGGAATAGATTTTGCTATTTTTTCGTTGCATTTAGCGGGAGCCTCTTCGATTATAGGGGCAATCAATTTTATCTCTACT
ATTGTAAATATACGTTCGATAGGGATATCTATAGAACGGGTACCTTTATTTGTGTGGTCGGTTTTAATCACTGCTATTTTACTTTTATTATC
TTTACCAGTTTTAGCAGGGGCGATTACTATATTATTGACAGATCGTAATTTTAATACATCCTTTTTTGATCCTGCGGGAGGGGGGGATCCT
ATTTTATTTCAACATTTGTTT

>--->Aname_PE03-HBIID242591 Assembly of 2 reads: 463502_R_A05.ab1 (reversed), 463502_F_A05.ab1

AACATTGTATTTGATTTTTGGTGTATGGTCTGCTATAGTAGGGACTGCTATGAGAGTAATTATTCGTACTGAGCTAGGTCAGGTCGGAAG
ATTTTTGGGGGATGATCATTTGTATAATGTTGTGGTTACAGCTCATGCTTTAGTAATGATTTTTTTTATAGTTATGCCTATTATAATTGGGG
GGTTTGGTAATTGGTTAGTCCCTTTGATGTTAGGAGCACCCGATATAGCTTTTCCTCGAATGAATAATTTAAGTTTTTGGTTGTTGCCTCC
TTCGTTGTTTTTGTTAGTTTTATCATCTTTGACTGATGTAGGGGTAGGGGCGGGATGAACAATTTATCCCCCTTTATCGTCAGTAATTGGG
CATGGGGGAGGGGGGATAGATTTTGCTATTTTCTCTTTGCATTTAGCGGGGGCTTCTTCTATTATGGGGGCTATTAATTTTATTTCAACTA
TTATTAATATGCGGATGATCGGAATGAGCATAGAACGAGTTCCTTTGTTTGTATGGTCGGTTTTGATTACTGCAATTTTATTGTTGTTATC
TTTACCGGTATTAGCGGGCGCTATTACTATACTGTTAACAGATCGAAATTTCAATACATCTTTTTTTGACCCTGCTGGGGGAGGTGATCCG
ATTTTATTTCAACACTTATTT

>--->Antichiropus_apricus-HBIID242311 Assembly of 2 reads: 463545_R_D12.ab1 (reversed), 463545_F_D12.ab1

GACTTTGTATTTAATTTTTGGGGCATGAGCAGGAATTATTGGTTCTGCTTTAAGAGGGATGATTCGAATAGAGTTAGGACATTCTGGGA
GTGTTATTGGTGATGATCAGATTTATAATGTTATTGTGACTGCACATGCTTTTGTTATAATTTTTTTTATGGTAATGCCTATTATGATTGGA
GGATTTGGGAATTGACTGGTTCCTTTAATGATTGGGGCTCCTGATATGGCATTTCCTCGTATGAATAATTTAAGTTTTTGATTGCTTCCCC
CTTCTTTTTTTTTGTTATTGGCTTCTTCTGTTGTTGAGGGGGGGGTTGGGACAGGTTGAACTGTTTATCCTCCACTAGCTTCTAGATTGTTT
CATGGGGGACCTGCTGTTGATTTAGCTATTTTTTCTTTACATTTAGCTGGGGCTTCTTCTATTTTAGGGGCTATTAATTTTATTACAACTGT
AATTAATATGCGGGCTTATGGTATGATTTTTGAGCGTATACCTTTGTTTGTTTGGTCGGTGGTTTTGACGGCTATTTTATTATTATTGTCTT
TGCCTGTTTTGGCTGGGGCTATTACTATATTATTGACTGATCGAAATTTTAATACTACGTTTTTTGATCCTGCAGGGGGTGGGGATCCGAT
TTTGTACCAGCA

>--->Antichiropus_apricus-HBIID242461 Assembly of 2 reads: 463546_R_E01.ab1 (reversed), 463546_F_E01.ab1

GACTTTGTACTTAATTTTTGGGGCATGAGCAGGAATTATTGGTTCTGCTTTAAGAGGGATGATTCGAATAGAGTTAGGACATTCTGGGA
GTGTTATTGGTGATGATCAGATTTATAATGTTATTGTGACTGCACATGCTTTTGTTATAATTTTTTTTATGGTAATGCCTATCATGATTGGA
GGATTTGGGAATTGATTGGTTCCTCTAATGATTGGGGCTCCTGATATGGCGTTCCCTCGTATGAATAATTTGAGTTTTTGATTACTTCCTC
CTTCTTTTTTTTTGTTATTGGCTTCTTCTGTTGTTGAGGGGGGGGTTGGGACAGGTTGAACTGTTTATCCTCCACTAGCTTCTAGATTGTTT
CACGGGGGGCCTGCTGTTGATTTAGCTATTTTTTCTTTACATTTAGCTGGGGCTTCTTCTATTTTAGGGGCTATTAATTTTATTACAACTGT
AATTAATATGCGGGCTTATGGTATGATTTTTGAGCGTATACCTTTGTTTGTTTGGTCGGTGGTTTTGACGGCTATTTTATTATTATTGTCTT
TGCCTGTTTTGGCTGGGGCTATTACTATACTATTGACTGATCGGAATTTTAATACTACGTTTTTTGATCCTGCAGGGGGTGGGGATCCGA
TTTTGTACCAGCA

>--->Antichiropus_c.f._nimbus-HBIID243244 Assembly of 2 reads: 463541_R_D08.ab1 (reversed), 463541_F_D08.ab1

GACTTTATATTTGATTTTTGGTGCTTGAGCAGGTATTATTGGATCTGCTTTAAGAGGGATAATTCGAATAGAGTTGGGTCATTCTGGGAG
TGTTATTGGTGATGATCAGATTTATAATGTTATTGTTACTGCGCATGCTTTTGTTATAATTTTTTTTATGGTAATGCCTATTATAATTGGTG
GATTTGGGAATTGGTTGGTTCCTTTGATGATTGGGGCTCCGGATATGGCATTTCCTCGAATAAATAATTTAAGTTTTTGGTTGCTTCCTCC
TTCTTTTTTTTTATTATTAGCTTCTTCTGTTGTTGAGGGGGGGGGTTGGAACAGGGTGAACTGTTTATCCTCCGTTGGCTTCTAGTTTGTTCC
ATGGAGGTCCAGCTGTTGATTTGGCTATTTTTTCTTTACATTTGGCAGGGGCTTCTTCTATTTTGGGGGCTATTAATTTTATTACAACTGTA
ATTAATATGCGAGCTTATGGGATAATTTTTGAGCGGATGCCTTTATTTGTGTGATCGGTGGTTTTAACGGCTATTTTGTTATTATTATCTCT
TCCTGTTTTAGCTGGGGCTATTACGATATTATTGACTGATCGAAATTTTAATACTACGTTTTTTGATCCTGCGGGTGGTGGGGATCCTATT
TTATATCAGCA

>--->Antichiropus_c.f._nimbus-HBIID243262 Assembly of 2 reads: 463543_R_D10.ab1 (reversed), 463543_F_D10.ab1

GACTTTATATTTGATTTTTGGTGCTTGAGCAGGTATTATTGGATCTGCTTTAAGAGGGATAATTCGAATAGAGTTGGGTCATTCTGGGAG
TGTTATTGGTGATGATCAGATTTATAATGTTATTGTTACTGCGCATGCTTTTGTTATAATTTTTTTTATGGTAATGCCTATTATAATTGGGG
GATTTGGGAATTGGTTGGTTCCTTTAATGATTGGGGCTCCAGATATGGCATTTCCTCGAATGAATAATTTAAGTTTTTGGTTGCTTCCTCC
TTCTTTTTTTTTATTATTAGCTTCTTCTGTTGTTGAGGGGGGGGGTTGGAACAGGGTGAACTGTTTATCCTCCGTTGGCTTCTAGTTTGTTCC
ATGGAGGTCCAGCTGTTGATTTGGCTATTTTTTCTTTACATTTGGCAGGGGCTTCTTCTATTTTGGGGGCTATTAATTTTATTACAACTGTA
ATTAATATGCGAGCTTATGGGATAATTTTTGAGCGGATGCCTTTATTTGTGTGATCGGTGGTTTTAACGGCTATTTTGTTATTATTATCTCT
TCCTGTTTTAGCTGGGGCTATTACGATATTATTGACTGATCGAAATTTTAATACTACGTTTTTTGATCCTGCGGGTGGTGGGGATCCTATT
TTATATCAGCA

>--->Antichiropus_cunicularis-HBIID242561 Assembly of 2 reads: 463534_R_D01.ab1 (reversed), 463534_F_D01.ab1

GACTTTGTATTTAATTTTTGGGGCGTGAGCAGGAATTATTGGTTCAGCTTTAAGAGGGATGATTCGAATAGAGTTAGGGCATTCTGGGA
GTGTTATTGGTGATGATCAGATTTATAATGTTATTGTGACTGCACATGCTTTTGTTATAATTTTTTTTATGGTAATGCCTATTATGATTGGA
GGATTTGGGAATTGATTGGTTCCTTTAATGATTGGGGCTCCTGATATGGCGTTCCCTCGTATAAATAATTTAAGTTTTTGATTGCTTCCAC
CTTCTTTTTTTTTGTTATTGGCTTCTTCTGTTGTTGAGGGGGGGGGTTGGGACAGGTTGGACTGTTTATCCTCCATTAGCTTCTAGATTGTTT
CATGGGGGGCCTGCTGTTGATTTAGCTATTTTTTCTTTACATTTAGCTGGGGCTTCTTCTATTTTGGGGGCTATTAATTTTATTACAACTGT
AATTAATATGCGGGCTTATGGTATGATTTTTGAGCGTATACCTTTATTTGTTTGGTCGGTGGTTTTGACAGCTATTTTATTATTATTGTCTT
TGCCTGTTTTGGCTGGGGCTATTACTATATTATTAACTGATCGGAATTTTAATACTACGTTTTTTGATCCTGCAGGGGGTGGGGATCCGAT
TTTGTATCAGCA

>--->Antichiropus_cunicularis-HBIID242563 Assembly of 2 reads: 463535_R_D02.ab1 (reversed), 463535_F_D02.ab1

GACTTTGTATTTAATTTTTGGGGCGTGAGCAGGAATTATTGGTTCAGCTTTAAGAGGGATGATTCGAATAGAGTTAGGGCATTCTGGGA
GTGTTATTGGTGATGATCAGATTTATAATGTTATTGTGACTGCACATGCTTTTGTTATAATTTTTTTTATGGTAATGCCTATTATGATTGGA
GGATTTGGGAATTGATTGGTTCCTTTAATGATTGGGGCTCCTGATATGGCGTTCCCTCGTATAAATAATTTAAGTTTTTGATTGCTTCCAC
CTTCTTTTTTTTTGTTATTGGCTTCTTCTGTTGTTGAGGGGGGGGGTTGGGACAGGTTGGACTGTTTATCCTCCATTAGCTTCTAGATTGTTT
CATGGGGGGCCTGCTGTTGATTTAGCTATTTTTTCTTTACATTTAGCTGGGGCTTCTTCTATTTTGGGGGCTATTAATTTTATTACAACTGT
AATTAATATGCGGGCTTATGGTATGATTTTTGAGCGTATACCTTTATTTGTTTGGTCGGTGGTTTTGACAGCTATTTTATTATTATTGTCTT
TGCCTGTTTTGGCTGGGGCTATTACTATATTATTAACTGATCGGAAATTTTAATACTACGTTTTTTGATCCTGCAGGGGGTGGGGATCCGAT
TTTGTATCAGCA

>--->Antichiropus_cunicularis-HBIID242794 Assembly of 2 reads: 463544_R_D11.ab1 (reversed), 463544_F_D11.ab1

GACTTTGTATTTAATTTTTGGGGCGTGAGCAGGAATTATTGGTTCAGCTTTAAGAGGGATGATTCGAATAGAGTTAGGGCATTCTGGGA
GTGTTATTGGTGATGATCAGATTTATAATGTTATTGTGACTGCACATGCTTTTGTTATAATTTTTTTTATGGTAATGCCTATTATGATTGGA
GGATTTGGGAATTGATTGGTTCCTTTAATGATTGGGGCTCCTGATATGGCGTTTCCTCGTATAAATAATTTAAGTTTTTGATTGCTTCCAC
CTTCTTTTTTTTTGTTATTGGCTTCTTCTGTTGTTGAGGGGGGGGGTTGGGACAGGTTGGACTGTTTATCCTCCATTAGCTTCTAGATTGTTT
CATGGGGGGCCTGCTGTTGATTTAGCTATTTTTTCTTTACATTTAGCTGGGGCTTCTTCTATTTTGGGGGCTATTAATTTTATTACAACTGT
AATTAATATGCGGGCTTATGGTATGATTTTTGAGCGTATACCTTTATTTGTTTGGTCGGTGGTTTTGACAGCTATTTTATTATTATTGTCTT
TGCCTGTTTTGGCTGGGGCTATTACTATATTATTAACTGATCGGAATTTTAATACTACGTTTTTTGATCCTGCAGGGGGTGGGGATCCGAT
TTTGTATCAGCA

>--->Antichiropus_cunicularis-HBIID242811 Assembly of 2 reads: 463536_R_D03.ab1 (reversed), 463536_F_D03.ab1

GACTTTGTATTTAATTTTTGGGGCATGAGCAGGAATTATTGGTTCAGCTTTAAGAGGGATGATTCGAATAGAGTTAGGGCATTCTGGGA
GTGTTATTGGTGATGATCAGATTTATAATGTTATTGTGACTGCACATGCTTTTGTTATAATTTTTTTTATGGTAATGCCTATTATGATTGGA
GGATTTGGGAATTGATTGGTTCCTTTAATGATTGGGGCTCCTGATATGGCGTTCCCTCGTATAAATAATTTAAGTTTTTGATTGCTTCCAC
CTTCTTTTTTTTTGTTATTGGCTTCTTCTGTTGTTGAGGGGGGGGGTTGGGACAGGTTGGACTGTTTATCCTCCATTAGCTTCTAGATTGTTT
CATGGGGGGCCTGCTGTTGATTTGGCTATTTTTTCTTTACATTTAGCTGGGGCTTCTTCTATTTTGGGGGCTATTAATTTTATTACAACTGT
AATTAATATGCGGGCTTATGGTATGATTTTTGAGCGTATACCTTTATTTGTTTGGTCGGTGGTTTTGACAGCTATTTTATTATTATTGTCTT
TGCCTGTTTTGGCTGGGGCTATTACTATATTATTAACTGATCGGAATTTTAATACTACGTTTTTTGATCCTGCAGGGGGTGGGGATCCGAT
TTTGTATCAGCA

>--->Antichiropus_cunicularis-HBIID243554 Assembly of 2 reads: 463537_R_D04.ab1 (reversed), 463537_F_D04.ab1

GACTTTGTATTTAATTTTTGGGGCGTGAGCAGGAATTATTGGTTCAGCTTTAAGAGGGATGATTCGAATAGAGTTAGGGCATTCTGGGA
GTGTTATTGGTGATGATCAGATTTATAATGTTATTGTGACTGCACATGCTTTTGTTATAATTTTTTTTATGGTAATGCCTATTATGATTGGA
GGATTTGGGAATTGATTGGTTCCTTTAATGATTGGGGCTCCTGATATGGCGTTCCCTCGTATAAATAATTTAAGTTTTTGATTGCTTCCAC
CTTCTTTTTTTTTGTTATTGGCTTCTTCTGTTGTTGAGGGGGGGGTTGGGACAGGTTGGACTGTTTATCCTCCATTAGCTTCTAGATTGTTT
CATGGGGGGCCTGCTGTTGATTTAGCTATTTTTTCTTTACATTTAGCTGGGGCTTCTTCTATTTTGGGGGCTATTAATTTTATTACAACTGT
AATTAATATGCGGGCTTATGGTATGATTTTTGAGCGTATACCTTTATTTGTTTGGTCGGTGGTTTTGACAGCTATTTTATTATTATTGTCTT
TGCCTGTTTTGGCTGGGGCTATTACTATATTATTAACTGATCGGAATTTTAATACTACGTTTTTTGATCCTGCAGGGGGTGGGGATCCGAT
TTTGTATCAGCA

>--->Antichiropus_EP01-HBIID242567 Assembly of 2 reads: 463538_R_D05.ab1 (reversed), 463538_F_D05.ab1

GACTTTGTATTTGATTTTTGGTGCTTGAGCGGGAATTATTGGTTCTGCTTTAAGAGGGATGATTCGAATGGAGTTAGGACATTCTGGGAG
TGTTATTGGTGATGATCAGATTTATAATGTTATTGTAACTGCGCATGCTTTTGTTATAATTTTTTTTATGGTGATGCCTATTATAATTGGGG
GGTTTGGAAATTGGTTAGTTCCTTTAATGATTGGGGCTCCAGATATGGCATTTCCTCGAATGAATAATTTGAGCTTTTGATTGCTTCCACC
TTCTTTTTTTTTATTGTTAGCTTCTTCTGTTGTTGAGGGGGGGGTTGGAACGGGTTGGACTGTTTATCCTCCATTAGCTTCTAGATTATTTC
ATGGAGGGCCGGCTGTTGATTTGGCTATTTTTTCTTTGCATTTGGCCGGAGCTTCTTCTATTTTGGGGGCTATTAATTTTATTACAACTGT
AATTAATATGCGAGCTTACGGAATAATTTTTGAGCGAATGCCTTTGTTTGTTTGATCGGTGGTTTTAACAGCTATTTTGTTATTATTATCTT
TGCCTGTTTTGGCTGGGGCTATTACTATATTATTGACTGATCGGAATTTTAACACTACATTTTTTGATCCTGCAGGGGGTGGGGATCCAAT
TTTGTATCAGCA

>--->Antichiropus_forcipatus-HBIID242519 Assembly of 2 reads: 463532_R_C11.ab1 (reversed), 463532_F_C11.ab1

GACTTTGTATTTAATTTTTGGTGCTTGGGCGGGAATTATTGGCTCTGCTTTAAGAGGGATGATTCGGATAGAGTTAGGGCATTCTGGGA
GTGTTATTGGTGATGATCAGATTTATAATGTTATTGTGACTGCACATGCTTTTGTTATAATTTTTTTTATGGTGATGCCCATTATGATTGGG
GGATTTGGGAATTGGTTAGTTCCTTTAATAATTGGAGCTCCAGATATGGCATTTCCTCGAATGAATAATTTGAGTTTTTGGTTGCTTCCAC
CTTCTTTTTTTTTATTATTAGCTTCTTCTGTTGTTGAGGGAGGGGTTGGGACAGGTTGAACTGTTTATCCTCCATTAGCTTCTAGATTGTTC
CACGGGGGTCCAGCTGTTGATTTGGCTATTTTTTCTTTACATTTGGCTGGGGCTTCTTCTATTTTGGGGGCTATTAATTTTATTACGACTGT
AATTAATATGCGAGCTTGTGGAATAATTTTTGAGCGGATGCCTTTATTTGTTTGATCAGTGGTTTTGACGGCTATTTTGTTGTTATTATCTT
TACCTGTTTTGGCTGGGGCTATTACTATGTTATTAACTGATCGGAATTTTAATACAACATTTTTTGACCCTGCAGGAGGTGGGGATCCTAT
TTTATATCAGCA

>--->Antichiropus_forcipatus-HBIID242626 Assembly of 2 reads: 463514_R_B05.ab1 (reversed), 463514_F_B05.ab1

ACTTTGTATTTAATTTTTGGTGCTTGGGCGGGGATTATTGGCTCTGCTCTAAGAGGGATGATTCGGATAGAGTTAGGGCATTCTGGGAG
TGTTATTGGTGATGATCAGATTTATAATGTTATTGTGACTGCACATGCTTTTGTTATAATTTTTTTTATGGTGATGCCCATTATGATTGGGG
GATTTGGGAATTGGTTGGTTCCTTTAATAATTGGAGCTCCAGATATGGCATTTCCTCGAATGAATAATTTGAGTTTTTGGTTACTTCCGCC
TTCTTTTTTTTTATTATTAGCTTCTTCTGTTGTTGAGGGAGGGGTTGGGACAGGTTGAACTGTTTATCCTCCATTAGCTTCTAGATTGTTCC
ACGGGGGTCCGGCTGTTGATTTGGCTATTTTTTCTTTACATTTGGCTGGGGCTTCTTCTATTTTGGGGGCTATTAATTTTATTACGACTGTA
ATTAATATGCGAGCTTGTGGAATAATTTTTGAGCGGATGCCTTTATTTGTTTGATCAGTGGTTTTGACGGCTATTTTGTTGTTATTATCTTT
ACCTGTTTTGGCTGGGGCTATTACTATGTTATTAACTGATCGGAATTTTAATACAACATTTTTTGACCCTGCAGGAGGTGGGGATCCTATT
TTATATCAGCA

>--->Antichiropus_forcipatus-HBIID242629 Assembly of 2 reads: 463518_R_B09.ab1 (reversed), 463518_F_B09.ab1

GACTTTGTATTTAATTTTTGGTGCTTGGGCGGGAATTATTGGCTCTGCTTTAAGAGGGATGATTCGGATAGAGTTAGGGCATTCTGGGA
GTGTTATTGGTGATGATCAGATTTATAATGTTATTGTGACTGCACATGCTTTTGTTATAATTTTTTTTATGGTGATGCCCATTATGATTGGG
GGATTTGGGAATTGGTTAGTTCCTTTAATAATTGGAGCTCCAGATATGGCATTTCCTCGAATGAATAATTTAAGTTTTTGGTTGCTTCCAC
CTTCTTTTTTTTTATTATTAGCTTCTTCTGTTGTTGAGGGAGGGGTTGGGACAGGTTGAACTGTTTATCCTCCATTAGCTTCTAGATTGTTC
CACGGGGGTCCGGCTGTTGATTTGGCTATTTTTTCTTTACATTTGGCTGGGGCTTCTTCTATTTTGGGGGCTATTAATTTTATTACGACTGT
AATTAATATGCGAGCTTGTGGAATAATTTTTGAGCGGATGCCTTTATTTGTTTGATCAGTGGTTTTGACGGCTATTTTGTTGTTATTATCTT
TACCTGTTTTGGCTGGGGCTATTACTATGTTATTAACTGATCGGAATTTTAATACAACATTTTTTGACCCTGCAGGAGGTGGGGATCCTAT
TTTATATCAGCA

>--->Antichiropus_forcipatus-HBIID242633 Assembly of 2 reads: 463519_R_B10.ab1 (reversed), 463519_F_B10.ab1

GACTTTGTATTTAATTTTTGGTGCTTGGGCGGGAATTATTGGCTCTGCTTTAAGAGGGATGATTCGGATAGAGTTAGGACATTCTGGGA
GTGTTATTGGTGATGATCAGATTTATAATGTTATTGTGACTGCTCATGCTTTTGTTATAATTTTTTTTATGGTGATGCCCATTATGATTGGG
GGATTTGGGAATTGGTTAGTTCCTTTAATAATTGGAGCTCCAGATATGGCATTTCCTCGAATGAATAATTTGAGTTTTTGGTTGCTTCCAC
CTTCTTTTTTTTTATTATTAGCTTCTTCTGTTGTTGAGGGAGGGGTTGGGACAGGTTGAACTGTTTATCCTCCATTAGCTTCTAGATTGTTC
CACGGGGGCCCGGCTGTTGATTTGGCTATTTTTTCTTTACATTTGGCTGGGGCTTCTTCTATTTTGGGGGCTATTAATTTTATTACGACTGT
AATTAATATGCGAGCTTGTGGAATAATTTTTGAGCGGATGCCTTTGTTTGTTTGATCAGTGGTTTTGACGGCTATTTTGTTGTTATTATCTT

TACCTGTTTTGGCTGGGGCTATTACTATGTTATTAACTGATCGGAATTTTAATACAACATTTTTTGACCCTGCAGGAGGTGGGGATCCTAT
TTTATATCAGCA

>--->Antichiropus_forcipatus-HBIID242635 Assembly of 2 reads: 463529_R_C08.ab1 (reversed), 463529_F_C08.ab1

GACTTTGTATTTAATTTTTGGTGCTTGGGCGGGAATTATTGGCTCTGCTTTAAGAGGGATGATTCGGATAGAGTTAGGGCATTCTGGGA
GTGTTATTGGTGATGATCAGATTTATAATGTTATTGTGACTGCACATGCTTTTGTTATAATTTTTTTTATGGTGATGCCCATTATGATTGGG
GGATTTGGGAATTGGTTAGTTCCTTTAATAATTGGAGCTCCAGATATGGCATTTCCTCGAATGAATAATTTGAGTTTTTGGTTGCTTCCAC
CTTCTTTTTTTTTATTATTAGCTTCTTCTGTTGTTGAGGGAGGGGTTGGGACAGGTTGAACTGTTTATCCTCCATTAGCTTCTAGATTGTTC
CACGGGGGCCCGGCTGTTGATTTGGCTATTTTTTCTTTACATTTGGCTGGGGCTTCTTCTATTTTGGGGGCTATTAATTTTATTACGACTGT
AATTAATATGCGAGCTTGTGGAATAATTTTTGAGCGGATGCCTTTATTTGTTTGATCAGTGGTTTTGACGGCTATTTTGTTGTTATTATCTT
TACCTGTTTTGGCTGGGGCTATTACTATGTTATTAAYTGATCGGAATTTTAWTACAWCATTTTTNGACCCTGCAGGAGGTGGGGATCCT
ATTTTATATCAGCA

>--->Antichiropus_forcipatus-HBIID242639 Assembly of 2 reads: 463533_R_C12.ab1 (reversed), 463533_F_C12.ab1

GACTTTGTATTTAATTTTTGGTGCTTGGGCGGGAATTATTGGCTCTGCTTTAAGAGGGATGATTCGGATAGAGTTAGGGCATTCTGGGA
GTGTTATTGGTGATGATCAGATTTATAATGTTATTGTGACTGCACATGCTTTTGTTATAATTTTTTTTATGGTGATGCCCATTATGATTGGG
GGATTTGGGAATTGGTTAGTTCCTTTAATAATTGGAGCTCCAGATATGGCATTTCCTCGAATGAATAATTTGAGTTTTTGGTTGCTTCCAC
CTTCTTTTTTTTTATTATTAGCTTCTTCTGTTGTTGAGGGAGGGGTTGGGACAGGTTGAACTGTTTATCCTCCATTAGCTTCTAGATTGTTC
CACGGGGGTCCAGCTGTTGATTTGGCTATTTTTTCTTTACATTTGGCTGGGGCTTCTTCTATTTTGGGGGCTATTAATTTTATTACGACTGT
AATTAATATGCGAGCTTGTGGAATAATTTTTGAGCGGATGCCTTTATTTGTTTGATCAGTGGTTTTGACGGCTATTTTGTTGTTATTATCTT
TACCTGTTTTGGCTGGGGCTATTACTATGTTATTAACTGATCGGAATTTTAATACAACATTTTTTGACCCTGCAGGAGGTGGGGATCCTAT
TTTATATCA

>--->Antichiropus_forcipatus-HBIID242710 Assembly of 2 reads: 463530_R_C09.ab1 (reversed), 463530_F_C09.ab1

GACTTTGTATTTAATTTTTGGTGCTTGGGCGGGAATTATTGGCTCTGCTTTAAGAGGGATGATTCGGATAGAGTTAGGGCATTCTGGGA
GTGTTATTGGTGATGATCAGATTTATAATGTTATTGTGACTGCACATGCTTTTGTTATAATTTTTTTTATGGTGATGCCCATTATGATTGGG
GGATTTGGGAATTGGTTAGTTCCTTTAATAATTGGAGCTCCAGATATGGCATTTCCTCGAATGAATAATTTGAGTTTTTGGTTGCTTCCAC
CTTCTTTTTTTTTATTATTAGCTTCTTCTGTTGTTGAGGGAGGGGTTGGGACAGGTTGAACTGTTTATCCTCCATTAGCTTCTAGATTGTTC
CACGGGGGTCCGGCTGTTGATTTGGCTATTTTTTCTTTACATTTGGCTGGGGCTTCTTCTATTTTGGGGGCTATTAATTTTATTACGACTGT
AATTAATATGCGAGCTTGTGGAATAATTTTTGAGCGGATGCCTTTATTTGTTTGATCAGTGGTTTTGACGGCTATTTTGTTGTTATTATCTT
TACCTGTTTTGGCTGGGGCTATTACTATGTTATTAACTGATCGGAATTTTAATACAACATTTTTTGACCCTGCAGGAGGTGGGGATCCTAT
TTTATATCAGCA

>--->Antichiropus_forcipatus-HBIID242773 Assembly of 2 reads: 463520_R_B11.ab1 (reversed), 463520_F_B11.ab1

GACTTTGTATTTAATTTTTGGTGCTTGGGCGGGAATTATTGGCTCTGCTTTAAGAGGGATGATTCGGATAGAGTTAGGACATTCTGGGA
GTGTTATTGGTGATGATCAGATTTATAATGTTATTGTGACTGCTCATGCTTTTGTTATAATTTTTTTTATGGTGATGCCCATTATGATTGGG
GGATTTGGGAATTGGTTAGTTCCTTTAATAATTGGAGCTCCAGATATGGCATTTCCTCGAATGAATAATTTGAGTTTTTGGTTGCTTCCAC
CTTCTTTTTTTTTATTATTAGCTTCTTCTGTTGTTGAGGGAGGGGTTGGGACAGGTTGAACTGTTTATCCTCCATTAGCTTCTAGATTGTTC
CACGGGGGCCCGGCTGTTGATTTGGCTATTTTTTCTTTACATTTGGCTGGGGCTTCTTCTATTTTGGGGGCTATTAATTTTATTACGACTGT
AATTAATATGCGAGCTTGTGGAATAATTTTTGAGCGGATGCCTTTGTTTGTTTGATCAGTGGTTTTGACGGCTATTTTGTTGTTATTATCTT
TACCTGTTTTGGCTGGGGCTATTACTATGTTATTAACTGATCGGAATTTTAATACAACATTTTTTGACCCTGCAGGAGGTGGGGATCCTAT
TTTATATCAGCA

>--->Antichiropus_forcipatus-HBIID242805 Assembly of 2 reads: 463522_R_C01.ab1 (reversed), 463522_F_C01.ab1

GACTTTGTATTTAATTTTTGGTGCTTGGGCGGGAATTATTGGCTCTGCTTTAAGAGGGATGATTCGGATAGAGTTAGGGCATTCTGGGA
GTGTTATTGGTGATGATCAGATTTATAATGTTATTGTGACTGCACATGCTTTTGTTATAATTTTTTTTATGGTGATGCCCATTATGATTGGG
GGATTTGGGAATTGGTTAGTTCCTTTAATAATTGGAGCTCCAGATATGGCATTTCCTCGAATGAATAATTTAAGTTTTTGGTTGCTTCCAC
CTTCTTTTTTTTTATTATTAGCTTCTTCTGTTGTTGAGGGAGGGGTTGGGACAGGTTGAACTGTTTATCCTCCATTAGCTTCTAGATTGTTC
CACGGGGGTCCGGCTGTTGATTTGGCTATTTTTTCTTTACATTTGGCTGGGGCTTCTTCTATTTTGGGGGCTATTAATTTTATTACGACTGT
AATTAATATGCGAGCTTGTGGAATAATTTTTGAGCGGATGCCTTTATTTGTTTGATCAGTGGTTTTGACGGCTATTTTGTTGTTATTATCTT
TACCTGTTTTGGCTGGGGCTATTACTATGTTATTAACTGATCGGAATTTTAATACAACATTTTTTGACCCTGCAGGAGGTGGGGATCCTAT
TTTATATCAGCA

>--->Antichiropus_forcipatus-HBIID242815 Assembly of 2 reads: 463531_R_C10.ab1 (reversed), 463531_F_C10.ab1

GACTTTGTATTTAATTTTTGGTGCTTGGGCGGGAATTATTGGCTCTGCTTTAAGAGGGATGATTCGGATAGAGTTAGGGCATTCTGGGA
GTGTTATTGGTGATGATCAGATTTATAATGTTATTGTGACTGCACATGCTTTTGTTATAATTTTTTTTATGGTGATGCCCATTATGATTGGG
GGATTTGGGAATTGGTTAGTTCCTTTAATAATTGGAGCTCCAGATATGGCATTTCCTCGAATGAATAATTTGAGTTTTTGGTTGCTTCCAC
CTTCTTTTTTTTTATTATTAGCTTCTTCTGTTGTTGAGGGAGGGGTTGGGACAGGTTGAACTGTTTATCCTCCATTAGCTTCTAGATTGTTC

CACGGGGGCCCGGCTGTTGATTTGGCTATTTTTTCTTTACATTTGGCTGGGGCTTCTTCTATTTTGGGGGCTATTAATTTTATTACGACTGT
AATTAATATGCGAGCTTGTGGAATAATTTTTGAGCGGATGCCTTTATTTGTTTGATCAGTGGTTTTGACGGCTATTTTGTTGTTATTATCTT
TACCTGTTTTGGCTGGGGCTATTACTATGTTATTAACTGATCGGAATTTTAATACAACATTTTTTGACCCTGCAGGAGGTGGGGATCCTAT
TTTATATCAGCA

>--->Antichiropus_forcipatus-HBIID242816 Assembly of 2 reads: 463523_R_C02.ab1 (reversed), 463523_F_C02.ab1

GACTTTGTATTTAATTTTTGGTGCTTGGGCGGGAATTATTGGCTCTGCTTTAAGAGGGATGATTCGGATAGAGTTAGGGCATTCTGGGA
GTGTTATTGGTGATGATCAGATTTATAATGTTATTGTGACTGCACATGCTTTTGTTATAATTTTTTTTATGGTGATGCCCATTATGATTGGG
GGATTTGGGAATTGGTTAGTTCCTTTAATAATTGGAGCTCCAGATATGGCATTTCCTCGAATGAATAATTTAAGTTTTTGGTTGCTTCCAC
CTTCTTTTTTTTTATTATTAGCTTCTTCTGTTGTTGAGGGAGGGGTTGGGACAGGTTGAACTGTTTATCCTCCATTAGCTTCTAGATTGTTC
CACGGGGGTCCGGCTGTTGATTTGGCTATTTTTTCTTTACATTTGGCTGGGGCTTCTTCTATTTTGGGGGCTATTAATTTTATTACGACTGT
AATTAATATGCGAGCTTGTGGAATAATTTTTGAGCGGATGCCTTTATTTGTTTGATCAGTGGTTTTGACGGCTATTTTGTTGTTATTATCTT
TACCTGTTTTGGCTGGGGCTATTACTATGTTATTAACTGATCGGAATTTTAATACAACATTTTTTGACCCTGCAGGAGGTGGGGATCCTAT
TTTATATCAGCA

>--->Antichiropus_forcipatus-HBIID243174 Assembly of 2 reads: 463524_R_C03.ab1 (reversed), 463524_F_C03.ab1

GACTTTGTATTTAATTTTTGGTGCTTGGGCGGGAATTATTGGCTCTGCTTTAAGAGGGATGATTCGGATAGAGTTAGGACATTCTGGGA
GTGTTATTGGTGATGATCAGATTTATAATGTTATTGTGACTGCTCATGCTTTTGTTATAATTTTTTTTATGGTGATGCCCATTATGATTGGG
GGATTTGGGAATTGGTTAGTTCCTTTAATAATTGGAGCTCCAGATATGGCATTTCCTCGAATGAATAATTTGAGTTTTTGGTTGCTTCCAC
CTTCTTTTTTTTTATTATTAGCTTCTTCTGTTGTTGAGGGAGGGGTTGGGACAGGTTGAACTGTTTATCCTCCATTAGCTTCTAGATTGTTC
CACGGGGGCCCGGCTGTTGATTTGGCTATTTTTTCTTTACATTTGGCTGGGGCTTCTTCTATTTTGGGGGCTATTAATTTTATTACGACTGT
AATTAATATGCGAGCTTGTGGAATAATTTTTGAGCGGATGCCTTTGTTTGTTTGATCAGTGGTTTTGACGGCTATTTTGTTGTTATTATCTT
TACCTGTTTTGGCTGGGGCTATTACTATGTTATTAACTGATCGGAATTTTAATACAACATTTTTTGACCCTGCAGGAGGTGGGGATCCTAT
TTTATATCAGCA

>--->Antichiropus_forcipatus-HBIID243201 Assembly of 2 reads: 463516_R_B07.ab1 (reversed), 463516_F_B07.ab1

GACTTTGTATTTAATTTTTGGTGCTTGGGCGGGGATTATTGGCTCTGCTCTAAGAGGGATGATTCGGATAGAGTTAGGGCATTCTGGGA
GTGTTATTGGTGATGATCAGATTTATAATGTTATTGTGACTGCACATGCTTTTGTTATAATTTTTTTTATGGTGATGCCCATTATGATTGGG
GGATTTGGGAATTGGTTGGTTCCTTTAATAATTGGAGCTCCAGATATGGCATTTCCTCGAATGAATAATTTGAGTTTTTGGTTACTTCCGC
CTTCTTTTTTTTTATTATTAGCTTCTTCTGTTGTTGAGGGAGGGGTTGGGACAGGTTGAACTGTTTATCCTCCATTAGCTTCTAGATTGTTC
CACGGGGGTCCGGCTGTTGATTTGGCTATTTTTTCTTTACATTTGGCTGGGGCTTCTTCTATTTTGGGGGCTATTAATTTTATTACGACTGT
AATTAATATGCGAGCTTGTGGAATAATTTTTGAGCGGATGCCTTTATTTGTTTGATCAGTGGTTTTGACGGCTATTTTGTTGTTATTATCTT
TACCTGTTTTGGCTGGGGCTATTACTATGTTATTAACTGATCGGAATTTTAATACAACATTTTTTGACCCTGCAGGAGGTGGGGATCCTAT
TTTATATCAGCA

>--->Antichiropus_forcipatus-HBIID243568 Assembly of 2 reads: 463526_R_C05.ab1 (reversed), 463526_F_C05.ab1

GACTTTGTATTTAATTTTTGGTGCTTGGGCGGGAATTATTGGCTCTGCTCTAAGAGGGATGATTCGGATAGAGTTAGGGCATTCTGGGA
GTGTTATTGGTGATGATCAGATTTATAATGTTATTGTGACTGCACATGCTTTTGTTATAATTTTTTTTATGGTGATGCCCATTATGATTGGG
GGATTTGGGAATTGGTTGGTTCCTTTAATAATTGGAGCTCCAGATATGGCATTTCCTCGAATGAATAATTTGAGTTTTTGGTTACTTCCGC
CTTCTTTTTTTTTATTATTAGCTTCTTCTGTTGTTGAGGGGGGGGTTGGGACAGGTTGAACTGTTTATCCTCCATTAGCTTCTAGATTGTTC
CATGGGGGTCCGGCTGTTGATTTGGCTATTTTTTCTTTACATTTGGCTGGGGCTTCTTCTATTTTGGGGGCTATTAATTTTATTACGACTGT
AATTAATATGCGAGCTTGTGGAATAATTTTTGAGCGGATGCCTTTATTTGTTTGATCAGTGGTTTTGACGGCTATTTTGTTGTTATTATCTT
TACCTGTTTTGGCTGGGGCTATTACTATGTTATTAACTGATCGGAATTTTAATACAACATTTTTTGACCCTGCAGGAGGTGGGGATCCTAT
TTTATATCAGCA

>--->Assamiidae_EP01-HBIID243533 Assembly of 2 reads: 463557_R_E12.ab1 (reversed), 463557_F_E12.ab1

AACACTATACTTTATTCTAAGACTGTGAGCTATAATACTAGGAACAGCATTTAGAATAATTATTCGTCTGGAGTTGTCTCATCCAGGTAAC
TGAATTGCCGACGAACACTTCTTTAACGTAATAGTAACATCCCATGCCTTCGTCATAATCTTTTTTAGGGTTATACCGGCAATAATCGGTG
GATTTGGTAACTGACTAATCCCTCTCATAATAGGGTGCCCAGATATAGCATTCCCACGAATAAACAACATAAGATTTTGGCTTCTTCCTCC
CTCCCTCACTCTCCTTCTATCAGCTACGTTCTCAGGGGACGGAATTGGCACAGGATGAACTATTTACCCACCTCTCTCATCTTCAACATTTC
ATTCAGACATATCTGTAGATTTAACAATCTTCTCCCTTCATCTAGCCGGCATCTCATCAATCATAAGATCTATTAACTTCATTTCTACAATTA
TTAACATAAAACCCAAATCACTGTGCCCAGAATCCATACCACTCTTCGTCTGATCTATTATTATTACTACTATCCTCCTCCTCCTCTCCCTCC
CAGTGTTGGCAGGAGCTATTACTATACTTTTAACAGATCGAAACTTCAACACATCCTTTTTTGACCCAGCAGGAGGAGGAGACCCCATCC
TCTACCAACACTTATTC

>--->Assamiidae_EP01-HBIID243561 Assembly of 2 reads: 463559_R_F02.ab1 (reversed), 463559_F_F02.ab1

AACACTATACTTTATTCTAAGACTGTGAGCTATAATACTAGGAACAGCATTTAGAATAATTATTCGTCTGGAGTTGTCTCATCCAGGTAAC
TGAATTGCCGACGAACACTTCTTTAACGTAATAGTAACATCCCATGCCTTCGTCATAATCTTTTTTAGGGTTATACCGGCAATAATCGGTG

GATTTGGTAACTGACTAATCCCTCTCATAATAGGGTGCCCAGATATAGCATTCCCACGAATAAACAACATAAGATTTTGGCTTCTTCCTCC
CTCCCTCACTCTCCTTCTATCAGCTACGTTCTCAGGGGACGGAATTGGCACAGGATGAACTATTTACCCACCTCTCTCATCTTCAACATTTC
ATTCAGACATATCTGTAGATTTAACAATCTTCTCCCTTCATCTAGCCGGCATCTCATCAATCATAAGATCTATTAACTTCATTTCTACAATTA
TTAACATAAAACCCAAATCACTGTGCCCAGAATCCATACCACTCTTCGTCTGATCTATTATTATTACTACTATCCTCCTCCTCCTCTCCCTCC
CAGTGTTGGCAGGAGCTATTACTATACTTTTAACAGATCGAAACTTCAACACATCCTTTTTTGACCCAGCAGGAGGAGGAGACCCCATCC
TCTACCAACACTTATTC

>--->Assamiidae_EP02-HBIID242448 Assembly of 2 reads: 463553_R_E08.ab1 (reversed), 463553_F_E08.ab1

AACAAGGTACTTCATCCTGAGTTTATGAGCCATAATACTAGGAACAGCATTTAGATTAGTAGTCCGCCTAGAATTATCATCCCCAGGAAA
TTGAATCACTGACGAACACACATTTAATGTAATAGTGACCTCTCATGCCTTTGTTATAATCTTCTTCAGGGTAATACCCGCCATAATTGGA
GGGTTTGGCAACTGACTCATCCCTCTCATAATTGGCAGTCCAGATATAGCATTCCCTCGTATAAACAACATAAGATTCTGACTCCTACCTC
CCTCCCTTATCCTCTTACTATCTTCCTCGATTTCAGGTAATGGAGCAGGAACAGGGTGAACTGTATACCCCCCTTTCTCCACCTCAACTTTC
CACCCAGATATGTCTGTAGATTTAACTATCTTCTCCCTCCATCTAGCCGGTATCTCTTCAATCATAGGGTCAATCAACTTCATCTCTACAAT
CATCAACATAAAACCTAAATCAATAACCATAGAAATCATACCACTTTTCGTCTGATCCATCCTAATTACCACTATTCTCCTACTACTATCCCT
TCCAGTGTTAGCAGGAGCAATCACCATACTTCTAACAGACCGCAATTTCAATACCTCCTTCTTTGATCCAGCAGGAGGCGGAGATCCTAT
TCTTTACCAACACTTATTC

