

# **Groote Eylandt IPA/Archipelago** **Bush Blitz**

## **Heteroptera**

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Nomenclature and taxonomy used in this report is consistent with:

The Australian Faunal Directory (AFD)

<http://www.environment.gov.au/biodiversity/abrs/online-resources/fauna/afd/home>

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## List of contributors

List of contributors to this report.			
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## Abstract

The Bush Blitz survey of Groote Eylandt, resulted in the collection of 50 species of Heteroptera. Eight species are definitely identified to species, eight are putatively new to science and 34 require further examination to determine described species or additional new specie. The heteropteran species of Groote Eylandt are known from 14 families with the following number of species assigned to each: Alydidae (4 spp.), Coreidae (2), Enicocephalidae (1), Lygaeidae (2), Mesoveliidae (1), Miridae (19), Pachygronthidae (1), Pentatomidae (11), Reduviidae (1), Rhyparochromidae (2), Scutelleridae (1), Tingidae (2), Veliidae (2). The majority of the species belong to the family Miridae, which is expected given the hyperdiversity of the family in Australia and worldwide (Cassis et al. 2007, Cassis and Schuh 2012). Only four species collected in the Groote Eylandt Bush Blitz had been previously recorded from the island. The Bush Blitz survey and existing species data brings the total number of Groote Eylandt heteropteran family to 83 species, nested within 19 families. One pest species, *Creontiades dilutus*, was collected from Groote Eylandt during the Bush Blitz survey. *Aulacosternum nigrorubrum* (Coreidae), *Arafuramiris queenslandensis* (Miridae), *Creontiades dilutus* (Miridae) and *Lampromicra senator* (Scutelleridae) are recorded from Groote Eylandt for the first time.

## 1. Introduction

The suborder Heteroptera is a highly speciose suborder, that comprises over 2600 species in Australia (Australian Faunal Directory) and about 40,000 described species worldwide (Cassis 2019). Hundreds of new species have been found during Bush Blitz expeditions (Cassis and Laffan 2014), particularly from families Miridae (e.g., Cassis and Symonds 2014a, b, 2016, Symonds and Cassis, 2018) and Tingidae (e.g., Cassis et al. 2018).

Groote Eylandt is the fourth largest island in Australia, and is found in the Gulf of Carpentaria, and is part of the Northern Territory. Cassis and Gross (1995, 2002) reported 37 species of Heteroptera from it, based primarily on records from the South Australian Museum. These are as given in the following table (Table 1). The majority of these species are widespread in Australia. None of these species are endemic to Groote Eylandt. Some species are also found in the Oriental region and/or Papua New Guinea (Cassis and Gross 1995, 2002). Hale (1924) also wrote a short note on freshwater Heteroptera from Groote Eylandt, which are also given in Table 1.

**Table 1.** Historical records of the Heteroptera from Groote Eylandt. State and territories are abbreviated; TSI refers to Torres Strait Islands. Extralimital distributions are not given in Table 1; see Cassis and Gross (1995, 2002). Freshwater heteropterans are marked with an asterisk. All other species are terrestrial. Species marked with the + symbol were recollected in the Groote Eylandt Bush Blitz.

SPECIES	FAMILY	DISTRIBUTION
<i>Mutusca brevicornis</i> (Dallas, 1852)+	Alydidae	NSW, QLD, NT, VIC, WA
<i>Noliphus annulipes</i> Walker, 1871	Alydidae	NT, QLD
<i>Arictus monteithi</i> Kormilev, 1965	Aradidae	QLD, TSI
<i>Diplonychus planus</i> (Sulzer, 1776)*	Belostomatidae	QLD
<i>Phaenacantha australiae</i> Kirkaldy, 1908	Colobathristidae	NT, QLD, WA
<i>Amorbus rhombeus</i> (Westwood, 1842)	Coreidae	NSW, QLD, WA
<i>Amorbus rubiginosus</i> (Guérin, 1831)	Coreidae	ACT, NT, SA, VIC, WA, TSI
<i>Mictis profana</i> (Fabricius, 1803)	Coreidae	ACT, NT, QLD, SA, VIC, WA

