

Identification and Ecology of

Australian Freshwater Invertebrates

An interactive guide with colour digital imagery to assist in the identification of aquatic invertebrates.



Index of Keys for use in the Murray-Darling Basin

This draft document will be an update of the taxonomic references contained within Hawking 2000¹ which can still be purchased from MDFRC on (02) 6024 9650 or info@mdfrc.org.au.

The **Index of Keys** reflects the taxonomic references contained within the online identification guide (<http://www.mdfrc.org.au/bugguide/index.htm>) that are used at MDFRC for the identification of invertebrates from the Murray-Darling Basin.

We have made the decision to make this draft version publicly available so that other taxonomy end-users may have access to the information during the refining process and also to encourage comment on the usability of the keys referred to or provide information on other keys that have not been referred to.

Please email all comments to bugsonline@mdfrc.org.au.



¹Hawking, J.H. (2000) A preliminary guide to keys and zoological information to identify invertebrates from Australian freshwaters. Identification Guide No. 2 (2nd Edition), Cooperative Research Centre for Freshwater Ecology: Albury

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Introduction

This **Index of Keys** was written primarily for work undertaken at the Murray-Darling Freshwater Research Centre and so may not always include regional keys for regions outside on the Muray Darling Basin. It is a summary of the applicable information held in Hawking et al. 2009, the online guide to the *Identification and Ecology of Australian Freshwater Invertebrates* (Bug Guide) at <http://www.mdfr.org.au/bugguide/index.htm>, version February 2009. The **Index** is designed to provide consistency among staff at MDFR working on macroinvertebrate projects undertaking identifications to the species taxonomic level (see Taxonomic Resolution). It does not include listings for zooplankton.

The status of taxonomic levels above Order are reviewed or debated as knowledge is gained or refuted with the majority of groupings remaining constant. For this reason, major groups and minor groups above Order level have not been assigned taxonomic status in the Bug Guide.

For a list of recent taxonomic name changes go to <http://www.mdfr.org.au/bugguide/resources/namechanges.pdf>

This document is organised in alphabetical order with the following hierarchy;

Major Group

Minor Group

Order

Family

Genus species Author

Notations

Partial	key does not contain all of the species currently recognised
Larva/nymph unknown	larvae or nymphs have not been associated with adults, refer to the applicable pages on the Bug Guide for this information and taxonomic checklists
Undescribed (undes.)	larvae or nymphs do not have a published description, refer to the applicable pages on the Bug Guide for this information and complete taxonomic checklists
*	unsure of aquatic status OR may include terrestrial species
+	unsure of freshwater status OR may include marine/saline species
Sp.	species
(State or territory)	regional key
Key	in-house key

Where to start

Key to Major Groups [Bug Guide](#)

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Taxonomic Resolution

This **Index of Keys** provides key listings for identifications undertaken to species, or lowest possible taxonomic, level using a stereo microscope, where keys exist.

Bold text indicates that there is only one option

✓ indicates where identification stops for Species level resolution projects, where keys exist

∞ indicates where identification stops for Family level resolution projects

Major Group	Minor Group	Order	Family	Subfamily	Genus	Species
Acarina	Hydracarina ∞				✓	
	Halacaroidea ∞				✓	
	other groups ✓ ∞					
Aphanoneura			Aeolosomatidae ∞	Aeolosma ✓		
Bivalvia			∞			✓
Bryozoa ✓ ∞						
Cnidaria		Hydrozoa	∞			✓
Collembola ∞			✓			
Crustacea	Malacostraca	Decapoda	∞			✓
	remaining groups		✓ ∞			
Gastropoda			∞			✓
Hirudinea			✓ ∞			
Insecta		Coleoptera	∞			✓
		Diptera	∞			✓
		Diptera	Chironomidae	∞	✓	
		Ephemeroptera	∞			✓
		Hemiptera	∞			✓
		Lepidoptera	Crambidae ✓ ∞			
		Mecoptera	Nannochoristidae ∞	Nannochorista		✓
		Megaloptera	∞			✓
		Neuroptera	∞			✓
		Odonata	∞			✓
		Plecoptera	∞			✓
		Trichoptera	∞			✓
Nematoda ✓ ∞						
Nematomorpha ✓ ∞						
Nemertea ✓ ∞						
Oligochaeta ✓ ∞						
Polychaeta ✓ ∞						
Porifera			Spongillidae ✓ ∞			
Platyhelminthes		Tricladida	Dugesiiidae ✓ ∞			
		Temnocephalida	Temnocephalidae ✓ ∞			

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Acarina

Key to Minor Groups Bug Guide from Harvey & Growns 1998

Halacaroidea

Key to Families Harvey 1998

Halacaridae

No key to genera

Astacopsiphagus
Labohalacarus

Pezidae

Peza

Hydracarina

Key to Families Harvey & Growns 1998 or Harvey 1998 (same key more detail)