>--->Assamiidae_EP03-HBIID242587 Assembly of 2 reads: 463560_R_F03.ab1 (reversed), 463560_F_F03.ab1

AACAATATATTTCATCCTGAGATTATGAGCTATAACACTGGGAACAGCATACAGACTAGTAATCCGCCTAGAACTATCTACCCCAGGAAA
CTGAATTACCGATGAGCATGTGTTTAATGTAATAGTAACCTCTCACGCCTTTATCATGATCTTCTTCAGGGTTATACCCGCTATAATTGGG
GGATTCGGTAACTGACTAATCCCCCTAATATTAGGCAGACCAGATATAGCATTCCCACGCATAAACAACATAAGATTCTGGCTCCTTCCC
CCCTCCCTTATTCTCCTCCTATCATCCTCAATCTCAGGAAATGGAGCAGGTACAGGATGAACCATCTATCCTCCTCTTTCCACTTCAACATT
TCACCCCGATATGTCTGTCGATTTAACAATCTTTTCCCTCCATTTAGCCGGCATTTCATCAATCATAGGTTCAATTAACTTCATCTCCACAAT
TATCAACATAAAACCTAAATCAATAACCATAGAAAGCTTACCCCTTTTCGTTTGGTCTATCTTAATTACTACCATTCTCCTATTATTATCTCT
TCCAGTATTAGCCGGAGCAATCACCATGCTCCTAACAGACCGAAACTTCAACACTTCCTTTTTTGACCCAGCAGGAGGAGGAGATCCCAT
CCTATATCAACACTTATTT

>--->Assamiidae_EP03-HBIID243113 Assembly of 2 reads: 463552_R_E07.ab1 (reversed), 463552_F_E07.ab1

AACAATATATTTCATCCTGAGATTATGAGCTATAACACTGGGAACAGCATACAGACTAGTAATCCGCCTAGAACTATCTACCCCAGGAAA
CTGAATTACCGATGAGCATGTGTTTAATGTAATAGTAACCTCTCACGCCTTTATCATGATCTTCTTCAGGGTTATACCCGCTATAATTGGG
GGATTCGGTAACTGACTAATCCCCCTAATATTAGGCAGACCAGATATAGCATTCCCACGCATAAACAACATAAGATTCTGGCTCCTTCCC
CCCTCCCTTATTCTCCTCCTATCATCCTCAATCTCAGGAAATGGAGCAGGTACAGGATGAACCATCTATCCTCCTCTTTCCACTTCAACATT
TCACCCCGATATGTCTGTCGATTTAACAATCTTTTCCCTCCATTTAGCCGGCATTTCATCAATCATAGGTTCAATTAACTTCATCTCCACAAT
TATCAACATAAAACCTAAATCAATAACCATAGAAAGCTTACCCCTTTTCGTTTGGTCTATCTTAATTACTACCATTCTCCTATTATTATCTCT
TCCAGTATTAGCCGGAGCAATCACCATGCTCCTAACAGACCGAAACTTCAACACTTCCTTTTTTGACCCAGCAGGAGGAGGAGATCCCAT
CCTATATCA

>--->Assamiidae_EP04-HBIID242504 Assembly of 2 reads: 463556_R_E11.ab1 (reversed), 463556_F_E11.ab1

AACGATGTATTTTATTTTGAGATTGTGGGCTATAATGCTAGGAACAGCATTTAGAATAGTGGTTCGCCTAGAACTTTCCTACCCAGGAAA
CTGAATTACCGACGAACACTCATTCAACGTAATAGTAACATCCCATGCCTTCGTAATAATCTTCTTCATGGTAATACCAGCCATAATTGGA
GGATTTGGAAATTGGCTGGTCCCCCTTATAATAGGCAGTCCAGATATGGCATTTCCGCGTATAAATAACATAAGATTCTGACTTCTGCCC
CCCTCCCTCATTCTCCTTCTATCTTCCTCAATTTCAGGCAATGGTGCAAGAACAGGATGGACTGTATACCCCCCTCTTTCTACTCTAGTATT
CCACCCAGATATATCTGTAGATTTAACAATCTTCTCCCTTCATCTAGCTGGAGTCTCATCCATCATGGGCTCCATCAATTTTATTTCCACAA
TCATTAACATAAAACCCAAATCTATATTCATAGAATCCTTACCATTATTCGTCTGATCCATTATAATTACCACCATTCTCCTTCTCCTCTCCCT
CCCAGTATTAGCAGGAGCAATTACTATGCTTCTTACAGATCGAAACTTCAATACATCTTTTTTCGATCCAGCAGGAGGAGGAGACCCTAT
CCTATACCAACATTTATTT

>--->Assamiidae_EP05-HBIID242585 Assembly of 2 reads: 463554_R_E09.ab1 (reversed), 463554_F_E09.ab1

AACTATGTATTTTATCCTAAGACTATGATCCATAATACTAGGAACAGCGTTCAGTATAGTGATTCGTCTAGAGCTATCTCATCCAGGAAAT
TGATTAACTGACGAACACTCTTTTAATGTAATAGTAACGTCTCATGCCTTCGTAATAATCTTCTTCAGGGTTATACCGGCTATAATCGGAG
GGTTTGGGAATTGATTAATCCCTCTCATAATAGGCAGCCCAGACATAGCATTCCCACGAATAAACAATATAAGATTCTGACTTCTCCCCCC
ATCTCTTATTCTTCTCCTATCTTCCTCAATATTAAAAGACGGTACGGGTACAGGTTGAACCGTATACCCTCCCCTCTCTACCCTTCCATTTCA
TCCAGATATATCAGTAGATCTGACAATTTTTTCCCTTCACCTAGCCGGTATTTCATCCATCATAGGCTCCATTAATTTCATTTCTACAATCAT
TAACATAAAACCCAAATCTATGTTCATAGAGAATTTACCTCTTTTCGTTTGATCAATTATAATTACTACTATTCTTCTCCTCCTTTCCCTTCCA
GTATTAGCAGGGGCTATCACAATACTTCTAACCGATCGAAACTTTAACACATCATTCTTTGACCCAGCAGGAGGAGGAGACCCAATTCTT
TACCAACATCTCTTC

>--->Assamiidae_EP05-HBIID243175 Assembly of 2 reads: 463555_R_E10.ab1 (reversed), 463555_F_E10.ab1

AACTATGTATTTTATCCTAAGACTATGATCCATAATACTAGGAACAGCGTTCAGTATAGTGATTCGTCTAGAGCTATCTCATCCAGGAAAT
TGATTAACTGACGAACACTCTTTTAATGTAATAGTAACGTCTCATGCCTTCGTAATAATCTTCTTCAGGGTTATACCGGCTATAATCGGAG
GGTTTGGGAATTGATTAATCCCTCTCATAATAGGCAGCCCAGACATAGCATTCCCACGAATAAACAATATAAGATTCTGACTTCTCCCCCC
ATCTCTTATTCTTCTCCTATCTTCCTCAATATTAAAAGACGGTACGGGTACAGGTTGAACCGTATACCCTCCCCTCTCTACCCTTCCATTTCA
TCCAGATATATCAGTAGATCTGACAATTTTTTCCCTTCACCTAGCCGGTATTTCATCCATCATAGGCTCCATTAATTTCATTTCTACAATCAT
TAACATAAAACCCAAATCTATGTTCATAGAGAATTTACCTCTTTTCGTTTGATCAATTATAATTACTACTATTCTTCTCCTCCTTTCCCTTCCA
GTATTAGCAGGGGCTATCACAATACTTCTAACCGATCGAAACTTTAACACATCATTCTTTGACCCAGCAGGAGGAGGAGACCCAATTCTT
TACCAACATCTCTTC

>--->Atemnidae_PSEU096-HBIID241657 Assembly of 2 reads: 463563_R_F06.ab1 (reversed), 463563_F_F06.ab1

AACACTTTATCTTATTTTTGGTCTAATTTCTGGGTTTTTGGGTGTGTGTTACAGAATATTAATTCGGGTTCAGTTGATAAATCCTGAAGGA
TATTTTTCCGAACACTCATATAACGTAATCGTAACTACCCATGCATTAGTAATAATTTTCTTCATAGTAATACCCATTATAATTGGAGGTTT
CGGAAATTGACTAATCCCGCTTATAATCGGATCTCCGGATATAGCTTTTCCTCGAATAAATAATATAAGATTTTGACTTCTCCCCCCCTCAA
TATTCTTGCTAATTTTATCCTCATTTATTGAAATAGGGTGTGGAGCCGGATGAACTATTTATCCACCCCTCTCAAATTCAATATTTCACCCT
GGTGCGTCAGTAGATTTAGTGATTTTTTCTCTCCATTTAGCTGGGGCTTCATCTATTTTAGGGGGGGTAAATTTTATTAGAACCGTTGCTA
ATATACGAGATCCTTCTATTTCATTCAAGACTCTCCCCTTATTTGTTTGGTCAGTTCTTATTACTGTAATCTTAATTCTTTTAGCAATACCAG
TCCTTGCTGGAGGGATTACAATACTTCTTACAGACCGTAATTTCAGAACTTCTTTTTTCCACCCGGCTGGGGGAGGAGACCCAATTTTATT
CCAACACCTTTTT

>--->Atemnidae_PSEU096-HBIID243460 Assembly of 2 reads: 463561_R_F04.ab1 (reversed), 463561_F_F04.ab1

AACACTTTATCTTATTTTTGGTCTAATTTCTGGGTTTTTGGGTGTGTGTTACAGAATATTAATTCGGGTTCAGTTGATAAATCCTGAAGGA
TATTTTTCCGAACACTCATATAACGTAATCGTAACTACCCATGCATTAGTAATAATTTTCTTCATAGTAATACCCATTATAATCGGAGGTTT
CGGAAATTGACTAATCCCGCTTATAATCGGATCTCCGGATATAGCTTTTCCTCGAATAAATAATATAAGATTTTGACTTCTCCCCCCCTCAA
TATTCTTGCTAATTTTATCCTCATTTATTGAAATAGGGTGTGGAGCCGGATGAACTATTTATCCACCCCTCTCAAATTCAATATTTCACCCT
GGTGCGTCAGTAGATTTAGTGATTTTTTCTCTCCATTTAGCTGGGGCTTCATCTATTTTAGGGGGGGTAAATTTTATTAGAACCGTTGCTA
ATATACGAGATCCTTCTGTTTCATTCAAGACTCTCCCCTTATTTGTTTGGTCAGTTCTTATTACTGTAATCTTAATTCTTTTAGCAATACCAG
TCCTTGCTGGAGGGATTACAATACTTCTTACAGACCGTAATTTCAGAACTTCTTTTTTCCACCCGGCTGGGGGAGGAGACCCAATTTTATT
CCAACACCTTTTT

>--->Atemnidae_PSEU096-HBIID243576 Assembly of 2 reads: 463562_R_F05.ab1 (reversed), 463562_F_F05.ab1

AACACTTTATCTTATTTTTGGTCTAATTTCTGGGTTTTTGGGTGTGTGTTACAGAATATTAATTCGGGTTCAGTTGATAAATCCTGAAGGA
TATTTTTCCGAACACTCATATAACGTAATCGTAACTACCCATGCATTAGTAATAATTTTCTTCATAGTAATACCCATTATAATCGGAGGTTT
CGGAAATTGACTAATCCCGCTTATAATCGGATCTCCGGATATAGCTTTTCCTCGAATAAATAATATAAGATTTTGACTTCTCCCCCCCTCAA
TATTCTTGCTAATTTTATCCTCATTTATTGAAATAGGGTGTGGAGCCGGATGAACTATTTATCCACCCCTCTCAAATTCAATATTTCACCCT
GGTGCGTCAGTAGATTTAGTGATTTTTTCTCTCCATTTAGCTGGGGCTTCATCTATTTTAGGGGGGGTAAATTTTATTAGAACCGTTGCTA
ATATACGAGATCCTTCTGTTTCATTCAAGACTCTCCCCTTATTTGTTTGGTCAGTTCTTATTACTGTAATCTTAATTCTTTTAGCAATACCAG
TCCTTGCTGGAGGGATTACAATACTTCTTACAGACCGTAATTTCAGAACTTCTTTTTTCCACCCGGCTGGGGGAGGAGACCCAATTTTATT
CCAACACCTTTTT

>--->Austrochthonius_EP01-HBIID243472 Assembly of 2 reads: 463565_R_F08.ab1 (reversed), 463565_F_F08.ab1

ACTATATATCTGATATTAGGAGTTTGAGCTGGATGTATAGGATTAAGATTAAGAACTTTAATCCGAATTGAACTCTCACAAGCTGGAACA
ATTCTAAGAAGAGACCAAACTTATAATGTAATAGTAACATCACATGCATTTATCATAATTTTCTTTATGGTTATGCCAATCATAATTGGTG
GCTTCGGAAACTGATTAGTGCCATTAATAATTGGAGCTCCTGATATAGCATTCCCACGAATAAATAACATAAGATTTTGACTTCTCCCTCC
ATCACTAAGATTACTACTTATATCCTCAACTATTGAAATAGGATGTGGGACAGGATGAACAATATATCCCCCTTTAGCTAGTAATATAGCC
CATAACGGAGGAGCTGTTGATTTAGCCATTTTTTCTTTACACTTAGCAGGAGCATCCTCAATTTTAGGAGCCATTAACTTTATTTCAACCAT
TATAAACATACGAGTAAATTATCTCCCATTCTTCTCTATACCATTATTTGTATGATCAATTCTAGTAACTACAGTATTATTAATATTAGCATT
ACCAGTTCTTGCAGGAGCAATTACCATACTTTTAACTGATCGAAACTTTAACACCTCATTTTTTGATCCAGTAGGAGGAGGAGATCCAATT
TTATTTCAACATTTATTT

>--->Austrohorus_'EP01'-HBIID242439 Assembly of 2 reads: 463567_R_F10.ab1 (reversed), 463567_F_F10.ab1

ACCTTATATTTATTATTAGGGATTTGAGCTGGATTAGTTGGAATAGGATTTAGAATATTAATTCGTATACAATTAATAAGCCCCGGAAAA
ATAATTGGAGATCACTCCTATAACGTTGTAGTAACTACACATGCTTTTGTTATAATTTTTTTTATAGTAATGCCTATCATAATTGGGGGTTT
CGGAAATTGATTAGTTCCATTAATAATTGGGGCTCCAGATATGGCTTTTCCTCGATTGAATAATCTAAGTTTTTGACTTCTTCCCCCATCTT
TTATAATATTGGTTTTATCTACTGGTTTAGAAATAGGGTGTGGGACAGGATGAACCATCTACCCTCCCCTTTCTGCGCTTCTAGGTCATAC
ATCCAAGTCTGTAGATATGGTAATCTTTTCCCTTCATTTAGCTGGAATTTCTTCTATTTTAGGGGCTATTAATTTTATTACCACAATTATTAA
CATACGATCCCCCCATCTTCCTATGGGAAAAATACCTCTTTTTGTTTGATCTGTTTTATTTACAACTATTTTAATTCTTTTTGCTATGCCTGT
GCTGGCGGGGGCTATTACTATATTATTAACTGATCGAAATTTTAATACTTCTTTTTTTATCCCCCTGGGAGGGGGTGACCCTATTTTGTTTC
AACATTTATT

>--->Austrohorus_'EP01'-HBIID243463 Assembly of 2 reads: 463572_R_G03.ab1 (reversed), 463572_F_G03.ab1

ACCTTATATTTATTATTAGGAATTTGAGCTGGGTTAGTTGGAATAGGATTTAGAATATTAATTCGTATACAATTAATAAGCCCGGGAAAA
ATAATTGGAGATCACTCCTATAACGTTGTAGTAACTACACATGCTTTTGTTATAATTTTTTTTATAGTAATGCCTATTATAATTGGGGGTTT
CGGAAATTGATTAGTCCCATTAATAATTGGGGCCCCAGATATAGCTTTTCCTCGATTGAATAATCTAAGTTTTTGACTTCTTCCCCCTTCTT
TTATAATATTGGTTTTATCTACTGGTTTAGAAATAGGGTGTGGAACAGGGTGAACTATCTACCCCCCCCTCTCTGCGCTTCTAGGTCATAC
ATCCAAGTCTGTAGATATGGTAATCTTTTCCCTTCATTTAGCTGGAATTTCTTCTATTTTAGGGGCCATTAATTTTATTACCACAATTATTAA
CATACGATCCCCCTATCTTCCCATGGGAAAAATACCCCTTTTTGTTTGATCTGTTTTATTTACAACTATTTTAATTCTTTTTGCTATGCCTGT
GCTAGCGGGAGCTATTACTATATTATTAACTGATCGAAATTTTAATACTTCTTTTTTTATTCCCCTAGGAGGGGGTGACCCTATTTTGTTTC
AACATTTATT

>--->Austrohorus_'EP01'-HBIID243555 Assembly of 2 reads: 463566_R_F09.ab1 (reversed), 463566_F_F09.ab1

ACTTTATATTTATTGTTAGGAATTTGGGCTGGGTTAGTTGGAATAGGGTTTAGAATACTAATTCGTATACAATTAATAAGTCCTGGAAAA
ATAATTGGAGATCACTCCTATAACGTTGTAGTAACTACACATGCTTTTGTTATAATTTTTTTTATAGTTATACCTATTATAATCGGGGGTTT
TGGAAATTGATTAGTTCCATTAATAATTGGGGCTCCCGATATAGCTTTTCCTCGATTGAATAACCTAAGTTTTTGACTCCTCCCTCCGTCTT
TTATAATATTAGTTTTATCTACTGGTTTAGAAATAGGGTGTGGGACAGGGTGAACTATCTACCCCCCCCTTTCTGCGCTTTTAGGACACAC
ATCTAAGTCTGTAGATATGGTGATCTTTTCCCTTCATTTAGCTGGAATTTCTTCTATTTTAGGTGCCATTAATTTTATTACCACAATTATTAA
TATACGATCCCCCTATCTTCCTATGGGAAAAATACCCCTTTTTGTTTGATCTGTCTTATTTACAACTATTCTAATTCTTTTTGCTATGCCTGT
GTTAGCGGGGGCTATTACTATATTATTAACTGATCGAAATTTTAATACTTCTTTTTTTATTCCTCTAGGAGGGGGTGATCCTATTTTGTTTC
AGCATTTATT

>--->Austrohorus_'EP02'-HBIID243509 Assembly of 2 reads: 463571_R_G02.ab1 (reversed), 463571_F_G02.ab1

ACTTTATATTTATTATTAGGAATTTGAGCTGGGTTAGTTGGAATGGGATTTAGTATATTAATTCGTATACAATTAATAAGCCCTGGAAAGA
TAATTGGGGATCATTCTTATAATGTTGTAGTTACTACACATGCATTTGTTATAATTTTTTTTATAGTCATGCCTATTATAATTGGGGGTTTT
GGTAATTGGCTAGTTCCATTAATAATTGGTGCCCCTGATATAGCTTTTCCTCGATTAAATAATTTAAGTTTCTGACTTCTCCCCCCTTCTTTT
ATGATACTAGTTTTATCTACTAGCTTAGAAATAGGATGCGGTACGGGGTGAACTATCTACCCACCCCTTTCTGCGCTCCTAGGACATACAT
CTAAATCTGTAGATATAGTGATTTTTTCCCTTCATTTAGCTGGAATTTCTTCAATTTTAGGTGCTATTAATTTTATTACTACTATTATTAACA
TACGATCCCCCCACCTTCCGATGGGAAAAATACCTCTGTTTGTTTGATCCGTTTTATTCACAACTATTTTAATTCTGTTTGCTATACCCGTAT
TAGCGGGGGCTATTACTATATTATTAACTGATCGAAATTTTAATACTTCATTTTTCATCCCGCTAGGTGGTGGGGATCCTATTTTATTTCAG
CATTTATT

>--->Austrohorus_'EP03'-HBIID242993 2 reads from 463583 assembled using Geneious

ACTTTATATCTTCTTCTAGGGATTTGAGCAGGTTTAGTTGGACTGGGTTTTAGAATATTAATTCGAATACAATTAATAAGACCTGGGAAG
ATAATTTCAGAACACTCATATAACGTAGTTGTTACTACTCACGCTTTTGTAATAATTTTCTTTATAGTTATACCAATTATAATTGGGGGATT
TGGAAATTGATTAGTACCTTTAATAATTGGGGCTCCAGATATAGCTTTTCCTCGATTAAATAATTTAAGATTTTGACTATTACCTCCTTCAT
TTTTAATATTAGTTTTTTCGACTTGTTTAGAACTAGGTTGTGGAACAGGGTGGACTATTTATCCTCCCTTATCCGCATTATTAGGACACACA
TCTAAATCAGTAGATATAGTTATTTTTTCTCTACATCTCGCTGGAATTTCTTCAATTTTAGGTGCAATTAACTTTATTACCACAATTTTTAAT
ATACGATCCCCCCATGTTCCAATAAGAAAAATACCCTTATTTGTATGATCGGTTTTATTTACAACTATTTTAATTTTATTCGCAATACCTGT
GTTAGCTGGTGCTATTACTATGCTTTTAACAGATCGAAACTTTAATACTTCGTTCTTTATTCCTTTAGGGGGAGGGGATCCCATCTTATTTC
AACATTTATT

>--->Austrohorus_'EP04'-HBIID243192 Assembly of 2 reads: 463569_R_F12.ab1 (reversed), 463569_F_F12.ab1

ACTTTGTATCTTCTATTAGGAATTTGATCAGGTTTAGTAGGTCTAGGATTTAGAATATTAATCCGAATACAATTAATAAGACCTGGGAAA
ATAATCTCAGAACATTCATATAATGTAGTAGTTACTACACACGCTTTTGTTATAATCTTCTTTATAGTTATACCAATTATAATTGGAGGTTT
CGGAAATTGATTAGTTCCTTTAATAATTGGGGCTCCAGATATAGCTTTTCCTCGATTAAACAATTTAAGATTTTGACTTCTTCCTCCTTCTTT
TATAATATTAGTTTTTTCAACATGTTTAGAATTAGGTTGTGGAACGGGCTGAACTATCTACCCCCCTCTTTCTGCATTATTGGGACATACTT
CAAAATCTGTAGATATAGTAATTTTTTCATTACACCTCGCTGGAATTTCTTCCATTTTAGGTGCAATTAATTTTATTACCACAATTTTTAATA
TACGATCTCCTCATGTTCCTATAAGAAAAATACCTTTATTTGTATGATCGGTATTATTTACTACTATTTTAATTTTATTTGCAATACCCGTAC
TAGCGGGAGCTATTACTATACTTTTAACAGATCGAAATTTTAATACATCTTTCTTTATTCCTTTGGGAGGAGGAGATCCAATTTTATTTCAA
CATTTATT

>--->Austrohorus_'EP04'-HBIID243586 2 reads from 463585 assembled using Geneious

ACTTTATATCTTCTATTAGGAATTTGATCAGGTTTAGTAGGTCTAGGATTTAGAATATTAATCCGAATACAATTAATAAGACCTGGAAAAA
TAATTTCAGAACATTCATATAATGTAGTAGTTACTACACATGCTTTTGTTATAATCTTCTTTATAGTTATACCAATTATAATTGGAGGTTTC
GGAAATTGATTAGTTCCTTTAATGATTGGGGCTCCAGATATAGCTTTTCCTCGATTAAACAATTTAAGATTTTGACTTCTTCCCCCTTCTTT
TATAATATTAGTTTTTTCAACATGTTTAGAATTAGGTTGTGGAACGGGTTGAACTATCTATCCCCCTCTTTCTGCATTATTGGGACATACTT
CAAAATCTGTAGATATAGTAATTTTTTCATTACACCTTGCTGGAATTTCTTCCATTTTAGGTGCAATTAATTTTATCACTACAATTTTTAATA
TACGATCTCCTCATGTTCCTATAAGAAAAATACCTTTATTTGTATGATCAGTATTATTTACTACTATTTTAATTTTATTTGCAATACCCGTAC

TAGCAGGGGCTATTACTATACTTTTAACAGATCGAAATTTTAATACATCCTTCTTTATTCCTTTGGGAGGAGGAGATCCAATTTTATTTCAA
CATTTATT

>--->Austrohorus_'EP05'-HBIID241662 2 reads from 463587 assembled using Geneious

ACTCTATATCTTCTCCTAGGTATTTGATCTGGTTTAGTAGGATTAGGATTTAGAATACTAATTCGAATACAGTTAATAAGACCTGGGAAAA
TCATCTCTGAACATTCATACAATGTGGTTGTTACCACTCATGCTTTTGTAATAATTTTCTTTATGGTTATACCTATTATAATTGGGGGTTTTG
GAAACTGATTAGTTCCACTAATAATTGGTGCCCCTGATATAGCATTTCCCCGTTTAAATAATTTAAGCTTCTGATTACTCCCCCCTTCTTTT
ATAATATTAGTATTTTCTACATGCTTAGAATTAGGGTGCGGGACAGGTTGGACTATCTATCCTCCTCTGTCTGCTTTACTAGGTCATACAT
CTAAATCAGTTGATATAGTAATTTTCTCCCTCCATCTTGCTGGAATTTCTTCTATCCTTGGAGCAATTAACTTCATTACAACAATTATAAATA
TACGGTCACCTCATCTTCCTATGAGAAAAATGCCTTTATTTGTATGGTCAGTGTTATTCACAACCATCTTAATTTTATTTGCTATGCCTGTG
TTAGCTGGAGCAATTACGATACTTCTAACAGATCGAAATTTTAATACATCTTTTTTTATTCCTTTGGGAGGGGGAGATCCTATTCTCTTTCA
ACATTTATT

>--->Austrohorus_'EP05'-HBIID243457 Assembly of 2 reads: 463570_R_G01.ab1 (reversed), 463570_F_G01.ab1

ACTCTATATCTTCTTCTAGGTATTTGATCTGGTTTAGTAGGGTTAGGATTTAGAATACTAATTCGAATACAGTTAATAAGACCCGGAAAAA
TCATCTCTGAACATTCGTACAATGTGGTTGTTACCACTCATGCTTTTGTAATAATTTTCTTTATGGTTATACCTATTATAATTGGGGGTTTT
GGAAACTGATTAGTTCCACTAATAATTGGTGCCCCTGATATAGCATTTCCCCGTTTAAATAATTTAAGCTTCTGATTACTTCCCCCTTCTTT
CATAATATTAGTATTTTCTACATGCTTAGAATTAGGGTGCGGGACAGGTTGGACTATCTATCCTCCTCTGTCTGCTTTACTAGGTCATACA
TCTAAATCAGTTGATATAGTAATTTTCTCCCTCCATCTTGCTGGAATTTCTTCTATCCTTGGAGCAATTAACTTCATTACAACAATTATAAAT
ATACGGTCACCTCATCTTCCTATGAGAAAAATGCCTTTATTTGTATGGTCAGTGTTATTCACAACCATCTTAATTTTATTTGCTATGCCTGT
ATTAGCTGGAGCAATTACGATACTTCTAACAGATCGAAATTTTAATACATCTTTTTTTATTCCTTTGGGAGGGGGAGATCCTATTCTCTTCC
AACATTTATT

>--->Austrohorus_'EP06'-HBIID241641 2 reads from 463586 assembled using Geneious

ACCTTATATCTTCTTCTAGGAATTTGATCTGGGTTAGTAGGAATAGGATTCAGAATATTAATTCGAATACAATTAATAAGTCCTGGAAAA
ATGATTTCCGAACACTCATATAATGTAGTTGTTACTACTCATGCTTTTGTGATAATTTTTTTTATAGTAATACCAATTATAATTGGAGGATT
CGGAAATTGATTAGTTCCGTTAATAATTGGTGCTCCAGATATAGCATTCCCTCGATTAAATAATCTAAGATTTTGACTCCTTCCTCCTTCAT
TTATAATACTATTGTTTTCAACATGTTTAGAGTTGGGATGTGGAACAGGGTGAACTATTTACCCCCCACTTTCTGCTCTTCTAGGTCATAC
AACTAAATCAGTTGATATAGTAATTTTTTCTCTTCATCTTGCTGGTATTTCTTCAATTCTCGGTGCAATTAACTTTATTACTACTATTATAAA
TATACGATCTCCCTATCTCCCAATAAGAAAAATACCTTTATTTGTATGATCTGTATTATTCACAACAATTTTAATTTTATTTGCAATACCTGT
TTTAGCTGGGGCAATTACCATACTTTTAACAGATCGAAATTTCAACACATCATTCTTCATTCCTTTAGGGGGTGGGGATCCTATTTTATTTC
AACATTTATT

>--->Austrohorus_'EP07'-HBIID241341 Assembly of 2 reads: 463576_R_G07.ab1 (reversed), 463576_F_G07.ab1

ACTCTGTATCTTCTTTTAGGAATTTGATCAGGATTAGTAGGATTAGGATTTAGAATATTAATCCGAATACAACTAATAAGACCTGGAAAA
ATAATTTCTGAACACTCATATAATGTAGTTGTTACTACTCATGCTTTTGTAATAATTTTTTTTATAGTAATACCGATTATAATTGGTGGATTT
GGAAATTGATTAGTACCATTAATAATTGGTGCTCCTGACATAGCATTTCCTCGATTAAACAATTTAAGATTTTGACTTCTTCCCCCTTCATT
TATAATATTATTATTCTCTACATGTTTAGAGTTAGGGTGTGGAACTGGATGAACTATCTACCCCCCTCTTTCTGCCTTATTAGGACATACAA
CTAAGTCAGTTGATATGGTAATTTTCTCTCTCCATCTTGCTGGTATTTCTTCTATTCTTGGTGCAATTAATTTTATTACTACAATTATAAATA
TACGATCTCCTTATCTTCCTATAAGTAAGATACCTCTATTTGTTTGATCTGTATTATTTACAACAATTTTAATTTTATTTGCAATACCTGTGTT
AGCTGGGGCCATTACCATACTTTTAACAGATCGAAATTTTAATACATCTTTTTTCATTCCTCTAGGGGGTGGAGATCCTATTTTATTCCAAC
ATTTATT

>--->Austrohorus_'EP07'-HBIID243496 2 reads from 463584 assembled using Geneious

ACTCTGTATCTTCTTTTAGGAATTTGATCAGGATTAGTAGGATTAGGATTTAGAATATTAATCCGAATACAACTAATAAGACCTGGAAAA
ATAATTTCTGAACACTCATATAATGTAGTTGTTACTACTCATGCTTTTGTAATAATTTTTTTTATAGTAATACCGATTATAATTGGTGGATTT
GGAAATTGATTAGTACCATTAATAATTGGTGCTCCTGACATAGCATTTCCTCGATTAAACAATTTAAGATTTTGACTTCTCCCCCCTTCATT
TATAATATTATTATTCTCTACATGTTTAGAGTTAGGGTGTGGAACTGGGTGGACTATCTACCCCCCTCTTTCTGCCTTATTAGGACATACA
ACTAAGTCAGTTGATATGGTAATTTTCTCTCTCCATCTTGCTGGTATTTCTTCTATTCTTGGTGCAATTAATTTTATTACTACAATTATAAAT
ATACGATCTCCTTATCTTCCTATAAGTAAGATACCTCTATTTGTTTGATCTGTATTATTTACAACAATTTTAATTTTATTTGCAATACCTGTA
TTAGCTGGGGCCATTACTATACTTTTAACAGATCGAAATTTTAATACATCTTTTTTCATTCCTCTAGGGGGTGGAGATCCTATTTTATTCCA
ACATTTATT

>--->Austrohorus_'EP07'-HBIID243560 Assembly of 2 reads: 463568_R_F11.ab1 (reversed), 463568_F_F11.ab1

ACTTTATATCTTCTTCTAGGAATTTGATCAGGTTTAGTAGGTATAGGATTCAGAATATTAATCCGAATACAGTTAATAAGACCTGGAAAA
ATAATTTCTGAACATTCATATAATGTAGTTGTTACTACTCATGCTTTTGTAATAATTTTCTTTATAGTAATACCGATTATAATTGGTGGGTT
CGGAAATTGATTAGTACCACTAATAATTGGTGCTCCTGATATAGCATTTCCTCGATTAAACAATTTAAGCTTTTGACTTCTTCCCCCTTCAT
TTATAATACTTTTATTCTCCACATGTTTAGAATTGGGGTGTGGAACTGGGTGAACTATTTATCCACCTCTTTCAGCTTTATTAGGTCATACA

ACGAAATCAGTTGATATGGTAATCTTTTCTCTTCATCTTGCTGGTATTTCTTCTATTCTTGGAGCAATTAATTTTATTACTACTATTATAAAT
ATACGATCTCCTTACCTTCCAATAAGTAAAATACCTTTATTTGTTTGATCTGTATTATTTACAACAATTTTAATTTTATTTGCTATACCTGTTT
TAGCTGGAGCTATTACCATACTTTTAACAGATCGAAATTTTAATACATCTTTTTTTATTCCTTTAGGAGGTGGTGACCCTATTTTATTTCAA
CATTTATT

>--->Austrohorus_'EP09'-HBIID243602 Assembly of 2 reads: 463578_R_G09.ab1 (reversed), 463578_F_G09.ab1

TTTTAGGTATTTGGGCAGGTTTATTAGGTATAAGATTTAGAATAATTATTCGAATACAATTAATAAGCCCAGGAAAAATTATTTCAGAAC
ATTCATATAATGTGGTTGTTACTACTCATGCATTCGTAATAATTTTTTTTATGGTAATACCAATTATAATTGGAGGTTTTGGAAATTGATTA
GTTCCTTTAATAATTGGGTCTCCTGACATAGCTTTCCCACGATTGAATAATTTAAGCTTTTGATTACTTCCACCATCATTTATATTATTGCTT
TTGTCATCTATACTAGAAATAGGATGTGGGACAGGTTGGACAATTTATCCTCCTTTATCATCATTACTTGGTCATACAAGTAAGGCAATA
GATATAGTAATTTTTTCATTGCACTTAGCTGGAATCTCATCTATTTTAGGAGCAATTAATTTTATTACTACTATTATTAATATACGTACTAAT
GGTATAACTATAATAAAGGTACCTTTGTTTGTTTGGTCCGTATTATTTACAACTATTTTAATTTTATTTGCTATACCAGTACTAGCTGGAGC
AATTACTATACTTTTAACTGATCGTAATTTTAATACATCATTTTTTGTCCCAGTGGGAGGGGGAGATCCTATTTTATTTCAACATTTATT

>--->Austrohorus_'EP10'-HBIID243446 2 reads from 463581 assembled using Geneious

ACTTTATATTTAATTTTAGGTATTTGAGCAGGACTTCTAGGTATAAGATTTAGAATAATTATTCGAATACAATTAATAAGACCAGGAAAAA
TTATTTCTGAACATTCATATAATGTAGTGGTTACTACTCATGCATTTGTTATAATTTTCTTTATAGTAATGCCTATTATAATTGGAGGTTTTG
GTAACTGATTAGTACCTTTAATAATTGGATCTCCTGATATAGCTTTCCCTCGACTTAATAATTTAAGTTTTTGACTTCTTCCTCCTTCATTTA
TATTATTAATTCTTTCTTCAATATTAGAAATAGGGTGTGGGACTGGTTGAACTATTTACCCTCCTCTATCATCTTTACTCGGCCATACTAGA
AAAGCTATAGATATAGTAATTTTTTCACTACATTTAGCTGGAATTTCGTCGATTTTGGGGGCAATCAATTTTATTACTACTATTATTAATAT
ACGGACACATGGAATAACTATAATAAAGGTCCCATTATTTGTTTGGTCAGTATTGTTTACGACTATTTTAATTTTATTTGCTATGCCTGTTT
TAGCGGGAGCTATTACTATACTTTTAACAGATCGAAATTTTAATACTTCATTTTTTGTTCCTGTAGGAGGAGGAGATCCAATTTTATTCCA
ACATTTATT

>--->Austrohorus_'EP11'-HBIID243176 Assembly of 2 reads: 463580_R_G11.ab1 (reversed), 463580_F_G11.ab1

ACATTGTATTTAATTTTAGGAATTTGAGCAGGTCTCTTAGGAATGAGATTTAGAATAATTATTCGAATACAATTAATAAGCCCTGGGAAG
ATTATTTCTGAACATTCTTATAATGTTGTTGTTACAACACATGCATTTGTAATGATTTTTTTTATAGTTATACCTATTATAATTGGAGGTTTT
GGAAATTGATTGGTTCCTTTGATAATTGGGTCTCCAGATATAGCTTTTCCTCGATTAAATAATTTAAGTTTTTGATTATTACCTCCTTCATTT
ATGTTATTAATATTTTCCTCAATATTGGAAATAGGTTGTGGAACGGGGTGAACTATCTACCCTCCTTTATCTTCATTGTTAGGACATACTTC
TAAGGCTATAGATATGGTAATTTTTTCTTTACACCTGGCAGGGATCTCTTCTATTTTAGGTGCAATTAACTTTATTACTACTATTATTAATA
TACGAACTCAAGGTCTAACGATAATGAAACTTCCTTTATTTGTTTGATCTGTTTTATTTACAACTATTTTAATTTTATTTGCTATGCCGGTTC
TAGCTGGGGCAATTACTATACTTTTAACTGATCGTAATTTTAATACTTCGTTTTTTATTCCGGTGGGTGGTGGTGATCCTATTTTATTTCAA
CATTTATT

>--->Austrohorus_'EP11'-HBIID243191 Assembly of 2 reads: 463574_R_G05.ab1 (reversed), 463574_F_G05.ab1

ACATTATATTTAATTTTAGGGATTTGAGCGGGGCTTTTAGGAATAAGATTTAGAATAATTATTCGAATACAATTAATAAGCCCGGGAAAG
ATTATTTCTGAACATTCTTATAATGTTGTTGTTACAACACATGCATTTGTGATAATTTTTTTTATAGTTATGCCTATTATAATTGGGGGATTT
GGAAATTGATTAGTTCCTTTAATAATTGGATCTCCGGATATAGCTTTTCCTCGATTAAATAATTTAAGTTTTTGATTATTACCTCCTTCGTTT
ATATTGTTAATATTCTCTTCAATATTAGAAATAGGTTGTGGGACAGGGTGAACAATTTACCCCCCTTTATCATCATTGTTAGGACACACTT
CTAGGGCTATAGATATAGTAATTTTTTCTTTACATTTAGCAGGAATTTCTTCTATTTTAGGGGCAATTAATTTTATCACCACTATTATTAAT
ATACGAACTCAAGGTTTAACAATAATAAAACTTCCTTTATTTGTGTGGTCTGTTTTGTTTACAACTATTTTGATTTTATTTGCTATACCAGTT
CTTGCTGGGGCAATTACTATACTTTTAACAGACCGAAATTTTAATACTTCGTTTTTTATCCCAGTTGGAGGGGGTGATCCTATTTTATTTCA
ACATTTATT

>--->Austrohorus_'EP11'-HBIID243357 2 reads from 463590 assembled using Geneious

ACATTATATTTAATTTTAGGGATTTGAGCGGGGCTTTTAGGAATAAGATTTAGAATAATTATTCGAATACAATTAATAAGCCCGGGAAAG
ATTATTTCTGAACATTCTTATAATGTTGTTGTTACAACACATGCATTTGTGATAATTTTTTTTATAGTTATGCCTATTATAATTGGGGGATTT
GGAAATTGATTAGTTCCTTTAATAATTGGATCTCCGGATATAGCTTTTCCTCGATTAAATAATTTAAGTTTTTGATTATTACCTCCTTCGTTT
ATATTGTTAATATTCTCTTCAATATTAGAAATAGGTTGTGGGACAGGGTGAACTATTTACCCCCCTTTATCATCATTGTTAGGACACACTTC
TAAGGCTATAGATATAGTAATTTTTTCTTTACACTTAGCAGGAATTTCTTCTATTTTAGGGGCAATTAATTTTATCACCACTATTATTAATAT
ACGAACTCAAGGTTTAACAATAATAAAACTTCCTTTATTTGTGTGGTCTGTTTTGTTTACAACTATTTTGATTTTATTTGCTATACCAGTTCT
TGCTGGGGCAATTACTATACTTTTAACAGATCGAAATTTTAATACTTCGTTTTTTATCCCAGTTGGAGGGGGTGATCCTATTTTATTTCAAC
ATTTATT

>--->Austrohorus_'EP12'-HBIID242428 Assembly of 2 reads: 463579_R_G10.ab1 (reversed), 463579_F_G10.ab1

ACCTTATATTTAATTTTAGGTATTTGGGCGGGTTTATTAGGAATGAGATTTAGAATAATTATTCGTATACAATTGATAAGCCCAGGAAAA
ATTATTTCTGAACATTCCTATAATGTTGTTGTTACAACTCACGCTTTCTTAATAATTTTTTTTATAGTAATGCCAATTATAATTGGAGGGTTT
GGAAACTGACTAGTTCCATTAATAATTGGTTCTCCTGATATAGCCTTTCCACGATTAAATAACTTAAGTTTTTGATTACTCCCCCCTTCATT

TATATTATTAATTTTTTCATCAATATTGGAAATAGGATGTGGGACAGGTTGAACAATCTACCCTCCTTTATCGTCTCTCCTTGGTCATACCT
CTAAGGCTATAGATATGGTAATTTTTTCATTACACTTGGCTGGAATTTCATCTATTTTAGGGGCTATTAATTTTATTACTACTATTATTAAT
ATACGAACTTATGGGATAACTATAATAAAATTACCATTATTTGTTTGGTCTGTTTTATTTACTACTATTTTAATTTTATTTGCTATACCTGTT
TTGGCAGGGGCTATTACTATACTTCTTACTGATCGAAATTTTAATACGTCTTTCTTCGTTCCAGTTGGGGGAGGGGATCCTATTTTATTTC
AACATTTATT

>--->Austrohorus_'EP13'-HBIID241645 2 reads from 463591 assembled using Geneious

ACATTATACTTACTTTTAGGTATTTGAGCTGGTTTATTAGGTATAAGTTTCAGAATAATTATTCGTATACAATTAATAAGCCCTGGAAAAA
TTATTTCGGAACATTCTTATAATGTTGTTGTTACAACTCATGCATTTGTAATGATTTTTTTTATAGTTATACCAATTATAATTGGAGGATTTG
GAAACTGATTGGTTCCATTAATGATTGGATCACCGGATATAGCGTTCCCACGATTAAATAATCTAAGTTTTTGATTACTGCCCCCTTCATTT
ATGTTACTGATGTTTTCTTCAATATTGGAAATAGGATGTGGAACTGGATGAACCGTTTATCCTCCCCTATCATCTTTGCTTGGTCATACAA
CTAAAGCAGTTGATTTAGTAATTTTTTCGTTACATTTAGCTGGTATTTCTTCAATTTTAGGGGCTATTAATTTTATTACAACCATTATTAATA
TACGGACACATGGTATAACTATAATAAAATTACCTTTATTTGTTTGATCTGTCTTGTTTACAACTATTTTGATTTTATTTGCAATGCCTGTAT
TGGCTGGAGCTATTACCATACTTTTAACTGATCGAAACTTTAATACATCTTTTTTCGTTCCTGTAGGGGGAGGAGATCCTATTTTATTTCAA
CATTTATT

>--->Austrohorus_'EP13'-HBIID242547 Assembly of 2 reads: 463575_R_G06.ab1 (reversed), 463575_F_G06.ab1