<i>Agraptocorixa parvipunctata</i> (Hale, 1922)*	Corixidae	QLD, NSW, VIC, TAS, SA, WA
<i>Blaena setosa</i> Walker, 1868	Cydnidae	NSW, QLD, WA, VIC, WA
<i>Macroscytus piceus</i> (Westwood, 1837)	Cydnidae	NT, QLD, SA, WA
<i>Megymenum affine</i> Boisdual, 1835	Dinidoridae	NSW, NT, QLD, TSI
<i>Limnogonus fossarum</i> (Fabricius, 1775)*	Gerridae	QLD, NSW, SA, WA, NT
<i>Graptostethus pubescens</i> Slater, 1985	Lygaeidae	NT, QLD
<i>Graptostethus servus</i> (Fabricius, 1787)+	Lygaeidae	QLD, NT, TSI
<i>Graptostethus varipictus</i> Slater, 1985	Lygaeidae	NSW, NT, QLD, VIC
<i>Oncopeltus nigroflavatus</i> Distant, 1918	Lygaeidae	NT, QLD
<i>Scopiastes affinis</i> Distant, 1901	Lygaeidae	NT, WA
<i>Scopiastes eylandtensis</i> Scudder, 1963	Lygaeidae	NT
<i>Spilostethus decoratus</i> (Stål, 1866)	Lygaeidae	NSW, NT, QLD
<i>Nysius clevelandensis</i> Evans, 1929	Lygaeidae	NSW, NT, QLD, SA, VIC, WA
<i>Niastama obscuritarsis</i> (Poppius, 1915)	Miridae	VIC, TAS, SA, WA, NT
<i>Austronepa angusta</i> (Hale, 1924)	Nepidae	NT, QLD
<i>Pachygrontha austrina</i> Kirkaldy, 1908+	Pachygronthidae	NT, QLD, VIC
<i>Novatilla virgata</i> (Dallas, 1851)	Pentatomidae	NT, QLD, WAS
<i>Oncocoris detersus</i> (Walker, 1868)	Pentatomidae	NT, QLD, WAS, SA, TSI
<i>Austromalaya reticulata</i> (Westwood, 1837)+	Pentatomidae	NSW, NT, QLD, SA, WA
<i>Poecilometis calidus</i> Walker, 1867	Pentatomidae	NSW, NT, SA, WA
<i>Poecilometis nigriventris nigriventris</i> (Dallas, 1851)	Pentatomidae	NT, QLD, WA
<i>Theseus modestus lyricus</i> (Distant, 1899)	Pentatomidae	NT, QLD, WA
<i>Coptosoma siamica</i> Walker, 1867	Plataspidae	NSW, NT, SA
<i>Australcmena lineativentris</i> (Stål, 1866)	Reduviidae	QLD, WA, NT
<i>Peirates erythromelas</i> (Walker, 1873)	Reduviidae	QLD, SA, WA, NT
<i>Horcinia striata</i> Miller, 1951	Reduviidae	QLD, NSW, SA
<i>Pamerapa thoracica</i> (Distant, 1901)	Rhyparochromidae	NSW, NT, QLD, VIC, SA, WA
<i>Pseudopachybrachius guttus</i> (Dallas, 1852)	Rhyparochromidae	CI, NT, QLD, WA
<i>Stigmatonotum geniculatum</i> (Motschulsky, 1978)	Rhyparochromidae	NT, QLD
<i>Choerocoris paganus</i> (Fabricius, 1775)	Scutelleridae	ACT, NSW, NT, QLD, SA, TAS, VIC, WA

## 2. Methods

### 2.1 Site selection

A total of 14 sites were surveyed over a 12-day period. Full site descriptions and dates are included in the attached Point Data spreadsheet.