ACATTATATTTACTTTTAGGTATTTGAGCTGGTTTATTAGGTATAAGTTTCAGAATAATTATTCGTATACAATTAATAAGTCCTGGGAAAA
TTATTTCGGAACATTCTTATAATGTTGTTGTTACAACTCATGCATTTGTGATGATTTTTTTTATAGTTATACCAATTATAATTGGAGGATTT
GGAAACTGATTGGTTCCATTAATGATTGGTTCACCGGATATGGCGTTCCCACGATTGAATAACCTAAGTTTTTGATTACTACCTCCTTCAT
TTATGTTACTAATATTTTCTTCAATATTAGAAATAGGGTGTGGAACTGGATGAACCGTTTATCCTCCCCTATCATCTTTGCTTGGTCATACA
ACTAAAGCAGTTGATTTAGTAATTTTTTCGTTACATTTAGCTGGTATTTCTTCGATTTTGGGAGCTATTAATTTTATTACGACTATTATTAAT
ATGCGAACACATGGTATAACTATAATGAAATTACCTTTATTTGTTTGATCTGTGCTGTTTACAACTATTTTGATTTTATTTGCAATGCCTGT
ATTGGCTGGAGCCATTACCATGCTTTTAACTGATCGAAATTTTAATACATCTTTTTTCGTTCCTGTAGGAGGAGGAGATCCTATTTTATTTC
AACACTTATT

>--->Austrohorus_'EP13'-HBIID243449 Assembly of 2 reads: 463577_R_G08.ab1 (reversed), 463577_F_G08.ab1

ACATTATACTTACTTTTAGGTATTTGAGCTGGTTTATTAGGTATAAGTTTCAGAATAATTATTCGTATACAATTAATAAGCCCTGGAAAAA
TTATTTCGGAACATTCTTATAATGTTGTTGTTACAACTCATGCATTTGTAATGATTTTTTTTATAGTTATACCAATTATAATTGGAGGATTTG
GAAACTGATTGGTTCCATTAATGATTGGATCACCGGATATAGCGTTCCCACGATTAAATAATCTAAGTTTTTGATTACTGCCCCCTTCATTT
ATGTTACTGATGTTTTCTTCAATATTGGAAATAGGATGTGGAACTGGATGAACCGTTTATCCTCCCCTATCATCTTTGCTTGGTCATACAA
CTAAAGCAGTTGATTTAGTAATTTTTTCGTTACATTTAGCTGGTATTTCTTCAATTTTAGGGGCTATTAATTTTATTACAACCATTATTAATA
TACGGACACATGGTATAACTATAATAAAATTACCTTTATTTGTTTGATCTGTCTTGTTTACAACTATTTTGATTTTATTTGCAATGCCTGTAT
TGGCTGGAGCTATTACCATACTTTTAACTGATCGAAACTTTAATACATCTTTTTTCGTTCCTGTAGGGGGAGGAGATCCTATTTTATTTCAA
CATTTATT

>--->Austrohorus_'EP14'-HBIID243591 2 reads from 463588 assembled using Geneious

ACTTTATATTTAATTTTGGGAATTTGAGCAGGTCTTCTAGGAATGAGTTTTAGAATAATTATTCGAATACAATTGATAAGTCCAGGAAAAT
TTATTTCTGAACACTCATATAATGTTGTTGTTACTACTCATGCTTTTGTAATAATTTTTTTTATGGTAATACCTATTATAATCGGAGGTTTTG
GAAATTGATTAACACCCTTAATAATTGGTTCTCCGGATATGGCCTTTCCACGATTAAATAATTTAAGATTTTGATTATTACCACCATCGTTA
ATATTATTGCTATTTTCTTCTATACTGGAAATAGGATGCGGAACAGGGTGAACTATTTATCCTCCCCTATCCTCTCTTTTGGGACATACAAC
AAAGGCTATAGACATGGTGATTTTTTCTTTGCATTTAGCTGGGATTTCATCAATTTTAGGTGCTATTAATTTTATTACTACAATTATTAATA
TACGAACTTATGGATTATCAATATTAAAGTTACCTTTGTTTGTTTGATCAGTATTATTTACTACTATTTTAATTTTATTTGCTATACCTGTATT
AGCGGGTGCTATTACTATGCTTTTGACTGATCGTAATTTTAATACATCATTTTTTATTCCGGTGGGGGGTGGAGATCCAATTTTATTTCAA
CATTTATT

>--->Austrohorus_'EP15'-HBIID243371 2 reads from 463589 assembled using Geneious

ACTTTATATTTAATTTTAGGAATTTGAGCTGGGTTATTAGGTATAAGATTTAGAATGATTATTCGAATACAGTTAATAAGACCTGGTAAAT
TTATTTCCGAACATTCATACAATGTAGTTGTTACTACTCATGCTTTTATTATGATTTTTTTTATAGTTATGCCTATTATAATTGGTGGGTTTG
GTAATTGATTGACACCTTTAATGATCGGTTCGCCTGATATAGCTTTTCCTCGATTAAATAATTTAAGTTTTTGACTTCTCCCTCCATCATTTA
TATTATTAGTGTTTTCTTCTATACTAGAAATGGGATGTGGTACAGGATGAACTATTTATCCACCATTATCTTCTTTGCTTGGCCATACAACA
AGGGCTATAGATATAGTAATTTTTTCTCTACATTTAGCTGGAATTTCTTCGATTTTAGGGGCGATTAATTTTATTACTACTATTATTAATAT
ACGAACAGTTGGACTTACAATAATAAAATTACCATTATTTGTATGATCGGTTTTATTTACTACAATTTTAATTTTGTTTGCTATACCTGTATT
AGCGGGTGCTATTACAATACTCTTAACTGATCGTAATTTTAATACTTCTTTTTTTATTCCTAGAGGAGGTGGAGATCCAATTTTATTTCAAC
ATTTATT

>--->Austrosuccinea_BoDo01-HBIID242985 2 reads from 463593 assembled using Geneious

ACTTTATATATAATCTTTGGTGTTTGAGCAGGTATAATTGGTACTGGCTTATCCTTATTAATTCGTTATGAATTAGGAACATCAGGTGTTTT
ATTAGATGATCATTTATATAATGTTGTTGTAACTGCACATGCTTTTGTTATAATTTTTTTTATAGTTATACCTATCATAATTGGTGGGTTTG
GTAATTGAATGGTACCTTTATTAATTGGAGCTCCAGACATGAGTTTTCCTCGAATAAATAATATAAGTTTTTGACTTCTTCCACCTTCTTTT
ATTTTATTATTATGTTCAAGAATAGTTGAAGGAGGGGCAGGTACAGGTTGAACTGTTTACCCTCCTTTAAGAAGTTTAATAGGGCATAGC
GGAGCTTCTGTTGATTTAGCTATTTTTTCCCTTCATTTAGCTGGGATTTCATCTATTTTAGGTGCTATTAATTTTATTACTACAATTTTTAAT
ATACGTCAATTAGGGATAACAATAGAACGATTAAGTTTATTTGTTTGATCAATTTTGGTGACAGTTTTTTTACTTCTTCTTTCTTTACCTGTT
TTAGCTGGGGCTATTACTATATTGTTAACTGATCGAAATTTTAATACTTCTTTCTTTGACCCTGCGGGAGGGGGTGATCCAATTCTTTATC
AACATTTATT

>--->Ballophilus_EP01-HBIID242577 2 reads from 463594 assembled using Geneious

AACCATGTACCTCATTTTCGGCGCATGAGCGTCTATAGCAGGCACAGCCTTAAGCCTAATTATCCGCCTAGAACTTAGTCAACCAGGCAG
CCTAATCGGAGATGACCAAACATATAATGTTGTAGTAACCGCCCACGCATTTATCATAATCTTCTTCATAGTTATACCTATCATAATGGGA
GGCTTTGGGAATTGACTCCTCCCCCTAATACTAGGAGCCCCTGACATAGCCTTCCCACGACTTAACAACATAAGATTTTGACTCTTGCCCC
CCTCCCTCATACTCCTCCTTTCTTCCGCCGCAGTAGAGAGAGGGGCCGGCACCGGATGAACCGTCTATCCTCCTCTTGCAGCCGGAATCG
CCCACTCAGGAGCATCAGTTGACATAACAATTTTTTCCCTCCACCTAGCAGGAGTGTCATCCATTCTTGGTGCCATTAATTTCATCACTACA
GTAATTAACATACGAACCTCTGGCATAGTCTTCGAACGAGTGCCCCTTTTTGTCTGAGGTGTACTTATTACAGCAATCCTCCTCCTCCTCTC
CCTTCCAGTCCTCGCAGGAGCCATCACCATACTACTCACAGACCGAAACTTCAACACCAGCTTCTTTGACCCCGCCGGAGGTGGAGATCC
AATTCTATACCAACACCTTTTC

>--->Ballophilus_EP01-HBIID242787 2 reads from 463595 assembled using Geneious

AACCATGTACCTCATTTTCGGCGCATGAGCGTCTATAGCAGGCACAGCCTTAAGCCTAATTATCCGCCTAGAACTTAGTCAACCAGGCAG
CCTAATCGGAGATGACCAAACATATAATGTTGTAGTAACCGCCCACGCATTTATCATAATCTTCTTCATAGTTATACCTATCATAATGGGA
GGCTTTGGGAATTGACTCCTCCCCCTAATACTAGGAGCCCCTGACATAGCCTTCCCACGACTTAACAACATAAGATTTTGACTCTTGCCCC
CCTCCCTCATACTCCTCCTTTCTTCCGCCGCAGTAGAGAGAGGGGCCGGCACCGGATGAACCGTCTATCCTCCTCTTGCAGCCGGAATCG
CCCACTCAGGAGCATCAGTTGACATAACAATTTTTTCCCTCCACCTAGCAGGAGTGTCATCCATTCTTGGTGCCATTAATTTCATCACTACA
GTAATTAACATACGAACCTCTGGCATAGTCTTCGAACGAGTGCCCCTTTTTGTCTGAGGTGTACTTATTACAGCAATCCTCCTCCTCCTCTC
CCTTCCAGTCCTCGCAGGAGCCATCACCATACTACTCACAGACCGAAACTTCAACACCAGCTTCTTTGACCCCGCCGGAGGTGGAGATCC
AATTCTATACCAACACCTTTTC

>--->Beierolpium_'EP16'-HBIID242982 2 reads from 463603 assembled using Geneious

ACTTTGTATTTTCTTCTTGGCGTTTGGTCAGGAGTAATTGGAATAGGCTATAGAATAATTATTCGAATGCAGCTTTCTTGTCCTGGACGAG
TTATTGAAGACCATACATATAATGTAGTTGTTACTACCCATGCTTTTTTGATAATTTTTTTTATGGTTATACCTATTTTAATTGGAGGATTTG
GAAATTGACTAGTTCCAATAATAATTGGAGCACCAGATATAGCATTCCCACGATTAAATAATTTAAGATTTTGATTACTTCCCCCTTCCTTT
TTTCTGATAATACTCTCTTCTTATTTAGAAATAGGATGTGCTACTGGTTGAACCATCTATCCTCCTTTAGCTGGATATATCGGACATTTTTC
TAAATCAGTAGATTTAGTTATTTTTTCACTACATCTTGCTGGGGCAAGTTCAATTTTAGGTGCTATTAATTTTATTACCACTATTATTAATAT
ACGGTCCCCTGGGCTCCCTTACTCTAAGATATCTTTATTTGTCTGGGCCGTAATATTTACAACCATTCTACTCTTATTAGCTATTCCAGTCCT
AGCAGGGGCTATTACCATACTACTAACGGATCGAAACTTTAATTCTTCTTTTTTTGAACCTTTAGGGGGAGGAGATCCCATTCTATTTCAA
CATTTATT

>--->Beierolpium_'EP17'-HBIID242953 2 reads from 463602 assembled using Geneious

ACTCTATATTTTTTTTTAGGGGTGTGATCGGGAGTAATTGGAATAGGATATAGAATAATTATTCGAATACAGCTTTCTTGTCCTGGGCGA
GTAATTGAAGATCATACATATAATGTAGTTGTTACAACTCATGCTTTTTTAATAATTTTTTTTATAGTTATGCCTATTTTAATTGGAGGGTT
TGGAAATTGACTAGTTCCAATAATAATTGGAGCACCAGATATGGCATTCCCACGATTAAACAACTTAAGTTTTTGATTACTTCCTCCTTCTT
TTTTATTAATAATACTTTCTTCTTACTTAGAAATAGGGTGTGCTACTGGTTGGACCATTTACCCTCCTTTAGCTGGTTATGTCGGGCATTTT
TCTAAATCAGTTGATTTAGTTATTTTTTCATTACATCTTGCTGGTGCTAGATCAATTTTAGGTGCCATTAATTTTATTACTACTATTATTAAT
ATACGATCTCCTGGCTTACCTTACTCTAAGATACCTTTATTTGTTTGGGCTGTAATATTTACAACCATCCTTCTTTTATTAGCTATTCCAGTT
TTAGCAGGGGCTATTACCATACTATTAACTGATCGAAATTTTAAT

>--->Beierolpium_'EP17'-HBIID243139 2 reads from 463597 assembled using Geneious

ACTTTATACTTTCTTTTAGGGGTGTGGTCAGGGGTGATCGGTATAGGATACAGAATAATTATTCGAATACAACTTTCTTGCCCTGGACGA
GTAATTGAAGATCATACGTATAATGTGGTTGTTACAACTCATGCTTTTTTAATAATTTTTTTTATAGTTATGCCTATTTTAATTGGAGGGTT
TGGAAATTGACTAGTTCCAATAATAATTGGAGCGCCGGATATGGCATTCCCACGATTAAACAACTTAAGTTTCTGATTACTTCCTCCTTCT
TTTTTCTTAATAATGCTTTCCTCTTATCTAGAAATGGGGTGTGCTACTGGCTGAACCATTTACCCTCCTTTAGCAGGATATGTCGGACATTT
TTCTAAATCAGTAGATTTAGTTATTTTTTCATTACACCTCGCTGGTGCTAGTTCAATCTTAGGTGCTATTAATTTTATTACTACTATTATTAA
TATACGATCCCCTGGTCTACCTTACTCTAAAATACCTTTATTCGTTTGAGCTGTAATATTTACGACTATCCTTCTTTTACTAGCCATTCCGGT
TTTAGCAGGGGCAATTACAATACTATTAACTGATCGAAATTTTAATTCTTCTTTTTTTGAGCCTTTAGGAGGAGGAGACCCTATTTTGTTTC
AACATTTATT

>--->Beierolpium_'EP17'-HBIID243473 2 reads from 463607 assembled using Geneious

ACTCTATATTTTCTTTTAGGGGTGTGGTCAGGGGTAATCGGTATAGGATACAGAATAATTATTCGAATACAACTTTCTTGCCCTGGACGA
GTAATTGAAGATCACACGTATAATGTGGTTGTTACAACTCATGCTTTTTTAATAATTTTTTTTATAGTTATGCCTATTTTAATTGGAGGGTT
TGGAAATTGACTAGTTCCAATAATAATTGGAGCGCCGGATATGGCATTCCCACGATTAAACAACTTAAGTTTCTGATTACTCCCCCCTTCT
TTTTTCTTAATAATGCTTTCCTCTTATCTAGAAATGGGGTGTGCTACTGGCTGAACCATTTACCCTCCTTTAGCAGGATATGTCGGACATTT
TTCTAAATCAGTAGATTTAGTTATTTTTTCATTACACCTCGCTGGTGCTAGTTCAATCTTAGGTGCTATTAATTTTATTACTACTATTATTAA
TATACGATCCCCTGGTCTACCTTACTCTAAGATACCTTTATTCGTTTGAGCTGTAATATTTACAACCATCCTTCTTTTACTAGCTATTCCGGT
TTTAGCAGGGGCGATTACAATACTATTAACTGATCGAAATTTTAATTCTTCTTTTTTTGAGCCTTTAGGGGGAGGAGACCCTATTTTGTTC
CAACWTTTATT

>--->Beierolpium_'EP17'-HBIID243504 2 reads from 463604 assembled using Geneious

ACTCTATATTTTTTTTTAGGGGTGTGATCGGGAGTAATTGGAATAGGGTATAGAATAATTATTCGAATACAGCTTTCTTGTCCTGGGCGA
GTAATTGAAGATCATACATATAATGTAGTTGTTACAACTCATGCTTTTTTAATAATTTTTTTTATAGTTATGCCTATTTTAATTGGAGGGTT
TGGAAATTGACTAGTTCCAATAATAATTGGAGCACCAGATATGGCATTCCCACGATTAAACAACTTAAGTTTTTGATTACTTCCTCCTTCTT
TTTTATTAATAATACTTTCTTCTTACTTAGAAATAGGGTGTGCTACTGGTTGGACCATTTACCCTCCTTTAGCTGGAAATGTCGGGCATTTT
TCTAAATCAGTTGATTTAGTTATTTTTTCATTACATCTTGCTGGTGCTAGATCAATTTTAGGTGCCATTAATTTTATTACTACTATTATTAAT
ATACGATCTCCTGGCTTACCTTACTCTAAGATACCTTTATTTGTTTGGGCTGTAATATTTACAACCATCCTTCTTTTATTAGCTATTCCAGTT
TTAGCAGGGGCTATTACCATACTATTAACTGATCGAAATTTTAATTCTTCTTTTTTTGAACCTTTAGGAGGAGGGGACCCTATTTTATTTCA
ACATTTATT

>--->Beierolpium_'EP17'-HBIID243565 2 reads from 463596 assembled using Geneious

ACTCTATATTTTTTTTTAGGGGTGTGATCGGGAGTGATTGGAATAGGATATAGAATAATTATTCGAATACAGCTTTCTTGTCCTGGGCGA
GTAATTGAAGATCATACATATAATGTAGTTGTTACAACTCATGCTTTTTTAATAATTTTTTTTATAGTTATACCTATTTTAATTGGAGGGTTT
GGAAATTGACTAGTTCCAATAATAATTGGAGCACCAGATATGGCATTCCCACGATTAAACAACTTAAGTTTTTGATTACTTCCTCCTTCTTT
TTTATTAATAATACTTTCTTCTTACTTAGAAATAGGGTGTGCTACTGGTTGGACCATTTACCCTCCTTTAGCTGGTTATGTCGGGCATTTTT
CTAAATCAGTTGATTTAGTTATTTTTTCATTACATCTTGCTGGTGCTAGTTCAATTTTAGGTGCCATTAATTTTATTACTACTATTATTAATA
TACGATCTCCTGGCTTACCTTACTCTAAGATACCTTTATTTGTTTGGGCTGTAATATTTACAACCATCCTTCTTTTATTAGCTATTCCAGTTT
TAGCAGGGGCTATTACCATACTATTAACTGATCGAAATTTTAATTCTTCTTTTTTTGAACCTTTAGGAGGAGGGGACCCTATTTTATTTCAA
CATTTATT

>--->Beierolpium_'EP17'-HBIID243605 Assembly of 2 reads: 463751_R_F08.ab1 (reversed), 463751_F_F08.ab1

ACTCTATATTTTCTTTTGGGGGTGTGGTCAGGGGTAATTGGTATAGGATACAGAATAATTATTCGAATACAACTTTCTTGCCCTGGACGA
GTAATTGAAGATCACACGTATAATGTGGTTGTTACAACTCATGCTTTTTTAATAATTTTTTTTATAGTTATGCCTATTTTAATTGGAGGGTT
TGGAAACTGACTAGTTCCAATAATAATTGGAGCGCCGGATATGGCATTCCCACGATTAAACAACTTAAGTTTCTGATTACTTCCCCCTTCT
TTTTTCTTAATAATGCTTTCCTCTTATCTAGAAATGGGGTGTGCTACTGGCTGAACCATTTACCCTCCTTTAGCAGGATATGTCGGACATTT
TTCTAAATCAGTAGATTTAGTTATTTTTTCATTACACCTCGCTGGTGCTAGTTCAATTTTAGGTGCTATTAATTTTATTACTACTATTATTAA
TATACGATCCCCTGGTCTACCTTACTCTAAGATATCTTTATTCGTTTGGGCTGTAATATTTACAACTATCCTTCTTTTATTAGCTATTCCGGT
TTTAGCAGGGGCAATTACCATACTATTAACTGATCGAAATTTTAATTCTTCTTTTTTTGAGCCTTTAGGAGGAGGAGACCCTATTTTGTTTC
AACATTTATT

>--->Beierolpium_'EP18'-HBIID243235 2 reads from 463608 assembled using Geneious

ACATTATATTTTATTTTAGGAGTTTGGTCAGGTATTGTAGGTATAGGATATAGAACATTAATTCGGATACAATTATCATGTCCAGGACAA
ATAATAGAAGACCATACTTATAATGTAGTCGTTACGACTCATGCTTTTTTAATGATTTTTTTTATAGTAATACCTATTTTAATTGGTGGTTTT
GGAAACTGGCTTGTTCCAATAATAATTGGGTCCCCTGATATAGCATTCCCACGATTAAATAATTTAAGTTTTTGACTTCTTCCGCCTTCTTT
TTTTTTAATATTAATTTCATCAACTATAGAAATAGGTTGTGCTACCGGATGAACTATTTACCCACCTTTAGCTGGATTAACTGGCCATTTTT
CTAAATCTGTAGACTTAGTAATTTTTTCTTTACATTTAGCTGGAGCCAGATCTATTCTTGGAGCAATTAATTTTATTTCTACCATTTTAAATA
TACGATCACCAAGTCTTCCCTTCTCTAAAATACCCCTCTTTGTTTGGGCTGTGTTCTTTACTACTATTTTATTACTACTAGCAATTCCTGTTTT
AGCAGGTGCTATTACTATATTATTAACTGATCGAAATTTTAATTCTTCTTTCTTTGAACCTTTGGGAGGAGGAGATCCAATTTTATTTCAAC
ATTTATT

>--->Beierolpium_PSEU115-HBIID242314 2 reads from 463605 assembled using Geneious

ACTTTGTACTTTATTTTGGGTGTATGATCAGGAATTGTGGGTATAGGATATAGTACACTCATTCGTATACAATTATCATGTCCAGGACAAA
TAATAGAAGACCATACTTATAACGTGATTGTTACAACACACGCCTTTCTAATAATCTTTTTCATAGTGATACCAATCATAATTGGTGGGTT
TGGAAATTGACTTGTACCAATAATAATTGGATCTCCTGATATAGCATTTCCACGATTAAATAATTTAAGCTTTTGGCTTCTTCCACCTTCAT
TTATTCTAATATTAATTTCATCCACTATAGAAATAGGATGCGCTACTGGTTGAACTATTTATCCACCTTTAGCTGGGCTAACAGGCCACTTT
TCAAAGTCTGTAGATTTAGTAATTTTCTCTCTTCATTTAGCTGGAGCAAGTTCAATCTTAGGAGCAATCAACTTCATCTCTACAATCTTAAA
CATACGATCCCCTAGTCTACCTCTCTCAAAAATACCCTTATTCGTCTGAGCGGTATTCTTCACAACTATTTTATTATTATTAGCTATTCCAGT

CTTAGCAGGAGCTATTACCATACTCCTAACAGATCGAAATTTCAATTCCTCTTTTTTCGAACCTTTGGGAGGAGGAGACCCTATCTTATTT
CAACACTTATT

>--->Beierolpium_PSEU115-HBIID243142 2 reads from 463601 assembled using Geneious

ACTTTGTATTTTATTTTAGGTGTATGATCAGGAATTGTAGGTATAGGATATAGTACACTCATTCGTATACAATTATCATGTCCAGGACAAA
TAATAGAAGACCATACTTATAATGTGATTGTTACAACCCACGCTTTTCTAATAATTTTCTTCATAGTAATACCAATCATAATTGGTGGGTTT
GGAAATTGACTTGTACCAATAATAATTGGATCTCCTGACATAGCATTTCCACGATTAAATAATTTAAGCTTTTGGCTTCTTCCGCCTTCATT
CATTCTAATATTAATTTCATCCACTATAGAAATAGGATGCGCTACTGGTTGAACTATTTACCCACCTTTAGCTGGGCTAACAGGCCATTTTT
CAAAGTCTGTAGACTTAGTAATTTTTTCTCTTCATTTAGCTGGAGCAAGTTCAATCTTAGGGGCAATCAACTTCATCTCTACAATCTTAAAT
ATACGATCCCCTAGTCTACCTCTCTCAAAAATACCTTTATTCGTCTGAGCGGTATTCTTTACAACTATTTTATTATTATTAGCTATCCCAGTC
TTAGCAGGAGCTATTACCATACTCTTAACAGATCGAAATTTCAACTCCTCTTTTTTCGAACCTTTAGGAGGAGGAGACCCTATTTTATTTCA
ACACTTATT

>--->Beierolpium_PSEU115-HBIID243597 2 reads from 463599 assembled using Geneious

ACTTTGTATTTTATTTTGGGTGTATGATCAGGAATTGTAGGTATAGGATATAGTACACTCATTCGTATACAATTATCATGTCCAGGACAAA
TAATAGAAGACCATACTTATAACGTGATTGTTACAACACACGCTTTTCTAATAATCTTTTTCATGGTGATACCAATCATAATTGGTGGATT
CGGAAATTGACTTGTACCAATAATAATTGGATCTCCTGATATAGCATTTCCACGATTAAACAATTTAAGCTTTTGGCTTCTTCCACCTTCAT
TCATTTTAATATTAATTTCATCCACTATAGAAATAGGATGTGCTACTGGTTGAACTATTTACCCACCTTTAGCTGGGCTAACAGGCCACTTT
TCAAAGTCTGTAGATTTAGTAATTTTCTCTCTCCATTTAGCTGGAGCAAGTTCAATCTTAGGAGCAATCAACTTCATCTCTACAATTTTAAA
TATACGATCCCCCAGTCTACCTCTCTCAAAAATACCTTTATTCGTCTGAGCGGTATTTTTCACAACTATTTTACTATTATTAGCTATTCCAGT
CTTAGCAGGAGCTATTACCATACTCCTAACAGATCGAAATTTTAATTCCTCTTTTTTCGAACCTTTAGGAGGAGGAGACCCTATTTTATTTC
AACACCTATT

>--->Buddelundia_Arm-D-HBIID241946[Olpiidae!] Assembly of 2 reads: 463625_R_C11.ab1 (reversed), 463625_F_C11.ab1

AACATTATATTTAATTTTAGGGATTTGAGCGGGGCTTTTAGGAATAAGATTTAGAATAATTATTCGAATACAATTAATAAGCCCGGGAAA
GATTATTTCTGAACATTCTTATAATGTTGTTGTTACAACACATGCATTTGTGATAATTTTTTTTATAGTTATGCCTATTATAATTGGGGGAT
TTGGAAATTGATTAGTTCCTTTAATAATTGGATCTCCGGATATAGCTTTTCCTCGATTAAATAATTTAAGTTTTTGATTATTACCTCCTTCGT
TTATATTGTTAATATTCTCTTCAATATTAGAAATAGGTTGTGGGACAGGGTGAACTATTTACCCCCCTTTATCATCATTGTTAGGACACACT
TCTAGGGCTATAGATATAGTAATTTTTTCTTTACATTTAGCAGGAATTTCTTCTATTTTAGGGGCAATTAATTTTATCACCACTATTATTAAT
ATACGAACTCAAGGTTTAACAATAATAAAACTTCCTTTATTTGTGTGGTCTGTTTTGTTTACAACTATTTTGATTTTATTTGCTATACCAGTT
CTTGCTGGGGCAATTACTATACTTTTAACAGACCGAAATTTTAATACTTCGTTTTTTATCCCAGTTGGAGGGGGTGATCCTATTTTATTTCA
ACATTTATTT

>--->Buddelundia_BoDo05-HBIID243105 Assembly of 2 reads: 463628_R_D02.ab1 (reversed), 463628_F_D02.ab1

GACTTTGTATTTTGTGTTTGGGGCTTGAGCGGGGGCTGTAGGGACTTCTTTAAGGGTGATTATTCGGGTGGAACTAGGGCAAGCAGGG
AGGCTTATTGGAGATGACCAGATTTATAATGTCATTGTTACTGCACATGCTTTTGTTATGATTTTTTTTATAGTGATGCCTATTATGATCGG
TGGGTTTGGAAACTGATTGGTGCCTTTGATGTTGAGATCCCCGGATATAGCTTTCCCACGGATAAACAATATAAGGTTTTGACTACTACC
CCCGTCTTTAACTTTATTATTGATAAGAGGGATGGTGGAGAGGGGGGTAGGGACTGGTTGAACGGTTTACCCTCCTTTGGCTGCAAATA
TGGCCCATAGGGGAGGGTCGGTGGATTTGGGGATTTTCTCTTTACATCTAGCAGGGGTGTCTTCTATTTTAGGGGCAGTAAATTTTATTA
CTACGACTATGAATATACGGCCAGTGGGAATAAAGATAGATCGAGTCCCATTGTTTGTATGGTCAGTTTTTATCACAGCTATCTTGCTATT
GTTGTCTTTACCTGTGTTAGCAGGGGCCATCACTATATTGCTCACAGACCGTAATTTTAACACTTCTTTTTTTGACCCAAGAGGGGGAGG
GGACCCGATTTTGTTCCAACACTTATTT

>--->Buddelundia_BoDo08-HBIID243312 Assembly of 2 reads: 463551_R_E06.ab1 (reversed), 463551_F_E06.ab1

CACCCTCTATTTCGTGTTTGGGGCATGGGCAGGAGCTTTAGGGACTTCTTTAAGGGTTATTATCCGAATTGAGTTAGGTCAAGTAGGGA
GTTTTATTGGGGACGATCAGATTTATAACGTAATTGTGACAGCCCATGCATTTGTTATGATTTTTTTTATAGTAATACCTGTGATAATTGG
GGGTTTCGGGAATTGGTTGGTTCCTTTGATACTAGGAGCCCCTGATATGGCTTTCCCACGAATAAACAATATAAGATTTTGACTCTTACCT
CCTTCTTTAACTTTGTTGTTAACCAGAGGTTTAATTGAAAGAGGTATAGGAACCGGGTGGACTGTTTACCCTCCTTTGGCTTCGAACATTG
CCCACAGAGGAGGTTCGGTGGATTTAGGGATTTTTTCGTTGCATTTAGCAGGGGTTTCTTCAATTCTTGGGGCCGTAAATTTTATTACGA
CTACTTTGAATATACGCTCTACTGGAATAAAATTTGATCGAATGACTCTTTTCGTCTGATCCGTCTATATTACAGCAATTTTATTATTACTAT
CTTTACCTGTGTTGGCTGGGGCTATTACGATATTGTTAACGGATCGTAATTTCAATACGTCATTTTTTGACCCTAGAGGTGGGGGAGACC
CAGTTTTATATCAGCACTTATTT

>--->Buddelundia_EP09-HBIID241941 2 reads from 463619 assembled using Geneious

GACCTTGTACTTTGTTTTTGGTGCTTGAGCAGGGGCTGTAGGGACTTCTTTGAGGGTGATTATTCGTGTTGAATTAGGTCAAGCAGGTAG
TTTGATCGGGGATGATCAAATTTACAATGTAATTGTAACTGCGCATGCTTTTGTTATGATTTTTTTTATGGTAATACCCATCATGATTGGG
GGGTTTGGGAATTGGCTGGTGCCTTTGATGCTCAGGTCCCCAGACATAGCTTTCCCACGGATAAACAACATAAGGTTTTGGCTACTACCT
CCTTCTTTGATTTTGTTACTGATGAGGGGCGCGGTAGAAAGAGGAGTGGGGACGGGATGGACAGTCTACCCTCCTTTGGCTGCTAACAT

AGCCCATAGAGGGGGTTCTGTGGATTTAGGGATTTTTTCTCTTCATCTAGCAGGGGTGTCCTCTATTTTAGGGGCAGTGAATTTTATTACT
ACAACTATAAACATACGACCAATTGGCATGAAAATAGATCGAGTTCCTTTGTTCGTATGATCAGTTTTTATCACAGCGATTTTGTTATTAT
TGTCATTGCCTGTGTTGGCAGGAGCCATTACGATACTGCTCACCGATCGAAATTTAAACACTTCTTTTTTTGACCCAGGAGGGGGTGGGG
ATCCTATTTTGTTCCAGCATTTGTTT

>--->Buddelundia_EP09-HBIID241945 Assembly of 2 reads: 463621_R_C07.ab1 (reversed), 463621_F_C07.ab1

GACCTTGTACTTTGTTTTTGGTGCTTGAGCAGGGGCTGTAGGGACTTCTTTGAGGGTGATCATTCGTGTTGAATTAGGTCAAGCAGGTA
GTTTGATTGGGGATGATCAAATTTACAATGTGATTGTAACTGCGCATGCTTTTGTTATGATTTTTTTTATGGTGATGCCCATTATGATTGG
GGGGTTTGGGAATTGGCTGGTACCTTTGATGCTCAGGTCTCCAGATATAGCTTTTCCACGGATAAACAACATAAGGTTTTGGCTGCTACC
TCCTTCTTTGACTTTGTTACTGATGAGGGGCGCGGTAGAAAGAGGAGTGGGGACGGGATGAACAGTCTACCCTCCTTTGGCTGCTAATA
TAGCACATAGAGGGGGTTCTGTGGATTTAGGGATTTTTTCTCTCCATTTAGCAGGGGTGTYTTCTATTTTAGGCGCAGTGAATTTTATCAC
TACAACCATAAACATACGACCAATTGGCATGAAAATAGATCGAATTCCTTTGTTCGTATGGTCAGTTTTTATCACAGCGATTTTATTATTA
TTGTCATTGCCTGTGCTGGCAGGAGCCATTACGATATTGCTCACCGATCGAAATTTAAACACTTCTTTTTTTGACCCAGGAGGGGGTGGG
ACCCTATTTTGTTTCAACATTTGTTT

>--->Buddelundia_EP09-HBIID242971 Assembly of 2 reads: 463622_R_C08.ab1 (reversed), 463622_F_C08.ab1

GACCTTGTACTTTGTTTTTGGTGCTTGAGCAGGGGCTGTAGGGACTTCTTTGAGGGTGATTATTCGTGTTGAATTAGGTCAAGCAGGTAG
TTTGATCGGGGATGATCAAATTTACAATGTAATTGTAACTGCGCATGCTTTTGTTATGATTTTTTTTATGGTAATACCCATCATGATTGGG
GGGTTTGGGAATTGGCTGGTGCCTTTGATGCTCAGGTCCCCAGACATAGCTTTCCCACGGATAAACAACATAAGGTTTTGGCTACTACCT
CCTTCTTTGACTTTGTTACTGATGAGGGGCGCGGTAGAAAGAGGAGTGGGGACGGGATGGACAGTCTACCCTCCTTTGGCTGCTAACAT
AGCCCATAGAGGGGGTTCTGTGGATTTAGGGATTTTTTCTCTTCATCTAGCAGGGGTGTCCTCTATTTTAGGGGCAGTGAATTTTATTACT
ACAACTATAAACATACGACCAATTGGCATGAAAATAGATCGAGTTCCTTTGTTCGTATGATCAGTTTTTATCACAGCGATTTTGTTATTAT
TGTCATTGCCTGTGTTGGCAGGAGCCATTACGATACTGCTCACCGATCGAAATTTAAACACTTCTTTTTTTGACCCAGGAGGGGGTGGGG
ATCCTATTTTGTTCCAGCATTTGTTT

>--->Buddelundia_EP11-HBIID241950 Assembly of 2 reads: 463630_R_D04.ab1 (reversed), 463630_F_D04.ab1

AACTTTGTATTTTGTATTTGGGGCTTGGGCTGGGGCGGTAGGGACTTCTTTGAGGGTAATTATTCGAATTGAATTAGGGCAAGCGGGTA
GGTTGATTGGAGACGATCAAATTTACAATGTCATTGTCACTGCGCATGCTTTTGTTATAATTTTTTTTATAGTAATACCCATTATGATTGGA
GGGTTTGGCAACTGATTGGTGCCTTTAATGCTCAGATCCCCTGATATAGCTTTTCCTCGTATAAATAATATAAGGTTTTGACTTCTTCCCCC
TTCTTTAACTCTTTTACTGGTAAGAGGCCTTGTAGAAAGAGGGGTAGGAACAGGATGAACTGTCTACCCTCCTTTGGCTTCTAATATTGC
TCATAGCGGGGGGGCAGTGGATCTGGGTATTTTTTCTTTACATTTAGCTGGGGTTTCTTCTATTTTAGGAGCTGTTAATTTTATTACCACT
ACAATAAATATACGTCCTACAAAAATAAAAATGGATCGGGTTCCTTTATTTGTCTGATCCGTGTTTATCACAGCCATTTTATTACTGTTGTC
TCTTCCAGTTTTAGCAGGGGCTATTACTATATTATTAACAGATCGAAATTTAAATACTTCTTTTTTTGATCCTAGAGGGGGAGGGGATCCT
ATTTTATTTCAACACTTATTC

>--->Buddelundia_EP12-HBIID243531 Assembly of 2 reads: 463631_R_D05.ab1 (reversed), 463631_F_D05.ab1

AACTTTGTATTTTGTGTTTGGGGCATGAGCAGGGGCAGTAGGAACTTCTTTAAGAGTAATTATTCGGGTTGAACTGGGGCAAGCGGGCA
GATTGATTGGAGATGATCAAATTTATAATGTTATTGTTACTGCACATGCTTTTATTATAATTTTTTTTATAGTCATGCCTATTATAATTGGG
GGGTTTGGTAATTGGTTAGTACCTTTAATACTCAGGTCTCCTGATATGGCTTTCCCTCGAATAAACAATATGAGATTCTGACTTCTTCCGC
CTTCTTTGACTCTTTTATTGGTAAGAGGTCTTGTGGAAAGGGGAGTAGGAACAGGGTGGACTGTATACCCCCCGTTAGCTTCTAACATTG
CTCATAGGGGGGGATCAGTGGATCTTGGGATTTTTTCTCTTCATCTGGCAGGGGTTTCTTCTATCTTAGGGGCTGTGAATTTTATTACTAC
TACTATAAACATGCGCCCTACAAGGATAAAAATAGATCGAGTTCCTTTATTTGTATGATCAGTATTTATTACAGCTATTTTATTACTATTGT
CTTTACCAGTGTTGGCGGGAGCAATTACTATATTGTTAACAGATCGAAATTTTAATACTTCTTTTTTTGACCCTAGGGGAGGGGGGGATC
CTATTTTATTCCAACCCT

>--->Buddelundia_EP18-HBIID243322 Assembly of 2 reads: 463629_R_D03.ab1 (reversed), 463629_F_D03.ab1

GACTTTGTATTTTGTGTTTGGAGCTTGAGCAGGGGCTGTAGGAACTTCTTTAAGAGTGATTATTCGAGTAGAATTAGGGCAAGCAGGGA
GCCTTATTGGAGACGATCAGATTTACAATGTGATCGTCACTGCCCATGCTTTTGTCATGATTTTTTTTATAGTGATGCCTATTATGATTGG
AGGGTTTGGGAACTGGTTGGTGCCTTTAATGCTTAGGTCCCCCGATATAGCTTTCCCCCGGATAAATAATATAAGGTTTTGGTTGCTACC
CCCATCTTTGACTTTACTATTGATAAGAGGGATGGTAGAGAGAGGGGTAGGGACAGGGTGGACGGTCTACCCTCCTTTAGCTGCGAATA
TGGCGCATAGGGGGGGGTCAGTGGATTTAGGGATTTTTTCCTTGCATTTAGCGGGGGTGTCTTCCATTTTAGGAGCAGTGAATTTTATTA
CTACAACTATAAATATACGTCCAGTAGGGATAAAGATGGACCGGGTCCCCTTGTTTGTATGGTCAGTCTTTATCACAGCTATTTTATTATT
GCTGTCTTTACCTGTATTGGCAGGGGCTATTACTATGCTGCTTACAGACCGTAATTTTAATACTTCTTTTTTTGACCCGAGAGGGGGAGG
GGACCCTATTTTATTCCAACATTTGTTT

>--->Buddelundia_EP19-HBIID242619 Assembly of 2 reads: 463633_R_D07.ab1 (reversed), 463633_F_D07.ab1

GACTTTGTATTTTGTATTTGGTGCTTGAGCAGGGGCGGTCGGGACTTCTTTAAGAGTGATTATTCGGGTAGAATTAGGGCAAGCAGGAA
GACTTATTGGAGACGATCAGATTTATAATGTGATTGTTACTGCACATGCTTTTGTTATGATTTTTTTTATAGTGATACCTATTATGATTGGA

GGGTTTGGGAACTGGTTAGTACCTTTAATGCTCAGATCCCCTGATATAGCTTTCCCGCGGATAAATAATATAAGGTTTTGATTATTACCAC
CATCTTTGACTCTGCTATTGATAAGTGGGATGGTAGAGAGGGGGGTAGGGACAGGATGGACGGTTTACCCTCCTTTAGCCGCAAATATA
GCACATAGAGGAGGGTCGGTTGATTTGGGGATTTTTTCTTTGCATTTAGCAGGGGTGTCCTCCATTTTAGGGGCAGTGAATTTTATCACT
ACGACTATGAATATGCGTCCAGTGGGGATAAAGATAGACCGAGTGCCGCTGTTTGTGTGGTCAGTTTTTATTACAG

>--->Buddelundia_PE02-HBIID241661 Assembly of 2 reads: 463626_R_C12.ab1 (reversed), 463626_F_C12.ab1

AACTCTCTATTTTGTATTTGGGGCTTGGGCAGGAGCAGTAGGTACTTCTTTAAGGGTTATTATTCGTACTGAGTTAGGTCAAACAGGAAG
GTTAATTGGGGACGATCAGATCTACAATGTGATTGTTACTGCACATGCATTTGTAATAATTTTTTTTATGGTTATACCAATTATAATTGGT
GGGTTTGGAAATTGATTAATTCCGTTAATACTAGGAGCTCCTGATATGGCTTTCCCACGTATAAATAATATAAGGTTTTGGCTTCTTCCTC
CTTCTTTGACTTTACTATTGACAAGAGGTCTTGTGGAGAGTGGAGTGGGTACAGGATGAACTGTTTACCCTCCTCTGGCAGCTAATATTG
CACACAGTGGTGGTTCGGTGGATCTGGGTATTTTTTCTCTACATTTAGCAGGGGTTTCTTCCATCTTAGGGGCTGTGAATTTTATTACTAC
ATGTTTAAATATACGTTCTACTGGCTTAAAAATAGACCGGGTTCCTCTGTTTGTTTGATCTGTATTTATTACAGCTATTCTTCTCTTATTATC
ACTTCCTGTCTTGGCAGGGGCTATTACAATGTTGCTCACAGATCGAAATTTCAATACTTCTTTTTTTGACCCAAGGGGTGGAGGTGATCCT
ATC

>--->Buddelundia_PE02-HBIID243445 Assembly of 2 reads: 463627_R_D01.ab1 (reversed), 463627_F_D01.ab1

AACTCTTTACTTTGTATTTGGGGCTTGGGCAGGAGCAGTAGGAACTTCTTTAAGGGTTATTATTCGTTCTGAGCTAGGTCAGACAGGAAG
ATTAATTGGTGACGATCAAATCTACAATGTGATTGTTACTGCACATGCATTTGTAATAATTTTTTTTATGGTTATACCAATTATAATTGGAG
GGTTTGGAAATTGATTGATTCCGTTGATACTTGGAGCTCCTGATATGGCCTTTCCTCGTATAAATAATATGAGGTTTTGGCTTCTTCCACC
TTCTTTGACTTTACTTTTGACTAGAGGTCTTGTGGAGAGTGGTGTAGGTACAGGGTGAACCGTCTACCCTCCTCTGGCATCTAATATTGCA
CACAGTGGAGGTTCAGTAGATTTAGGTATTTTTTCTCTTCATTTAGCAGGGGTTTCTTCCATCCTAGGGGCTGTGAACTTTATTACAACAT
GTTTAAACATACGTTCCACTGGCTTAAAAATAGACCGTGTTCCTTTGTTTGTCTGATCTGTCTTTATCACAGCTATCCTTCTTTTATTATCAC
TTCCTGTCTTAGCAGGGGCTATTACAATGTTGCTTACAGATCGTAATTTCAATACTTCTTTTTTTGACCCAAGAGGTGGGGGTGACCCTAT
TTTGTATCAGCATTTGTTT