Sites were selected primarily by plants that were in flower or had fresh vegetation. The Standard Survey sites, were sampled as required.

### 2.2 Survey techniques

Specimens were collected using the following techniques:

1. Beating or sweeping of vegetation: a beating sheet or an extension net was used to dislodge specimens from plants, including tree canopies.
2. Light sheet collection at night: a Lepi-LED light was suspended in front of a white sheet stretched flat between two trees. Light sheets placed in several locations over several nights in the survey.  
Hand collecting: specimens were collected by hand from the ground, under bark, on rolled logs and overturned rocks.

#### 2.2.1 Methods used at standard survey sites

Techniques used at the Standard Survey sites included beating of vegetation and hand collecting.

### 2.3 Identifying the collections

Prof. Gerry Cassis of UNSW and Arlee McMahan of UNSW sorted and identified specimens with reference to the UNSW entomological collection and consultation with heteropteran literature. Nomenclature is in alignment with the Heteroptera section of the Australian Faunal Directory.

## 3. Results and Discussion

Appendix 1 lists all Heteroptera recorded during the Bush Blitz. Collections made during this Bush Blitz will result in 346 specimens being added to public collections, representing 50 species, eight of which are putative new species. The un-named and new species are given in sections 3.1 and 3.2 respectively. Eight species have been identified to species (Appendix 1), four of which have been previously collected from Groote Eylandt (Table 1).

### 3.1 Un-named or not formalised taxa

The species in Table 2 are in alphabetical order and represent 42 species that require further taxonomic resolution. Thirty-four of the above species are not recognised as new to science at the submission of this report. Comments are given for all of these less taxonomically resolved taxa, focusing on systematics position, taxonomic impediment and other notes of interest. The new species are given in Table 3 with comments.

Taxon	Comment
<i>Amblypelta</i> sp_BBGE_msp.053	This genus includes pestiferous species, including <i>A. lutescens</i> and <i>A. nitens</i> (see Cassis and Gross 2002). Further research and materials are required to identify the Groote Eylandt material.

<i>Aspideurus</i> sp_BBGE_msp.037	The stink bug genus <i>Aspideurus</i> comprises two Australian species, and has not received taxonomic revision for about 100 years. Further research is required to identify the Groote Eylandt material.
<i>Aspideurus</i> sp_BBGE_msp.047	See above.
<i>Austromalaya reticulata</i>	<i>Austromalaya</i> is a genus of the pentatomid tribe Halyini, with three species represented in Australia (Cassis and Gross 2002). This genus is also known from Papua New Guinea. This species has been previously recorded from Groote Eylandt (Table 1).
<i>Austromicrovelia</i> sp_BBGE_msp.012	Andersen and Weir (2003) monographed this genus-group, as a subgenus of <i>Microvelia</i> . Cassis et al. (2016) raised <i>Austromicrovelia</i> to genus rank. Further research is required to identify the Groote Eylandt material.
<i>Austromicrovelia</i> sp_BBGE_msp.013	See above. This species is distinct from <i>Austromicrovelia</i> sp_BBGE_msp.012. Further research is required to identify the Groote Eylandt material.
<i>Cuspicona</i> sp_BBGE_msp.035	This species was represented by a single specimen. Additional material is required to identify which species of <i>Cuspicona</i> this material is.
<i>Eritingis</i> sp_BBGE_msp.028	See New Species section 3.2.
<i>Germalus</i> sp_BBGE_msp.045	<i>Germalus</i> species exhibit significant intraspecific variability. Further research is required to identify this species.
Gn_Eccritotarsini_GE001 sp_BBGE_msp.009	See New Species section 3.2.
Gn_Harpactocorini_GE001 sp_BBGE_msp.018	Further research is required to identify this species.
Gn_Mirinae_GE001 sp_BBGE_msp.017	The subfamily Mirinae is one of the most speciose mirid groups, but has a large taxonomic impediment. Further research is required to identify this species.
Gn_Mirinae_GE001 sp_BBGE_msp.039	See above. Further research is required to identify this species.
Gn_Myodochini_GE001 sp_BBGE_msp.025	Further research is required to identify this species.
Gn_Orthotylinae_GE001 sp_BBGE_msp.020	See New Species section 3.2.