>--->Buddelundia_SJ10MA-HBIID242549 Assembly of 2 reads: 463623_R_C09.ab1 (reversed), 463623_F_C09.ab1

TACTTTGTATTTTATTTTTGGTGCTTGAGCTGGTGCAGTTGGAACTTCATTTAGTGTGTTAATTCGAATTGAACTTGGGCAACCTGGGAGA
TTTATTGGAGATGATCAACTTTATAATGTAATTGTGACTGCTCATGCTTTTGTGATGATTTTTTTTATAGTAATACCTATTATGATTGGTGG
TTTTGGTAATTGATTAGTTCCTTTAATATTAGGAGCTCCTGATATAGCTTTTCCTCGTATAAATAATTTAAGATTTTGACTTTTACCTCCTTC
TTTGAGTTTGTTAATGGTTAGAGGAATGGTTGAAAGAGGGGTTGGAACTGGTTGAACTGTTTATCCTCCTTTAGCTTCAAATATTGCTCA
TAGAGGAGTTTCTGTTGATTTAGGAATTTTTTCATTACATTTAGCAGGAGCATCATCGATTTTAGGAGCTATTAATTTTATAACTACAACT
CTTAATATACGTTCTATTGGTATAAAATTTGATCGTATAACTCTTTTTGTTTGATCTGTTTTTATTACTGCTATTTTATTGTTATTATCTTTAC
CGGTGTTAGCAGGAGCTATTACTATATTGTTAACAGATCGAAATTTTAATACTTCTTTTTTTGACCCTAGAGGGGGTGGAGATCCTATTTT
ATATCAACATTTGTTT

>--->Buddelundia_SJ14EP-HBIID243183 2 reads from 463612 assembled using Geneious

AACATTATATTTTGTTTTTGGAGCTTGAGCTGGGGCAGTAGGAACTTCATTTAGTATTTTAATTCGTGTTGAATTAGGTCAAACAGGAAG
TTTTATTGGAGATGATCAATTATATAATGTTATTGTTACTGCTCATGCTTTTGTTATAATTTTTTTTATAGTAATACCTGTTATAATTGGAGG
TTTTGGTAATTGATTAGTTCCATTAATGCTTGGCGCTCCTGATATAGCTTTTCCACGTATAAATAATTTAAGGTTTTGACTTTTACCACCTTC
ATTGACTTTGTTATTGATTAGAGGGATAGTTGAAAGTGGAGTAGGAACAGGATGGACAGTGTACCCTCCTTTAGCTTCTAATATTGCTCA
TAGTGGAGTTTCTGTAGATCTTGGAATTTTTTCGTTACATTTAGCTGGGGCATCATCTATTTTAGGTGCTGTTAATTTTATTACTACCACCT
TAAATATACGTTCAAGCGGAATAAAATTTGATCGAGTAT

>--->Buddelundia_SJ14FM-HBIID240972 2 reads from 463611 assembled using Geneious

AACATTATATTTTGTTTTTGGAGCTTGAGCCGGTGCAGTAGGAACTTCATTTAGTATTTTGATTCGTATTGAATTAGGTCAAACAGGAAG
ATTTATTGGCGATGATCAGTTATATAATGTAATTGTTACTGCTCATGCTTTTGTTATGATTTTTTTTATAGTTATACCTATTATAATTGGAG
GGTTTGGTAATTGATTAGTTCCTCTTATACTAGGGGCTCCTGATATAGCTTTTCCACGAATAAATAATTTGAGGTTTTGACTTTTACCACCT
TCGTTAACTTTATTATTAATTAGAGGTATGGTTGAAAGTGGTGTAGGAACAGGGTGAACAGTTTACCCTCCTTTAGCTTCTAATATTGCTC
ATAGTGGTGTTTCTGTTGATCTTGGGATTTTTTCATTACATTTAGCTGGAGCATCATCTATTTTAGGTGCTGTTAATTTTATTACTACTACTT
TAAATATACGATCTAGAGGAATAAAATTTGATCGAGTATCTCTTTTTGTTTTATCTGTATTTATTACTGCTGTTTTATTGTTGTTATCTTTAC
CTGTGTTAGCTGGAGCAATTACAATATTATTAACGGATCGTAATTTTAATACTTCTTTTTTTGATCCAAGAGGGGGGGGTGATCCTATTTT
ATATCAACATTTGTTT

>--->Buddelundia_SJ14FM-HBIID241381 2 reads from 463614 assembled using Geneious

AACATTATATTTTGTTTTTGGTGCTTGAGCTGGTGCAGTAGGGACTTCATTTAGTATTTTAATTCGTATTGAATTAGGTCAAACAGGAAGA
TTTATTGGTGATGATCAGCTATATAATGTTATTGTTACTGCCCATGCTTTTGTTATGATTTTTTTTATAGTTATACCTATTATAATTGGAGG
GTTTGGAAATTGATTAGTCCCTCTTATACTTGGGGCTCCTGATATAGCTTTTCCACGCATAAATAATTTAAGGTTTTGACTTTTGCCACCTT
CGTTAACTTTATTATTAATTAGAGGGATGGTTGAGAGTGGTATTGGGACAGGTTGAACAGTTTACCCTCCTTTAGCTTCTAATATTGCTCA

TAGTGGTGTTTCTGTTGATCTTGGAATTTTTTCATTACATTTAGCTGGAGCATCATCTATTTTAGGTGCTGTTAATTTCATTACTACTACCTT
AAATATGCGTTCTAGAGGAATAAAATTTGATCGAGTATCTCTTTTTGTTTTATCTGTATTTATTACTGCTGTTTTATTGTTGCTATCTCTACC
TGTGTTAGCTGGAGCAATTACAATATTATTAACGGATCGTAATTTTAATACTTCTTTTTTTGATCCAAGAGGAGGAGGTGATCCTATTTTA
TA

>--->Buddelundia_SJ14FM-HBIID241382 Assembly of 2 reads: 463632_R_D06.ab1 (reversed), 463632_F_D06.ab1

AACATTATATTTTATTTTTGGAGCTTGAGCTGGTGCAGTAGGAACTTCATTTAGAATTTTAATTCGTATTGAATTAGGTCAGACAGGAAG
ATTTATTGGCGATGATCAGCTATATAATGTTATTGTTACTGCTCATGCTTTTGTTATGATTTTTTTTATAGTTATACCTATTATAATTGGAGG
GTTTGGAAATTGACTAGTCCCTCTTATACTCGGGGCTCCTGATATAGCTTTCCCACGTATAAATAATTTAAGGTTTTGACTTTTACCCCCTT
CATTAACTTTATTATTAATCAGAGGGATGGTTGAGAGTGGTGTTGGAACAGGTTGAACAGTTTACCCTCCTTTAGCTTCTAATATTGCTCA
TAGTGGTGTTTCTGTTGATCTTGGAATTTTTTCATTACATTTAGCTGGAGCATCATCTATTTTAGGTGCTGTTAATTTCATTACTACTACCTT
AAATATACGTTCTAGAGGAATAAAATTTGATCGAGTATCTCTTTTTGTTTTGTCTGTATTTATCACTGCTGTTTTATTGTTATTATCTCTACC
TGTGTTAGCTGGGGCAATTACAATATTATTAACGGATCGTAATTTTAATACTTCTTTTTTTGATCCAAGAGGAGGAGGTGATCCTATTTTA
TACCAACATTTGTTT

>--->Buddelundia_SJ14FM-HBIID241387 2 reads from 463616 assembled using Geneious

AACATTATATTTTGTTTTTGGAGCTTGAGCCGGTGCAGTAGGAACTTCATTTAGTATTTTGATTCGTATTGAATTAGGTCAAACAGGAAG
ATTTATTGGCGATGATCAGTTATATAATGTAATTGTTACTGCTCATGCTTTTGTTATGATTTTTTTTATAGTTATACCTATTATAATTGGAG
GGTTTGGTAATTGATTAGTTCCTCTTATACTAGGGGCTCCTGATATAGCTTTTCCACGAATAAATAATTTGAGGTTTTGACTTTTACCACCT
TCGTTAACTTTATTATTAATTAGAGGTATGGTTGAAAGTGGTGTAGGAACAGGGTGAACAGTTTACCCTCCTTTAGCTTCTAATATTGCTC
ATAGTGGTGTTTCTGTTGATCTTGGGATTTTTTCATTACATTTAGCTGGAGCATCATCTATTTTAGGTGCTGTTAATTTTATTACTACTACTT
TAAATATACGATCTAGAGGAATAAAATTTGATCGAGTATCTCTTTTTGTTTTATCTGTATTTATTACTGCTGTTTTATTGTTGTTATCTTTAC
CTGTGTTAGCTGGAGCAATTACAATATTATTAACGGATCGTAATTTTAATACTTCTTTTTTTGATCCAAGAGGGGGGGGTGATCCTATTTT
ATATCAACATTTGTTT

>--->Buddelundia_SJ14FM-HBIID241937 2 reads from 463610 assembled using Geneious

AACATTATATTTTGTTTTTGGAGCTTGAGCCGGTGCAGTAGGAACTTCATTTAGTATTTTGATTCGTATTGAATTAGGTCAAACAGGAAG
ATTTATTGGCGATGATCAGTTATATAATGTAATTGTTACTGCTCATGCTTTTGTTATGATTTTTTTTATAGTTATACCTATTATAATTGGAG
GGTTTGGTAATTGATTAGTTCCTCTTATACTAGGGGCTCCTGATATAGCTTTTCCACGAATAAATAATTTGAGGTTTTGACTTTTACCACCT
TCGTTAACTTTATTATTAATTAGAGGTATGGTTGAAAGTGGTGTAGGAACAGGGTGAACAGTTTACCCTCCTTTAGCTTCTAATATTGCTC
ATAGTGGTGTTTCTGTTGATCTTGGGATTTTTTCATTACATTTAGCTGGAGCATCATCTATTTTAGGTGCTGTTAATTTTATTACTACTACTT
TAAATATACGATCTAGAGGAATAAAATTTGATCGAGTATCTCTTTTTGTTTTATCTGTATTTATTACTGCTGTTTTATTGTTGTTATCTTTAC
CTGTGTTAGCTGGAGCAATTACAATATTATTAACGGATCGTAATTTTAATACTTCTTTTTTTGATCCAAGAGGGGGGGGTGATCCTATTTT
ATATCAACATTTGTTT

>--->Buddelundia_SJ14FM-HBIID242556 2 reads from 463613 assembled using Geneious

AACATTATATTTTGTTTTTGGCGCTTGAGCTGGGGCAGTAGGGACTTCATTTAGTATTTTAATTCGTATTGAATTAGGTCAAACAGGAAG
ATTTATTGGTGATGATCAGCTATATAATGTTATTGTTACTGCCCATGCTTTTGTTATGATTTTTTTTATAGTTATACCTATTATAATTGGAGG
GTTTGGAAATTGATTAGTCCCTCTTATACTTGGGGCTCCTGATATAGCTTTCCCACGTATAAATAATTTAAGGTTTTGACTTTTGCCACCTT
CGTTAACTTTATTGTTAATCAGAGGGATGGTTGAGAGTGGTGTTGGAACAGGTTGAACAGTTTACCCTCCTTTAGCTTCTAATATTGCTC
ATAGTGGTGTTTCTGTTGATCTTGGAATTTTTTCATTACATTTAGCTGGAGCATCATCGATTTTAGGTGCTGTTAATTTCATTACTACTACC
TTAAATATACGTTCTAGAGGAATAAAATTTGATCGAGTATCTCTTTTTGTTTTATCTGTATTTATTACTGCTGTT

>--->Buddelundia_SJ14FM-HBIID243084 2 reads from 463615 assembled using Geneious

AACATTATATTTTGTTTTTGGAGCTTGAGCCGGTGCAGTAGGAACTTCATTTAGTATTTTGATTCGTATTGAATTAGGTCAAACAGGAAG
ATTTATTGGTGATGATCAGTTATATAATGTAATTGTTACTGCTCATGCTTTTGTTATGATTTTTTTTATAGTTATACCTATTATAATTGGAGG
GTTTGGTAATTGATTAGTTCCTCTTATACTAGGGGCTCCTGATATAGCTTTTCCACGAATAAATAATTTGAGGTTTTGACTTTTACCACCTT
CGTTAACTTTGTTATTAATTAGAGGTATGGTTGAAAGTGGTGTAGGAACAGGGTGGACAGTTTACCCTCCTTTAGCTTCTAATATTGCTC
ATAGTGGTGTTTCTGTTGATCTTGGGATTTTTTCATTACATTTAGCTGGAGCATCATCTATTTTAGGTGCTGTTAATTTTATTACTACTACTT
TAAATATACGATCTAGAGGAATAAAATTTGATCGAGTATCTCTTTTTGTTTTATCTGTATTTATTACTGCTGTTTTATTGTTATTATCTTTAC
CTGTGTTAGCTGGAGCAATTACAATATTATTAACGGATCGTAATTTCAATACTTCTTTTTTTGATCCAAGAGGGGGGGGTGATCCTATTTT
ATATCAACATTTGTTT

>--->Buddelundiinae_EP06HBIID241660 Assembly of 2 reads: 463550_R_E05.ab1 (reversed), 463550_F_E05.ab1

AACTTTATATTTCGTATTTGGCGCTTGAGCTGGGGCGTTAGGAACTTCTCTTAGAGTCATTATTCGTATTGAACTAGGTCAAGTAGGGAG
CTTTATTGGTGATGACCAAATCTATAATGTAATTGTAACGGCTCATGCTTTTGTAATAATTTTTTTTATAGTAATACCTGTTATAATTGGTG
GATTTGGGAATTGATTAGTTCCATTAATATTAGGGGCTCCTGATATAGCTTTCCCACGAATAAATAATATAAGATTTTGACTTTTACCTCCT
TCCCTAACTTTATTGCTAATAAGAGGTTTAGTAGAGAGAGGAGTAGGGACCGGATGAACCGTTTATCCACCTCTGGCATCTAATATTGCT

CATAGCGGAGGATCAGTTGATTTAGGAATCTTTTCTTTACATTTAGCTGGAGTATCTTCTATTTTAGGAGCTGTAAATTTTATTACTACTAC
TTTAAATATACGTTCTACTGGGATAAAATTTGAACGTGTATCTCTTTTTGCATGATCAGTATATATTACAGCAATCTTACTATTATTATCTTT
GCCTGTACTAGCTGGGGCTATTACTATGTTGTTAACAGATCGCAATTTTAATACTTCTTTTTTCGATCCTAGTGGAGGAGGAGACCCGGTT
TTATATCAGCATCTTTTT

>--->Buddelundiinae_EP06-HBIID241956 Assembly of 2 reads: 463549_R_E04.ab1 (reversed), 463549_F_E04.ab1

AACTTTATATTTCGTATTTGGCGCTTGAGCTGGGGCGTTAGGAACTTCTCTTAGAGTTATTATTCGTATTGAATTAGGTCAAGTAGGGAG
CTTTATTGGTGATGACCAAATCTATAATGTAATTGTAACGGCTCATGCTTTTGTAATAATTTTTTTTATAGTAATACCTGTTATAATTGGTG
GATTTGGGAATTGATTAGTTCCATTAATATTAGGGGCTCCTGATATAGCTTTCCCACGAATAAATAATATAAGATTTTGACTTTTACCTCCT
TCCTTAACTTTATTGCTAATAAGAGGTTTAGTAGAGAGAGGAGTAGGAACCGGATGAACCGTTTATCCACCTCTGGCATCTAATATTGCT
CATAGCGGAGGATCAGTTGATTTAGGAATCTTTTCTTTACATTTAGCTGGAGTATCTTCGATTTTAGGAGCTGTAAATTTTATTACTACTA
CTTTAAATATACGTTCCACTGGGATAAAATTTGAACGTGTATCTCTTTTTGCATGATCAGTATATATTACAGCAATCTTACTATTATTATCTT
TACCTGTACTAGCTGGGGCTATTACTATGTTGTTAACAGATCGCAATTTTAATACTTCTTTTTTTGATCCTAGTGGAGGAGGAGACCCGGT
TTTATATCAGCATCTTTTT

>--->Buddelundiinae_EP06-HBIID241964 Assembly of 2 reads: 463635_R_D09.ab1 (reversed), 463635_F_D09.ab1

AACTTTATATTTCGTATTTGGCGCTTGAGCTGGGGCGTTAGGAACTTCTCTTAGAGTTATTATTCGTATTGAATTAGGTCAAGTAGGGAG
CTTTATTGGTGATGACCAAATCTATAATGTAATTGTAACGGCTCATGCTTTTGTAATAATTTTTTTTATAGTAATACCTGTTATAATTGGTG
GATTTGGGAATTGATTAGTTCCATTAATATTAGGGGCTCCTGATATAGCTTTCCCACGAATAAATAATATAAGATTTTGACTTTTACCTCCT
TCCTTAACTTTATTGCTAATAAGAGGTTTAGTAGAGAGAGGAGTAGGAACCGGATGAACCGTTTATCCACCTCTGGCATCTAATATTGCT
CATAGCGGAGGATCAGTTGATTTAGGAATCTTTTCTTTACATTTAGCTGGAGTATCTTCGATTTTAGGAGCTGTAAATTTTATTACTACTA
CTTTAAATATACGTTCCACTGGGATAAAATTTGAACGTGTATCTCTTTTTGCATGATCAGTATATATTACAGCAATCTTACTATTATTATCTT
TACCTGTACTAGCTGGGGCTATTACTATGTTGTTAACAGATCGCAATTTTAATACTTCTTTTTTTGATCCTAGTGGAGGAGGAGACCCGGT
TTTATATCAGCATCTTTTT

>--->Buddelundiinae_EP06-HBIID243532 2 reads from 463637 assembled using Geneious

AACTTTATATTTCGTATTTGGCGCTTGAGCTGGGGCGTTAGGAACTTCTCTTAGTGTTATTATTCGTATTGAATTAGGTCAAGTAGGGAG
CTTTATTGGTGATGACCAAATCTATAATGTAATTGTAACGGCTCATGCTTTTGTAATAATTTTTTTTATAGTAATACCTGTTATAATTGGTG
GATTTGGGAATTGATTAGTTCCATTAATATTAGGGGCTCCTGATATAGCTTTCCCACGAATAAATAATATAAGATTTTGACTTTTACCTCCT
TCTTTAACTTTATTGCTAATAAGAGGTTTAGTAGAGAGAGGAGTAGGGACCGGATGGACCGTTTATCCACCTCTGGCATCTAATATTGCT
CATAGCGGAGGATCAGTTGATTTAGGAATCTTTTCTTTACATTTAGCTGGAGTATCTTCTATTTTAGGAGCTGTAAATTTTATTACTACTAC
TTTAAATATACGTTCTACTGGGATAAAATTTGAACGTGTATCTCTTTTTGCATGATCAGTATATATTACAGCAATCTTACTATTATTATCTTT
ACCTGTACTAGCTGGGGCTATTACTATGTTGTTAACAGATCGCAATTTTAATACTTCTTTTTTTGATCCTAGTGGAGGAGGGGACCCGGTT
TTATATCAGCATCTTTTT

>--->Buddelundiinae_EP06-HBIID243608 Assembly of 2 reads: 463547_R_E02.ab1 (reversed), 463547_F_E02.ab1

AACTTTATATTTCGTATTTGGCGCTTGAGCTGGGGCGTTAGGAACTTCTCTTAGAGTTATTATTCGTATTGAATTAGGTCAAGTAGGGAG
CTTTATTGGTGATGACCAAATCTATAATGTAATTGTAACGGCTCATGCTTTTGTAATAATTTTTTTTATAGTAATACCTGTTATAATTGGTG
GATTTGGGAATTGATTAGTTCCATTAATATTAGGGGCTCCTGATATAGCTTTCCCACGAATAAATAATATAAGATTTTGACTTTTACCTCCT
TCCTTAACTTTATTGCTAATAAGAGGTTTAGTAGAGAGAGGAGTAGGAACCGGATGAACCGTTTATCCACCTCTGGCATCTAATATTGCT
CATAGCGGAGGATCAGTTGATTTAGGAATCTTTTCTTTACATTTAGCTGGAGTATCTTCGATTTTAGGAGCTGTAAATTTTATTACTACTA
CTTTAAATATACGTTCCACTGGGATAAAATTTGAACGTGTATCTCTTTTTGCATGATCAGTATATATTACAGCAATCTTACTATTATTATCTT
TACCTGTACTAGCTGGGGCTATTACTATGTTGTTAACAGATCGCAATTTTAATACTTCTTTTTTTGATCCTAGTGGAGGAGGAGACCCGGT
TTTATATCAGCATCTTTTT

>--->Buddelundiinae_EP07-HBIID241933 Assembly of 2 reads: 463638_R_D12.ab1 (reversed), 463638_F_D12.ab1

TACTTTATATTTTGTGTTTGGCGCTTGAGCTGGAGCGTTAGGTACTTCCTTAAGGGTTATTATTCGTGTTGAGTTAGGCCAAGTAGGGAG
TTTTATTGGAGACGATCAGATTTATAATGTTATTGTTACGGCACATGCTTTTGTTATAATTTTTTTTATAGTTATACCTGTAATAATTGGCG
GATTTGGGAATTGACTAGTCCCATTAATATTAGGGTCGCCTGATATAGCTTTTCCACGAATAAATAATATAAGATTCTGACTTTTACCCCC
TTCGTTAACTTTATTATTAATAAGTGGTTTAGTGGAGAGAGGGGTCGGAACCGGATGAACCGTATACCCGCCTTTAGCATCTAATATTGC
TCATAGAGGAGGCTCAGTTGATTTAGGGATTTTTTCTTTACATCTGGCCGGAGCATCTTCTATCTTGGGGGCTGTTAATTTTATTACTACT
ACTATAAATATACGTTCTACTGGAATAAAATTTGAGCGTGTATCTCTTTTTGTATGATCAGTATATATTACAGCAATTTTATTGCTATTATC
TCTACCAGTATTAGCTGGTGCTATTACCATATTACTAACTGATCGTAATTTTAACACTTCTTTTTTTGACCCTAGTGGTGGTGGTGACCCTG
TCTTATATCA

>--->Buddelundiinae_EP07-HBIID241940 Assembly of 2 reads: 463624_R_C10.ab1 (reversed), 463624_F_C10.ab1

TACTTTATATTTTGTGTTTGGCGCTTGAGCTGGGGCGTTAGGTACTTCCTTAAGGGTTATTATTCGTGTTGAGTTAGGCCAAGTGGGGAG
TTTTATTGGAGACGATCAGATTTATAATGTTATTGTTACGGCACATGCTTTTGTTATAATTTTTTTTATAGTTATACCTGTAATAATTGGTG

GCTTTGGGAATTGATTAGTCCCATTAATATTGGGATCGCCTGATATAGCTTTTCCACGAATAAATAATATAAGATTCTGACTTTTACCCCC
TTCGTTAACTTTATTATTAATAAGTGGTTTAGTGGAGAGAGGGGTTGGGACCGGATGAACTGTTTACCCGCCTTTAGCATCTAATATTGC
TCATAGAGGAGGCTCAGTTGATTTAGGGATTTTTTCCTTACATCTGGCCGGGGCATCTTCTATCCTGGGGGCTGTTAATTTTATTACTACT
ACTATAAATATGCGTTCTACTGGAATAAAATTTGAGCGTGTATCTCTTTTTGTATGATCAGTATATATTACAGCAATTTTATTACTATTATC
TCTGCCAGTGTTAGCTGGTGCTATTACCATATTACTAACTGATCGTAATTTTAATACTTCTTTTTTTGACCCTAGTGGTGGCGGAGACCCT
GTTTTATACCAGCACCTTTTT

>--->Buddelundiinae_EP07-HBIID242977 Assembly of 2 reads: 463634_R_D08.ab1 (reversed), 463634_F_D08.ab1

TACTTTATATTTTGTGTTTGGCGCTTGAGCTGGGGCGTTAGGTACTTCCTTAAGGGTTATTATTCGTGTTGAGTTAGGCCAAGTGGGGAG
TTTTATTGGAGACGATCAGATTTATAATGTTATTGTTACGGCACATGCTTTTGTTATAATTTTTTTTATAGTTATACCTGTAATAATTGGTG
GCTTTGGGAATTGATTAGTCCCATTAATATTGGGATCGCCTGATATAGCTTTTCCACGAATAAATAATATAAGATTCTGACTTTTACCCCC
TTCGTTAACTTTATTATTAATAAGTGGTTTAGTGGAGAGAGGGGTTGGGACCGGATGAACTGTTTACCCGCCTTTAGCATCTAATATTGC
TCATAGAGGAGGCTCAGTTGATTTAGGGATTTTTTCCTTACATCTGGCCGGGGCATCTTCTATCCTGGGGGCTGTTAATTTTATTACTACT
ACTATAAATATGCGTTCTACTGGAATAAAATTTGAGCGTGTATCTCTTTTTGTATGATCAGTATATATTACAGCAATTTTATTACTATTATC
TCTGCCAGTGTTAGCTGGTGCTATTACCATATTACTAACTGATCGTAATTTTAATACTTCTTTTTTTGACCCTAGTGGTGGCGGAGACCCT
GTTTTATACCAGCACCTTTTT

>--->Cheiridiidae_EP01-HBIID241654 Assembly of 2 reads: 463639_R_E01.ab1 (reversed), 463639_F_E01.ab1

ACTCTATATTTAATTTTTGGTGTACTAGCAGGTTTCATAGGAATATGTTATAGTATATTAATTCGGTTTCAATTATTTATTCCAAGAGGATA
TATCTCTGAGCACTCTTATAACACTATTATCACGACTCATGCATTAATCATAATTTTCTTTATAGTAATACCCTTAATAATTGGAGGCTTCG
GAAACTGACTTATTCCTTTGATAATCGGATCTCCTGATATGGCATTTCCACGAATAAATAATATAAGATTTTGGTTATTACCTCCTTCATTT
TCATTATTAATTTTATCCTCAACATTAGAAATTGGGTGTGGGGCAGGGTGAACAATTTACCCCCCTTTAACAAGATTATTAGCTCATCCCG
GAAGAGCAGTAGATATAGTTATTTTCTCCCTCCATTTAGCTGGGATCTCATCTATTTTAGGGGGGATCAATTTTATTACCACGGTAATAAA
CATACGAGATCCCTCTGTAAATTATAAAACTCTACCTCTATTTGTATGATCAGCCTTAATCACCGTTATTTTAATTCTATTAGCAATACCAG
TATTAGCTGGGGCAATTACTATATTACTTACAGATCGCAATTTTAGAACATCTTTTTTTAACCCAATAGGAGGGGGAGACCCCATTTTATT
TCAGCATTTATTT

>--->Chernetidae_EP02-HBIID243283 Assembly of 2 reads: 463564_R_F07.ab1 (reversed), 463564_F_F07.ab1

AACTCTATATTTAATTTTAGGGGTACTAGCTGGATTTGTAGGAATATGCTATAGTATACTAATTCGTATACAACTGTTAATTCCATCTGGC
TATATTTCAGAACATTCATATAATATTATCATCACAACTCATGCCCTAATTATAATTTTCTTTATAGTAATACCCCTAATAATCGGAGGATT
CGGAAATTGATTAATCCCACTAATAATTGGTTCCCCCGATATAGCTTTTCCCCGTATAAATAATATGAGCTTCTGACTTCTCCCTCCTTCTT
TTTCTTTATTAATTTTATCATCTCTAATAGAAATAGGATGTGGAGCAGGATGAACTATTTACCCCCCATTAACATCCCTCTTAGCACACCCA
GGAAGATCTGTTGATCTAGTAATTTTCTCTCTACATCTAGCAGGTATCTCTTCTATTTTAGGAGGTATTAACTTTATTACGACCGTAATAAA
TATACGAGATCCATCTGTATCTTATAAAACTTTACCTTTATTTGTCTGATCAGTCTTTATTACTGTAATCTTAATCTTACTTGCCATGCCTGT
CCTTGCTGGAGCAATCACTATGCTACTAACAGACCGAAACTTTAGAACTTCTTTCTTTAATCCTATAGGAGGGGGAGATCCGATTTTATTT
CAACATTTATTT

>--->Conothele_EP01-HBIID242468 Assembly of 2 reads: 463641_R_E03.ab1 (reversed), 463641_F_E03.ab1

AACATTGTACTTAGTGTTTGGAGTGTGGGCTTCAATGCTAGGGACGGCAATAAGAGTGATTATTCGGACTGAATTGGGGCAAGTTGGA
AGATTATTTGGGGATGATCATTTATATAATGTTATTGTTACTGCACATGCTTTGGTGATGATTTTTTTTATAGTTATACCAATTATGATTGG
GGGATTTGGGAATTGACTTTTACCTTTAATATTAGGGGCTCCGGATATAGCTTTTCCTCGAATAAATAATTTGAGATTTTGATTATTACCT
CCTTCTTTGTTATTGTTATTATTGTCATCAATAACTGATGTGGGGGTAGGAGCTGGATGAACAATTTATCCCCCACTATCTTCTGTAATTG
GGCATGGAGGAGGGGGGGGTAGATTTTGCTATTTTTTCGCTCCATTTGGCTGGGGCTTCGTCAATTATAGGATCTATTAATTTTATTTCTAC
AATTGTGAATATGCGTTCTGTAGGGATAAAGATGGAGCGGGTTCCTTTATTTGTATGGTCTGTATTAATTACTACTATTTTATTATTGTTA
TCTTTACCTGTGTTGGCAGGGGCTATCACTATATTGTTGACTGATCGAAATTTTAATACTTCTTTTTTTGACCCGGCTGGGGGAGGTGATC
CTGTATTGTTTCAACACTTATTT

>--->Conothele_EP01-HBIID242469 Assembly of 2 reads: 463640_R_E02.ab1 (reversed), 463640_F_E02.ab1

AACATTGTACTTAGTGTTTGGAGTGTGGGCTTCAATGCTAGGGACGGCAATAAGAGTGATTATTCGGACTGAATTGGGGCAAGTTGGA
AGATTATTTGGGGATGATCATTTATATAATGTTATTGTTACTGCACATGCTTTGGTGATGATTTTTTTTATAGTTATACCAATTATGATTGG
GGGATTTGGGAATTGACTTTTACCTTTAATATTAGGGGCTCCGGATATAGCTTTTCCTCGAATAAATAATTTGAGATTTTGATTATTACCT
CCTTCTTTGTTATTGTTATTATTGTCATCAATAACTGATGTGGGGGTAGGAGCTGGATGAACAATTTATCCCCCACTATCTTCTGTAATTG
GGCATGGAGGAGGGGGGGGTAGATTTTGCTATTTTTTCGCTCCATTTGGCTGGGGCTTCGTCAATTATAGGATCTATTAATTTTATTTCTAC
AATTGTGAATATGCGTTCTGTAGGGATAAAGATGGAGCGGGTTCCTTTATTTGTATGGTCTGTATTAATTACTACTATTTTATTATTGTTA
TCTTTACCTGTGTTGGCAGGGGCTATCACTATATTGTTGACTGATCGAAATTTTAATACTTCTTTTTTTGACCCGGCTGGGGGAGGTGATC
CTGTATTGTTTCAACACTTATTT

>--->Cryptops_BoDo04-HBIID242786 2 reads from 463650 assembled using Geneious

AACTATATATCTAATCTTCGGAGCTTGATCCGCCATGCTAGGAACAGCACTAAGCCTGATTATTCGCTTAGAGCTTAGTCAACCAGGAAC
TCTTATTGGAGATGACCAACTATACAATATAGTAGTGACAGCTCATGCCTTCATTATAATTTTCTTCATAGTAATGCCAATCATAATTGGC
GGATTCGGAAATTGACTAGTACCCTTAATAATAGGAGCACCCGACATAGCTTTTCCTCGTTTAAATAATATAAGCTTTTGACTTCTCCCTC
CCTCATTAACTCTTCTCTTAGGCTCAAGTCTAGTTGAAATAGGCGCTGGGACAGGATGAACAGTCTATCCTCCCCTAGCTTCCTCCATAGC
CCACTCAGGCTGCTCAGTAGACATAACAATCTTTTCTCTCCACTTAGCAGGAGTATCCTCTATCTTGGGAGCTGTAAATTTTATCACAACT
ATCATTAACATACGCACTAACGGCATACTATTTGAACGTCTTCCTCTCTTTGTCTGAGCTGTACTAATTACAGCCATCCTTCTTCTTCTCTCT
CTGCCTGTGCTAGCAGGAGCCATCACTATGCTACTAACAGATCGTAATTTTAACACATCATTCTTCGATCCTGCAGGAGGAGGAGATCCC
ATCCTTTATCAGCATCTATT

>--->Cryptops_BoDo04-HBIID243155 2 reads from 463651 assembled using Geneious

AACTATATATCTAATCTTCGGAGCTTGATCCGCCATGCTAGGAACAGCACTAAGCCTGATTATTCGCTTAGAGCTTAGTCAACCAGGAAC
TCTTATTGGAGATGACCAACTATACAATATAGTAGTGACAGCTCATGCCTTCATTATAATTTTCTTCATAGTAATGCCAATCATAATTGGC
GGATTCGGAAATTGACTAGTACCCTTAATAATAGGAGCACCCGACATAGCTTTTCCTCGTTTAAATAATATAAGCTTTTGACTTCTCCCTC
CCTCATTAACTCTTCTCTTAGGCTCAAGTCTAGTTGAAATAGGCGCTGGGACAGGATGAACAGTCTATCCTCCCCTAGCTTCCTCCATAGC
CCACTCAGGCTGCTCAGTAGACATAACAATCTTTTCTCTCCACTTAGCAGGAGTATCCTCTATCTTGGGAGCTGTAAATTTTATCACAACT
ATCATTAACATACGCACTAACGGCATACTATTTGAACGTCTTCCTCTCTTTGTCTGAGCTGTACTAATTACAGCCATCCTTCTTCTTCTCTCT
CTGCCTGTGCTAGCAGGAGCCATCACTATGCTACTAACAGATCGTAATTTTAACACATCATTCTTCGATCCTGCAGGAGGAGGAGATCCC
ATCCTTTATCAGCATCTATT

>--->Cryptops_EP01-HBIID242441_

TCTTTGGGGTTGATCTGCCATATTAGGAACAGCCCTAAGCCTTATTATTCGTCTAGAACTAAGACNNCCTGGGACCTTGATTGGAGATGA
TCAGCTTTATAATATAGTAGTAACAGCACACGCTTTCATTATAATTTTCTTTATAGTGATACCAATCATAATTGGAGGATTTGGTAACTGA
TTAGTTCCTCTGATAATAGGAGCACCTGATATAGCATTTCCTCGCCTTAATAACATAAGCTTTTGACTTCTTCCTCCCTCTTTAAGTCTTCTT
TTAGGCTCAAGCCTAATTGAAATAGGAGCCGGCACAGGATGAACAGTATATCCCCCTTTAGCCTCTTCCATGGCTCACTCAGGTTGCTCA
GTAGATATAACCATCTTTTCCCTCCATCTAGCAGGAGTATCCTCCATCTTGGGTGCTGTAAACTTTATTACTACTATTATTAATATACGGAC
AAATGGAATATTATTTGAACGCCTCCCCCTCTTCGTTTGAGCTGTACTAATTACAGCCATTCTTCTCCTTCTATCTCTTCCCGTCCTTGCAGG
AGCCATCACTATACTTCTTACAGATCGTAATTTCAACACCTCATTCTTTGACCCAGCTGGAGGAGGAGACCCTATTTTATACCAACACTTA
TT

>--->Cryptops_EP02-HBIID243202 2 reads from 463653 assembled using Geneious

AACCATATACTTAATTTTTGGAGCGTGATCCGCCATATTAGGAACAGCATTAAGTCTTATTATCCGTCTAGAACTTAGACAACCAGGAAC
CTTGATTGGAGATGATCAATTGTATAACATAGTAGTAACAGCACATGCCTTTATTATAATTTTCTTCATAGTTATACCAATCATAATTGGA
GGATTCGGTAACTGATTAGTTCCACTAATAATAGGAGCACCCGATATAGCATTCCCCCGTCTAAATAACATAAGTTTTTGACTCCTTCCCC
CTTCTTTAACTCTTCTCTTAGGCTCAAGCCTGGTCGAAATAGGAGCCGGTACAGGATGAACAGTTTACCCTCCCTTAGCTTCCTCCATAGC
TCACTCAGGTTGCTCAGTAGATATAACTATCTTCTCCCTCCATTTAGCAGGAGTATCCTCCATCTTAGGTGCCGTAAACTTCATTACTACCA
TTATTAACATACGAACAAATGGAATATTATTTGAACGCCTTCCTCTTTTCGTCTGAGCTGTACTAATTACAGCTATCCTTCTCCTATTATCCC
TCCCCGTCCTTGCAGGAGCCATCACTATACTTCTCACAGATCGTAATTTCAATACTTCATTCTTTGATCCGGCTGGGGGAGGAGACCCTAT
TTTATATCAACACCTATT

>--->Cryptops_EP03-HBIID242431 Assembly of 2 reads: 463671_R_G09.ab1 (reversed), 463671_F_G09.ab1

AACTATATATCTAATCTTTGGAGCCTGATCTGCTATGCTAGGAACAGCATTAAGATTAATTATTCGCTTGGAACTTAGCCAACCAGGAAC
CCTTATTGGAGATGACCAATTATACAATATAGTAGTAACAGCCCATGCCTTCATTATAATTTTCTTCATAGTAATGCCAATCATAATTGGC
GGATTTGGAAATTGACTAGTACCTTTAATAATAGGAGCACCCGACATGGCTTTCCCTCGATTAAATAATATAAGCTTTTGACTTCTCCCTC
CATCATTAACTCTCCTTTTAGGTTCAAGCTTAGTTGAAATAGGTGCTGGTACCGGATGGACAGTATACCCTCCCTTAGCTTCTTCCATAGC
CCATTCAGGTTGCTCAGTAGACATAACAATCTTTTCCCTACACCTAGCAGGAGTTTCATCCATCTTAGGAGCCGTAAATTTTATCACAACT
ATTATTAACATACGCACCAATGGAATACTGTTCGAGCGCCTTCCTTTATTTGTATGAGCTGTGCTAATTACAGCTATCCTTCTTCTCCTTTC
TCTGCCTGTACTAGCAGGAGCCATTACTATACTATTAACAGATCGTAATTTTAATACATCATTCTTCGATCCTGCAGGAGGAGGAGATCCT
ATTCTTTATCAACATCTATT

>--->Cryptops_EP04-HBIID243148 2 reads from 463647 assembled using Geneious

AACTATATATTTAATATTTGGTGCTTGATCAGCCATACTAGGCACAGCCTTAAGCCTCATTATTCGTCTAGAACTAAGTCAACCAGGAACC
CTTATTGGAGATGACCAATTATACAACATAGTAGTCACAGCTCATGCCTTCATTATAATTTTCTTTATAGTTATACCAATCATAATTGGAG
GATTCGGAAATTGACTAGTACCCCTAATAATAGGCGCACCTGATATAGCTTTTCCTCGCCTCAACAATATGAGATTCTGACTTCTTCCTCC
TTCACTATCCCTCCTCTTAGGATCTAGACTCGTAGAAATAGGAGCAGGAACAGGATGAACAGTATACCCCCCATTAGCCGCCTCAATAGC
CCATTCTGGCTGCTCAGTAGACATAACAATCTTTTCTCTTCACTTAGCAGGAATTTCATCTATCCTAGGAGCCATTAATTTTATTACAACCA
TCATTAATATGCGAACGAACGGTATACTATTTGAACGGCTACCTTTATTTGTATGAGCTGTCCTCATTACAGCAATTCTATTACTATTATCC
CTACCAGTTCTTGCAGGAGCAATCACAATACTTCTTACAGATCGTAATTTCAATACCTCATTCTTCGATCCTGCTGGAGGAGGAGACCCAA
TCCTATACCAACATTTATT

>--->Cryptops_EP04-HBIID243149 2 reads from 463648 assembled using Geneious

AACTATATATTTAATATTTGGTGCTTGATCAGCCATACTAGGCACAGCCTTAAGCCTCATTATTCGTCTAGAACTAAGTCAACCAGGAACC
CTTATTGGAGATGACCAATTATACAACATAGTAGTCACAGCTCATGCCTTCATTATAATTTTCTTTATAGTTATACCAATCATAATTGGAG
GATTCGGAAATTGACTAGTACCCCTAATAATAGGCGCACCTGATATAGCTTTTCCTCGCCTCAACAATATGAGATTCTGACTTCTTCCTCC
TTCACTATCCCTCCTCTTAGGTTCTAGACTTGTAGAAATAGGAGCAGGAACAGGATGAACAGTATATCCCCCATTAGCCGCCTCAATAGC
CCATTCTGGCTGCTCAGTAGACATAACAATCTTTTCTCTTCACTTAGCAGGAATTTCATCTATCCTAGGAGCCATTAATTTTATTACAACCA
TCATTAATATGCGAACGAACGGTATACTATTTGAACGGCTACCCTTATTTGTATGAGCTGTCCTCATTACAGCAATTCTATTACTACTATCC
CTACCAGTTCTTGCAGGAGCAATCACAATACTTCTTACAGACCGTAATTTCAATACCTCATTCTTCGATCCTGCTGGAGGAGGGGACCCA
ATCCTATACCAACATTTATT

>--->Cryptops_EP05-HBIID243097 Assembly of 2 reads: 463642_R_E04.ab1 (reversed), 463642_F_E04.ab1

AACTATATATCTAATATTTGGCGCCTGATCAGCCATGCTAGGCACAGCCCTTAGCCTAATTATTCGTCTTGAACTAAGTCAACCTGGTACT
CTAATTGGAGACGACCAACTATACAATATAGTAGTTACAGCTCATGCCTTCATCATAATTTTCTTCATAGTAATACCAATTATAATTGGAG
GATTTGGAAACTGACTAGTACCCCTAATAATAGGCGCTCCAGACATAGCCTTCCCACGACTAAATAATATAAGATTTTGACTTCTTCCCCC
CTCACTGTCTCTCCTCCTAGGATCTAGCCTTGTAGAAATAGGAGCAGGAACTGGATGAACAGTATACCCTCCTTTAGCCGCCTCAATAGC
CCATTCCGGTTGCTCAGTAGACATAACAATCTTTTCTCTTCATTTAGCAGGTATCTCGTCCATTTTAGGTGCAATCAACTTCATTACAACTA
TCATCAACATACGAACCAACGGCATATTATTCGAACGTCTTCCTTTATTTGTTTGAGCCGTCCTCATTACAGCAATCCTTCTCTTACTATCCT
TGCCCGTCCTTGCAGGAGCAATTACAATACTTCTCACTGATCGCAATTTCAATACCTCTTTCTTTGATCCTGCAGGAGGAGGAGATCCAAT
TTTATACCAACATTTATT

>--->Cryptops_EP05-HBIID243348 2 reads from 463660 assembled using Geneious

AACTATATATCTAATATTTGGCGCCTGATCAGCCATGCTAGGCACAGCCCTTAGCCTAATTATTCGTCTTGAACTAAGTCAACCTGGTACT
CTAATTGGAGACGACCAACTATACAATATAGTAGTTACAGCTCATGCCTTCATCATAATTTTCTTCATAGTAATACCAATTATAATTGGAG
GGTTTGGAAACTGACTAGTACCCCTAATAATAGGCGCTCCAGACATAGCCTTCCCACGACTAAATAATATAAGATTTTGACTTCTTCCCCC
CTCACTGTCTCTCCTCCTAGGATCTAGCCTTGTAGAAATAGGAGCAGGAACTGGATGAACAGTATACCCTCCTTTAGCCGCCTCAATAGC
CCATTCCGGTTGCTCAGTAGACATAACAATCTTTTCTCTTCATTTAGCAGGTATCTCGTCCATTTTAGGTGCAATCAACTTCATTACAACTA
TCATCAACATACGAACCAACGGCATATTATTCGAACGTCTACCTTTATTTGTTTGAGCCGTCCTCATTACAGCAATCCTCCTCTTACTATCC
TTGCCCGTCCTTGCAGGAGCAATTACAATACTTCTTACTGATCGCAACTTCAATACCTCTTTCTTTGATCCTGCAGGAGGAGGAGACCCAA
TTTTATACCAACATTTATT

>--->Cryptops_EP06-HBIID242553 2 reads from 463655 assembled using Geneious

AACTATATATCTAATATTTGGCGCTTGATCAGCCATGCTAGGTACGGCTCTAAGCTTAATTATCCGTCTTGAATTAAGTCAACCTGGGACC
CTAATTGGAGATGACCAATTGTACAACATAGTAGTCACAGCTCATGCCTTTATTATGATTTTCTTTATGGTTATACCAATCATAATTGGAG
GATTTGGAAATTGACTAGTACCACTAATAATAGGCGCACCAGACATAGCCTTTCCACGATTAAATAACATAAGATTTTGACTTCTTCCCCC
ATCACTCTCCCTCCTCTTAGGATCAAGACTTGTTGAGATAGGAGCAGGAACTGGATGAACAGTATACCCACCTCTAGCCGCCTCAATAGC
TCATTCCGGTTGCTCAGTAGATATAACAATCTTTTCTCTCCACTTAGCAGGTATTTCATCCATCTTAGGCGCAATCAATTTCATCACAACCA
TCATCAATATACGAACCAACGGCATATTATTTGAACGTCTACCTCTATTCGTTTGAGCTGTCCTCATTACAGCTATCCTTCTCTTACTATCTC
TACCTGTCCTTGCAGGAGCAATCACTATACTTCTCACTGATCGCAACTTTAATACTTCATTCTTTGATCCTGCAGGAGGAGGAGATCCAAT
TCTATACCAGCACTTATT

>--->Cryptops_EP06-HBIID242568 2 reads from 463657 assembled using Geneious

AACTATATATTTAATATTTGGCGCTTGATCAGCCATGCTAGGTACAGCTTTAAGCTTAATCATTCGTCTTGAATTAAGCCAACCTGGGACC
CTAATTGGAGACGACCAACTATACAATATAGTAGTTACAGCTCATGCCTTTATTATAATTTTCTTTATGGTAATGCCAATCATAATTGGGG
GATTTGGAAATTGACTAGTACCACTAATAATAGGCGCACCAGATATAGCCTTTCCACGATTAAATAACATAAGATTTTGGCTTCTTCCCCC
ATCACTCTCCCTCCTCTTAGGATCAAGCCTTGTGGAAATAGGAGCAGGAACTGGATGAACAGTATATCCTCCTCTAGCCGCCTCAATAGC
TCATTCCGGTTGTTCAGTAGATATAACAATCTTTTCTCTCCACTTAGCAGGTATCTCATCCATTTTAGGCGCAATCAATTTCATCACAACCA
TCATCAATATACGAACCAACGGCATATTATTTGAACGTTTACCTCTATTTGTTTGAGCTGTCCTCATTACAGCTATCCTTCTCTTATTATCTC
TACCTGTCCTTGCAGGAGCAATCACTATACTTCTCACTGATCGCAACTTTAATACTTCATTCTTTGATCCTGCAGGAGGAGGAGATCCAAT
CCTATACCAGCACTTATT

>--->Cryptops_EP06-HBIID242643 2 reads from 463656 assembled using Geneious

AACTATATATCTAATATTTGGCGCTTGATCAGCCATGCTAGGTACGGCTCTAAGCTTAATTATCCGTCTTGAATTAAGTCAACCTGGGACC
CTAATTGGAGATGACCAATTGTACAACATAGTAGTCACAGCTCATGCCTTTATTATGATTTTCTTTATGGTTATACCAATCATAATTGGAG
GATTTGGAAATTGACTAGTACCACTAATAATAGGCGCACCAGACATAGCCTTTCCACGATTAAATAACATAAGATTTTGACTTCTTCCCCC
ATCACTCTCCCTCCTCTTAGGATCAAGACTTGTTGAGATAGGAGCAGGAACTGGATGAACAGTATACCCACCTCTAGCCGCCTCAATAGC
TCATTCCGGTTGCTCAGTAGATATAACAATCTTTTCTCTCCACTTAGCAGGTATTTCATCCATCTTAGGCGCAATCAATTTCATCACAACCA
TCATCAATATACGAACCAACGGCATATTATTTGAACGTCTACCTCTATTCGTTTGAGCTGTCCTCATTACAGCTATCCTTCTCTTACTATCTC

TACCTGTCCTTGCAGGAGCAATCACTATACTTCTCACTGATCGCAACTTTAATACTTCATTCTTTGATCCTGCAGGAGGAGGAGATCCAAT
TCTATACCAGCACTTATT

>--->Cryptops_EP06-HBIID242959 2 reads from 463652 assembled using Geneious

AACTATATATCTGATATTTGGCGCCTGATCAGCCATGTTAGGCACAGCTTTAAGCCTAATTATTCGTCTTGAGCTAAGCCAACCTGGAACC
CTAATTGGAGACGACCAATTATACAATATGGTAGTCACAGCTCATGCCTTCATTATAATTTTCTTTATAGTAATACCAATTATAATTGGAG
GATTTGGAAATTGACTAGTACCACTAATGATAGGCGCACCAGACATAGCTTTCCCACGACTAAATAATATAAGATTTTGACTTCTTCCCCC
TTCACTCTCCCTTCTTCTAGGATCTAGTCTTGTAGAAATAGGAGCAGGAACTGGATGAACAGTATATCCTCCCCTAGCCGCCTCTATAGCT
CATTCCGGTTGTTCAGTAGATATAACAATCTTTTCTCTCCATCTAGCAGGCATCTCATCCATTCTAGGCGCAATCAATTTCATCACAACCAT
CATCAACATGCGAACCAACGGCATATTATTTGAACGTTTGCCTCTATTTGTTTGAGCCGTCCTTATTACGGCAATCCTTCTCTTGCTATCTC
TACCTGTCCTTGCAGGGGCAATCACTATACTTCTTACTGATCGCAACTTCAATACTTCATTCTTTGATCCTGCAGGAGGAGGAGACCCAAT
CCTATACCAGCATTTATT

>--->Cryptops_EP06-HBIID242978 2 reads from 463654 assembled using Geneious

AACTATATATCTAATATTTGGCGCCTGATCAGCCATACTAGGCACAGCTCTAAGCCTAATTATTCGTCTTGAATTAAGTCAACCTGGAACC
CTAATTGGAGACGACCAATTGTACAATATAGTAGTCACAGCTCATGCCTTTATTATAATTTTCTTTATAGTAATACCAATCATAATTGGAG
GATTTGGAAATTGACTAGTACCACTAATAATAGGCGCACCAGACATAGCTTTCCCACGACTAAACAACATAAGATTTTGGCTTCTTCCCCC
TTCACTTTCCCTCCTTTTAGGGTCTAGCCTTGTAGAAATAGGAGCAGGAACTGGATGAACAGTATATCCTCCCCTAGCCGCCTCAATAGCT
CATTCCGGTTGCTCAGTAGATATAACAATCTTTTCTCTCCACTTAGCAGGTATCTCATCCATCTTAGGCGCAATCAATTTCATTACAACCAT
CATCAACATACGAACCAACGGCATATTATTTGAACGTCTGCCTCTATTTGTTTGGGCCGTCCTTATTACGGCAATTCTTCTATTGTTATCTC
TACCTGTCCTTGCAGGAGCTATCACTATACTTCTTACTGATCGCAACTTCAATACTTCATTCTTTGACCCTGCAGGAGGAGGAGACCCAAT
CCTATACCAGCATTTATT

>--->Cryptops_EP06-HBIID243246 2 reads from 463658 assembled using Geneious

AACTATATATCTGATATTTGGCGCCTGATCAGCCATGTTAGGCACAGCTTTAAGCCTAATTATTCGTCTTGAGCTAAGCCAACCTGGAACC
CTAATTGGAGACGACCAATTATACAATATGGTAGTCACAGCTCATGCCTTCATTATAATTTTCTTTATAGTAATACCAATTATAATTGGAG
GATTTGGAAATTGACTAGTACCACTAATGATAGGCGCACCAGACATAGCTTTCCCACGACTAAATAATATAAGATTTTGACTTCTTCCCCC
TTCACTCTCCCTTCTTCTAGGATCTAGTCTTGTAGAAATAGGAGCAGGAACTGGATGAACAGTATATCCTCCCCTAGCCGCCTCTATAGCT
CATTCCGGTTGTTCAGTAGATATAACAATCTTTTCTCTCCATCTAGCAGGCATCTCATCCATTCTAGGCGCAATCAATTTCATCACAACCAT
CATCAACATGCGAACTAACGGCATATTATTTGAACGTCTGCCTCTATTTGTTTGAGCCGTCCTTATTACAGCAATCCTTCTCTTGTTATCTC
TACCTGTCCTTGCAGGGGCAATCACTATACTTCTTACTGATCGCAACTTCAATACTTCATTCTTTGATCCTGCAGGAGGAGGAGATCCAAT
TCTATACCAGCATTTATT

>--->Cryptops_EP07-HBIID242782 2 reads from 463649 assembled using Geneious

AACTATATACTTAATATTAGGAGCCTGATCAGCTATACTAGGAACAGCCCTTAGCCTGCTAATCCGCCTAGAACTAAGCCAACCAGGAAC
TTTAATCGGAGACGATCAACTTTATAATGTAGTAGTAACAGCCCACGCCTTCATTATAATCTTCTTCATAGTAATACCTATCATAATTGGA
GGATTTGGAAATTGATTAGTCCCCCTTATACTAGGAGCCCCAGACATAGCCTTCCCTCGAATAAATAATATAAGATTCTGACTACTACCCC
CCTCATTAACCTTACTATTAGGCTCTGCCATAGTAGAAAGAGGAGCTGGAACCGGATGAACTGTATACCCTCCTCTTGCCTCAACAATAG
GACACTCCGGAGGCTCAGTAGACATGACCATCTTCTCACTGCACCTAGCAGGAGTCTCATCAATCCTAGGAGCCATCAATTTTATCACCA
CGATTATTAACATGCGAGCCAAAGGAATAGTATACGAACGCCTACCCCTATTCGTATGAGCAGTATTAATCACTGCAATCCTCCTTCTTCT
ATCTTTACCAGTATTAGCCGGAGCTATTACTATACTTCTTACTGATCGAAATTTCAATACAACCTTCTTTGACCCAGCAGGAGGAGGAGAT
CCAATCCTATATCAACACCTATT

>--->Cryptops_EP08-HBIID242300 2 reads from 463665 assembled using Geneious

AACAATATACTTGATTTTTGGAGCCTGATCCGCTATATTAGGAACCGCACTAAGCCTTATTATTCGTCTAGAACTTAGACAACCAGGAACT
CTAATTGGAGATGATCAACTTTATAATATAGTAGTGACAGCACATGCCTTCATTATGATTTTCTTCATAGTAATACCAATTATAATTGGAG
GGTTCGGAAACTGATTAGTACCTTTAATAATAGGAGCACCCGACATAGCATTTCCGCGCCTTAATAATATAAGTTTTTGACTTCTTCCCCC
CTCTTTAACACTTCTATTAGGATCAAGTCTAGTAGAAATAGGAGCTGGTACAGGATGAACAGTATACCCTCCTCTAGCTTCCTCCATAGCC
CACTCAGGCTGCTCAGTAGATATAACTATTTTCTCCCTTCACTTAGCAGGAGTATCCTCTATCTTAGGCGCTGTAAACTTCATTACCACTAT
TATTAATATACGAACAAATGGGATACTATTTGAACGACTTCCTCTTTTCGTCTGAGCCGTACTAATCACAGCTATCCTTCTCTTATTATCCC
TTCCCGTCCTTGCAGGAGCTATCACAATACTTCTCACAGACCGTAATTTCAACACTTCATTCTTTGACCCAGCTGGAGGAGGAGACCCTAT
TCTGTACCAACATCTATT

>--->Cryptops_EP08-HBIID242304 2 reads from 463666 assembled using Geneious

AACAATATACTTGATTTTTGGAGCCTGATCCGCTATATTAGGAACCGCACTAAGCCTTATTATTCGTCTAGAACTTAGACAACCAGGAACT
CTAATTGGAGATGATCAACTTTATAATATAGTAGTGACAGCACATGCCTTCATTATGATTTTCTTCATAGTAATACCAATTATAATTGGAG
GGTTCGGAAACTGATTAGTACCTTTAATAATAGGAGCACCCGACATAGCATTTCCGCGCCTTAATAATATAAGTTTTTGACTTCTTCCCCC
CTCTTTAACACTTCTATTAGGATCAAGTCTAGTAGAAATAGGAGCTGGTACAGGATGAACAGTATACCCTCCTCTAGCTTCCTCCATAGCC

CACTCAGGCTGCTCAGTAGATATAACTATTTTCTCCCTTCACTTAGCAGGAGTATCCTCTATCTTAGGCGCTGTAAACTTCATTACCACTAT
TATTAATATACGAACAAATGGGATACTATTTGAACGACTTCCTCTTTTCGTCTGAGCCGTACTAATCACAGCTATCCTTCTCTTATTATCCC
TTCCCGTCCTTGCAGGAGCTATCACAATACTTCTCACAGACCGTAATTTCAACACTTCATTCTTTGACCCAGCTGGAGGAGGAGACCCTAT
TCTGTACCAACATCTATT

>--->Cryptops_EP08-HBIID242440 Assembly of 2 reads: 463643_R_E05.ab1 (reversed), 463643_F_E05.ab1

AACAATATACTTGATTTTTGGAGCCTGATCCGCTATATTAGGAACCGCACTAAGCCTTATTATTCGTCTAGAACTTAGACAACCAGGAACT
CTAATTGGAGATGACCAACTTTATAATATAGTAGTGACAGCACATGCCTTCATTATGATTTTCTTCATAGTAATACCAATCATAATTGGAG
GGTTCGGAAACTGATTAGTACCTTTAATAATAGGAGCACCCGACATAGCATTTCCGCGCCTTAATAATATAAGTTTTTGACTTCTTCCCCC
CTCTTTAACACTTCTATTAGGCTCAAGTCTAGTAGAAATAGGAGCTGGTACAGGATGAACAGTATACCCTCCTCTAGCTTCCTCCATAGCC
CACTCAGGCTGCTCAGTAGATATAACTATTTTCTCCCTTCACTTAGCAGGAGTATCCTCTATCTTAGGTGCTGTAAACTTCATTACCACTAT
TATTAATATACGAACAAATGGGATACTATTTGAACGACTTCCTCTTTTCGTCTGAGCCGTACTAATCACAGCTATCCTTCTCTTATTATCCC
TTCCCGTCCTTGCAGGAGCTATCACAATACTTCTCACAGACCGTAATTTCAACACTTCATTCTTTGACCCAGCTGGAGGAGGAGACCCTAT
TCTGTACCAACATCTATT

>--->Cryptops_EP08-HBIID242545 2 reads from 463645 assembled using Geneious

AACAATATACTTGATTTTTGGAGCCTGATCCGCTATATTAGGAACCGCACTAAGCCTTATTATTCGTCTAGAACTTAGACAACCAGGAACT
CTAATTGGAGATGATCAACTTTATAATATAGTAGTGACAGCACATGCCTTCATTATGATTTTCTTCATAGTAATACCAATTATAATTGGAG
GGTTCGGAAACTGATTAGTACCTTTAATAATAGGAGCACCCGACATAGCATTTCCGCGCCTTAATAATATAAGTTTTTGACTTCTTCCCCC
CTCTTTAACACTTCTATTAGGATCAAGTCTAGTAGAAATAGGAGCTGGTACAGGATGAACAGTATACCCTCCTCTAGCTTCCTCCATAGCC
CACTCAGGCTGCTCAGTAGATATAACTATTTTCTCCCTTCACTTAGCAGGAGTATCCTCTATCTTAGGCGCTGTAAACTTCATTACCACTAT
TATTAATATACGAACAAATGGGATACTATTTGAACGACTTCCTCTTTTCGTCTGAGCCGTACTAATCACAGCTATCCTTCTCTTATTATCCC
TTCCCGTCCTTGCAGGAGCTATCACAATACTTCTCACAGACCGTAATTTCAACACTTCATTCTTTGACCCAGCTGGAGGAGGAGACCCTAT
TCTGTACCAACATCTATT

>--->Cryptops_EP08-HBIID242576 Assembly of 2 reads: 463669_R_G07.ab1 (reversed), 463669_F_G07.ab1

AACAATATACTTGATTTTTGGAGCCTGATCCGCTATATTAGGAACCGCACTAAGCCTTATCATTCGTCTAGAACTTAGACAACCAGGAACT
CTAATTGGAGATGACCAACTTTATAATATAGTAGTGACAGCACATGCCTTCATTATGATTTTCTTCATAGTAATACCAATCATAATTGGAG
GGTTCGGAAACTGATTAGTACCTTTAATAATAGGAGCACCCGACATAGCATTTCCGCGCCTTAATAATATAAGTTTTTGACTTCTTCCCCC
CTCTTTAACACTTCTATTAGGCTCAAGTCTAGTAGAAATAGGAGCTGGTACAGGATGAACAGTATACCCTCCTCTAGCTTCCTCCATAGCC
CACTCAGGCTGCTCAGTAGATATAACTATTTTCTCCCTTCACTTAGCAGGAGTATCCTCTATCTTAGGTGCTGTAAACTTCATTACCACTAT
TATTAATATACGAACAAATGGGATACTATTTGAACGACTTCCTCTTTTCGTCTGAGCCGTACTAATCACAGCTATCCTTCTCTTATTATCCC
TTCCCGTCCTTGCAGGAGCTATCACAATACTTCTCACAGACCGTAATTTTAACACTTCATTCTTTGACCCAGCTGGAGGAGGAGACCCTAT
TCTGTACCAACATCTATT

>--->Cryptops_EP08-HBIID242747 Assembly of 2 reads: 463670_R_G08.ab1 (reversed), 463670_F_G08.ab1

AACAATATACTTGATTTTTGGAGCCTGATCCGCTATATTAGGAACCGCACTAAGCCTTATTATTCGTCTAGAACTTAGACAACCAGGAACT
CTAATTGGAGATGACCAACTTTATAATATAGTAGTGACAGCACATGCCTTCATTATGATTTTCTTCATAGTAATACCAATCATAATTGGAG
GGTTCGGAAACTGATTAGTACCTTTAATAATAGGAGCACCCGATATAGCATTTCCGCGCCTTAATAATATAAGTTTTTGACTTCTTCCCCC
CTCTTTAACACTTCTATTAGGCTCAAGTCTAGTAGAAATAGGAGCTGGTACAGGATGAACAGTATACCCTCCTCTAGCTTCCTCCATAGCC
CACTCAGGCTGCTCAGTAGATATAACTATTTTCTCCCTTCACTTAGCAGGGGTATCCTCTATCTTAGGTGCTGTAAACTTCATTACCACTAT
TATTAATATACGAACAAATGGGATACTATTTGAACGACTTCCTCTTTTCGTCTGAGCCGTACTAATCACAGCTATCCTTCTCTTATTATCCC
TTCCCGTCCTTGCAGGAGCTATCACAATACTTCTCACAGACCGTAATTTCAACACTTCATTCTTTGACCCAGCTGGAGGAGGAGACCCTAT
TCTGTACCAACATCTATT

>--->Cryptops_EP08-HBIID242760 2 reads from 463662 assembled using Geneious

AACAATATACTTGATTTTTGGAGCTTGATCCGCTATATTAGGAACCGCACTAAGCCTTATTATTCGTCTAGAACTTAGACAACCAGGAACT
CTAATTGGAGATGATCAACTTTATAATATAGTAGTGACAGCACATGCCTTCATTATGATTTTCTTCATAGTAATACCAATTATAATTGGAG
GGTTCGGAAACTGATTAGTACCTTTAATAATAGGAGCACCCGACATAGCATTTCCGCGCCTTAATAATATAAGTTTTTGACTTCTTCCCCC
CTCTTTAACACTTCTATTAGGCTCAAGTCTAGTAGAAATAGGAGCTGGTACAGGATGAACAGTATACCCTCCTTTAGCTTCCTCCATAGCC
CACTCAGGCTGCTCAGTAGATATAACTATTTTCTCCCTTCACTTAGCAGGAGTATCCTCTATCTTAGGTGCCGTAAACTTCATTACCACTAT
TATTAATATACGAACAAATGGGATACTATTTGAACGACTTCCTCTTTTCGTCTGAGCCGTACTAATCACAGCTATCCTTCTCTTATTATCCC
TTCCCGTCCTTGCAGGAGCTATCACAATACTTCTCACAGACCGTAATTTCAACACTTCATTCTTTGACCCAGCTGGAGGAGGAGACCCTAT
TCTGTACCAACATCTATT

>--->Cryptops_EP08-HBIID243095 Assembly of 2 reads: 463668_R_G06.ab1 (reversed), 463668_F_G06.ab1

AACAATATACTTAATTTTTGGAGCCTGATCCGCTATATTAGGAACCGCACTAAGCCTTATTATTCGTCTAGAACTTAGACAACCAGGAACT
CTAATTGGAGATGATCAACTTTATAATATAGTAGTGACAGCACATGCCTTCATTATGATTTTCTTCATAGTAATACCAATTATAATTGGAG

GGTTCGGAAACTGATTAGTACCTTTAATAATAGGAGCACCCGACATAGCATTTCCGCGCCTTAATAATATAAGTTTTTGACTTCTTCCCCC
CTCTTTAACACTTCTATTAGGCTCAAGTCTAGTAGAAATAGGAGCTGGTACAGGATGAACAGTATACCCTCCTCTAGCTTCCTCCATAGCC
CACTCAGGCTGCTCAGTAGATATAACTATTTTCTCCCTTCACTTAGCAGGAGTATCCTCTATCTTAGGTGCCGTAAACTTCATTACCACTAT
TATTAATATACGAACAAATGGGATACTATTTGAACGACTTCCTCTTTTCGTCTGAGCCGTACTAATCACAGCTATCCTTCTCTTATTATCCC
TTCCCGTCCTTGCAGGAGCTATCACAATACTTCTCACAGACCGTAATTTCAACACTTCATTCTTTGACCCAGCTGGAGGAGGAGACCCTAT
CCTATACCAACATCTATT

>--->Cryptops_EP08-HBIID243137 2 reads from 463663 assembled using Geneious

AACAATATACTTGATTTTTGGAGCTTGATCCGCTATATTAGGAACCGCACTAAGCCTTATTATTCGTCTAGAACTTAGACAACCAGGAACT
CTAATTGGAGATGATCAACTTTATAATATAGTAGTGACAGCACATGCCTTCATTATGATTTTCTTCATAGTAATACCAATTATAATTGGAG
GGTTCGGAAACTGATTAGTACCTTTAATAATAGGAGCACCCGACATAGCATTTCCGCGCCTTAATAATATAAGTTTTTGACTTCTTCCCCC
CTCTTTAACACTTCTATTAGGCTCAAGTCTAGTAGAAATAGGAGCTGGTACAGGATGAACAGTATACCCTCCTTTAGCTTCCTCCATAGCC
CACTCAGGCTGCTCAGTAGATATAACTATTTTCTCCCTTCACTTAGCAGGAGTATCCTCTATCTTAGGTGCCGTAAACTTCATTACCACTAT
TATTAATATACGAACAAATGGGATACTATTTGAACGACTTCCTCTTTTCGTCTGAGCCGTACTAATCACAGCTATCCTTCTCTTATTATCCC
TTCCCGTCCTTGCAGGAGCTATCACAATACTTCTCACAGACCGTAATTTCAACACTTCATTCTTTGACCCAGCTGGAGGAGGAGACCCTAT
TCTGTACCAACATCTATT

>--->Cryptops_EP08-HBIID243138 2 reads from 463664 assembled using Geneious

AACAATATACTTGATTTTTGGAGCTTGATCCGCTATATTAGGAACCGCACTAAGCCTTATTATTCGTCTAGAACTTAGACAACCAGGAACT
CTAATTGGAGATGATCAACTTTATAATATAGTAGTGACAGCACATGCCTTCATTATGATTTTCTTCATAGTAATACCAATTATAATTGGAG
GGTTCGGAAACTGATTAGTACCTTTAATAATAGGAGCACCCGACATAGCATTTCCGCGCCTTAATAATATAAGTTTTTGACTTCTTCCCCC
CTCTTTAACACTTCTATTAGGCTCAAGTCTAGTAGAAATAGGAGCTGGTACAGGATGAACAGTATACCCTCCTTTAGCTTCCTCCATAGCC
CACTCAGGCTGCTCAGTAGATATAACTATTTTCTCCCTTCACTTAGCAGGAGTATCCTCTATCTTAGGTGCCGTAAACTTCATTACCACTAT
TATTAATATACGAACAAATGGGATACTATTTGAACGACTTCCTCTTTTCGTCTGAGCCGTACTAATCACAGCTATCCTTCTCTTATTATCCC
TTCCCGTCCTTGCAGGAGCTATCACAATACTTCTCACAGACCGTAATTTCAACACTTCATTCTTTGACCCAGCTGGAGGAGGAGACCCTAT
TCTGTACCAACATCTATT

>--->Cryptops_EP08-HBIID243347 2 reads from 463659 assembled using Geneious

AACAATATACTTGATTTTTGGAGCCTGATCCGCTATATTAGGAACCGCACTAAGCCTTATTATTCGTCTAGAACTTAGACAACCAGGAACT
CTAATTGGAGATGATCAACTTTATAATATAGTAGTGACAGCACATGCCTTCATTATGATTTTCTTCATAGTAATACCAATTATAATTGGAG
GGTTCGGAAACTGATTAGTACCTTTAATAATAGGAGCACCCGACATAGCATTTCCGCGCCTTAATAATATAAGTTTTTGACTTCTTCCCCC
CTCTTTAACACTTCTATTAGGCTCAAGTCTAGTAGAAATAGGAGCTGGTACAGGATGAACAGTATACCCTCCTCTAGCTTCCTCCATAGCC
CACTCAGGCTGCTCAGTAGATATAACTATTTTCTCCCTTCACTTAGCAGGAGTATCCTCTATCTTAGGTGCCGTAAACTTCATTACCACTAT
TATTAATATACGAACAAATGGGATACTATTTGAACGACTTCCTCTTTTCGTCTGAGCCGTACTAATCACAGCTATCCTTCTCTTATTATCCC
TTCCCGTCCTTGCAGGAGCTATCACAATACTTCTCACAGACCGTAATTTCAACACTTCATTCTTTGACCCAGCTGGAGGAGGAGACCCTAT
TCTGTACCAACATCTATT

>--->Cryptops_EP08-HBIID243349 2 reads from 463661 assembled using Geneious

AACAATATACTTGATTTTTGGAGCCTGATCCGCTATATTAGGAACCGCACTAAGCCTTATTATTCGTCTAGAACTTAGACAACCAGGAACT
CTAATTGGAGATGATCAACTTTATAATATAGTAGTGACAGCACATGCCTTCATTATGATTTTCTTCATAGTAATACCAATTATAATTGGAG
GGTTCGGAAACTGATTAGTACCTTTAATAATAGGAGCACCCGACATAGCATTTCCGCGCCTTAATAATATAAGTTTTTGACTTCTTCCCCC
CTCTTTAACACTTCTATTAGGATCAAGTCTAGTAGAAATAGGAGCTGGTACAGGATGAACAGTATACCCTCCTCTAGCTTCCTCCATAGCC
CACTCAGGCTGCTCAGTAGATATAACTATTTTCTCCCTTCACTTAGCAGGAGTATCCTCTATCTTAGGCGCTGTAAACTTCATTACCACTAT
TATTAATATACGAACAAATGGGATACTATTTGAACGACTTCCTCTTTTCGTCTGAGCCGTACTAATCACAGCTATCCTTCTCTTATTATCCC
TTCCCGTCCTTGCAGGAGCTATCACAATACTTCTCACAGACCGTAATTTCAACACTTCATTCTTTGACCCAGCTGGAGGAGGAGACCCTAT
TCTGTACCAACATCTATT

>--->Feaella_tealei_-HBIID242503 Assembly of 2 reads: 463672_R_G10.ab1 (reversed), 463672_F_G10.ab1

ACTCTATATCTTTTTTTAGGTACATGAGCAGGAGCTGTTGGAATATCCTTAAGTTTAATTATTCGAATAGAATTATCTCAACCTGGTTCTCT
TATCGGGCTAGATCATATTTATAACGTAATAGTAACAACTCATGCCTTTATCATGATTTTCTTCGTAGTTATACCTTTTATAATTGGGGGGT
TTGGAAACTGACTTACCCCTTTAATATTAGGATCACCTGATATAGCCTTTCCACGACTTAATAATATAAGATTCTGATTATTACCCCCCGCC
CTAATTCTTTTACTTTTTTCATCTTTTATCGAAATGGGATGTGGGACAGGATGAACAATTTACCCCCCCTTATCTTCTATTCTAGCTCATCCG
GGAGGATCTGTAGATTTAGCAATTTTTTCTCTTCACTTAGCAGGAGCATCCTCCATTTTAGGAGCAGTAAATTTCATTTCCACTATTCTAAA
TATACGCTCCCTAGAATTTCGATTCTTTTTAATTCCCCTATTCATTTGATCTATTTTAATTACTACAATTTTATTACTTCTGGCTTTACCTGTT
CTAGCAGGAGCTATTACTATACTCCTAACTGACCGAAACTTTAATACTTCTTTCTTTGACCCCATTGGAGGAGGAGATCCAATTTTATTCC
AACACCTATTC

>--->Feaella_tealei_-HBIID242617 Assembly of 2 reads: 463673_R_G11.ab1 (reversed), 463673_F_G11.ab1

ACATTATACCTCTTTTTAGGAACATGAGCAGGAGCAGTGGGTATATCATTAAGTTTAATTATTCGAATAGAATTATCCCAACCTGGTTCCT
TAATCGGGCTAGACCATATTTACAATGTTATAGTAACTACTCATGCTTTCATTATAATCTTTTTTGTAGTAATACCCTTTATAATTGGGGGT
TTCGGTAATTGACTCACCCCCCTAATACTAGGGTCTCCAGATATAGCTTTTCCACGACTTAATAATATAAGATTTTGATTACTACCCCCAGC
TTTAATTCTCCTTCTCTTCTCATCTTTCATTGAAATAGGATGTGGAACAGGATGAACAATCTACCCCCCCTTGTCATCTATTTTAGCCCACC
CAGGTGGTTCTGTAGATTTAGCAATCTTCTCTCTCCATTTAGCAGGAGCATCATCTATTTTAGGAGCAGTAAATTTTATTTCTACTATCCTA
AACATACGCTCTCTAGAATTTCGATTTTTTTTAATTCCTCTATTTATTTGATCTATTCTCATCACTACAATTTTACTACTTTTAGCCTTACCTG
TACTAGCAGGAGCTATTACAATACTTTTAACGGATCGAAACTTTAATACTTCTTTTTTTGATCCAGTTGGGGGAGGAGACCCAATTTTATT
TCAACACCTATTT

>--->Geophilomorpha_EP01-HBIID243224 Assembly of 2 reads: 463742_R_E11.ab1 (reversed), 463742_F_E11.ab1

AACCATATATTTAATTTTCGGCGCTTGAGCCTCAATAGTCGGAACAGCACTAAGATTAATCATTCGTTTAGAGCTTAGACAGCCTGGTAG
CCTTATTGGGGATGATCAAACCTATAATGTAGTTGTTACTGCACATGCTTTCGTAATAATTTTTTTTATAGTAATACCTATTATAATAGGAG
GGTTCGGAAACTGACTTCTCCCTCTGATGCTAGGAGCCCCAGACATAGCCTTTCCCCGGCTTAACAACATAAGATTTTGACTTCTCCCCCC
CTCCCTTATACTACTGTTAGCTTCTGCAGCAGTTGAAAGCGGAGCAGGGACCGGATGAACCGTCTACCCCCCCCTTGCTTCTGGCCTAGC
CCACTCTGGCGCCTCTGTCGACATAACCATTTTTTCACTACACCTAGCAGGAATTTCTTCTATTTTAGGTGCTATTAACTTTATTACGACAA
TAATCAACATACGAACTAGAGGGATGATTTTTGAGCGAATTCCCTTATTTGTCTGAGGAGTTAGTATTACTGCTGTCCTCCTCCTTCTTTCT
CTTCCAGTCTTAGCTGGAGCAATTACTATACTTCTCACAGATCGTAACTTTAATACAAGATTTTTTGACCCAGCCGGGGGCGGAGACCCC
ATTCTGTACCAGCACTTATTT

>--->Haplochernes_EP02-HBIID242956 Assembly of 2 reads: 463681_R_H08.ab1 (reversed), 463681_F_H08.ab1

AACATTATATTTAATTTTTGGAGCTACAGCTGGATTTATTGGCTTATGTTACAGAATACTTATCCGTCTACAATTATTTGCACCAGGGGGGG
TGCTTAAGAGAGCATTCTTATAATATTATTATTACTACCCATGCTTTAATTATAATTTTTTTTATGGTTATACCAATGATAATTGGAGGTTTC
GGAAATTGACTGATTCCTCTAATAATTGGCTCTCCTGATATAGCTTTTCCTCGTATGAATAATATGAGATTTTGACTTTTGCCACCTTCATT
TTCTTTATTAATTTATTCTTCTACTTTAGAGATAGGATGCGGAGCTGGTTGAACTATTTACCCGCCGCTAACAAGTTTGATTGCCCATCCA
GATAGAGCTGTTGATTTATTAATTTTCTCCCTTCATTTAGCCGGGATTTCTTCTATTTTAGGGGGAGTAAACTTTATTTCTACAGTAATAAA
CATGCGGGATCCTACTGTTAGGTATAAAACTTTACCTTTATTTGTGTGGTCGGTTTTTGTTACTGTGATTTTAATTCTTTTGGCAATACCCG
TTCTAGCAGGAGCAATTACTATGCTTTTAACAGATCGAAATTTTAGAACTTCCTTTTTTAACCCTACAGGGGGTGGAGATCCTATTTTATT
CCAACATTTATTT

>--->Haplochernes_EP02-HBIID243499 Assembly of 2 reads: 463682_R_H09.ab1 (reversed), 463682_F_H09.ab1

GACATTATATTTAATTTTTGGGGCTACAGCCGGATTTATTGGCTTATGCTACAGAATACTTATCCGTCTACAATTATTTGCACCAGGGGGG
TGCTTAAGAGAGCATTCTTATAATATTATTATTACTACTCATGCTTTAATTATAATTTTTTTTATGGTTATACCAATGATAATTGGAGGTTTC
GGAAATTGATTGATCCCCCTAATAATTGGCTCTCCTGATATAGCTTTTCCTCGTATGAATAATATGAGATTTTGACTTTTGCCACCTTCATT
TTCTTTATTAATTTATTCTTCTACTTTAGAGATAGGATGTGGAGCTGGTTGAACTATTTACCCACCATTAACAAGTTTGATTGCTCATCCAG
ATAGAGCTGTTGATTTATTAATTTTCTCTCTTCATTTAGCCGGGATTTCTTCTATTTTAGGGGGAGTAAACTTTATTTCTACAGTAATAAAC
ATGCGGGATCCTACTGTTAGGTATAAAACTTTACCTTTATTTGTGTGGTCAGTTTTTGTTACTGTGATTTTAATTCTTTTGGCAATACCCGT
TCTAGCAGGAGCAATTACTATGCTTTTAACAGATCGAAATTTTAGAACTTCCTTTTTTAACCCTACAGGGGGTGGAGATCCTATTTTATTC
CAACATTTATTT

>--->Indohya_boltoni-HBIID242522 2 reads from 463686 assembled using Geneious

ACTCTTTATCTTCTCTTGGGAATTTGATCCGGTGTTCTAGGAATAAGATTTAGTATAATTATTCGGTTACAGCTTTCCTCCCCTGGTGCAAT
TATCTCTGAGCATTCTTATAATGTGGTGGTAACAACTCATGCTTTTATTATAATCTTTTTTATAGTGATACCTTTAATAATCGGAGGTTTTG
GAAATTGACTAGTACCAATAATAATTGGAGCTCCAGATATAGCTTTTCCACGAATAAATAATTTTAGATTTTGGCTTCTCCCACCTTCCTTA
AGATTAATAATTATATCTTCTCTAATAGAAATAGGTTGTGGGACTGGATGAACAATATATCCCCCCCTAGCCAGTAAACTAGCTCATCCA
GGTAGAGCAGTTGATATAGTAATTTTCTCGTTACACTTAGCAGGGATTTCTTCTATTTTAGGAGCCATTAATTTTATTACCACAATTTTTAA
TATACGTACATCAGGTTTAAAATTCAAAATACTACCACTATTTGTTTGATCAATTTTAATTACTACGATTTTACTCCTTCTCGCTATCCCAGT
TTTGGCAGGGGCTATTACCATACTTTTAACAGATCGAAACTTCAACACTTCTTTTTTTATTCCTTCAGGAGGGGGAGATCCTATTTTATTTC
AACATTTATTT

>--->Indohya_boltoni-HBIID243574 Assembly of 2 reads: 463685_R_A02.ab1 (reversed), 463685_F_A02.ab1

ACTCTTTATCTTCTTTTAGGAATTTGATCCGGTGTACTTGGAATAAGATTTAGTATGATTATTCGACTACAGCTTTCTTCTCCTGGGGCAAT
TATCTCTGAGCATTCCTATAATGTTGTAGTAACAACTCATGCTTTTATTATAATTTTCTTTATAGTGATACCTTTAATAATTGGAGGGTTTG
GAAACTGACTCGTTCCTATAATAATTGGAGCTCCAGACATAGCATTCCCGCGAATAAACAATTTTAGATTTTGGCTCCTCCCCCCCTCTCT
AAGATTAATGATTATATCTTCTTTAATGGAAATAGGTTGCGGAACAGGATGAACTATATATCCCCCTCTAGCTAGTAAACTAGCTCACCC
AGGGAGAGCAGTTGATATAGTGATTTTTTCATTACATTTAGCAGGAATTTCTTCTATTCTGGGGGCTATTAATTTTATTACTACTATTTTTA
ATATACGAACATCAGGTTTGAAATTCAAAATACTACCTTTATTTGTTTGGTCTATCTTAATTACTACTATTCTTCTTCTTCTCGCCATTCCAG
TTCTAGCAGGAGCCATTACTATACTTTTAACTGATCGAAATTTCAACACATCATTTTTCATTCCTTCAGGGGGAGGAGACCCTATTTTATTT
CAACATTTATTT

>--->Indolpium_'EP08'-HBIID241371 Assembly of 2 reads: 463718_R_C11.ab1 (reversed), 463718_F_C11.ab1

ACATTATATTTAATTTTAGGAATTTGATCAGGTTTAGTAGGAATAGGATTTAGAATATTAATTCGAATACAACTAATAAGACCTGGAAAA
ATAATTTCTGAACACTCATACAATGTTGTAGTTACAACTCATGCTTTTGTAATAATTTTTTTTATAGTAATACCTATTATAATTGGTGGTTTT
GGAAATTGATTAGTACCTTTAATAATTGGTTCTCCAGATATAGCCTTTCCTCGTTTAAATAATCTTAGTTTTTGATTACTTCCTCCTTCATTT
ATATTGTTAATTTTGTCATCAGCTTTGGAAATAGGTTGTGGGACTGGATGAACTATTTATCCACCATTATCATCATATCCTGCTCATTCTAC
TAAGGCTGTAGATATAGTAATTTTTTCTTTACATTTAGCAGGAATTTCATCTATCTTAGGTGCTATTAATTTTATTTCAACTATTGTAAATAT
ACGATCACCAGGTTTAACTATAGTTAAAATACCTTTATTTGTATGATCTGTTCTTTTTACAACAATTTTAATTTTATTTGCTATACCTGTATT
AGCAGGGGCTATTACAATATTATTAACTGATCGAAATTTTAATACAGCTTTTTTCAATCCTATGGGAGGAGGAGATCCTATTTTATTTCAA
CATTTATT

>--->Indolpium_'EP08'-HBIID243082 Assembly of 2 reads: 463719_R_C12.ab1 (reversed), 463719_F_C12.ab1

ACATTATATTTAATTTTAGGAATTTGATCAGGTTTAGTAGGAATAGGATTTAGAATATTAATTCGAATACAACTAATAAGACCTGGAAAA
ATAATTTCTGAACACTCATACAATGTTGTAGTTACAACTCATGCTTTTGTAATAATTTTTTTTATAGTAATACCTATTATAATTGGTGGTTTT
GGAAATTGATTAGTACCTTTAATAATTGGTTCTCCAGATATAGCCTTTCCTCGTTTAAATAATCTTAGTTTTTGATTACTTCCTCCTTCATTT
ATATTGTTAATTTTGTCATCAGCTTTGGAAATAGGTTGTGGGACTGGATGAACTATTTATCCACCATTATCATCATATCCTGCTCATTCTAC
TAAGGCTGTAGATATAGTAATTTTTTCTTTACATTTAGCAGGAATTTCATCTATCTTAGGTGCTATTAATTTTATTTCAACTATTGTAAATAT
ACGATCACCAGGTTTAACTATAGTTAAAATACCTTTATTTGTATGATCTGTTCTTTTTACAACAATTTTAATTTTATTTGCTATACCTGTATT
AGCAGGGGCTATTACAATATTATTAACTGATCGAAATTTTAATACAGCTTTTTTCAATCCTATGGGAGGAGGAGATCCTATTTTATTTCAA
CATTTATT

>--->Indolpium_'EP08'-HBIID243323 Assembly of 2 reads: 463717_R_C10.ab1 (reversed), 463717_F_C10.ab1

ACTTTATATTTAATTTTGGGTATTTGATCAGGTTTAGTTGGAATAGGTTTTAGAATATTAATTCGAATACAATTAATAAGACCTGGAAAAAA
TAATCTCTGAACATTCATATAATGTTGTAGTAACAACTCATGCTTTTGTAATAATTTTTTTTATAGTAATACCAATTATAATTGGTGGTTTT
GGAAACTGACTAGTACCTTTAATAATTGGTTCACCAGATATAGCTTTCCCTCGTTTAAATAATCTTAGATTTTGACTTCTTCCTCCTTCTTTT
ATATTATTAATTTTATCATCAGCACTAGAAATGGGTTGTGGAACAGGGTGAACTATTTATCCACCATTATCATCATACCCTGCACATTCTA
CTAAAGCAGTTGATATAGTTATTTTTTCACTTCATCTAGCAGGAATTTCTTCTATTTTAGGAGCTATTAATTTTATTTCAACAATTGTAAATA
TACGATCACCTGGATTGACTATGATTAAAATACCTTTATTTGTATGATCAGTTTTATTTACAACTATTTTAATTTTATTTGCAATACCCGTCT
TAGCAGGTGCTATTACTATATTATTAACTGATCGAAATTTTAATACAGCTTTTTTTAACCCTATAGGAGGGGGAGATCCTATTTTATTTCAA
CATTTATT