Gn_Pentatomidae_GE001 sp_BBGE_msp.044	Further research is required to identify this species.
Gn_Pentatomidae_GE001 sp_BBGE_msp.048	See New Species section 3.2.
Gn_Phylinae_GE001 sp_BBGE_msp.001	The Phylinae is the third most speciose mirid subfamily. Identification of species generally requires investigation of male genitalia. Further research is required to identify this species.
Gn_Phylinae_GE001 sp_BBGE_msp.006	See above. Further research is required to identify this species.
Gn_Phylinae_GE002 sp_BBGE_msp.011	See above. Further research is required to identify this species.
Gn_Phylinae_GE001 sp_BBGE_msp.016	See above. Further research is required to identify this species.
Gn_Phylinae_GE001 sp_BBGE_msp.030	See above. Further research is required to identify this species.
Gn_Phylinae_GE001 sp_BBGE_msp.034	See above. Further research is required to identify this species.
Gn_Phylinae_GE001 sp_BBGE_msp.046	See above. Further research is required to identify this species.
Gn_Rhynchocorini_GE001 sp_BBGE_msp.049	It is uncertain as to what genus this rhynchocorine stinkbug belongs to. Further research is required to identify this species.
Gn_Rhyparochrominae_GE001 sp_BBGE_msp.052	Further research is required to identify this species.
Gn_Zanchiini_GE001 sp_BBGE_msp.051	See New Species section 3.2.
<i>Leptocorisa</i> sp_BBGE_msp.002	This species is likely to be the rice pest species, <i>L. acuta</i> .
<i>Mesovelia</i> sp_BBGE_msp.005	Further research is required to identify this species.
<i>Nethersia</i> sp_BBGE_msp.014	Cassis et al.(2016) revised <i>Nethersia</i> . Since this work additional new species of <i>Nethersia</i> have been recognised. The Groote Eylandt material may represent a new species but requires further research and examination of additional material.
<i>Noliphus</i> sp_BBGE_msp.021	This species is likely to be <i>N. annulipes</i> , which has been previously collected from Groote Eylandt (Table 1).
<i>Ocirrhoe</i> sp_BBGE_msp.040	<i>Ocirrhoe</i> comprises 12 closely related species. Genitalic inspection is required to assess if this species is new or conspecific with the described species. Further research is required to identify this species.

<i>Ocirrhoe</i> sp_BBGE_msp.043	See above. Further research is required to identify this species.
<i>Oecophyloides</i> sp_BBGE_msp.029	This is a monotypic genus, described by Schwartz and Cassis (2003). In all likelihood this is conspecific to <i>O. bipunctatus</i> . The described species is a putative mimic of green tree ants. At present we have refrained from naming this as the latter species pending genitalic inspection and acquisition of additional material.
<i>Oncocoris</i> sp_BBGE_msp.003	<i>Oncocoris</i> is a large Australian genus, which are often very abundant, including in agroecosystems (McDonald 1978). <i>Oncocoris</i> sp_BBGE_msp.003 is a singleton, and dark brown in colouration. <i>Oncocoris detersus</i> was previously collected from Groote Eylandt, however this species is straw coloured and not conspecific with the specimen we collected. Additional material is needed to examine the genitalia of both sexes to confirm its identity.
<i>Oncopeltis</i> sp_BBGE_msp.004	<i>Oncopeltis</i> is a well known genus, and <i>O. fasciatus</i> is a model species in physiological studies. A single species was collected by us on Groote Eylandt and additional material is required to confirm its identity. Cassis and Gross (2002) listed <i>O. nigroflavatus</i> from Groote Eylandt but it is uncertain if it is conspecific with <i>Oncopeltis</i> sp_BBGE_msp.004. Additional material is needed to confirm its identity.
<i>Oncylocotis</i> sp_BBGE_msp.008	The Australian Enicocephalidae are one of the poorest known families of Heteroptera in Australia (Cassis and Gross 1995). There are possibly over 100 species in Australia yet only five are described. It is uncertain if the Groote Eylandt material represents a new species. This species fits the description of <i>Oncylocotis</i> based on pronotal and wing morphology.