>--->Indolpium_'EP08'-HBIID243484 Assembly of 2 reads: 463720_R_D01.ab1 (reversed), 463720_F_D01.ab1

ACTTTATATTTAATTTTGGGTATTTGATCAGGTTTAGTTGGAATAGGTTTTAGAATATTAATTCGAATACAACTAATAAGACCTGGAAAAAA
TAATTTCTGAACATTCATACAATGTTGTAGTAACAACTCATGCTTTTGTAATAATTTTTTTTATAGTAATACCAATTATAATTGGTGGTTTT
GGAAACTGACTAGTACCTTTAATAATTGGTTCACCAGATATAGCTTTTCCTCGTTTAAATAATCTTAGATTTTGACTTCTTCCTCCTTCTTTT
ATATTATTAATTTTATCATCAGCATTAGAAATAGGTTGTGGAACAGGATGAACTATTTATCCACCATTATCATCATATCCTGCACATTCTAC
TAAAGCAGTTGATATAGTTATTTTTTCACTTCATCTAGCAGGAATTTCTTCTATTTTAGGAGCTATTAATTTTATTTCAACAATTGTGAATAT
ACGATCACCTGGATTGACTATGATTAAAATACCTTTATTTGTATGATCAGTTCTATTTACAACTATTTTAATTTTATTTGCAATACCTGTTTT
AGCAGGTGCTATTACTATATTACTAACTGATCGAAATTTTAATACAGCTTTTTTTAACCCTATAGGAGGAGGAGATCCTATTTTATTTCAA
CATTTATT

>--->Indolpium_'EP08'-HBIID243595 Assembly of 2 reads: 463750_R_F07.ab1 (reversed), 463750_F_F07.ab1

ACTTTATATTTAATTTTGGGTATTTGATCAGGTTTAGTTGGTATAGGTTTTAGAATACTAATTCGAATACAACTAATAAGTCCTGGAAAAA
TAATTTCTGAACACTCATATAATGTTGTAGTAACAACTCATGCTTTTGTAATAATTTTTTTTATAGTAATACCAATTATAATTGGAGGTTTT
GGAAATTGATTAGTACCTTTAATAATTGGTTCACCAGATATAGCTTTTCCTCGATTAAATAATCTCAGTTTTTGACTTCTTCCACCTTCTTTT
ATATTATTAATTTTATCATCAGCATTGGAAATAGGTTGTGGTACGGGATGAACTATTTACCCACCATTATCATCATATCCTGCTCATTCTAC
AAAAGCAGTTGATATAGTTATTTTTTCACTTCATTTAGCAGGAATTTCTTCTATTTTAGGAGCTATTAATTTTATTTCAACAATTGTAAATAT
ACGATCACCTGGATTAACTATAATTAAAATACCTTTATTTGTGTGATCAGTTCTTTTTACAACTATTTTAATTTTATTTGCAATACCTGTTTT
AGCAGGTGCTATTACTATATTATTAACTGATCGAAATTTTAATACAGCTTTTTTTAATCCTATAGGAGGAGGAGACCCTATTTTATTTCAAC
ATCTATT

>--->Indolpium_'EP19'-HBIID243603 2 reads from 463609 assembled using Geneious

ACTCTATATTTAATATTTGGTATTTGATCGGGAATTGTAGGAATAGGATACAGAATAATTATTCGAATACAATTATCTGCCCCTGGAAAA
GTAATCGAAGATCACTCTTATAATGTTGTAGTTACAACTCATGCGTTTTTAATAATCTTTTTTATAGTAATACCTATTTTAATTGGGGGTTT
CGGGAACTGACTTATTCCTCTAATAATTGGATCACCCGATATAGCATTTCCTCGTTTAAATAATTTAAGTTTTTGATTTCTTCCACCCTCATT
TTTATTGATGCTTCTTTCTTCTGCTCTTGAAATAGGTTGTGGAACAGGGTGGACAGTATATCCTCCCCTAGCAAGTCTTTCTGGACACCCC
ACTAAGTCTGTAGATTTTCTTATTTTCTCTTTACATTTAGCTGGAATTTCTTCTATTTTAGGTGCAATTAACTTTATTTCAACTATTATTAATA
TGAAAACACCAGGAATAACTTATGTAGAAATGCCTTTATTTGTTTGAGCTGTTCTTTTCACAACAATTCTCTTACTTCTTGCTATTCCAGTC

CTTGCTGGAGCAATTACTATATTATTAACAGATCGAAATTTTAATTCATCCTTCTTTGAACCATTAGGTGGGGGTGATCCAATTTTATTTCA
ACATTTATT

>--->Indolpium_EP21-HBIID241954 Assembly of 2 reads: 463710_R_C03.ab1 (reversed), 463710_F_C03.ab1

ACATTATATTTAATGTTTGGTGTTTGATCAGGTATTGTAGGAATAGGATATAGAATAATTATTCGAATACAGCTTTCAACTCCAGGGAAG
GTAATTGAAGACCATTCTTATAATGTAGTAGTCACAACTCATGCTTTCTTAATAATTTTTTTTATAGTTATACCTATTTTGATTGGAGGTTTT
GGAAACTGATTAATTCCTATAATAATTGGTTCTCCTGACATGGCTTTTCCTCGATTAAACAATTTAAGATTTTGGCTTTTGCCTCCTTCATTT
TTATTAATATTATTTTCTTCTGCATTAGAAATAGGTTGTGGGACTGGTTGGACTATCTACCCCCCCCCTTGCAGGATTTTCTGGTCATCCTTC
TAAAGCAATGGATTTATTGATTTTTTCCCTTCATTTAGCTGGAATTTCTTCTATTTTAGGGGCCATTAATTTTATTTCTACTATTATTAATAT
AAAGACACCTGGGATAACTTATGTAGAAATACCACTGTTTGTCTGAGCTGTGCTTTTTACAACAATCTTATTACTATTAGCAATTCCAGTA
TTAGCTGGAGCTATTACAATACTTTTAACTGATCGGAATTTTAATTCTTCTTTTTTTGAGCCTTTAGGCGGAGGTGACCCAATTTTATTTCA
ACACTTATT

>--->Indolpium_EP21-HBIID243578 Assembly of 2 reads: 463723_R_D04.ab1 (reversed), 463723_F_D04.ab1

ACATTATATTTAATGTTTGGTGTTTGATCAGGAATTGTAGGAATAGGATATAGAATAATTATTCGAATACAGCTTTCAACTCCAGGGAAG
GTAATTGAAGACCATTCTTATAATGTAGTAGTCACAACTCATGCTTTCTTAATAATTTTTTTTATAGTTATACCTATTCTGATTGGAGGTTTT
GGAAACTGATTAATTCCTATAATAATTGGTTCTCCTGACATGGCTTTTCCTCGATTAAACAATTTAAGATTTTGGCTTTTGCCTCCTTCATTT
TTATTAATATTATTTTCTTCTGCATTAGAAATAGGTTGTGGGACTGGTTGGACTATCTACCCCCCCCTTGCAGGATTTTCTGGTCATCCTTC
TAAAGCAATGGATTTATTAATTTTTTCCCTTCATTTAGCTGGAATTTCTTCTATTTTAGGGGCCATTAATTTTATTTCTACTATTATTAATAT
AAAGACACCTGGGATAACTTATGTAGAAATACCACTGTTTGTCTGAGCTGTGCTTTTTACAACAATCTTATTACTATTAGCAATTCCAGTA
TTAGCTGGAGCTATTACAATACTTTTAACTGATCGGAATTTTAATTCTTCTTTTTTTGAGCCTTTAGGCGGAGGTGACCCAATTTTATTTCA
ACACTTATT

>--->Indolpium_Olp-A1-HBIID243380 Assembly of 2 reads: 463698_R_B03.ab1 (reversed), 463698_F_B03.ab1

ACTTTGTATTTATTATTTGGTATTTGATCAGGGGTTGTAGGAATAGGATATAGAATGATTATTCGTATACAGCTAATTACCCCTGGTGGTT
TTATTGAGGACCATTCTTATAATGTGGTTATTACTACTCATGCATTTTTGATAATTTTTTTTATAGTTATGCCTATTTTAATTGGAGGCTTTG
GAAATTGATTAGTTCCTATAATAATTGGATCTCCTGATATGGCCTTCCCCCGATTAAACAATTTAAGTTTTTGGTTATTACCGCCTTCTTTTT
TATTAATATTGCTGTCTTCAGCTTTAGAAATGGGGTGTGGGACGGGGTGGACTGTATACCCCCCCTTAGCAGGGAGATTGGGTCATTCTT
CGAAAGCGGTGGATTTATTAATTTTTTCTCTACATCTTGCTGGAATTTCTTCAATTCTGGGGGCTATTAATTTTATTTCTACGATCATTAAT
ATAAAAACTCCTGGTTTATCATACACAGAAATACCTTTATTTGTATGGGCAGTTTTATTAACTACTATTTTATTGTTATTAGCTATTCCTGTA
TTGGCAGGAGCAATTACAATACTTCTGACGGATCGGAATTTTAATTCATCTTTTTTTGAGCCTCTGGGAGGGGGGGATCCTATTTTATTTC
AACATCTTTT

>--->Indolpium_Olp-A1-HBIID243542 Assembly of 2 reads: 463697_R_B02.ab1 (reversed), 463697_F_B02.ab1

ACTCTGTACCTAATATTTGGTGTATGATCTGGTATTGTTGGAATGGGGTATAGAATGATTATTCGAATACAACTCTCAGCACCAGGGAAG
GTAATTGAAGAACACTCCTACAATGTAGTTGTTACTACCCATGCTTTTTTGATAATTTTTTTCATAGTAATACCAATTCTTATTGGGGGTTT
TGGAAATTGACTTATTCCTCTAATAATTGGTTCTCCAGATATAGCTTTTCCTCGATTAAATAATTTAAGTTTTTGATTACTCCCCCCTTCATT
TATATTGATGCTATTCTCATCTGCTTTAGAGCTTGGATGTGGGACTGGGTGAACAATTTACCCTCCTTTAGCTGGACTTGGAGGTCATCCA
TCTAAAGCAATAGATTTATTGATTTTCTCTCTTCACTTAGCTGGAATTTCTTCTATTTTGGGTGCTATTAATTTTATCTCAACAATTATTAAT
ATAAAAACACCAGGGATAACTTATGTAGAAATGCCTTTATTTGTATGAGCTGTGCTTTTTACAACCATCCTTCTTCTCTTAGCTATTCCTGT
ACTAGCTGGGGCTATTACTATACTTCTTACTGACCGAAATTTTAATTCATCATTTTTTGAGCCATTGGGGGGAGGGGATCCTATTTTATTT
CAACATCTATT

>--->Indolpium_Olp-A1-HBIID243607 Assembly of 2 reads: 463699_R_B04.ab1 (reversed), 463699_F_B04.ab1

ACTCTATATTTAATGTTTGGTGTTTGGTCAGGAATTGTAGGAATGGGCTATAGAATAATTATTCGAATACAGCTTTCAGCCCCAGGAAGG
GTAATTGAGGAACATTCATATAATGTAGTGGTTACTACCCATGCGTTTTTAATAATTTTTTTTATAGTAATACCTATTTTAATTGGGGGTTT
TGGAAACTGACTAGTTCCATTAATAATTGGATCTCCTGATATGGCTTTCCCTCGTTTAAATAATCTGAGTTTTTGATTACTTCCGCCTTCAT
TTTTACTAATACTTTTTTCTTCTGCTTTAGAAATAGGATGTGGGACTGGGTGAACTATTTATCCTCCCTTGGCAAGATTTTCTGGACATCCG
TCTAAAGCTATGGATTTATTAATTTTTTCATTACATTTAGCAGGAATTTCATCCATTTTAGGTGCAATTAATTTTATTTCAACTATTATTAAT
ATAAAAACTCCAAGTCTGTCTTATGTAGAAATACCCCTATTTGTTTGAGCTGTTTTATTTACTACTATTTTATTACTACTAGCTATTCCTGTT
TTGGCTGGGGCTATTACTATACTATTAACAGATCGAAATTTTAATTCTTCTTTTTTTGAGCCTGTTGGGGGAGGTGATCCTATTTTATTTCA
ACACTTATT

>--->Indolpium_Olp-A?-HBIID241965 Assembly of 2 reads: 463694_R_A11.ab1 (reversed), 463694_F_A11.ab1

ACTTTATATTTAATATTTGGAATTTGATCAGGAATTGTAGGGATAAGATATAGAATAATTATTCGAATACAACTTTCAGCCCCTGGAAAA
GTAATTGAAGAACATTCTTATAATGTTGTGATTACAACTCATGCATTTTTAATAATCTTCTTTATAGTAATACCAATTTTAATTGGAGGATT
CGGGAACTGACTTATTCCATTAATAATTGGTTCTCCTGATATAGCTTTTCCTCGTTTAAATAATTTGAGATTTTGATTCCTTCCCCCATCTTT
CTTACTTATGCTCCTTTCTTCCGCACTTGAAATAGGGTGTGGAACTGGATGGACTATTTATCCCCCTTTGGCAAGTTTTTCAGGCCACCCTT

CCAAAGCTATAGATCTTCTTATTTTTTCCCTTCACCTAGCAGGAATTTCTTCCATCTTGGGTGCTATTAATTTTATTTCTACTATTATTAATAT
AAAAACACCTGGAATGACATATGTTGAAATACCCTTATTTGTCTGAGCAGTTCTCTTTACTACTATTCTGTTACTACTTGCGATCCCTGTTC
TTGCTGGGGCTATTACTATACTCTTAACAGATCGAAATTTTAATTCTTCTTTCTTTGAACCTTTGGGAGGTGGTGATCCTATTTTATTTCAA
CATCTCTT

>--->Indolpium_Olp-A?-HBIID243266 Assembly of 2 reads: 463696_R_B01.ab1 (reversed), 463696_F_B01.ab1

ACTTTATATTTAATGTTTGGAGTTTGATCTGGAATTGTAGGAATAGGATATAGAATAATTATTCGAATGCAACTTTCATCACCTGGAAAA
GTAATCGAAGATCATTCATATAATGTAGTTGTTACTACTCATGCATTTTTGATGATTTTTTTTATAGTTATACCTATTTTAATTGGGGGATT
CGGAAATTGGCTGATTCCATTAATAATTGGATCTCCTGATATAGCTTTTCCTCGATTAAATAATTTGAGATTTTGATTTTTACCCCCATCTT
TTCTTTTAATGTTGTTGTCATCTGCTCTTGAGATAGGATGTGGTACGGGATGAACAATTTATCCACCTCTCGCAGGATTTTCTGGCCATCC
TTCAAAAGCTATAGATTTACTTATTTTTTCTCTTCATCTCGCTGGAATTTCTTCTATTTTAGGTGCCATTAATTTTATTTCAACAATTATTAAT
ATAAAAACACCAGGCTTAAACTATGTAGAAATGCCTTTATTTGTATGAGCTGTTCTTTTTACAACTATTCTTCTTTTACTTGCGATTCCAGT
TCTTGCTGGGGCAATTACTATGCTTTTGACAGATCGAAACTTTAATTCTTCTTTTTTTGAACCTTTAGGGGGTGGTGATCCTATTTTATTTC
AACATTTATT

>--->Indolpium_Olp-A-HBIID241650 Assembly of 2 reads: 463692_R_A09.ab1 (reversed), 463692_F_A09.ab1

ACTTTATATTTAATATTTGGAATTTGATCAGGAATTGTAGGAATAAGATATAGAATAATTATTCGAATACAACTTTCAGCCCCTGGAAAA
GTAATTGAAGAACATTCTTATAATGTTGTGATTACAACTCATGCATTTTTGATAATTTTCTTTATAGTAATACCAATTTTAATTGGAGGATT
CGGGAACTGACTTATTCCATTAATAATTGGTTCTCCTGATATAGCTTTTCCTCGTTTAAATAATTTGAGATTTTGATTCCTCCCCCCATCTTT
TTTACTTATACTCCTTTCTTCTGCACTTGAAATAGGATGTGGAACTGGGTGGACTATTTATCCCCCTTTGGCAAGTTTTTCAGGTCACCCTT
CCAAGGCTATAGATCTTCTTATTTTTTCCCTCCACTTAGCAGGAATTTCTTCCATTTTAGGTGCTATTAATTTTATTTCTACTATTATTAATAT
AAAAACGCCCGGAATAACATATGTCGAAATACCCTTATTTGTCTGGGCAGTTCTCTTTACTACCATTCTGTTATTACTTGCGATCCCTGTTC
TTGCTGGGGCTATTACTATACTTTTAACAGATCGAAATTTTAATTCTTCTTTCTTTGAACCTTTAGGAGGTGGTGATCCTATTTTATTTCAA
CATCTCTT

>--->Indolpium_Olp-A-HBIID241962 2 reads from 463688 assembled using Geneious

ACTTTATATTTAATATTTGGAATTTGATCAGGAATTGTAGGGATAAGATATAGAATAATTATTCGAATACAACTTTCAGCCCCTGGAAAA
GTAATTGAAGAACATTCTTATAATGTTGTGATTACAACTCATGCATTTTTAATAATCTTCTTTATAGTAATACCAATTTTAATTGGAGGATT
CGGGAACTGACTTATTCCATTAATAATTGGTTCTCCTGATATAGCTTTTCCTCGTTTAAATAATTTGAGATTTTGATTCCTTCCCCCATCTTT
CTTACTTATGCTCCTTTCTTCCGCACTTGAAATAGGGTGTGGAACTGGATGGACTATTTATCCCCCTTTGGCAAGTTTTTCAGGCCACCCTT
CCAAAGCTATAGATCTTCTTATTTTTTCCCTTCACCTAGCAGGAATTTCTTCCATCTTGGGTGCTATTAATTTTATTTCTACTATTATTAATAT
AAAAACACCTGGAATGACATATGTTGAAATACCCTTATTTGTCTGAGCAGTTCTCTTTACTACTATTCTGTTACTACTTGCGATCCCTGTTC
TTGCTGGGGCTATTACTATACTCTTAACAGATCGAAATTTTAATTCTTCTTTCTTTGAACCTTTGGGAGGTGGTGATCCTATTTTATTTCAA
CATCTCTT

>--->Indolpium_Olp-A-HBIID242305 Assembly of 2 reads: 463691_R_A08.ab1 (reversed), 463691_F_A08.ab1

ACTTTATACTTAATATTTGGAATTTGATCAGGAATTGTAGGGATAAGATATAGAATAATTATTCGAATACAACTTTCAGCCCCTGGAAAA
GTAATTGAAGAACATTCTTATAATGTTGTGATTACAACTCATGCATTTTTAATAATTTTCTTTATAGTAATACCAATCTTAATTGGAGGTTT
TGGAAACTGACTTATTCCATTAATAATTGGTTCCCCTGATATAGCTTTTCCTCGTTTAAATAATTTGAGATTTTGATTTCTTCCCCCATCTTT
CTTGCTTATACTCCTTTCTTCTGCACTTGAAATAGGATGTGGGACTGGGTGGACCATTTATCCTCCTTTAGCAAGTTTTTCAGGTCACCCTT
CCAAGGCTATAGATCTTCTTATTTTTTCCCTCCATTTAGCAGGAATTTCTTCCATTTTAGGTGCTATTAATTTTATTTCTACTATTATTAATAT
AAAAACACCTGGAATAACATATGTCGAAATACCCTTATTTGTCTGAGCAGTTCTCTTCACTACCATTTTGTTATTACTTGCGATTCCTGTTC
TTGCTGGAGCTATTACTATACTTTTAACGGATCGAAATTTTAATTCTTCTTTCTTTGAACCTTTGGGAGGTGGTGATCCTATTTTATTTCAA
CATCTCTT

>--->Indolpium_Olp-A-HBIID243228 2 reads from 463689 assembled using Geneious

ACTCTATATCTTATATTTGGGGTGTGATCAGGTATTGTTGGTATGGGATATAGAATAATTATTCGAATACAACTTTCAGCCCCAGGAAAA
GTAATTGAAGATCATTCATATAATGTAGTAGTTACTACTCATGCTTTTTTAATAATTTTTTTTATAGTTATACCTATTTTAATTGGGGGATTC
GGAAATTGGCTAATTCCGATGATAATCGGATCTCCTGATATAGCTTTTCCACGGTTAAACAATTTAAGATTTTGATTTCTTCCCCCTTCTTT
CCTTTTAATGTTATTTTCCTCAGCTTTAGAAATAGGATGTGGAACTGGATGAACAATCTATCCTCCTTTAGCGAGTTTTAGAGGTCACCCC
TCTAAAGCTATAGATTTACTTATTTTCTCCCTTCATTTAGCTGGAATTTCTTCCATTTTAGGTGCTATTAATTTTATTTCTACCATTATTAATA
TAAAGACTCCTGGTTTATCTTACGTAGAAATACCTCTGTTTGTATGGGCTGTTCTTTTTACTACTATTCTTCTCTTATTAGCAATTCCTGTAT
TAGCAGGGGCTATTACTATGCTCTTAACAGATCGAAATTTTAATTCTTCTTTTTTTGAGCCTTTAGGTGGTGGTGACCCTATTTTATTTCAA
CATTTATT

>--->Indolpium_Olp-A-HBIID243232 Assembly of 2 reads: 463693_R_A10.ab1 (reversed), 463693_F_A10.ab1

ACTTTATATTTAATATTTGGGATTTGATCAGGAATTGTAGGAATAGGATATAGAATAATTATTCGAATACAACTTTCAGCTCCCGGAAAA
GTAATTGAAGAACATTCTTATAATGTTGTAATTACAACCCATGCATTTTTAATAATTTTCTTCATAGTAATACCAATTTTAATTGGAGGTTT

TGGAAATTGACTTATTCCACTAATAATTGGTTCCCCTGATATAGCTTTTCCTCGTTTAAATAATTTAAGATTCTGGTTTCTTCCTCCATCTTT
CTTACTTATACTTCTTTCCTCTGCACTTGAAATAGGATGTGGGACTGGGTGAACTATTTACCCTCCCTTAGCAAGTTTTTCGGGGCACCCTT
CTAAAGCTATAGATCTTCTTATTTTTTCTCTTCATTTAGCGGGAATTTCTTCTATTTTAGGTGCTATTAACTTTATCTCTACTATTATTAATAT
AAAAACACCTGGGATAACATATGTTGAAATACCCCTATTTGTGTGAGCGGTCCTCTTTACTACTATTCTTTTATTGCTTGCAATTCCCGTTC
TTGCTGGGGCAATTACTATGCTTTTAACAGATCGAAATTTTAATTCTTCTTTTTTTGAACCTTTAGGAGGAGGTGATCCAATTTTATTTCAA
CACCTCTT

>--->Indolpium_Olp-A-HBIID243563 2 reads from 463690 assembled using Geneious

ACTTTATACTTAATATTTGGAATTTGATCAGGAATTGTAGGAATGAGATATAGAATAATTATTCGAATACAACTTTTAGCCCCTGGAAAA
GTAATTGAAGAACATTCTTATAATGTTGTGATTACAACTCATGCTTTTTTAATAATTTTCTTTATGGTAATACCAATCTTAATTGGAGGTTT
TGGAAACTGACTTATTCCATTAATAATTGGTTCTCCCGATATAGCTTTTCCTCGTTTAAATAATTTGAGATTTTGATTTCTTCCTCCATCTTT
CTTGCTTATGCTCCTTTCTTCTGCACTTGAAATAGGATGTGGGACTGGGTGAACTATTTACCCCCCTTTAGCAAGTTTTTCAGGTCATCCTT
CCAAGGCTATAGATCTTCTTATTTTTTCCCTCCATTTAGCAGGAATTTCTTCCATCTTAGGTGCTATTAATTTTATTTCTACTACTATTAATAT
AAAAACACCTGGAATAACATATGTCGAAATACCCTTGTTTGTCTGAGCAGTTCTCTTTACTACCATTTTATTATTACTTGCAATCCCTGTTC
TAGCTGGAGCTATTACTATGCTTTTAACGGATCGAAATTTTAATTCTTCTTTCTTTGAACCTTTAGGAGGTGGTGATCCTATTTTATTTCAA
CATCTCTT

>--->Indolpium_Olp-C?-HBIID241673 Assembly of 2 reads: 463708_R_C01.ab1 (reversed), 463708_F_C01.ab1

ACTTTGTATTTAATATTCGGTGTATGATCTGGTATTGTTGGAATAGGATACAGAATAATTATTCGAATACAACTCTCAGCACCAGGAAAA
GTGATTGAAGAACATTCCTACAACGTAGTTGTTACTACTCATGCATTCCTAATAATTTTTTTTATAGTAATACCAATTCTTATTGGAGGCTT
CGGTAATTGATTAATTCCTTTAATAATTGGTTCTCCAGATATGGCCTTTCCTCGACTTAATAATTTAAGTTTCTGATTGCTTCCCCCTTCATT
TTTATTAATATTATTTTCGTCTGCTTTAGAAATAGGGTGTGGAACTGGGTGAACAATTTACCCCCCCTTAGCTGGGTTCTCAGGTCACCCA
TCTAAGGCAATAGATTTATTAATTTTTTCTCTTCATTTAGCTGGAATTTCGTCTATTTTAGGGGCCATTAATTTTATTTCAACAATTATTAAT
ATAAAAACACCAGGGATAACTTATGTAGAGATGCCCTTATTTGTGTGAGCTGTACTTTTTACAACAATTCTTCTTCTTTTAGCAATTCCTGT
TTTAGCTGGAGCTATTACTATACTTCTTACAGATCGAAACTTCAATTCATCATTCTTTGAGCCACTGGGAGGGGGAGATCCTATTTTATTT
CAGCACCTCTT

>--->Indolpium_Olp-C?-HBIID243379 Assembly of 2 reads: 463711_R_C04.ab1 (reversed), 463711_F_C04.ab1

ACATTATATTTAATATTTGGTATTTGATCAGGAATAGTGGGAATAGGGTATAGAATAATTATTCGAATACAACTTTCATCACCAGGAAAG
GTAATTGAAGATCACTCTTATAATGTAGTAGTTACAACTCATGCTTTTTTAATAATTTTTTTTATAGTTATACCTATTTTAATTGGAGGTTTT
GGTAATTGATTAATTCCTATGATAATTGGTTCCCCCGATATAGCTTTTCCTCGATTGAACAATTTAAGCTTTTGGCTTCTTCCTCCCTCATTC
TTATTGATATTGTTTTCTTCTGCATTAGAAATAGGGTGTGGAACTGGTTGAACCATCTACCCCCCTCTTGCAGGATTTTCTGGTCACCCTTC
AAAAGCAATAGATTTATTAATTTTTTCTCTTCATTTAGCTGGAATTTCTTCTATTTTAGGAGCTATTAATTTCATTTCGACTATTATTAATAT
AAAAACACCTGGTATAACTTATGTAGAAATACCTTTATTTGTTTGAGCTGTACTCTTTACAACAATCTTACTTCTTTTAGCAATTCCAGTAT
TAGCTGGAGCTATTACAATACTTTTGACTGATCGAAATTTCAATTCTTCTTTCTTCGAACCATTAGGGGGAGGTGACCCTATTTTATTTCA
GCATTTATT

>--->Indolpium_Olp-C?-HBIID243598 Assembly of 2 reads: 463709_R_C02.ab1 (reversed), 463709_F_C02.ab1

ACTTTGTACCTTATGTTCGGTGTGTGATCAGGTATTGTTGGGATAGGTTATAGAATGATTATTCGAATGCAACTTTCAGCACCCGGGAAA
GTGATTGAAGAACACTCTTATAATGTAGTTGTTACCACCCATGCATTTCTAATAATTTTTTTTATGGTAATACCTATTCTTATTGGAGGTTT
TGGTAATTGACTCATTCCTTTAATAATTGGTTCCCCAGATATGGCTTTTCCTCGTCTTAACAACCTAAGATTTTGATTACTACCTCCTTCATT
TTTATTAATATTGTTTTCGTCTGCTTTAGAAATAGGATGTGGAACTGGGTGGACGATTTATCCCCCCTTAGCTGGGATTTCAGGTCACCCA
TCTAAGGCTATAGATTTGTTAATTTTTTCCCTTCATCTAGCCGGAATTTCATCTATTTTAGGTGCTATTAACTTTATTTCAACAATTATTAAT
ATAAAAACACCAGGAATGACTTATGTGGAAATGCCTTTATTTGTATGGGCAGTACTTTTTACAACCATCCTTCTCCTTTTAGCTATTCCTGT
CCTAGCTGGGGCTATTACTATACTTCTTACAGATCGAAATTTTAATTCATCATTTTTTGAACCACTAGGTGGTGGGGATCCTATTTTATTTC
AACACCTCTT

>--->Indolpium_Olp-C-HBIID241610 Assembly of 2 reads: 463706_R_B11.ab1 (reversed), 463706_F_B11.ab1

ACTTTGTATTTAATGTTTGGTGTTTGATCTGGAATTGTAGGAATAGGTTATAGAATAATCATTCGAATACAACTATCTGCGCCTGGTGGT
GTGATTGAAGACCATTCTTATAATGTTGTAGTTACAACACACGCTTTTTTAATAATTTTCTTCATAGTCATACCTATTCTTATTGGAGGTTTT
GGAAACTGATTAATTCCTTTAATAATTGGATCCCCTGATATAGCCTTTCCTCGTTTAAATAATTTAAGTTTCTGACTTTTACCACCCTCATTC
TTGTTAATGTTACTTTCCTCTGCTTTAGAAATAGGGTGTGGTACTGGGTGAACAATCTACCCCCCTTTAGCAGGGTTTTCGGGACACCCCT
CTAAAGCTATAGATTTATTAATTTTTTCACTTCACTTAGCTGGTATTTCATCTATCTTAGGTGCTATTAATTTCATCTCAACGATTATTAACA
TGAAAACCCCCGGAATAACATATGTTGAAATACCTTTGTTTGTATGGGCTGTTCTTTTTACAACTATTCTTCTTCTTCTTGCCATCCCTGTTC
TCGCTGGTGCAATTACAATGCTTTTAACTGATCGAAATTTTAACTCTTCTTTTTTTGAGCCATTAGGGGGAGGGGATCCTATTTTATTCCA
ACATTTATT

>--->Indolpium_Olp-C-HBIID241679 Assembly of 2 reads: 463701_R_B06.ab1 (reversed), 463701_F_B06.ab1

ACTTTGTACTTAATATTTGGGGTGTGATCTGGAATTGTTGGGATAGGATACAGAATAATTATTCGTATACAACTTTCAGCACCAGGAAAG
GTAATTAGAGACCATTCTTACAATGTAGTGGTTACTACACATGCTTTCTTAATAATTTTTTTTATAGTAATACCAATTCTTATTGGGGGTTT
TGGTAACTGATTAATTCCTATAATAATTGGATCACCAGATATGGCTTTTCCACGTTTAAATAATTTAAGTTTTTGACTTCTCCCCCCCTCATT
TTTATTAATACTGTTTTCTTCTGCACTAGAAATGGGATGTGGTACTGGTTGGACCATCTACCCACCTTTAGCGGGATTTTCTGGTCACCCG
TCTAAAGCTATAGATTTAGTAATTTTCTCCCTTCACCTAGCTGGAATTTCATCTATTTTAGGTGCTATTAATTTTATCTCAACAATCATTAAT
ATAAAAACCCCTGGTATAACTTACGTAGAAATACCTCTCTTTGTATGAGCTGTGTTATTTACAACTATCCTTCTTTTATTAGCTATCCCTGTT
TTAGCTGGTGCTATTACTATACTTCTTACGGATCGGAATTTCAACTCTTCTTTCTTTGAACCTCTTGGTGGGGGGGGATCCTATTTTATTTCA
ACACTTATT

>--->Indolpium_Olp-C-HBIID241680 Assembly of 2 reads: 463700_R_B05.ab1 (reversed), 463700_F_B05.ab1

ACTTTGTATTTAATATTCGGTGTATGATCTGGTATTGTTGGAATAGGATACAGAATAATTATTCGAATACAACTCTCAGCACCAGGAAAA
GTGATTGAAGAACATTCCTACAACGTAGTTGTTACTACTCATGCATTCCTAATAATTTTTTTTATAGTAATACCAATTCTTATTGGAGGCTT
CGGTAATTGATTAATTCCTTTAATAATTGGTTCTCCAGATATGGCCTTTCCTCGACTTAATAATTTAAGTTTCTGATTGCTTCCTCCTTCATT
TTTATTAATATTATTTTCGTCTGCTTTAGAAATAGGGTGTGGAACTGGGTGAACAATTTACCCCCCCTTAGCTGGGTTCTCAGGTCACCCA
TCTAAGGCAATAGATTTATTAATTTTTTCTCTTCATTTAGCTGGAATTTCGTCTATTTTAGGGGCCATTAATTTTATTTCAACAATTATTAAT
ATAAAAACACCAGGGATAACTTATGTAGAGATACCCTTATTTGTGTGAGCTGTACTTTTTACAACAATTCTTCTTCTTTTAGCAATTCCTGT
TTTAGCTGGAGCTATTACTATACTTCTTACAGATCGAAACTTCAATTCATCATTCTTTGAGCCACTGGGAGGGGGAGACCCTATTTTATTT
CAGCACCTCTT

>--->Indolpium_Olp-C-HBIID243233 Assembly of 2 reads: 463707_R_B12.ab1 (reversed), 463707_F_B12.ab1

ACCTTGTATCTAATGTTTGGTGTTTGATCTGGGATTGTAGGAATAGGTTATAGAATAATTATTCGAATACAATTATCTGCGCCCGGGGGT
GTAATTGAAGATCATTCTTATAATGTTGTAGTTACAACACATGCCTTTTTAATAATTTTCTTCATAGTTATACCTATTCTTATTGGAGGTTTT
GGAAACTGACTTATTCCTTTAATGATTGGGTCTCCTGATATAGCTTTCCCTCGTTTGAATAATTTAAGTTTCTGACTTTTACCACCTTCATTT
CTGTTAATGTTGCTTTCCTCTGCTTTAGAAATAGGATGTGGGACTGGGTGAACAATTTACCCTCCTTTAGCAGGGTTTTCTGGACACCCCT
CTAAAGCTATAGATCTATTAATTTTCTCACTTCACTTAGCTGGTATCTCATCTATCTTAGGTGCTATTAATTTCATCTCAACAATTATTAACA
TGAAAACTCCTGGAATAACATATGTTGAAATACCTTTGTTTGTATGAGCTGTTCTTTTTACAACTATCCTTCTTCTTCTTGCCATCCCTGTTC
TTGCTGGTGCAATTACAATGCTTTTAACTGATCGAAATTTTAACTCTTCTTTTTTTGAACCATTGGGAGGGGGAGATCCTATTTTATTTCAA
CACTTATT

>--->Indolpium_Olp-C-HBIID243255 Assembly of 2 reads: 463705_R_B10.ab1 (reversed), 463705_F_B10.ab1

ACCCTTTACTTAATATTTGGTACTTGATCAGGTATTGTAGGAATAGGATATAGAATAATTATTCGAATACAATTATCTGCCCCCGGAAAAG
TAATTGAAGATCATTCTTATAATGTTGTAGTTACTACTCATGCATTTCTAATAATTTTTTTTATAGTAATACCTATTTTGATTGGAGGTTTTG
GAAACTGACTTATTCCATTAATAATCGGATCACCTGATATAGCATTTCCTCGTTTAAATAATTTGAGTTTTTGATTCCTTCCACCATCATTTT
TATTAATACTTCTCTCTTCTGCTCTTGAAATAGGTTGTGGTACAGGATGAACTGTTTATCCACCTTTGGCGAGTCTTTCTGGGCATCCTACT
AAATCTGTAGACTTTCTTATTTTCTCTTTACATTTAGCTGGAATTTCCTCTATTCTAGGTGCAATTAATTTTATCTCAACTATTATTAATATAA
AAACACCAGGAATAACCTATGTAGAAATACCTTTATTCGTTTGAGCTGTTCTTTTTACAACAATTCTCCTTCTTCTTGCAATTCCAGTCCTT
GCTGGAGCAATTACCATATTATTAACGGATCGGAATTTTAATTCATCTTTCTTTGAACCACTAGGTGGAGGTGATCCAATTTTATTTCAAC
ATTTATT

>--->Indolpium_Olp-C-HBIID243372 Assembly of 2 reads: 463702_R_B07.ab1 (reversed), 463702_F_B07.ab1

ACTCTGTACCTAATATTTGGTGTATGATCTGGTATTGTTGGAATGGGGTATAGAATAATTATTCGAATACAACTCTCAGCACCAGGGAAG
GTAATTGAAGAACACTCCTACAATGTAGTTGTTACTACCCATGCTTTTTTGATAATTTTTTTCATAGTAATACCAATTCTTATTGGGGGTTT
TGGAAATTGACTTATTCCTCTAATAATTGGTTCTCCAGATATAGCTTTTCCTCGATTAAATAATTTAAGTTTTTGATTACTCCCCCCTTCATT
TATATTGATGCTATTCTCATCTGCTTTAGAGCTTGGATGTGGAACTGGGTGAACAATTTACCCTCCTTTAGCTGGACTTGGAGGTCATCCA
TCTAAAGCAATAGATTTATTGATTTTCTCTCTTCACTTAGCTGGAATTTCTTCTATTTTAGGTGCTATTAATTTTATCTCAACAATTATTAAT
ATAAAAACACCAGGGATAACTTATGTAGAAATGCCTTTATTTGTATGAGCTGTGCTTTTTACAACCATCCTTCTTCTCTTAGCTATTCCTGT
ACTAGCTGGGGCTATTACTATACTTCTTACTGACCGAAATTTTAATTCATCATTTTTTGAGCCATTGGGGGGAGGAGACCCTATTTTATTT
CAACATCTATT

>--->Indolpium_Olp-C-HBIID243477 Assembly of 2 reads: 463704_R_B09.ab1 (reversed), 463704_F_B09.ab1

ACTTTGTATTTAATGTTTGGTGTTTGGTCAGGAATTGTAGGAATAGGCTATAGAATAATTATTCGAATACAACTTTCAGCCCCAGGAAGG
GTAATTGAAGAACATTCATATAATGTAGTAGTTACTACCCATGCGTTTTTAATAATTTTTTTTATAGTAATACCTATCTTAATTGGGGGTTT
CGGAAATTGACTAGTTCCATTAATAATTGGATCCCCTGATATGGCTTTCCCCCGTTTAAATAATTTGAGTTTTTGATTACTCCCACCTTCAT
TTTTATTAATACTTTTTTCTTCTGCTTTAGAAATGGGGTGTGGGACCGGGTGGACTATTTACCCCCCCTTAGCAAGATTTTCTGGACATCC
GTCTAAGGCTATGGATTTATTAATTTTTTCATTACATTTAGCAGGAATTTCATCCATTTTAGGTGCAATTAATTTTATTTCAACTATTATTAA
TATAAAAACTCCAAGCCTGTCTTATGTAGAAATACCCTTATTTGTTTGAGCTGTTTTATTTACTACTATTTTATTGCTATTAGCTATTCCTGT
TTTGGCTGGGGCTATTACTATACTATTAACAGATCGAAATTTTAATTCTTCTTTTTTTGAGCCTGTTGGAGGGGGTGATCCTATCTTATTTC
AACACTTATT

>--->Indolpium_Olp-D-HBIID243186 Assembly of 2 reads: 463713_R_C06.ab1 (reversed), 463713_F_C06.ab1

ACTTTGTATCTAATATTCGGAATTTGATCTGGAATCGTAGGAATAGGATACAGAATAATTATTCGAATACAGCTTTCAGCACCTGGTAGG
GTAATTGAAGAACATTCGTATAATGTTGTTGTTACCACCCATGCATTTTTAATAATCTTTTTTATAGTGATACCTATTTTGATTGGTGGTTT
TGGAAATTGATTAATTCCTTTAATAATTGGTTCTCCAGATATAGCCTTTCCTCGATTGAATAATTTAAGTTTTTGATTTCTACCCCCATCATT
TCTTTTAATGTTATTATCATCCGCTTTAGAAATAGGATGCGGAACAGGATGAACGATTTATCCTCCTTTAGCAGGATTTTCTGGGCATCCT
TCAAAAGCTATAGATCTTTTAATTTTTTCTCTTCATTTAGCCGGAATTTCATCTATTTTAGGTGCAATTAACTTTATTTCGACAATTATTAAT
ATAAAAACACCAGGTTTAAGTTATGTAGAAATGCCTTTATTTGTTTGGGCTGTCCTTTTTACAACTATTCTTCTTCTTCTCGCAATTCCAGTT
CTTGCAGGAGCTATTACCATACTTTTAACAGATCGAAATTTTAATTCTTCTTTCTTTGAACCATTGGGGGGAGGTGACCCTATTTTATTTCA
ACATTTATT

>--->Indolpium_Olp-D-HBIID243452 Assembly of 2 reads: 463714_R_C07.ab1 (reversed), 463714_F_C07.ab1

ACCTTATATCTTATATTCGGAGTTTGATCTGGTATTGTAGGAATAGGGTATAGAATAATTATTCGACTACAACTTTCAGCACCTGGAAAA
GTAATTGAAGATCACTCATACAACGTGGTCGTTACTACTCATGCATTTTTAATAATTTTCTTTATGGTTATGCCTATTTTAATTGGGGGCTT
TGGTAATTGGCTAATTCCATTAATAATTGGCTCTCCAGACATAGCTTTTCCTCGATTAAATAATTTAAGATTTTGATTTTTACCCCCATCTTT
TCTTTTAATATTATTATCTTCTGCTCTTGAAATGGGATGTGGAACTGGGTGAACAATCTACCCACCCCTTGCAGGATTTTCAGGTCATCCTT
CAAAAGCTATAGATTTACTTATTTTCTCACTTCATTTAGCTGGAATTTCATCTATTTTGGGTGCAATTAATTTTATTTCAACAATTATTAATA
TAAAAACGCCAGGTTTAAACTATGTAGAAATACCTTTATTCGTATGAGCTGTTCTTTTTACAACTATCCTTCTCCTTCTTGCAATTCCAGTC
CTTGCTGGGGCTATTACTATACTTCTTACAGATCGGAATTTTAATTCTTCTTTTTTTGAACCTTTAGGTGGGGGGGATCCTATTTTGTTTCA
ACACTTATT

>--->Indolpium_Olp-F-HBIID241674 Assembly of 2 reads: 463716_R_C09.ab1 (reversed), 463716_F_C09.ab1

ACTTTATATTTAATATTTGGTATTTGATCCGGAATTGTAGGAATAGGATATAGAATAATTATTCGGATACAACTTTCATCACCTGGAAAAG
TAATTGAAGATCATTCATATAATGTGGTTGTTACTACTCATGCATTTTTAATAATTTTCTTTATAGTTATACCTATTTTAATTGGAGGGTTTG
GTAATTGGTTAATTCCATTAATAATTGGTTCTCCAGATATGGCTTTTCCTCGATTGAATAATCTAAGATTTTGATTTTTACCCCCATCTTTTC
TCTTGATGTTATTATCTTCTGCTCTTGAAATAGGGTGTGGAACAGGATGAACAATTTACCCACCTTTAGCAGGATTTTCTGGGCATCCTTC
AAAAGCTATGGACTTACTTATTTTCTCTCTTCATTTAGCTGGAATTTCTTCTATTTTAGGTGCGATTAATTTTATTTCAACTATTATTAATAT
AAAAACACCAGGCTTAAATTACGTAGAAATACCTTTATTCGTGTGAGCTGTTCTTTTTACAACTATTCTTCTTCTACTTGCAATTCCAGTAC
TAGCTGGGGCTATTACTATGCTTTTAACAGATCGAAACTTTAATTCTTCTTTCTTTGAACCTTTAGGGGGGGGTGATCCTATTTTATTTCAA
CATTTATT