<i>Pilophorus</i> sp_BBGE_msp.050	See New Species section 3.2.
<i>Rayieria</i> sp_BBGE_msp.036	<i>Rayieria</i> is a recently revised genus of monaloniine mirid (Namyatova and Cassis 2013) that includes a minor forestry pest. Only a single specimen was found on Groote Eylandt. Additional material and genitalic dissections are needed to determine the identity of the species we collected.
<i>Riptortus</i> sp_BBGE_msp.022	<i>Riptortus</i> is in urgent need of taxonomic revision and multiple new species are known from Australia (Cassis pers. obs.). Further research is required to determine the status of this species. The nymphs of this species are ant mimics.
<i>Setocoris</i> sp_BBGE_msp.042	See New Species section 3.2.
<i>Spermatodes</i> sp_BBGE_msp.041	Wood and McDonald (1984) revised the species of the <i>Eysarcoris</i> group, that includes the genus <i>Spermatodes</i> . At the time of submission of this report, we were not able to identify it to species. Further research is required to identify this species.

### 3.2 Putative new species (new to science)

Eight new species were found in the Groote Eylandt Bush Blitz (Table 2). Six of the putative new species belong to the family Miridae, which is expected, given the hyperdiversity of the family worldwide and in Australia (Cassis and Schuh 2012; 11,000+ species). One new species were from also designated as such from the families Tingidae and Pentatomidae respectively. There are likely additional new species to those given in Table 2, but require further study and detailed dissections. We have identified one phylinae species as new to science (Table 2). However, there are potentially additional new species amongst the other phylinae representatives. We have refrained from adding these to the new species list as further study and/or survey are required.

Habitus images for all eight new species are given in Plates 1 and 2.

<b>Species</b>	<b>Comment</b>
<i>Eritingis</i> sp_BBGE_msp.028	This is a putative new species based on external features. This genus is under review by Sherlock and Cassis (in preparation).
<i>Setocoris</i> sp_BBGE_msp.042	This is a new species of <i>Setocoris</i> found on <i>Drosera indica</i> . It is a kleptoparasitic insect that steals plant prey.

Gn_Eccritotarsini_GE001 sp_BBGE_msp.009	This species is very similar to the extralimital genus <i>Taricoris</i> . It belongs to the mirid subfamily Bryocorinae and tribe Eccritotarsini. Species of this genus are often associated with the plant genus <i>Pandanus</i> . It is undoubtedly a new species, and is a near relative of the genus <i>Frontimiris</i> , which was recently added to the Australian fauna (Cassis et al. 2016).
Gn_Orthotylinae_GE001 sp_BBGE_msp.020	The genus identity of this species is unclear. It bears resemblance with the Indo-Pacific genus <i>Pseudoloxops</i> . Its external features are unlike those of any other species of <i>Pseudoloxops</i> . It is considered herein as a new species. The genitalia of this species need to be investigated.
Gn_Pentatomidae_GE001 sp_BBGE_msp.048	This oval-shaped stinkbug does not match any of the Australian pentatomids, and is considered a new species. It bears superficial resemblance to species of the tribe Sciocorini.
Gn_Phylinae_GE002 sp_BBGE_msp.023	The Phylinae species does not equate to any described species. We have evaluated it as new to science.
<i>Pilophorus</i> sp_BBGE_msp.050	This species is a member of the phylinae tribe Pilophorini, on the basis of the fleshy convergent parempodia and presence of scalelike setae on the mesepimeron and dorsum. It fits the diagnostic characters of <i>Pilophorus</i> , but does not resemble a described species. The genus is poorly represented in Australia, with one species only ( <i>P. sundaë</i> ), which is not conspecific with the Groote Eylandt material.
Gn_Zanchiini_GE001 sp_BBGE_msp.051	There are no described species of Zanchiini in Australia. This is a new species and its generic placement is unknown.