>--->Indolpium_sp-HBIID243162 Assembly of 2 reads: 463722_R_D03.ab1 (reversed), 463722_F_D03.ab1

ACTTTATACTTAATATTTGGAATTTGATCAGGAATTGTAGGAATGAGATATAGAATAATTATTCGAATACAACTTTTAGCCCCTGGAAAA
GTAATTGAAGAACATTCTTATAATGTTGTGATTACAACTCATGCTTTTTTAATAATTTTCTTTATGGTAATACCAATCTTAATTGGAGGTTT
TGGAAACTGACTTATTCCATTAATAATTGGTTCTCCCGATATAGCTTTTCCTCGTTTAAATAATTTGAGATTTTGATTTCTTCCTCCATCTTT
CTTGCTTATGCTCCTTTCTTCTGCACTTGAAATAGGATGTGGGACTGGGTGAACTATTTACCCCCCTTTAGCAAGTTTTTCAGGTCATCCTT
CCAAGGCTATAGATCTTCTTATTTTTTCCCTCCATTTAGCAGGAATTTCTTCCATCTTAGGTGCTATTAATTTTATTTCTACTATTATTAATAT
AAAAACACCTGGAATAACATATGTCGAAATACCCTTGTTTGTCTGAGCAGTTCTCTTTACTACCATTTTATTATTACTTGCAATCCCTGTTC
TAGCTGGAGCTATTACTATGCTTTTAACGGATCGAAATTTTAATTCTTCTTTCTTTGAACCTTTAGGAGGTGGTGATCCTATTTTATTTCAA
CATCTCTT

>--->Indolpium_sp-HBIID243220 Assembly of 2 reads: 463724_R_D05.ab1 (reversed), 463724_F_D05.ab1

ACTTTGTATTTGATGTTTGGTGTTTGATCAGGGATTGTAGGAATGGGTTATAGAATAATCATTCGAATACAACTTTCAGCTCCAGGGAGG
GTGATCGAGGAACATTCGTATAATGTAGTAGTTACCACCCATGCGTTTTTAATGATTTTTTTTATAGTTATACCTATTTTAATTGGGGGTTT
TGGAAATTGACTAGTTCCATTAATAATTGGATCTCCTGATATAGCTTTTCCTCGTTTAAATAATCTGAGCTTCTGATTACTTCCACCTTCATT
TTTACTAATACTTTTTTCTTCTGCTTTAGAAATAGGGTGTGGAACTGGATGAACTATTTATCCCCCTTTGGCAAGATTCTCTGGACACCCAT
CTAAGGCTATGGATTTATTAATTTTTTCATTACATTTAGCAGGAATTTCATCTATTTTAGGTGCAATTAATTTTATTTCAACTATTATTAATA
TAAAGACTCCGAGTCTGTCTTATGTAGAAATACCTTTATTTGTTTGAGCTGTGTTATTTACTACTATTTTACTATTACTAGCTATTCCCGTTT
TGGCTGGGGCTATTACTATATTACTAACAGATCGAAATTTTAATTCTTCTTTTTTTGAGCCTGTTGGGGGGGGGTGATCCTATTTTATTTCAA
CATTTATT

>--->Indolpium_sp-HBIID243381 2 reads from 463687 assembled using Geneious

ACTTTGTATCTATTATTTGGTATTTGATCAGGGATTGTAGGAATGGGATATAGAATGATTATTCGTATACAATTAACTTCCCCTGGGGGTT
TTATTGAAGATCATTCTTACAATGTAGTGATTACTACTCATGCGTTTTTAATAATTTTTTTTATAGTTATACCTATTTTAATTGGGGGTTTTG
GAAATTGGTTAGTTCCAATGATGATTGGATCTCCTGACATGGCTTTTCCTCGATTAAATAATTTAAGTTTTTGACTACTACCACCTTCTTTT
TTATTAATGTTGATGTCTTCAGCTTTAGAAATAGGGTGTGGGACGGGGTGGACTGTATACCCACCTTTAGCTGGTATGTTGGGCCATACT
TCGAAAGCAGTGGATTTGTTAATTTTTTCCCTTCATCTTGCTGGAATTTCTTCAATTTTGGGGGCTATTAATTTTATTTCAACGATTATTAAT
ATAAAAACTCCTGGTTTGACATATACAGAAATGCCTTTATTTGTGTGGGCTGTCTTATTAACTACTATTTTATTGTTACTGGCTATTCCTGT

GTTGGCGGGGGCAATTACAATGCTTTTGACAGATCGGAATTTTAATTCATCTTTTTTTGAGCCTTTGGGAGGGGGGGATCCCATTCTATT
TCAGCATCTTTT

>--->Indolpium_sp-HBIID243520 Assembly of 2 reads: 463727_R_D08.ab1 (reversed), 463727_F_D08.ab1

ACTTTGTATTTAATGTTTGGTGTTTGATCTGGGATTGTGGGAATGGGTTATAGAATAATTATTCGAATACAACTATCTGCCCCTGGGGGT
GTAATTGAAGACCATTCTTATAATGTTGTAGTTACAACACATGCCTTTTTAATAATTTTCTTTATAGTTATACCTATTCTTATTGGAGGTTTT
GGAAACTGACTAATTCCTTTAATGATTGGGTCTCCTGATATAGCCTTCCCTCGTTTGAATAATTTAAGTTTCTGACTTTTACCACCTTCATTT
TTGTTAATGTTGCTTTCTTCTGCTTTAGAAATAGGATGTGGAACTGGGTGAACAATTTACCCTCCTTTAGCGGGGTTTTCTGGACACCCCT
CTAAAGCTATAGATCTATTAATTTTTTCACTTCATTTAGCTGGTATCTCATCTATCTTAGGTGCTATTAATTTCATTTCAACAATTATTAACA
TGAAAACTCCCGGAATGACATATGTTGAAATACCTTTGTTTGTATGAGCTGTTCTTTTTACAACTATCCTTCTTCTTCTTGCCATCCCTGTTC
TCGCTGGTGCAATTACAATGCTTTTAACTGATCGAAATTTTAACTCTTCTTTTTTTGAACCATTGGGAGGGGGAGATCCTATTTTATTTCAA
CATTTATT

>--->Indolpium_sp-HBIID243570 Assembly of 2 reads: 463725_R_D06.ab1 (reversed), 463725_F_D06.ab1

ACCCTTTACTTAATATTTGGTATTTGATCAGGTATTGTAGGAATAGGATATAGAATAATTATTCGAATACAATTATCTGCCCCCGGAAAAG
TAATTGAAGATCATTCTTATAATGTTGTAGTTACTACTCATGCATTTCTAATAATTTTCTTTATAGTAATACCTATTTTGATTGGAGGTTTTG
GAAACTGACTTATTCCATTAATAATCGGATCACCTGACATAGCATTTCCTCGTTTAAATAATTTGAGTTTCTGATTTCTTCCACCATCATTTT
TATTAATACTTCTCTCTTCTGCTCTTGAAATAGGTTGTGGTACAGGATGAACTGTTTATCCACCTTTGGCGAGTCTTTCTGGGCATCCTACT
AAATCTGTAGACTTTCTTATTTTCTCTTTACATTTAGCTGGAATTTCCTCTATTTTAGGTGCAATTAATTTTATCTCAACTATTATTAATATAA
AAACACCAGGAATAACCTATGTAGAAATACCTTTATTCGTTTGAGCTGTTCTTTTTACAACAATCCTCCTTCTTCTTGCAATTCCAGTCCTT
GCTGGAGCAATTACCATATTATTAACGGATCGGAATTTTAATTCATCTTTCTTTGAACCACTAGGTGGGGGTGATCCAATTTTATTTCAAC
ATTTATT

>--->Japygidae_EP01-HBIID242509 Assembly of 2 reads: 463728_R_D09.ab1 (reversed), 463728_F_D09.ab1

ACAATATATCTGATCTTGGGAGCATGATCCGCTATATTAGGAACAGCACTAAGAATACTAATTCGAGCTGAACTAGGGCAACCAGGAAG
ACTTATCGGAGACGACCAAATTTACAACGTAATCGTAACAGCACATGCCTTCATTATAATTTTCTTTATAGTTATACCAATCATAATTGGT
GGATTCGGTAACTGATTAGTACCATTAATACTAGGTGCACCAGACATGGCCTTCCCACGACTTAACAACATAAGATTTTGACTCCTACCG
CCATCACTAACACTCCTTCTAGCTGGAAGAGCCGTAGAAAACGGAGCAGGAACTGGATGAACAGTATATCCCCCCCTAGCTGCAAACAT
CGCCCACGCCGGAGCATCAGTGGATCTAACTATCTTCTCATTACATCTAGCAGGTGCTTCATCAATTCTAGGGGCAATTAACTTCATTACT
ACAGTAATTAATATACGAACAAAGGGAATAACTATAGAACGAGTACCACTATTTGTATGAGCCGTATTCATTACCGCTATCCTTCTCCTTC
TATCCCTACCAGTATTAGCAGGAGCAATTACAATATTACTAACCGATCGAAATCTAAACACATCATTCTTTGACCCAGCGGGAGGAGGTG
ATCCAATTCTATATCAACACTTATTC

>--->Karaops_2_ADL-2023a-HBIID242586 Assembly of 2 reads: 463731_R_D12.ab1 (reversed), 463731_F_D12.ab1

GACTTTATATTTGATTTTTGGAGCTTGATCTGCTATGGTAGGGACGGCTATAAGAGTATTGATTCGAATGGAATTAGGTCAGACTGGTAG
ATTTTTAGGGGATGATCATATGTATAATGTTATTGTTACTGCACATGCTTTTGTTATAATTTTTTTTATAGTAATACCTATTTTGATTGGGG
GTTTTGGAAATTGATTAATTCCTTTAATGTTGGGAGCTCCGGATATGGCTTTTCCTCGTATGAATAATTTGAGTTTTTGATTATTGCCCCCT
TCTTTAATATTATTGTTTATTTCATCAATAGTAGAAATAGGAGTTGGAGCTGGATGGACGGTGTATCCTCCTTTGGCGAGAATTATAGGA
CATGCTGGAAGTGCTGTTGATTTTGCGATCTTTTCTTTACATTTAGCTGGTGCTTCTTCTATTATGGGGGCTGTTAATTTTATTTCTACTGT
AATTAATATGCGTTCTGTGGGAATGTCAATGGAAAAGGTTCCTTTATTTGTATGATCTGTTTTTATTACAGCTATTTTGTTATTATTATCAC
TACCGGTTTTAGCTGGGGCTATTACTATATTATTAACTGATCGGAATTTTAATACTTCTTTTTTTGATCCTGCTGGGGGAGGAGATCCAAT
TTTATTTCAACATTTATTT

>--->Karaops_2_ADL-2023a-HBIID243102 Assembly of 2 reads: 463730_R_D11.ab1 (reversed), 463730_F_D11.ab1

GACTTTATATTTGATTTTTGGAGCTTGATCTGCTATGGTAGGGACGGCTATAAGAGTATTGATTCGAATGGAATTAGGTCAGACTGGTAG
ATTTTTAGGGGATGATCATATGTATAATGTTATTGTTACTGCACATGCTTTTGTTATAATTTTTTTTATAGTAATACCTATTTTGATTGGGG
GTTTTGGAAATTGATTAATTCCTTTAATGTTAGGAGCTCCGGATATGGCTTTTCCTCGTATGAATAATTTGAGTTTTTGATTATTACCCCCT
TCTTTAATATTATTATTTATTTCATCAATAGTAGAAATAGGAGTTGGGGCTGGATGGACGGTGTATCCGCCTTTGGCGAGAGTTATAGGA
CATGCTGGAAGTGCTGTTGATTTTGCGATCTTTTCTTTACATTTAGCTGGTGCTTCTTCTATTATAGGGGCTGTTAATTTTATTTCTACTGT
AATTAATATGCGTTCTGTGGGAATGTCAATGGAAAAGGTTCCTTTATTTGTATGATCTGTTTTTATTACAGCTATTTTGTTATTATTATCAC
TACCGGTTTTAGCTGGGGCTATTACTATATTATTAACTGATCGGAATTTTAATACTTCTTTTTTTGATCCTGCTGGGGGAGGAGATCCGAT
TTTATTTCAACATTTATTT

>--->Karaops_cf_morganoconnelli_-HBIID243245 Assembly of 2 reads: 463729_R_D10.ab1 (reversed), 463729_F_D10.ab1

GACTTTGTATTTAATTTTTGGAGCTTGATCTGCTATGGTAGGAACGGCTATAAGAGTTTTAATTCGAATGGAGTTAGGTCAGACTGGTAG
ATTTTTGGGAGATGATCATATGTACAATGTTATTGTTACTGCTCATGCTTTTGTTATAATTTTTTTTATAGTTATACCTATTTTGATTGGGG
GTTTTGGAAATTGGCTAATTCCCTTGATGTTAGGAGCCCCAGATATAGCTTTTCCTCGTATGAATAATTTGAGTTTTTGGTTATTACCTCCT
TCTTTAATATTATTGTTTATTTCATCAATGGTGGAAATAGGGGTTGGAGCTGGATGGACAGTGTACCCTCCTTTAGCGAGAGTTATGGGG

CATGCTGGAAGTGCTGTTGATTTTGCAATTTTTTCTTTGCATTTAGCTGGTGCATCTTCTATTATGGGAGCTGTTAATTTTATTTCTACTGT
AATTAATATACGTTCTGTAGGAATATCAATAGAAAAGGTTCCTTTATTTGTATGATCTGTTTTTATTACAGCTATTTTATTATTATTATCATT
GCCGGTTTTAGCTGGGGCTATTACTATATTATTAACTGATCGAAATTTTAATACTTCTTTTTTTGATCCT

>--->Karaops_cf_morganoconnelli-HBIID243275 Assembly of 2 reads: 463735_R_E04.ab1 (reversed), 463735_F_E04.ab1

GACTTTATATTTGATTTTTGGAGCTTGGTCTGCTATGGTAGGAACGGCTATAAGAGTTTTGATTCGAATGGAGTTAGGGCAAACTGGTA
GATTTTTAGGGGATGATCATATGTATAATGTTATTGTTACTGCTCATGCTTTTGTTATAATTTTTTTTATAGTAATGCCTATTTTGATTGGG
GGTTTTGGGAATTGGCTAATTCCCTTGATGTTAGGAGCTCCGGATATAGCTTTTCCTCGTATAAATAATTTGAGTTTTTGATTATTACCTCC
TTCTTTAATATTATTGTTTATTTCATCAATAGTAGAAATAGGGGTTGGAGCTGGATGGACAGTGTATCCTCCTTTAGCTAGAGTTATGGG
ACATGCTGGAAGTGCTGTTGATTTTGCAATTTTTTCTTTGCATTTAGCTGGTGCATCTTCTATTATAGGAGCTGTTAATTTTATTTCTACTGT
AATTAATATGCGTTCTGTAGGAATATCAATAGAAAAGGTTCCTTTATTTGTATGGTCTGTTTTTATTACGGCTATCTTATTATTATTATCAT
TACCGGTTTTAGCTGGGGCTATTACTATGTTGTTAACTGATCGAAATTTTAATACTTCTTTTTTTGATCCTGCTGGAGGAGGAGATCCAAT
TTTATTTCAACATTTATTT

>--->Karaops_cf_morganoconnelli-HBIID243292 Assembly of 2 reads: 463734_R_E03.ab1 (reversed), 463734_F_E03.ab1

GACTTTATATTTAATTTTTGGAGCTTGATCTGCTATGGTAGGAACGGCTATAAGAGTTTTAATTCGAATGGAGTTAGGTCAGACTGGTAG
ATTTTTGGGAGACGATCATATGTACAATGTTATTGTTACTGCTCATGCTTTTGTTATAATTTTTTTTATAGTTATACCTATTTTGATTGGAG
GTTTTGGAAATTGGTTAATTCCCTTGATGTTAGGAGCCCCAGATATAGCTTTTCCYCGTATGAATAATTTGAGTTTTTGATTATTACCTCCT
TCTTTAATATTATTGTTTATTTCATCAATGGTGGAAATAGGGGTTGGAGCTGGATGGACAGTGTACCCTCCTTTAGCGAGAGTTATGGGG
CATGCTGGAAGTGCTGTTGATTTTGCAATTTTTTCTTTGCATTTAGCTGGTGCATCTTCTATTATGGGAGCTGTTAATTTTATTTCTACTGT
AATTAATATGCGTTCTGTAGGAATATCAATAGAAAAGGTTCCTTTATTTGTATGGTCTGTTTTTATTACAGCTATTTTATTATTATTATCATT
GCCGGTTTTAGCTGGGGCTATTACTATATTATTAACTGATCGAAATTTTAATACTTCTTTTTTTGATCCTGCTGGAGGAGGAGATCCGATT
TTATTTCAACATTTATTT

>--->Karaops_EP01-HBIID243195 Assembly of 2 reads: 463732_R_E01.ab1 (reversed), 463732_F_E01.ab1

GACTTTATATTTAATTTTTGGAGCTTGATCTGCTATGGTGGGGACGGCTATAAGAGTTTTGATTCGAATGGAGTTAGGTCAGACTGGTAG
ATTTTTAGGGGATGATCATATATATAATGTTATTGTTACTGCTCATGCTTTTGTTATGATTTTTTTTATAGTAATACCTATTTTGATTGGAG
GTTTTGGAAATTGATTAATTCCTTTAATATTAGGAGCTCCAGATATAGCTTTTCCTCGTATGAATAATTTGAGTTTTTGATTATTACCTCCTT
CTTTAATATTGTTGTTTATTTCATCAATAGTGGAAATAGGGGTTGGAGCTGGATGGACAGTGTATCCTCCTTTAGCAAGAGTTATAGGGC
ATGCTGGAAGTGCTGTTGATTTTGCAATTTTTTCTTTACATTTAGCTGGTGCATCTTCTATTATAGGGGCTGTTAATTTTATTTCTACTGTA
ATTAATATACGTTCTGTGGGAATATCAATAGAAAAAGTTCCTTTGTTTGTATGATCTGTTTTTATTACGGCTATTTTATTATTATTATCATTG
CCGGTTTTAGCTGGGGCTATTACTATATTATTAACTGATCGAAATTTTAATACTTCTTTTTTTGACCCTGCTGGAGGAGGGGATCCAATTT
TATTTCAACATTTATTT

>--->Karaops_EP01-HBIID243354 Assembly of 2 reads: 463733_R_E02.ab1 (reversed), 463733_F_E02.ab1

GACTTTATATTTAATTTTTGGAGCTTGATCTGCTATGGTGGGGACGGCTATAAGAGTTTTGATTCGAATGGAGTTAGGTCAGACTGGTAG
ATTTTTAGGGGATGATCATATATATAATGTTATTGTTACTGCTCATGCTTTTGTTATGATTTTTTTTATAGTAATACCTATTTTGATTGGAG
GTTTTGGAAATTGATTAATTCCTTTAATATTAGGAGCTCCAGATATAGCTTTTCCTCGTATGAATAATTTGAGTTTTTGATTATTACCTCCTT
CTTTAATATTGTTGTTTATTTCATCAATAGTGGAAATAGGGGTTGGAGCTGGATGGACAGTGTATCCTCCTTTAGCAAGAGTTATAGGGC
ATGCTGGAAGTGCTGTTGATTTTGCAATTTTTTCTTTACATTTAGCTGGTGCATCTTCTATTATAGGGGCTGTTAATTTTATTTCTACTGTA
ATTAATATACGTTCTGTGGGAATATCAATAGAAAAAGTTCCTTTGTTTGTATGATCTGTTTTTATTACGGCTATTTTATTATTATTATCATTG
CCGGTTTTAGCTGGGGCTATTACTATATTATTAACTGATCGAAATTTTAATACTTCTTTTTTTGACCCTGCTGGAGGAGGGGATCCAATTT
TATTTCAACATTTATTT

>--->Laevophiloscia_EP02-HBIID243495 Assembly of 2 reads: 463745_R_F02.ab1 (reversed), 463745_F_F02.ab1

ACTCTATATTTTATCTTTGGGGCGTGGGCAGGGGCAGTTGGAACAAGATTAAGGGTAATTATCCGTACAGAATTAGGAACCCCAGGTAG
ACTAGTTGGGGATGATCAGATCTATAATGTGGTTGTAACTGCACATGCTTTTATTATAATTTTCTTTATAGTTATACCAATTATAATTGGA
GGATTTGGAAATTGACTTGTACCTCTAATACTAGGTTGTCCAGATATGGCATTTCCACGGATAAATAATTTAAGATTTTGACTACTTCCTC
CCTCTTTAACCCTTCTACTAGGAAGAGGAATAGTAGAAAGAGGGGTTGGAACAGGATGGACCGTCTACCCTCCATTAGCCTCAAATATC
GCCCATAGAGGGGCTGCCGTAGATATGGCAATTTTTTCACTACATCTAGCTGGAGCCTCCTCAATCTTAGGTGCTGTGAATTTTATCACCA
CTACAATTAATATACGAATTAAAGGATTAAAGATGGATCGAATCCCACTATTTGTTTGATCTGTACTTTTAACTGCTATTTTATTACTCTTA
TCTCTTCCAGTCTTAGCGGGGGCAATTACTATACTTCTTACAGATCGTAACCTTAATACATCCTTTTTTGACCCTAGAGGAGGGGGAGATC
CTATTCTATACCAACACCTCTTT

>--->Lychas_'bituberculatus_complex'_-HBIID242566 Assembly of 2 reads: 463737_R_E06.ab1 (reversed), 463737_F_E06.ab1

GACTATGTATTTAGTTTTAGGTGTGTGGGCTTCTATAGTAGGGACTGCTTTAAGTTTACTAATTCGTAGAGAAGTGGGAATGCCCGGCTC
TTTGATTGGAGATGATCAGATTTATAATGTGGTTGTAACAGCTCATGCTTTTGTTATAATTTTTTTTATAGTTATGCCTATTATGATTGGGG

GTTTTGGAAATTGGTTAGTTCCTTTAATGTTGGGGGCACCTGATATGGCTTTCCCTCGGATAAATAATATAAGATTCTGGCTTTTACCTCC
TTCTTTTTTTTTGTTGTTATCTTCTGCTGCTTTGGAAAGAGGGGCAGGGACTGGATGGACTGTTTATCCCCCTTTATCTTCTTCTTTGGCTC
ATATGGGGGGTTCTGTGGATTTAACTATTTTTAGTTTACATTTAGCTGGGGTTTCCTCAATTTTAGGTGCTATTAATTTCATTACTACTATT
ATTAATATGCGAAGAAGTGGGATGACTTTTGAGCGTGTCCCTTTATTTGTGTGATCTGTGCTAGTTACTGCTGTTCTTTTACTCTTGTCTTT
ACCTGTTTTGGCAGGGGCTATTACTATGTTGTTGACAGATCGAAATTTTAATACTTCGTTTTTTGACCCTGCAGGAGGTGGGGACCCTATT
TTGTATCAGCATTTATTT

>--->Lychas_'hairytail_complex'_-HBIID243163 Assembly of 2 reads: 463738_R_E07.ab1 (reversed), 463738_F_E07.ab1

TACTATATATTTAGTTTTAGGGGTTTGGGCTTCTATAGTAGGAACTGCTTTAAGATTGTTAATTCGTGGAGAAGTGGGAATACCTGGTTC
TTTAATTGGGGATGACCAGATTTATAATGTGGTTGTCACAGCTCATGCTTTTGTTATAATTTTTTTTATGGTTATACCTATTATAATTGGAG
GTTTTGGGAATTGGTTGGTTCCTTTAATATTAGGGGCTCCTGACATAGCTTTTCCTCGGATAAATAATATAAGATTTTGATTGTTGGTTCC
TTCTTTTTTTTTATTATTGTCTTCGGCGGCGTTAGAAAGAGGATCAGGAACAGGTTGAACTGTTTATCCCCCTTTATCCTCTTCTATAGCAC
ATATAGGGGGTTCTGTTGATTTGACTATTTTTAGTTTACATTTAGCGGGAGTTTCTTCTATTTTGGGGGCTATTAATTTTATTACTACTATT
ATTAATATGCGGAGAAGTGGGATGACTTTTGATCGACTGCCTTTGTTTGTATGATCTGTCATAGTGACAGCTGTTTTACTACTATTGTCTT
TGCCTGTTTTGGCGGGGGCTATTACTATATTGTTAACAGATCGTAATTTTAATACTTCTTTTTTTGATCCTGCTGGAGGAGGAGATCCTAT
TTTGTATCAACATTTATTT

>--->Lychas_multipunct_cmplx??-HBIID242518 Assembly of 2 reads: 463739_R_E08.ab1 (reversed), 463739_F_E08.ab1

AACTATATATTTGGTTTTAGGGGTATGGGCTTCTATAGTAGGAACTGCTTTAAGTTTATTAATTCGTGGGGAAGTAGGAATACCTGGTTC
TTTGATTGGGGATGATCAGATTTATAATGTGGTTGTTACAGCTCATGCTTTTGTAATAATTTTTTTTATGGTTATACCTATTATAATTGGAG
GTTTTGGAAATTGATTGGTTCCTTTAATATTAGGGGCTCCTGATATAGCTTTTCCTCGAATAAACAATATGAGATTTTGGTTACTTCCTCCT
TCTTTTTTTTTGTTATTGTCTTCTGCTGCATTAGAGAGAGGGGCAGGAACAGGTTGAACTGTTTATCCTCCTTTATCCTCTTCTTTAGCTCA
TATAGGGGGTTCTGTTGATCTAACTATTTTTAGTTTACATTTGGCTGGGGTTTCCTCTATTTTAGGTGCTATTAATTTTATTACTACTATTAT
TAATATACGTAGAAGTGGTATAACTTTTGAACGTTTGCCTTTATTTGTTTGATCCGTATTAGTTACTGCTGTTCTTTTATTACTATCCTTACC
TGTTTTGGCAGGAGCTATTACTATATTGTTGACAGATCGAAATTTTAATACATCTTTTTTTGATCCTGCTGGAGGAGGAGATCCTATTTTA
TATCAGCATTTATTT

>--->Mecistocephalus_EP01-HBIID242661 Assembly of 2 reads: 463678_R_H05.ab1 (reversed), 463678_F_H05.ab1

AACCATATATTTAATTTTCGGTGCTTGAGCTTCGATAGTCGGAACAGCACTAAGATTAATCATTCGTCTAGAGCTCAGACAGCCAGGCAG
TCTCATCGGAGACGACCAAACTTATAATGTAGTTGTTACTGCACATGCTTTTGTAATAATTTTTTTTCATAGTAATACCTATTATAATAGGG
GGATTTGGGAACTGACTCCTCCCTCTCATGTTAGGAGCTCCAGACATGGCCTTCCCCCGACTTAACAACATAAGATTTTGACTTCTTCCTC
CCTCTCTTATACTTCTTCTAGCCTCCGCAGCAGTTGAAAGTGGAGCAGGTACCGGATGAACTGTTTATCCCCCCCTTGCTTCTGGCCTAGC
CCACTCTGGGGCTTCTGTTGACATAACTATTTTCTCACTACATTTAGCAGGAATTTCTTCTATTCTGGGTGCTATTAACTTTATTACAACAA
TAATCAATATACGAACCAGAGGTATAGTATTCGAACGAATTCCCCTATTTGTCTGAGGAGTTAGTATTACTGCTGTCCTCCTGCTACTCTC
ACTTCCAGTCTTAGCTGGAGCAATTACAATACTCCTCACAGATCGTAACTTTAACACAAGATTCTTTGACCCAGCCGGAGGAGGAGATCC
AATTTTATACCAACACTTATTT

>--->Myrmecophilidae_MiSo03-HBIID243125 Assembly of 2 reads: 463740_R_E09.ab1 (reversed), 463740_F_E09.ab1

AACTTTATATTTTATTTTTGGTGCCTGATCAGGAATAGTAGGAACTTCATTAAGTCTACTAATTCGTACAGAATTAGGAACTCCTGGATTC
CTAATTGGTGATGATCAAATCTATAACGTAATTGTAACAGCCCATGCTTTTATCATAATCTTCTTTATAGTTATACCAATTATAATTGGAGG
ATTTGGAAATTGATTAGTACCACTAATATTAGGCGCCCCAGATATAGCATTCCCACGAATAAATAACATAAGATTTTGATTATTACCCCCA
TCCTTAACTCTATTATTGATAAGAAGAATAGTTGAAAACGGAGCAGGAACAGGATGAACAGTTTATCCTCCATTATCAGCAAATATTGCC
CATGCAGGAAGTTCTGTAGATTTAGCAATTTTCTCATTACATCTTGCTGGAGCATCCTCAATTTTAGGGGCAATTAACTTTATTACTACTAT
AATTAACATACGAACAACAGGATCATCATTAGATCAAATTCCTCTATTCGCATGATCAGTAGGAATTACTGCATTACTCTTACTTCTATCAT
TACCAGTACTAGCTGGAGCTATCACTATACTTCTAACTGACCGTAATCTAAATACATCATTCTTTGATCCAGCTGGAGGAGGTGACCCAAT
TTTATACCAACATTTATTT

>--->Oratemnus_PSE121-HBIID243534 Assembly of 2 reads: 463741_R_E10.ab1 (reversed), 463741_F_E10.ab1

AACATTATACTTAATTTTAGGGGCCTTATCAGGATTTTTAGGGGTAATTTTTAGATTATTAATCCGAATACAACTTATAAACCCTGATGGG
TACATTTCTGAACATTCATATAACGTAATAGTAACTATTCATGCGTTAGTAATAATTTTTTTTATAGTTATACCCATTATAATTGGAGGTTTT
GGGAATTGATTAATCCCTTTAATAATTGGTTCTCCAGATATAGCATTCCCACGTATGAATAATATAAGATTTTGACTTTTACCCCCTTCTTT
AACCTTATTAATATTATCTTCTTTAATTGAAATAGGTTGTGGGGCTGGGTGAACAATTTACCCACCCTTATCTAATGCAATCTTTCACCCAG
GAGCTTCTGTAGATTTAGTAATTTTTTCTCTTCATTTAGCTGGTATCTCATCCATTCTAGGAGGAGTAAACTTTATCACTACCGTAATTAAT
ATACGAGATCCTTCAGTTTCATTTAAAACTTTACCCCTTTTTGTATGATCAGTATTTATTACTGTAATTCTAATCTTATTAGCAATACCTGTT
TTAGCAGGAGGGGTAACTATACTATTAACAGATCGGAATTTTAGTACATCATTTTTTCTTCCAGCAGGAGGAGGAGATCCTATTTTATTTC
AACATTTATTT

>--->Orphnaeus_EP01-HBIID242510[review_this_specimen] Assembly of 2 reads: 463743_R_E12.ab1 (reversed), 463743_F_E12.ab1

GACCATATACCTTATTTTTGGGGCTTGAGCTGCAATAGCAGGGACAGCTTTAAGCCTAATTGTCCGACTAGAACTAAGACAACCAGGATC
CTTGATCGGAGACGATCAAATTTACAATGTTATTGTAACTGCACATGCCTTCGTAATGATTTTCTTTATAGTAATACCAATTATAATGGGG
GGGTTTGGAAATTGAATACTTCCTCTAATACTAGGGGCCCCAGACATAGCATTCCCGCGAATAAACAATTTAAGTTTTTGGTTACTCCCTC
CTTCTCTAACACTCTTAATAGCCTCAATGGCCGTAGAAAGAGGAGCCGGAACAGGATGAACTGTGTATCCTCCGTTAGCAAGAAACATTT
CTCATTCTGGACCATCCGTGGATATAACAATTTTTTCTCTTCATCTTGCAGGAGTTTCATCTATTCTTGGTTCTATTAATTTTATTACAACTA
TTATTAACATACGATCGAGCGGAATAGTTTTAGAACGAATTCCTTTATTTGTTTGAAGAGTAAAAATTACAGCAGTATTATTATTACTATC
TCTTCCAGTTTTAGCAGGAGCAATTACTATATTATTAACAGATCGCAATTTAAATACTAGCTTTTTCGACCCCACAGGAGGAGGAGATCCT
ATTTTATATCAACATTTATTT

>--->Paralamyctes_PE01-HBIID242627 Assembly of 2 reads: 463736_R_E05.ab1 (reversed), 463736_F_E05.ab1

TACTATATACTTAATCTTTGGAGCCTGAGCCTCCATAGTAGGAACCGCCTTAAGCCTACTTATTCGACTTGAGCTCAGTCAACCAGGAAG
CCTAATTGGAGATGATCAAATCTATAATGTTATTGTAACAGCCCATGCTTTCGTCATAATCTTCTTCATAGTTATACCAATCATAATCGGG
GGATTCGGAAACTGATTAGTACCCTTAATACTAGGAGCCCCTGACATAGCCTTCCCCCGCTTAAACAACATAAGTTTTTGACTTCTCCCCC
CCTCCTTTATACTCCTCTTAAGCTCCGCAGCGGTGGAAAACGGAGCAGGAACCGGATGAACAGTTTACCCCCCACTAGCCGCAGGCATTT
CACACAGAGGGGGATCAGTTGACATAACCATCTTCTCCCTACACTTAGCAGGAATCTCCTCAATCCTGGGGGCCATCAATTTCATCACTA
CAATCATCAACATACGAACTAGAGGAATAATTTTTGAACGAATACCCCTGTTTGTCTGAGCAGTAAAAATTACTGCCATCCTTCTATTACT
TTCCCTTCCCGTTTTAGCGGGGGCAATTACTATACTCCTAACAGACCGAAATTTTAATACCAGCTTCTTTGACCCAGCAGGAGGAGGTGA
CCCTATCCTTTACCAACACCTATTC

>--->Philosciidae_EP01-HBIID243251 Assembly of 2 reads: 463744_R_F01.ab1 (reversed), 463744_F_F01.ab1

ACTCTCTATTTTATTTTTGGGGCTTGAGCAGGGGCGGTTGGGACTAGGCTCAGAGTAATTGTTCGAACAGAACTAGGACAGCCAGGGAG
GTTGATTGGCGACGACCAAATCTACAATGTAATTGTCACTGCTCATGCATTTGTGATAATTTTTTTTATAGTTATACCTATTATGATTGGG
GGGTTTGGAAATTGGTTGGTTCCTCTGATGCTAGGTTGCCCTGATATAGCTTTCCCACGAATAAACAACCTGAGGTTTTGATTGCTGCCT
CCTTCTCTAGTTTTACTGTTAATAAGTGGGTTGGTTGAAAGGGGGGTGGGGACCGGGTGGACAGTTTACCCTCCTTTGGCTTCAAATATT
GCACACAGAGGGGCTTCTGTAGATATGGGGATTTTTTCATTACACTTAGCGGGGGTTTCTTCAATTYTGAGAGCTGTGAATTTTATTACA
ACTAGGGTTAATATACGAATAGCTGGAATGAAGATAGACCGGGTTCCTTTGTTTGTGTGGTCTGTCTTGATCACAGCTGTTCTTTTACTTC
TCTCTTTGCCAGTTTTAGCAGGGGCTATTACTATACTTTTAACAGATCGCAATTTAAACACTTCTTTTTTTGACCCTAGTGGGGGAGGAGA
CCCTGTTTTATATCAACATTTGTTT

>--->Quistrachia_turneri-HBIID242466 Assembly of 2 reads: 463747_R_F04.ab1 (reversed), 463747_F_F04.ab1

ACTTTATATATATTATTTGGAGTATGGTGTGGTATGGTAGGTACTGGCTTATCTTTATTGATTCGTTATGAGTTGGGGACTACGGGGATC
TTAAGTGACCCACATTTTTTTAATGTTATTGTGACAGCCCATGCATTCGTGATGATTTTTTTTATAGTAATACCAATTATGATTGGTGGCTT
TGGAAATTGAATAGTTCCACTGCTAATTGGTGCACCAGATATAAGGTTTCCTCGAATAAATAATATAAGTTTTTGATTATTACCTCCTTCTT
TTGTATTTTTAATTAGTAGAAGTCTTGTTGAAGGTGGTGCCGGTACGGGCTGAACTGTATATCCCCCTTTAAGCTCTAGTTTAGGACATA
GGGGTGCTTCTGTTGACCTTGCTATTTTTTCTCTTCATTTAGCGGGGATATCTTCTATTTTAGGTGCTATTAATTTTATTACAACCATTTTTA
ATATACGTTCTCCAGGATTAACAATGGAGCGTGTAAGCTTATTTGTTTGATCTATTCTTGTTACTGTCTTTTTACTATTACTTTCTCTACCTG
TATTAGCAGGTGCTATTACAATATTATTAACCGATCGGAATTTTAATACTTCCTTTTTTGATCCTGCTGGAGGGGGTGATCCTATTTTATAC
CAACATCTATT

>--->Quistrachia_turneri-HBIID243209 Assembly of 2 reads: 463748_R_F05.ab1 (reversed), 463748_F_F05.ab1

ACTTTATATATATTATTTGGAGTATGGTGTGGTATGGTAGGTACTGGCTTATCTTTATTGATTCGTTATGAGTTGGGGACTACGGGGATC
TTAAGTGACCCACATTTTTTTAATGTTATTGTGACAGCCCATGCATTCGTGATGATTTTTTTTATAGTAATACCAATTATGATTGGTGGCTT
TGGAAATTGAATAGTTCCACTGCTAATTGGTGCACCAGATATAAGGTTTCCTCGAATAAATAATATAAGTTTTTGATTATTACCTCCTTCTT
TTGTATTTTTAATTAGTAGAAGTCTTGTTGAAGGTGGTGCCGGTACGGGCTGAACTGTATATCCCCCTTTAAGCTCTAGTTTAGGACATA
GGGGTGCTTCTGTTGACCTTGCTATTTTTTCTCTTCATTTAGCGGGGATATCTTCTATTTTAGGTGCTATTAATTTTATTACAACCATTTTTA
ATATACGTTCTCCAGGATTAACAATGGAGCGTGTAAGCTTATTTGTTTGATCTATTCTTGTTACTGTCTTTTTACTATTACTTTCTCTACCTG
TATTAGCAGGTGCTATTACAATATTATTAACCGATCGGAATTTTAATACTTCCTTTTTTGATCCTGCTGGAGGGGGTGATCCTATTTTATAC
CAACATCTATT

>--->Rhagada_c.f._convicta-HBIID242595 Assembly of 2 reads: 463721_R_D02.ab1 (reversed), 463721_F_D02.ab1

CACATTATATTTACTATTTGGTGTGTGGTGTGGGATGGTTGGCACGGGCTTATCTTTACTAATTCGGTTAGAGCTCGGGACGATTGGCGT
TGTATCAGATAGTCACTTTTTTAATGTTATTGTGACTGCTCATGCATTTGTTATGATTTTTTTTATAGTTATACCTATTATAATTGGCGGCTT
TGGAAATTGAATGGTGCCGCTTTTAATTGGTGCCCCCGATATAAGCTTCCCCCGAATAAACAACATAAGCTTTTGACTTTTACCGCCAGCC
TTTATTTTATTAATTAGTAGCAGATTGGTGGAAGGCGGGGCCGGAACAGGTTGAACTGTTTATCCCCCACTAAGCTCGACCTTAGGTCAT
AGGGGGGGTAGGGTTGATTTAGCTATTTTTTCCCTTCATTTAGCAGGGTTATCATCTATTTTAGGTGCTATTAATTTTATTACAACCATTTT

TAACATGCGCTCACCGGCGCTATCATTAGAGCGGATAAGATTATTTGTGTGGTCGATTCTTGTTACAGTGTTTTTACTATTACTTTCACTTC
CGGTGTTAGCTGGGGCGATCACAATATTATTAACTGATCGAAATTTTAACACTGCTTTTTTTGATCCTGTGGGGGGCGGTGATCCAATTT
TGTATCAGCATCTTTT

>--->Rhagada_c.f._convicta-HBIID242598 Assembly of 2 reads: 463749_R_F06.ab1 (reversed), 463749_F_F06.ab1

ACATTATATTTACTATTTGGTGTGTGGTGTGGGATGGTTGGCACGGGCTTATCTTTACTAATTCGGTTAGAGCTCGGGACGATTGGCGTT
GTATCAGATAGTCACTTTTTTAATGTTATTGTGACTGCTCATGCATTTGTTATGATTTTTTTTATAGTTATACCCATTATAATTGGCGGCTTT
GGTAATTGAATGGTGCCGCTTTTAATTGGTGCCCCCGATATAAGCTTCCCCCGAATAAACAACATAAGCTTTTGACTTTTACCGCCAGCCT
TTATTTTATTAATTAGTAGCAGATTGGTTGAAGGCGGGGCCGGAACAGGTTGAACTGTTTATCCTCCACTAAGCTCGACCTTAGGTCATA
GGGGGGGTAGGGTTGATTTAGCTATTTTTTCCCTTCATTTAGCGGGGTTGTCATCTATTTTAGGTGCTATTAATTTTATTACAACCATTTTT
AACATGCGCTCACCGGCGCTATCATTAGAGCGGATAAGATTATTTGTGTGGTCGATTCTTGTTACAGTGTTTTTACTATTACTTTCACTTCC
GGTGTTAGCTGGAGCGATCACAATATTATTAACTGATCGAAATTTTAACACTGCTTTTTTTGATCCTGTGGGGGGCGGCGACCCAATTTT
GTATCAGCATCTTTT

>--->Rhagada_c.f._convicta-HBIID242605 2 reads from 463606 assembled using Geneious

CACATTATATTTACTATTTGGTGTGTGGTGTGGGATGGTTGGCACAGGCTTATCTTTACTAATTCGGTTAGAGCTCGGGACGATTGGCGT
TGTATCAGATAGTCACTTTTTTAATGTTATTGTGACTGCTCATGCATTTGTTATGATTTTTTTTATAGTTATACCCATTATAATTGGCGGCTT
TGGTAATTGAATGGTGCCGCTTTTAATTGGTGCCCCCGATATAAGTTTCCCCCGAATAAACAACATAAGCTTTTGACTTTTACCGCCAGCT
TTTATTTTATTAATTAGTAGCAGATTGGTTGAAGGCGGGGCCGGAACAGGTTGAACTGTTTATCCTCCACTAAGCTCGACCTTAGGTCAT
AGGGGGGGTAGGGTTGATTTAGCTATTTTTTCCCTTCATTTAGCAGGGTTGTCATCTATTTTAGGTGCTATTAATTTTATTACAACCATTTT
TAACATGCGCTCACCGGCGCTATCATTAGAGCGGATAAGATTATTTGTGTGGTCGATTCTTGTTACAGTGTTTTTACTATTACTTTCACTTC
CGGTGTTAGCTGGAGCGATCACAATATTATTAACTGATCGAAATTTTAACACTGCTTTTTTTGATCCTGTGGGGGGCGGTGACCCAATTT
TGTATCAGCATCTTTT

>--->Sepedonophilus_EP01-HBIID242578 Assembly of 2 reads: 463760_R_E03.ab1 (reversed), 463760_F_E03.ab1