### 3.3 Exotic and pest species

*Creontiades dilutus* (Miridae) was collected on Groote Eylandt and is a major cotton pest in Australia, and is also found on a range of other crops. Because *Leptocorisa* sp\_BBGE\_msp.002 is likely to be *L. acuta*; its identity will be assessed further given its pest status (Cassis and Gross 2002). In addition, *Amblypelta* sp\_BBGE\_msp.053 may be of economic interest, if it is one of the economic members of the genus. Two additional pest species have been reported from Groote Eylandt prior to the Bush Blitz survey (Table 1), namely *Phaenacantha australiae* (Colobathristidae) and *Megymenum affine* (Dinidoridae). Neither of these two latter species were collected in the Bush Blitz survey.

Exotic/pest species	Location sighted/observed	Indication of abundance	Comments
<i>Creontiades dilutus</i>	Base camp - light sheet	Singleton	

### 3.4 Threatened species

There are no threatened heteropteran species listed for Groote Eylandt. None of the species collected are considered vulnerable or threatened based on existing and Bush Blitz data.

### 3.5 Range extensions

In Table 1, we provided a list of 37 species previously recorded from Groote Eylandt. Only four species from this list have been recollected during the Groote Eylandt Bush Blitz survey (Table 1); these are: *Mutusca brevicornis* (Alydidae), *Graptostethus servus* (Lygaeidae), *Pachygrontha austrina* (Pachygronthidae) and *Austromalaya reticulata* (Pentatomidae).

Four other species have been identified to species and are new records from Groote Eylandt as follows: *Aulacosternum nigrorubrum* (Coreidae), *Arafuramiris queenslandensis* (Miridae), *Creontiades dilutus* (Miridae) and *Lampromicra senator* (Scutelleridae).

### 3.6 Genetic information

The majority of all species collected were collected in 100% ethanol for possible molecular analyses in the future. Samples are stored in the UNSW insect collection. No genetic sampling has been undertaken of the Groote Eylandt material.

## 4. Information on species lists

The Heteroptera section of the Australian Faunal Directory was used to verify correct nomenclature for the described species, as given in the Groote Eylandt Point Data spreadsheet, and Appendix 1. It is of great interest that only four of the pre-existing list of Groote Eylandt heteropterans (Table 1) were collected in the current Bush Blitz. The additional 46 new heteropteran records demonstrate a high diversity of the suborder from Groote Eylandt. In combination, 83 species of Heteroptera are new for the island. There is no evidence to suggest that any of these taxa are endemic to Groote Eylandt, given that there are no endemic species of Heteroptera based on existing information (Table 1).

## 5. Information for land managers

Further collecting and analysis is necessary to determine species abundance and diversity, range, host vegetation, and endemism or rarity of taxa. The listing of the pest species *Creontiades dilutus* in section 3.3 above is unlikely to be of a major issue for land managers.

## 6. Other significant findings

The representation of the Miridae at the Groote Eylandt was surprising given the dry season at the time of collecting and the short duration of the survey period. Notable findings include:

- 1) The lack of overlap between the existing heteropteran list for Groote Eylandt (Table 1; Cassis and Gross 2002) and the Groote Eylandt Bush Blitz was an unexpected finding of this study. With only four species (see above) shared between the two lists. This is most likely an indication of seasonality and monsoonal differences. The fact that 83 species are now known from Groote Eylandt demonstrates that there is a substantial heteropteran biota on this island. Although many of the identified species are widespread in Australia (e.g., *Mictis profana*, *Aulacosternum nigrorubrum*), there are also species that are restricted to the tropics (e.g., *Aricthus monteithi*, *Setocoris* sp\_BBGE\_msp.042). Groote Eylandt represents the most diverse heteropteran insular fauna in comparison to other Australian islands (Cassis and Gross 1995, 2002). The limited surveys of Groote Eylandt and the large number of species collected to date, indicates that future surveys are needed to reach a fulsome knowledge of the heteropteran biota for the island.
- 2) Groote Eylandt includes heteropteran species that are also known from Papua New Guinea (e.g., *Amorbus rhombeus* [Coreidae]) and the Oriental region (*Graptostethus servus* [Lygaeidae]). The sharing of heteropteran species with extralimital regions indicates that Groote Eylandt is an island worthy of ongoing surveillance for invasive heteropteran species.
- 3) Species representatives of fourteen families of Heteroptera were collected in the Groote Eylandt Bush Blitz. The majority of these species belong to two of the three most hyperdiverse families, the Miridae (ca. 11000+ species worldwide, Cassis and Schuh 2012, Cassis 2019) and the Pentatomidae (4481 species, Cassis 2019). However, the second most speciose family, the Reduviidae (6878 species, Cassis (2019), was poorly represented on Groote Eylandt. All other families, aside from the Alydidae (4 spp.) were represented by doubletons (Coreidae, Lygaeidae, Rhyparochromidae, Tingidae and Veliidae) or singletons (Enicocephalidae, Geocoridae, Mesoveliidae, Pachygronthidae, Reduviidae and Scutelleridae). In contrast, the pre-Bush Blitz data with species representatives of 18 families, including those belonging to the Belostomatidae, Colobathristidae, Cydnidae, Dinidoridae, Gerridae, Nepidae and Plataspidae; none of the latter seven families were found in the Groote Eylandt Bush Blitz survey.
- 4) The discovery of four ant-mimetic species, including: a) *Arafuramiris queenslandensis* (Miridae: Phylinae: Leucophoropterini) a remarkable species, with highly concave margins of the forewings and a strongly triangulated head; b) *Pilophorus* sp\_BBGE\_msp.050 (Miridae: Phylinae: Pilophorini), which has silvery scalelike setae, and is a new species of the genus from Australia; c) *Oecophyloides* sp\_BBGE\_msp.029 (Miridae: Mirinae: Mirini), which is very similar to *O. bipunctatus*, and was originally described from Dunk Island in association with Green Tree Ants (*Oecophylla smargdina*) and an ant-mimetic species of the mirid genus *Acrorrhinium* (Phylinae); and d) *Riptortus* sp\_BBGE\_msp.022 (Alydidae), which has ant-mimetic nymphs.

## 7. Conclusions

There was a large number of heteropteran species captured on Groote Eylandt given that sampling was in the June and for a brief period. Fifty heteropteran species, were collected from 14 families: Alydidae (4 spp.), Coreidae (2), Enicocephalidae (1), Lygaeidae (2), Mesoveliidae (1), Miridae (19), Pachygronthidae (1), Pentatomidae (11), Reduviidae (1), Rhyparochromidae (2), Scutelleridae (1), Tingidae (2), Veliidae (2). There were eight identified species, eight putative new species, and 34 species which require further examination, which could lead to the identification of additional new species. Eighty-three species of Heteroptera are now known from Groote Eylandt.

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## Appendices

### Appendix 1. List of Heteroptera recorded during the Groote Eylandt IPA/Archipelago Bush Blitz

Water bugs are marked with the \* symbol. All other species are terrestrial.