GACCATATATCTTATTTTTGGTGCTTGAGCTGCAATAGCAGGAACAGCATTAAGCCTTATTGTCCGATTAGAGCTTAGACAACCAGGATC
TCTAATTGGGGATGATCAAATTTACAATGTTATTGTAACAGCCCACGCCTTCGTAATAATTTTTTTTATAGTAATACCTATTATAATAGGA
GGATTCGGTAATTGAATGCTCCCACTCATGCTAGGAGCCCCAGACATGGCCTTCCCACGAATAAATAATTTAAGATTTTGACTGCTCCCC
CCCTCATTAACACTATTAATAGCCTCAATAGCGGTAGAAAGAGGGGCCGGAACAGGCTGAACAGTTTATCCTCCCTTAGCTAGAAATATT
TCCCACTCTGGGCCTTCAGTAGATATAACTATTTTCTCTTTACACTTAGCAGGAGTATCCTCTATTCTTGGCTCTATTAACTTCATTACAACT
ATTATTAATATACGCTCAAGAGGCATAGTACTAGAACGAATCCCTCTTTTCGTATGAAGAGTAAAAATTACAGCAGTATTACTACTTTTAT
CTTTACCAGTACTAGCAGGAGCTATTACTATATTATTAACAGATCGAAACTTAAATACTAGATTCTTTGACCCAACAGGAGGGGGAGACC
CTATCTTATATCAACATTTATTC

>--->Sepedonophilus_EP01-HBIID242620 Assembly of 2 reads: 463674_R_G12.ab1 (reversed), 463674_F_G12.ab1

GACCATATATCTTATTTTTGGTGCTTGAGCTGCAATAGCAGGAACAGCATTAAGCCTTATTGTCCGATTAGAGCTTAGACAACCAGGATC
TCTAATTGGGGATGATCAAATTTACAATGTTATTGTAACAGCCCACGCCTTCGTAATAATTTTTTTTATAGTAATACCTATTATAATAGGA
GGATTCGGTAATTGAATGCTCCCACTCATGCTAGGAGCCCCAGACATGGCCTTCCCACGAATAAATAATTTAAGATTTTGACTGCTCCCC
CCCTCATTAACACTATTAATAGCCTCAATAGCGGTAGAAAGAGGGGCCGGAACAGGCTGAACAGTTTATCCTCCCTTAGCTAGAAATATT
TCCCACTCTGGGCCTTCAGTAGATATAACTATTTTCTCTTTACACTTAGCAGGAGTATCCTCTATTCTTGGCTCTATTAACTTCATTACAACT
ATTATTAACATACGCTCGAGAGGCATAGTACTAGAACGAATCCCTCTTTTCGTATGAAGAGTAAAAATCACAGCAGTATTACTACTTTTAT
CTTTACCAGTACTAGCAGGAGCTATTACTATATTATTAACAGATCGAAACTTAAATACTAGATTCTTTGACCCAACAGGAGGGGGAGACC
CTATCTTATATCAACATTTATTC

>--->Sepedonophilus_EP01-HBIID243290 Assembly of 2 reads: 463753_R_B08.ab1 (reversed), 463753_F_B08.ab1

GACCATATATCTTATTTTTGGTGCTTGAGCTGCAATAGCAGGAACAGCATTAAGCCTTATTGTCCGATTAGAGCTTAGACAACCAGGATC
TCTAATTGGGGATGATCAAATTTACAATGTTATTGTAACAGCCCACGCCTTCGTAATAATTTTTTTTATAGTAATACCTATTATAATAGGA
GGATTCGGTAATTGAATGCTCCCACTCATGCTAGGAGCCCCAGACATGGCCTTCCCACGAATAAATAATTTAAGATTTTGACTGCTCCCC
CCCTCATTAACACTATTAATAGCCTCAATAGCGGTAGAAAGAGGGGCCGGAACAGGCTGAACAGTTTATCCTCCCTTAGCTAGAAATATT
TCCCACTCTGGGCCTTCAGTAGATATAACTATTTTCTCTTTACACTTAGCAGGAGTATCCTCTATTCTTGGCTCTATTAACTTCATTACAACT
ATTATTAACATACGCTCAAGAGGTATAGTACTAGAACGAATCCCTCTTTTCGTATGAAGAGTAAAAATTACAGCAGTATTACTACTTTTAT
CTTTACCAGTACTAGCAGGAGCTATTACTATATTATTAACAGATCGAAACTTAAATACTAGATTCTTTGACCCAACAGGAGGGGGAGACC
CTATCTTATATCAACATTTATTC

>--->Sepedonophilus_EP01-HBIID243342 Assembly of 2 reads: 463680_R_H07.ab1 (reversed), 463680_F_H07.ab1

GACCATATATCTTATTTTTGGTGCTTGAGCTGCAATAGCAGGAACAGCATTAAGCCTTATTGTCCGATTAGAGCTTAGACAACCAGGATC
TCTAATTGGGGATGATCAAATTTACAATGTTATTGTAACAGCCCACGCCTTCGTAATAATTTTTTTTATAGTAATACCTATTATAATAGGA
GGATTCGGTAATTGAATGCTCCCACTCATGCTAGGAGCCCCAGACATGGCCTTCCCACGAATAAATAATTTAAGATTTTGACTGCTCCCTC

CCTCATTAACACTATTAATAGCCTCAATAGCGGTAGAAAGAGGAGCCGGAACAGGCTGAACAGTTTATCCTCCCTTAGCTAGAAATATTT
CCCACTCTGGGCCTTCAGTAGATATAACTATTTTCTCTTTACACTTAGCAGGAGTATCCTCTATTCTTGGCTCTATTAACTTCATTACAACTA
TTATTAACATACGCTCGAGAGGCATAGTACTAGAACGAATCCCTCTTTTCGTATGAAGAGTAAAAATTACAGCAGTATTACTACTTTTATC
TTTACCAGTACTAGCAGGAGCTATTACTATATTATTAACAGATCGAAACTTAAATACTAGATTCTTTGACCCAACAGGAGGGGGAGACCC
TATCTTATATCAACATTTATTC

>--->Sepedonophilus_EP01-HBIID243367 Assembly of 2 reads: 463752_R_F09.ab1 (reversed), 463752_F_F09.ab1

GACCATATATCTTATTTTTGGTGCTTGAGCTGCAATAGCAGGAACAGCATTAAGCCTTATTGTCCGATTAGAGCTCAGTCAACCAGGGTC
TCTAATTGGGGATGATCAAATTTATAATGTTATTGTAACGGCCCACGCCTTCGTAATAATTTTTTTTATAGTAATGCCCATTATAATAGGA
GGATTTGGTAATTGAATACTCCCACTGATGCTAGGAGCCCCAGACATAGCCTTCCCGCGAATAAACAATTTAAGATTTTGATTGCTCCCTC
CCTCATTAACATTATTAATAGCCTCAATAGCAGTAGAAAGAGGGGCCGGAACAGGCTGAACAGTCTACCCCCCTTTAGCTAGAAATATTT
CCCACTCTGGGCCTTCAGTAGATATAACTATTTTCTCTTTACACTTAGCAGGAGTATCCTCTATTCTCGGTTCTATTAACTTCATTACAACTA
TTATTAATATACGCTCAAGAGGCATAGTATTAGAGCGAATCCCTCTTTTCGTATGAAGAGTAAAAATTACAGCAGTATTATTACTTTTATC
TCTACCAGTACTAGCAGGAGCTATTACTATATTATTAACAGATCGAAATTTAAATACTAGATTCTTTGACCCAACAGGAGGAGGAGACCC
TATCCTATACCAACACTTATTC

>--->Sepedonophilus_EP02-HBIID242791 Assembly of 2 reads: 463758_R_D07.ab1 (reversed), 463758_F_D07.ab1

GACCATATACCTTATTTTTGGGGCTTGAGCCGCAATGGCAGGAACAGCTTTAAGCCTAATTGTCCGCTTAGAACTAAGACAACCAGGCTC
TTTAATCGGAGATGATCAAATTTATAATGTAATTGTAACTGCGCATGCTTTTGTAATAATCTTCTTTATAGTTATACCAATTATAATAGGG
GGATTTGGAAACTGAATACTCCCCTTGATATTAGGAGCCCCAGATATAGCATTCCCTCGAATAAACAACCTAAGCTTCTGACTATTACCCC
CATCTTTAACCCTACTAATGGCTTCAATAGCTGTAGAAAGAGGGGCTGGAACAGGATGAACAGTTTACCCCCCACTAGCAAGAAACATT
TCCCACTCTGGGCCTTCTGTAGATATGACCATTTTTTCCCTACATCTTGCAGGAGTTTCATCAATTCTTGGTTCTATCAACTTCATTACAACT
ATCATTAATATACGATCAAGAGGAATAGTTTTAGAACGAATTCCCTTATTCGTTTGAAGAGTAAAAATTACAGCAGTTTTATTATTATTGT
CTCTTCCTGTACTAGCAGGAGCTATTACAATACTATTAACTGATCGTAATTTAAATACAAGCTTTTTCGACCCCACAGGAGGGGGAGATC
CCATTCTATACCAACATTTATTT

>--->Sepedonophilus_EP02-HBIID243248 Assembly of 2 reads: 463759_R_D09.ab1 (reversed), 463759_F_D09.ab1

GACCATATACCTTATTTTTGGGGCTTGAGCCGCAATGGCAGGAACAGCTTTAAGCCTAATTGTCCGCTTAGAACTAAGACAACCAGGCTC
TTTAATCGGAGATGATCAAATTTATAATGTAATTGTAACTGCACATGCTTTTGTAATAATCTTCTTTATAGTTATACCAATTATAATAGGGG
GATTTGGAAACTGAATACTCCCCTTGATATTAGGAGCCCCAGATATAGCATTCCCTCGAATAAACAACCTAAGCTTCTGACTATTACCCCC
ATCTTTAACCCTACTAATGGCTTCAATAGCTGTAGAAAGAGGGGCTGGAACAGGATGAACAGTTTACCCCCCACTAGCAAGAAACATTT
CCCACTCTGGGCCTTCTGTAGATATGACCATTTTTTCCCTACATCTTGCAGGAGTTTCATCAATTCTTGGTTCTATCAACTTCATTACAACTA
TCATTAATATACGATCAAGAGGAATAGTTTTAGAACGAATTCCCTTATTCGTTTGAAGAGTAAAAATTACAGCAGTTTTATTATTATTGTC
TCTTCCTGTGCTAGCAGGAGCTATTACAATACTATTAACTGATCGTAATTTAAATACAAGCTTTTTCGACCCCACAGGAGGAGGAGATCC
CATTCTATACCAACATTTATTT

>--->Sepedonophilus_EP03-HBIID243271 Assembly of 2 reads: 463679_R_H06.ab1 (reversed), 463679_F_H06.ab1

GACCATATACCTTATTTTTGGGGCTTGAGCCGCAATAGCAGGGACAGCTTTAAGCCTAATTGTTCGTTTAGAACTAAGACAACCAGGCTC
TTTAATTGGAGACGATCAAATCTATAACGTGATTGTGACTGCACATGCCTTCGTAATAATTTTTTTCATAGTTATACCTATTATAATAGGA
GGATTTGGAAATTGAATACTTCCTTTGATACTAGGGGCCCCAGATATAGCATTCCCACGAATAAATAATTTAAGATTCTGATTACTCCCTC
CATCTTTAACCCTATTAATAGCTTCAATAGCTGTAGAAAGAGGAGCCGGGACAGGGTGAACAGTATATCCCCCATTAGCAAGTAACATCT
CCCACTCCGGGCCATCTGTAGATATAACCATCTTTTCTTTACACCTTGCAGGTGTCTCATCAATTCTTGGCTCTATTAATTTTATTACAACTA
TCATCAACATACGATCAAGTGGAATAGTCTTAGAGCGAATTCCACTATTTGTATGAAGAGTAAAAATTACAGCAGTATTACTACTACTAT
CTCTTCCTGTCTTAGCAGGAGCAATTACTATGCTATTAACCGATCGTAACTTAAATACAAGCTTTTTTGACCCCACAGGAGGAGGAGACC
CCATCTTATATCAACACTTATTC

>--->Sepedonophilus_EP04-HBIID242960 Assembly of 2 reads: 463754_R_C04.ab1 (reversed), 463754_F_C04.ab1

GACCATATACCTTATTTTTGGGGCCTGAGCCGCAATAGCAGGAACAGCTTTAAGCCTAATTGTCCGTTTAGAATTAAGACAACCGGGCTC
CTTAATTGGAGACGATCAAATTTATAATGTTATTGTTACTGCACATGCTTTCGTAATAATTTTCTTTATAGTTATACCTATTATAATAGGAG
GATTTGGAAATTGGATACTCCCCCTAATGCTGGGAGCTCCAGATATAGCATTCCCCCGAATAAACAATTTAAGTTTTTGATTACTCCCCCC
ATCCCTAACCTTACTAATAGCTTCAATGGCCGTAGAAAGAGGAGCTGGAACAGGATGAACTGTATACCCCCCTCTAGCAAGAAATATTTC
TCACTCTGGACCATCAGTAGACATAACTATCTTTTCTTTGCACCTCGCAGGAGTCTCATCAATTCTTGGTTCCATTAATTTTATTACAACTA
TTATTAATATACGATCAAGTGGAATAGTTTTAGAACGAATTCCCCTATTCGTCTGAAGAGTAAAAATTACAGCAGTTTTACTATTACTATC
TCTTCCTGTATTAGCAGGAGCAATCACCATGTTATTAACGGACCGCAATTTAAACACAAGCTTCTTTGACCCGACAGGAGGAGGAGACCC
TATTTTATACCAACATTTATTC

>--->Sepedonophilus_EP06-HBIID243184 Assembly of 2 reads: 463756_R_C07.ab1 (reversed), 463756_F_C07.ab1

GACCATATACCTTATTTTTGGGGCTTGAGCTGCAATAGCAGGAACAGCCTTAAGCCTAATCGTCCGACTAGAGCTAAGACAACCAGGGT
CTCTAATTGGAGATGATCAAATCTATAATGTTATTGTAACTGCACATGCCTTCGTGATAATCTTCTTTATAGTAATACCAATCATGATAGG
AGGATTTGGAAATTGAATACTCCCCCTAATATTGGGGGCCCCAGACATAGCATTTCCACGAATAAACAACTTAAGATTTTGATTACTTCC
ACCCTCTCTAACACTTTTAATAGCTTCTATGGCCGTAGAAAGAGGAGCCGGAACTGGATGAACTGTATACCCCCCACTAGCAAGAAACAT
CTCTCACTCTGGGCCCTCTGTAGATATAACAATTTTTTCTCTACATCTTGCAGGCGTTTCATCTATTCTTGGTTCTATCAATTTTATTACAAC
TATTATCAATATACGATCAAGTGGAATAGTATTAGAGCGAATTCCCTTATTTGTTTGAAGAGTAAAAATTACAGCAGTATTATTATTATTG
TCCTTACCTGTTTTAGCAGGAGCAATTACCATGCTACTAACAGACCGCAACCTAAACACTAGCTTTTTCGACCCTACAGGGGGAGGAGAC
CCTATTTTATACCAACATCTGTTT

>--->Sepedonophilus_EP06-HBIID243190 Assembly of 2 reads: 463755_R_C06.ab1 (reversed), 463755_F_C06.ab1

GACCATATACCTTATTTTTGGGGCTTGAGCTGCAATAGCAGGAACAGCCTTAAGCCTAATCGTCCGACTAGAGCTAAGACAACCAGGGT
CTCTAATTGGAGATGATCAGATCTATAATGTTATTGTAACTGCACATGCCTTCGTGATAATCTTCTTTATAGTAATACCAATCATGATAGG
AGGATTTGGAAATTGAATACTCCCCCTAATATTGGGGGCCCCAGACATAGCATTCCCACGAATAAACAACTTAAGATTTTGACTACTTCC
ACCCTCTCTAACACTTTTAATAGCTTCTATAGCCGTAGAAAGAGGAGCCGGAACTGGATGAACTGTATACCCCCCACTAGCAAGAAACAT
CTCTCACTCTGGGCCCTCTGTAGATATAACAATTTTTTCTCTACATCTTGCAGGCGTTTCATCTATTCTTGGTTCTATCAATTTTATTACAAC
TATTATCAATATACGATCAAGTGGAATAGTATTAGAGCGAATTCCCTTATTTGTTTGAAGAGTAAAAATTACAGCAGTATTATTATTATTG
TCCTTACCTGTTTTAGCAGGAGCAATTACCATGCTATTAACAGACCGCAACCTAAACACTAGCTTTTTCGACCCTACAGGGGGAGGAGAC
CCTATTTTATACCAACATCTGTTT

>--->Sepedonophilus_sp-HBIID242510[wrong_rego] Assembly of 2 reads: 463757_R_D06.ab1 (reversed), 463757_F_D06.ab1

TACAATATATTTAATTTTTGGTGCGTGATCTGCCATAGTAGGAACTGCCCTAAGTCTTTTAATTCGACTTGAACTTAGCCAGCCAGGAAGA
TTAATTGGAGACGATCAAACATATAATGTAGTTGTAACAGCTCATGCTTTTGTTATAATTTTCTTCATAGTTATACCTATTATAATAGGAG
GATTTGGTAATTGACTTGTTCCTTTAATATTAGGGGCCCCAGATATAGCTTTTCCCCGTTTAAATAATATAAGATTTTGACTTTTACCACCA
TCATTAATACTACTACTTGCATCTGCAATAGTAGAAAGAGGAGCAGGAACAGGGTGAACTGTATATCCTCCTTTAGCAGCAGGAATTGC
CCACTCAGGTCCTTCTGTAGATATAACAATTTTTTCATTGCATTTAGCCGGAGTATCATCAATTTTAGGAGCAATTAATTTCATTACAACGG
TTATTAATATACGAACAAGAGGAATAATTTTTGAACGAGTACCATTATTTGTATGAGGAGTTAAACTAACAGCAATTCTTTTATTATTATC
CCTACCTGTCTTAGCAGGAGCTATTACAATATTATTAACAGATCGTAATTTTAATACAACATTTTTTGACCCAACAGGAGGAGGAGACCC
AATCTTATATCAACATCTATTT

>--->Synsphyronus_BoDo01-HBIID242984 Assembly of 2 reads: 463761_R_H02.ab1 (reversed), 463761_F_H02.ab1

ACTTTATATTTAATTTTTGGAATTTGATGTGGGTTAATTGGGATAGGATACAGAATATTAATTCGTATACAATTAATTAGACCAGGAAAA
ATAATTTCTGAACATGTCTATAATGTGATTATCACCACTCATGCCTTTGTAATAATTTTTTTTATAGTAATACCAATTATAATTGGAGGATT
TGGAAATTGATTAGTTCCATTAATAATCGGATCTCCAGATATAGCATTCCCTCGTCTTAATAATTTAAGATTCTGACTTCTGCCTCCTTCAT
TTCTTCTATTACTTCTTTCCTCCACTTTAGAATTGGGATGTGGAACTGGTTGAACTGTCTATCCCCCATTAGCTGGATTAATAGGACATCCA
TCTAAATCTGTAGATTGTGTAATTTTTTCCCTTCACTTAGCTGGAATTTCTTCAATTTTGGGAGCAATTAATTTTATTTCAACTATTATTAAT
ATACGAGCTCCTAATTTAACTATAATAAAGATTCCATTATTTGTCTGATCTGTACTTTTTACAACGATCTTAATCTTATTTGCTATACCTGTA
TTAGCGGGGGCTATTACTATACTTTTAACTGATCGAAATTTTAATACTTCATTCTTCTTACCAATAGGAGGGGGGGACCCAATTTTATTTC
AACATTTATT

>--->Troglarmadillo_EP13-HBIID241675 Assembly of 2 reads: 463762_R_H11.ab1 (reversed), 463762_F_H11.ab1

AACTTTATATTTCGTTTTTGGGGCGTGGGCGGGAGCTGTGGGGACGTCTTTGAGCGTACTTATTCGCATTGAGTTGAGACAACCAGGGG
GTTTGATTGGGGACGATCAGATTTATAATGTAATTGTAACGGCACATGCTTTTGTTATAATTTTCTTTATAGTCATGCCTATCATAATTGG
CGGGTTTGGAAATTGGCTTGTACCTTTGATACTTGGGGCCCCTGACATAGCTTTTCCTCGGATAAATAACCTGAGGTTTTGGTTACTACCT
CCTTCTTTGCTGTTGTTGTTAACAAGAGGGATGGTAGAAAGAGGAGTAGGTACAGGGTGAACTGTATACCCCCCTCTGGCCGGCAACCT
TGCACACAGCGGGAGGTCTGTGGATTTGGGGATCTTTTCTTTGCATCTGGCGGGGGCTTCTTCTATCTTAGGGGCTATTAATTTTATCACT
ACAACTCTCAACATGCGGTTTAAAAGAATGAAGATAGACCGAGTTCCGTTATTTGTTTGGTCCGTTTTTATTACTGCTATTTTATTGCTTCT
CTCTCTTCCTGTCTTAGCGGGGGCGATCACAATGTTGCTGACAGATCGTAATTTTAATACTTCTTTTTTTGACCCAAGGGGGGGTGGAGA
TCCTATTCTTTATCAGCATTTGTTT

>--->Troglarmadillo_EP14-HBIID242450 Assembly of 2 reads: 463765_R_A02.ab1 (reversed), 463765_F_A02.ab1

TACTTTGTATTTTATCTTTGGGGCATGAGCTGGGGCTGTAGGAACTTCTTTGAGGGTGATTATTCGTGTTGAACTAAGGCAACCAGGGG
GGTTAATTGGAGATGATCAAATTTATAATGTGGTTGTAACAGCACATGCTTTTGTTATAATTTTCTTTATAGTTATACCTATTATGATTGG
GGGTTTTGGAAATTGGCTTGTACCTTTGATATTAGGAGCCCCTGACATAGCTTTTCCTCGGATAAACAACTTGAGCTTTTGACTACTACCT
CCTTCCTTGTTGTTGTTGTTGACAAGAGGGATAGTAGAAAGAGGGGTAGGGACAGGGTGAACTGTCTACCCTCCTTTGGCTGGCAACAT
AGCACACAGGGGCAGGTCTGTAGATTTAGGAATTTTTTCTTTACACTTGGCAGGAGCGTCTTCTATTTTAGGGGCTATTAATTTTATTACT
ACAACCTTAAATATACGTCCTAAAAGGATGAAAATAGATCGAATTCCGTTGTTTGTTTGGTCTGTTTTTATCACTGCCATTTTATTACTTTT

ATCTCTTCCTGTTTTAGCAGGTGCGATTACGATATTACTAACAGACCGTAACTTTAATACTTCTTTTTTTGACCCTAGAGGCGGGGGAGAC
CCTATTCTTTATCAGCATTTATTT

>--->Troglarmadillo_EP14-HBIID243126 Assembly of 2 reads: 463768_R_H02.ab1 (reversed), 463768_F_H02.ab1

TACTCTGTATTTTATCTTTGGGGCCTGAGCTGGGGCTGTGGGAACTTCTTTGAGGGTGATTATTCGTGTTGAACTAAGGCAACCAGGGG
GGTTAATTGGAGATGATCAAATCTATAACGTGGTTGTAACAGCACATGCTTTTGTTATAATTTTCTTTATAGTTATACCTATTATGATTGG
GGGGTTTGGAAATTGGCTTGTACCTTTGATATTAGGAGCCCCTGACATAGCTTTTCCTCGGATAAACAACTTGAGCTTTTGACTACTACCT
CCTTCCTTGATGTTGTTGTTGACAAGAGGGATAGTAGAAAGAGGGGTAGGGACAGGGTGAACTGTCTACCCTCCTTTGGCTGGCAATAT
AGCACACAGAGGCAGGTCTGTAGATTTAGGAATTTTTTCTTTACACTTGGCAGGAGCGTCTTCTATTTTAGGGGCTATTAATTTTATTACT
ACAACCTTAAATATACGTCCTAAAAGGATGAAAATAGATCGAATTCCGTTGTTTGTTTGGTCTGTTTTTATCACTGCCATTTTATTACTTTT
ATCTCTTCCTGTTTTAGCAGGTGCGATTACGATATTACTAACAGACCGTAACTTTAATACTTCTTTTTTTGACCCTAGAGGCGGGGGAGAC
CCTATTCTTTATCAGCATTTATTT

>--->Troglarmadillo_EP15-HBIID241332 Assembly of 2 reads: 463618_R_C04.ab1 (reversed), 463618_F_C04.ab1

AACTTTGTATTTTGTCTTCGGGGCATGAGCGGGAGCGGTGGGGACCTCTTTGAGAGTCATTATCCGAGTAGAATTAGGGCAAGCTGGTA
GATTGATTGGAGATGATCAAATTTACAACGTAATTGTGACAGCTCATGCTTTTGTTATAATTTTTTTTATAGTAATGCCAATTATGATTGG
AGGTTTTGGTAACTGGCTCGTCCCTTTGATGTTGGGGGCACCTGATATGGCATTTCCTCGGATGAATAACATAAGGTTTTGGCTATTACC
CCCTTCTTTGACCTTATTGCTGACGAGTGGGCTGGTAGAAAGAGGGGTTGGGACAGGGTGGACCGTTTACCCTCCTTTGGCTGCAAATA
TTGCCCACAGAGGGGCTTCTGTAGATTTAGGGATCTTTTCTTTGCATTTGGCAGGGGTTTCTTCTATCCTAGGAGCAGTAAATTTCATTAC
CACTGTTATAAATATACGACCAAAAAGGATGAAATTAGATCGTGTACCCCTATTCGTATGGTCGGTTTATATTACTGCTGTTTTGCTATTG
CTTTCCTTGCCTGTTTTAGCAGGGGCTATTACTATGCTGTTGACGGACCGAAATTTTAATACTTCTTTTTTTGACCCTAGAGGAGGGGGGG
ACCCAATTCTGTTTCAGCATCTATTT

>--->Troglarmadillo_EP15-HBIID241367 Assembly of 2 reads: 463620_R_C06.ab1 (reversed), 463620_F_C06.ab1

AACTCTGTATTTTATCTTCGGGGCATGAGCGGGAGCGGTGGGGACCTCTTTGAGAGTCATTATCCGAGTAGAATTAGGGCAAGCTGGTA
GATTGATTGGAGATGATCAAATTTACAACGTAATTGTGACAGCTCATGCTTTTGTTATAATTTTTTTTATAGTAATGCCAATTATGATTGG
AGGTTTTGGTAACTGGCTCGTCCCTTTGATGTTGGGGTCACCCGATATGGCATTTCCTCGGATGAATAACATGAGGTTTTGGCTATTACC
CCCTTCTTTGACCTTATTGCTGACGAGTGGGCTGGTAGAAAGAGGGGTTGGGACAGGGTGGACCGTTTACCCTCCTTTGGCTGCAAATA
TTGCCCACAGAGGGGCTTCTGTAGATTTAGGGATCTTTTCTTTGCATTTGGCAGGGGTTTCTTCTATCCTAGGAGCAGTAAATTTCATTAC
CACTGTTATAAATATACGACCAAAAAGGGATGAAATTAGATCGTGTGCCCTTATTTGTATGGTCGGTTTATATTACTGCTGTTTTGCTGTTG
CTTTCCTTGCCTGTTTTAGCGGGGGCTATTACTATGCTGTTGACGGACCGAAATTTTAATACTTCTTTTTTTGACCCTAGAGGAGGGGGGG
GACCCAATTCTGTTTCAGCATTTATTT

>--->Troglarmadillo_EP16-HBIID242434 Assembly of 2 reads: 463764_R_H12.ab1 (reversed), 463764_F_H12.ab1

CCTTGTATTTTGTATTTGGGGGTTGAGCTGGGGCAGTAGGCACTTCCTTTAGAGTACTAATTCGTATTGAGCTCGGTCAACCTGGGAGGC
TTATTGGGGATGACCAGATTTATAATGTACTGGTTACTGCTCACGCTTTTGTTATAATTTTTTTTATAGTGATACCTATTATGATTGGGGG
GTTTGGGAACTGATTAGTTCCTTTAATGCTAGGGGCTCCAGATATGGCTTTCCCTCGTATAAACAATATAAGGTTCTGGCTATTACCACCT
TCTTTAACTTTACTTCTTATGAGGGGGTTGGTTGAAAGAGGGGTAGGGACTGGTTGAACAGTATACCCCCCTTTGGCAGCAAATATTGCC
CATAGAGGAGGTTCTGTAGATTTAGGAATTTTTTCTTTGCATTTAGCTGGGGTTTCTTCTATTTTAGGGGCTGTAAACTTTATTACAACCA
CTTTGAATATGCGTTCTGCAGGGATGAAGATAGACCGAGTTCCTCTTTTCGTTTGATCCGTTTTGATTACAGCGGTCTTGTTACTTTTATCT
TTACCGGTACTAGCAGGAGCCATTACCATACTCCTAACGGACCGAAATTTAAATACTTCATTCTTTGATCCCAGTGGGGGGGGGGACCCT
GTTCTGTACCAACATTTATTT

>--->Troglarmadillo_EP17-HBIID242312 Assembly of 2 reads: 463766_R_A08.ab1 (reversed), 463766_F_A08.ab1

GACTTTATACTTTATTTTCGGGGCTTGGGCTGGAGCAGTTGGAACTTCCCTAAGGATAATTATTCGTATCGAGCTAGGGCAGCCCGGAA
GGCTTATCGGTGATGACCAAATTTATAACGTAGTTGTAACGGCACATGCTTTTGTAATAATTTTTTTTATAGTTATACCAATTATAATTGGT
GGGTTTGGGAATTGGCTAGTACCTTTGATACTAGGGGCCCCTGATATAGCTTTCCCTCGAATAAATAATATAAGATTTTGACTTCTACCGC
CTTCTTTGCTTTTACTTTTATCAAGTGGTTTAGTCGAAAGTGGAATTGGAACTGGTTGAACTGTTTATCCTCCTTTAGCAGCTAATATCGCT
CATAGCGGAGGTTCAGTCGATATAGGGATTTTTTCATTACATTTAGCCGGGGCTTCCTCTATTCTAGGGGCTGTAAATTTTATTACAACGA
CTTTTAATATACGTTCTACTGGAATAAAATTAGATCGAGTTCCTCTTTTTGTTTGATCTGTCTTTATTACTGCCATTTTATTACTTTTATCATT
ACCGGTATTGGCTGGGGCTATTACTATACTACTAACCGATCGTAATTTAAATACCTCTTTTTTTGACCCTAGTGGAGGAGGTGACCCCGG
TCTTATTTCAACATCTATTT

>--->Troglarmadillo_EP17-HBIID242589 Assembly of 2 reads: 463767_R_A10.ab1 (reversed), 463767_F_A10.ab1

GACTTTATACTTTATTTTCGGGGCTTGGGCTGGAGCAGTTGGAACTTCCCTAAGGATAATTATTCGTATCGAGCTAGGGCAGCCCGGAA
GGCTTATCGGTGATGACCAAATTTATAACGTAGTTGTAACGGCACATGCTTTTGTAATAATTTTTTTTATAGTTATACCAATTATAATTGGT
GGGTTTGGGAATTGGCTAGTACCTTTGATACTAGGGGCCCCTGATATAGCTTTCCCTCGAATAAATAATATAAGATTTTGACTTCTACCGC
CTTCTTTGCTTTTACTTTTATCAAGTGGTTTAGTCGAAAGTGGAATTGGAACTGGTTGAACTGTTTATCCTCCTTTAGCAGCTAATATCGCT

CATAGCGGAGGTTCAGTCGATATAGGGATTTTTTCATTACATTTAGCCGGGGCTTCCTCTATTCTAGGGGCTGTAAATTTTATTACAACGA
CTTTTAATATACGTTCTACTGGAATAAAATTAGATCGAGTTCCTCTTTTTGTTTGATCTGTCTTTATTACTGCCATTTTATTACTTTTATCATT
ACCGGTATTGGCTGGGGCTATTACTATACTACTAACCGATCGTAATTTAAATACCTCTTTTTTTGACCCTAGTGGAGGAGGTGACCCGGT
CTTATTTCAACATCTATTT

>--->Tyrannochthonius_EP01-HBIID243539 Assembly of 2 reads: 463771_R_H10.ab1 (reversed), 463771_F_H10.ab1

ACACTTTATTTAATATTAGGAATTTGATCAGGATGCCTAGGAATAAGATTTAGAATTCTTATTCGAATTGAACTTTCTCAAGTAGGATCTA
TTTTAAGATCTGATCAAATTTATAATGTAATAGTTACATCACATGCATTTATTATAATTTTTTTTATAGTTATACCTTTAATAATTGGAGGAT
TTGGAAACTGATTAGTACCAATAATAATTGGAGCTCCAGATATAGCATTCCCACGAATAAATAATATAAGATTTTGATTATTACCACCATC
TCTTCTACTTTTACTTTTATCATCAACTATTGAAATAGGTTGCGGAACAGGATGAACTTTATATCCACCACTTGCAGGAAATATATCTCATC
AAGGTGGAGCAGTAGATTTAACAATTTTCTCAATTCATCTAGCAGGTGCATCATCTATTCTTGGAGCTATTAATTTTATTTCTACAATTTTC
AATATACGAACAAATAATATACCATTAATTTCAATACCATTATTTGTATGATCAATTTTAATCACTACATTTTTATTAGTTCTTGCTCTTCCT
GTTCTAGCAGGAGCTATTACTATATTATTAACAGATCGAAACTTTAATACATCATTTTTTGATCCTTTAGGTGGAGGAGACCCTATTTTATT
CCAACATTTATTT

>--->Tyrannochthonius_EP02-HBIID243169 Assembly of 2 reads: 463769_R_H03.ab1 (reversed), 463769_F_H03.ab1

ACTCTTTATTTAATCTTAGGAATTTGATCTGGGTGCTTAGGAATAAGATTTAGAATATTAATCCGAATCGAACTTTCTCAAGCAGGATCAA
TTCTTAGATCTGATCAAATTTATAATGTTATAGTTACATCTCATGCATTTATTATAATTTTTTTTATAGTTATACCTTTAATGATTGGAGGAT
TTGGTAATTGACTTGTTCCATTAATAATCGGAGCTCCAGATATAGCATTCCCACGAATAAATAATATAAGATTTTGACTTTTACCACCTTCC
CTTTTACTTCTTCTTTTATCCTCTACTATCGAAATAGGATGTGGTACTGGATGAACACTATATCCACCTTTAGCAGGAAATATATCTCATCA
AGGAGGAGCTGTGGATTTAACAATTTTTTCTATTCATTTAGCAGGAGCATCATCTATTTTAGGAGCTATTAATTTTATTTCAACAATTTTTA
ATATACGAACTAATAATATACCATTAAATTCAATACCTTTATTTGTTTGATCAATTTTAATTACAACATTTCTCCTAGTATTAGCTTTACCAG
TATTAGCAGGAGCAATTACAATATTACTTACAGACCGAAACTTTAATACATCATTCTTTGATCCATTAGGAGGAGGAGATCCAATTCTTTT
TCAACACTTATTC

>--->Tyrannochthonius_EP03-HBIID243254 Assembly of 2 reads: 463770_R_H04.ab1 (reversed), 463770_F_H04.ab1

ACACTTTACTTAATTTTAGGGATTTGATCAGGATGTTTAGGTATAAGATTTAGAATCTTAATCCGAATTGAATTATCTCAAGTAGGATCAA
TTCTTAGATCAGATCAAATCTACAATGTAATAGTAACATCTCACGCATTTATTATAATTTTTTTTATAGTAATACCATTAATAATTGGAGGA
TTCGGTAATTGACTTGTGCCTATAATAATTGGAGCACCAGATATAGCTTTTCCACGAATAAATAATATAAGATTTTGACTTCTTCCACCAT
CTTTACTCCTATTATTATTATCATCAACTATCGAAATAGGATGTGGAACTGGATGAACACTTTATCCTCCTCTAGCAGGTAATATATCTCAT
CAAGGAGGTGCAGTTGATCTAACAATTTTTTCTATTCATTTAGCAGGAGCATCATCTATTTTAGGAGCTATTAATTTCATTTCAACAATTTT
CAATATACGAACAAATAATATACCTTTAAATTCAATACCATTATTTGTATGATCAATTCTAATCACCACTTTTCTATTAGTTTTAGCACTTCC
AGTTCTTGCTGGAGCAATTACTATACTTCTAACTGATCGAAACTTTAATACATCATTTTTTGATCCATTAGGTGGTGGTGATCCAATCTTAT
TTCAACACTTATTT

>--->Tyrannochthonius_EP04-HBIID242513 Assembly of 2 reads: 463772_R_H11.ab1 (reversed), 463772_F_H11.ab1

ACACTTTATTTAATTTTAGGAATCTGATCAGGATGTTTAGGTATAAGTTTTAGAATTTTAATTCGAATTGAATTATCCCAAACAGGATCAA
TTTTAAGCTCTGATCAAATTTATAATGTAATAGTTACATCTCACGCATTTATTATAATTTTTTTTCATAGTAATACCACTAATAATTGGGGGA
TTTGGTAACTGATTAGTACCTATAATAATTGGAGCCCCAGATATAGCATTTCCACGAATAAATAATATAAGATTTTGACTTCTTCCACCAT
CTCTTTTATTACTCTTATTATCATCAACTATTGAAATAGGATGTGGTACAGGATGAACACTTTACCCACCCTTAGCAGGTAATATATCTCAT
ATAGGTGGAGCAGTAGATTTAACAATTTTTTCTATTCATTTAGCAGGAGCATCCTCAATTTTAGGAGCTATTAATTTTATTTCAACAATCTT
TAATATACGAACAAATAATATACCAATAAACTCAATACCATTATTTGTTTGATCAATTTTAATTACAACTTTTTTATTAGTTTTAGCCCTTCC
AGTATTAGCTGGAGCAATTACTATACTCTTAACAGACCGAAATTTTAATACATCATTTTTTGATCCTTTAGGTGGAGGAGATCCTATCCTT
TTTCAACACTTATTT

>--->Tyrannochthonius_EP05-HBIID242624 Assembly of 2 reads: 463773_R_H12.ab1 (reversed), 463773_F_H12.ab1

ACACTTTATCTAATTCTAGGATCATGATCAGGATTTCTAGGATTAAGATTCAGTATTTTAATTCGAATAGAACTTTCTCATAGAGGATCTCT
AATTCTTACAGATCAAACATTTAATGTAGCCGTTACTTCACACGCTTTCATTATAATTTTTTTCATAATTATACCATTAATAATTGGAGGATT
TGGAAATTGATTAGTACCTATAATAATTGGAGCTCCTGATATAGCATTCCCACGAATAAATAATATAAGATTTTGGCTTCTTCCACCTTCA
TTAATATTACTTATTTTATCATCAACAATTGAAATAGGATGTGGTACAGGATGAACCTTATATCCACCTTTAGCAGGAAATCAATCTCATC
CTGGAGGAGCAGTTGATATAACAATTTTCTCCCTTCATTTAGCAGGAGCATCTTCAATCTTAGGAGCAATTAATTTTATCTCAACAATTTTT
AATATACGAACAAATAACATATCTATAATACTTATACCATTATTTGTATGATCAATCCTTATTACAACATTACTTCTTATATTAGCCTTACCA
GTTTTAGCAGGAGCTATTACAATATTAATTACAGATCGAAACTTTAATACATCATTTTTTAATCCATTAGGAGGTGGAGATCCTATTCTAT
TCCAACACTTATTT

>--->Urodacus_butleri-HBIID243335 Assembly of 2 reads: 463776_R_D07.ab1 (reversed), 463776_F_D07.ab1

GACTATGTATTTAATATTAGGAGGTTGAGCGTCTATGGTAGGGACAGCTTTAAGATTAATGATTCGTGTTGAGGTAGGGAGTCCTGGCT
CTTTTATTGGTGATGATCAGATTTATAATGTAGTTGTGACTGCTCATGCCTTTGTAATAATTTTTTTTATGGTTATACCTATTATAATTGGG

GGATTTGGGAATTGGCTTGTTCCTTTAATATTGGGGGCTCCTGATATGGCTTTTCCTCGGTTGAATAATATAAGATTTTGGTTATTACCTC
CTTCTTTTTTTTTATTGTTAGGATCTGCTTGTTTAGAGAGAGGAGCTGGAACGGGATGGACTGTGTATCCTCCTTTATCTTCTAGAATTTTT
CATTCTGGGGGTTCAGTTGATATGACTATTTTTTCTTTGCATTTAGCTGGGGTTTCTTCTATTTTAGGGGCCATTAATTTTATTACTACTATT
TTGAATATACGAAGAGAGGGGATAGTTTTAGATCGAGTTCCTTTATTTGTATGGTCTGTTAAAATTACTGCAATTTTATTGTTGTTGTCTT
TGCCTGTTTTAGCTGGGGCTATTACTATGTTATTAACTGATCGAAATTTTAATACTTCTTTTTTTGATCCAGCAGGAGGAGGGGATCCTAT
TTTATATCAGCATTTGTTT

>--->Urodacus_pilbara8-HBIID242529 Assembly of 2 reads: 463774_R_A12.ab1 (reversed), 463774_F_A12.ab1

GACTATGTATTTGATTTTAGGGGGTTGAGCGTCTATGGTTGGGACGGCTTTAAGATTGATAATTCGCGTTGAGGTTGGGAGTCCAGGCT
CTTTTATTGGTGATGATCAGATTTATAATGTTATTGTTACGGCTCATGCTTTTGTAATAATTTTTTTTATAGTAATGCCTATTATAATTGGA
GGGTTTGGTAATTGGCTTGTTCCTTTAATATTAGGGGCTCCTGATATAGCTTTTCCTCGGTTGAATAATATGAGTTTTTGATTATTGCCTCC
TTCTTTTTTTTTATTGTTAGGTTCTGCTTGTTTGGAGAGAGGAGCAGGGACTGGGTGGACTGTATATCCTCCTTTATCTTCTAATATTTTTC
ATTCTGGGGGCTCTGTTGATATGACTATTTTTTCTTTGCATTTGGCTGGGGTTTCTTCTATTTTGGGAGCTATTAATTTTATTACTACCATTT
TGAATATACGTAGAGAAGGGATAGTTTTGGATCGAGTTCCTTTATTTGTTTGGTCTGTTAAAATTACTGCGGTTTTATTGTTATTGTCTTTA
CCTGTATTGGCTGGGGCTATTACTATGTTGTTGACTGATCGTAATTTTAATACTTCTTTTTTTGATCCGGCAGGTGGGGGAGATCCTATTT
TATATCAGCATTTATTT

>--->Urodacus_pilbara8-HBIID243338 Assembly of 2 reads: 463775_R_B08.ab1 (reversed), 463775_F_B08.ab1

GACTATGTATTTAATGTTAGGAGGTTGGGCTTCTATAGTTGGGACGGCTTTAAGATTAATAATTCGTGTTGAGGTGGGGAGTCCGGGCT
CTTTTATTGGTGATGATCAGATTTATAATGTAATTGTTACGGCTCATGCTTTTGTAATGATCTTTTTTATGGTAATGCCTATTATAATTGGA
GGGTTTGGGAATTGGCTTGTTCCTTTAATGTTAGGGGCTCCTGATATAGCTTTTCCTCGGTTGAATAATATGAGATTTTGGTTATTACCTC
CTTCTTTTTTTTTGTTGTTGGGTTCTGCTTGTTTGGAGAGAGGGGCAGGGACTGGATGGACTGTGTATCCTCCTTTGTCTTCTAATATTTTT
CATTCTGGAGGTTCTGTTGATATAACTATTTTTTCTTTGCATTTGGCTGGGATTTCTTCTATTTTAGGGGCTATTAATTTTATTACTACTATT
TTGAATATGCGTAGAGAAGGAATGGTTTTGGATCGAGTGCCTTTATTTGTTTGGTCTGTTAAGATTACTGCGGTTTTATTGTTGTTGTCTT
TGCCTGTATTGGCTGGAGCTATTACTATGTTGTTGACTGATCGTAATTTTAATACTTCTTTTTTTGATCCGGCAGGTGGAGGGGATCCTAT
TTTATATCAGCATTTATTT