Family	Species
Alydidae	<i>Leptocorisa</i> sp_BBGE_msp.002
Alydidae	<i>Mutusca brevicornis</i>
Alydidae	<i>Noliphus</i> sp_BBGE_msp.021
Alydidae	<i>Riptortus</i> sp_BBGE_msp.022
Coreidae	<i>Amblypelta</i> sp_BBGE_msp.053
Coreidae	<i>Aulacosternum nigrorubrum</i>
Enicocephalidae	<i>Oncylocotis</i> sp_BBGE_msp.008
Geocoridae	<i>Germalus</i> sp_BBGE_msp.045
Lygaeidae	<i>Graptostethus servus</i>
Lygaeidae	<i>Oncopeltis</i> GE001 sp_BBGE_msp.004
Mesoveliidae	<i>Mesovelia</i> sp_BBGE_msp.005+
Miridae	<i>Arafuramiris queenslandensis</i>
Miridae	<i>Creontiades dilutus</i>
Miridae	Gn_Eccritotarsini_GE001 sp_BBGE_msp.009
Miridae	Gn_Mirinae_GE001 sp_BBGE_msp.017
Miridae	Gn_Mirinae_GE001 sp_BBGE_msp.039
Miridae	Gn_Phylinae_GE001 sp_BBGE_msp.001
Miridae	Gn_Phylinae_GE001 sp_BBGE_msp.006
Miridae	Gn_Phylinae_GE002 sp_BBGE_msp.011
Miridae	Gn_Phylinae_GE001 sp_BBGE_msp.016
Miridae	Gn_Phylinae_GE002 sp_BBGE_msp.023
Miridae	Gn_Phylinae_GE001 sp_BBGE_msp.030
Miridae	Gn_Phylinae_GE001 sp_BBGE_msp.034
Miridae	Gn_Phylinae_GE001 sp_BBGE_msp.046
Miridae	Gn_Orthotylinae_GE001 sp_BBGE_msp.020
Miridae	Gn_Zanchiini_GE001 sp_BBGE_msp.051
Miridae	<i>Oecophyloides</i> GE001 sp_BBGE_msp.029
Miridae	<i>Pilophorus</i> sp_BBGE_msp.050
Miridae	<i>Rayieria</i> sp_BBGE_msp.036
Miridae	<i>Setocoris</i> sp_BBGE_msp.042
Pachygronhidae	<i>Pachygrontha austrina</i>
Pentatomidae	<i>Aspideurus</i> sp_BBGE_msp.037
Pentatomidae	<i>Aspideurus</i> sp_BBGE_msp.047
Pentatomidae	<i>Austromalaya reticulata</i>
Pentatomidae	<i>Cuspicona</i> sp_BBGE_msp.035
Pentatomidae	<i>Ocirrhoe</i> sp_BBGE_msp.040
Pentatomidae	<i>Ocirrhoe</i> sp_BBGE_msp.043
Pentatomidae	<i>Oncocoris</i> GE001 sp_BBGE_msp.003
Pentatomidae	<i>Spermatodes</i> sp_BBGE_msp.041

Pentatomidae	Gn_Pentatomidae_GE001 sp_BBGE_msp.044
Pentatomidae	Gn_Pentatomidae_GE001 sp_BBGE_msp.048
Pentatomidae	Gn_Rhynchocorrini_GE001 sp_BBGE_msp.049
Reduviidae	Gn_Harpactocorini_GE001 sp_BBGE_msp.018
Rhyparochromidae	Gn_Myodochini_GE001 sp_BBGE_msp.025
Rhyparochromidae	Gn_Rhyparochrominae_GE001 sp_BBGE_msp.052
Scutelleridae	<i>Lampromicra senator</i>
Tingidae	<i>Eritingis</i> sp_BBGE_msp.028
Tingidae	<i>Nethersia</i> sp_BBGE_msp.014
Veliidae	<i>Austromicrovelia</i> sp_BBGE_msp.012+
Veliidae	<i>Austromicrovelia</i> sp_BBGE_msp.013+