Anisitiellidae

Key to Genera Harvey 1998

Anisitsiellides
Mamersella
Rutacarus
Sigthoria

Arrenuridae

Key to Genera Harvey 1998

Arrenurus
Wuria

Astacocrotonidae

Astacocroton molle Haswell

Athienemanniidae

Key to Genera Harvey 1998

Mellamunda
Notomundella

Aturidae

Key to Genera Harvey 1998

Albia
Austraturus
Axonopsella
Azugaturus
Barwontius
Cabellaturus
Melenaturus
Spinaturus
Thryptaturus
Twarntaturus

Elyidae

Eylais

Frontipodopsidae

Frontipodopsis

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Hygrobatidae

Key to Genera Harvey 1998

Australiobates
Australorivacarus
Aspidiobatella
Aspidiobates
Caenobates
Coaustraliobates
Cookabates
Declinatobates
Dropursa
Gondwanabates
Groonabates
Hygrobates
Kallimobates
Procorticacarus
Rhynchaustrobates
Tasmanobates
Todelobates

Hydrachnidae

Hydrachna

Hydrodromidae

Hydrodroma

Hydryphantidae

Key to Genera Harvey 1998

Austrotrombella
Cyclohydryphantes
Diplodontus
Hydryphantes
Mamersa
Notopnisus
Pseudohydryphantes
Tartarothyas
Wandesia

Limnocharidae

Key to Genera Harvey 1998

Austrolimnochares
Limnochares
Neolimnochares

Limnesiidae

Key to Genera Harvey 1998

Heterolimnesia
Limnesia
Physolimnesia
Timmslimnesia
Tubophorella

Mideopsidae

Key to Genera Harvey 1998

Gretacarus
Guineaxonopsos
Penemideopsis
Tillia

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Tiramideopsis

Momoniidae

Austromomonía
Hesperomononia
Momoniella
Partidomononia

Omartacaridae

Omartacarus

Oxidae

Key to Genera Harvey 1998

Flabellifrontipoda
Frontipoda
Oxus

Piersigiidae

Key to Genera Harvey 1998

Austrapiersigia
Stygotlimnochaeres

Pionidae

Key to Genera Harvey 1998

Acercella
Australotiphys
Larri
Piona

Pontarachnidae

Key to Genera Harvey 1998

Litarachna
Pontarachna

Torrenticolidae

Monatractides

Unionicolidae

Key to Genera Harvey 1998

Encemtridophorus
Koenikea
Neumania
Pollicipalpus
Recifella
Unionicola

Wettinidae

Tasmanaxona
Wheenyella
Wheenyoides

Zelandothyadidae

Australiothyas swaini Cook

The following minor groups of Acarina are identified no further;

Astigmata: Histiostomatidae

***Mesostigmata : Ascidae**

Oribatida

***Trombidioidea : Trombidiidae**

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Bivalvia

Key to Orders Bug Guide from Smith 1979

Unionoida

Hyriidae

Key to Genera Walker 2004

<i>Alathyria</i>	4 species	Walker 2004
<i>Cucumerunio novaehollandiae</i> Gray		
<i>Hyridella</i>	5 species	Walker 2004
<i>Lortiella froggattii</i> Iredale		
<i>Lortiella opertanea</i> Ponder & Bayer		
<i>Lortiella rugata</i> Sowerby		
<i>Velesunio</i>	4 species	Walker 2004
<i>Westralunio carteri</i> Iredale		

Veneroida

Key to Families Bug Guide from Smith 1996

Corbiculidae

Key to Genera Smith 1996

<i>Batissa violacea</i> Lamarck		
<i>Corbicula</i>	2 species	no key to species
<i>Polymesoda coaxans</i> Gmelin		

Sphaeriidae

Key to Genera Smith 1996

<i>Sphaerium</i>	4 species	no key to species
<i>Pisidium</i>	8 species	no key to species

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Cnidaria

Note: There is some discrepancy in the literature about the taxonomic level of Hydrozoa. This does not affect identifications.

Minor Group: Hydrozoa (Pennak 1989, ABRS 2004)

Order: Hydrozoa (Williams 1980) or Hydroida (Pennak 1989, ABRS 2004)

Hydrozoa

Key to Families Bug Guide from Pennak 1989 (USA), Williams 1980

Australomedusidae

Australomedusa baylii Russell

Clavidae

Cordylophora caspia Pallas

Note: Record only as "present" i.e. do not count (colonial animal).

Hydridae

Key to Genera Pennak 1989 (USA)

Hydra

Chlorohydra viridissima Pallas

Olindiidae

Craspedacusta sowerbyi Lankester

Note: Record only as "present" i.e. do not count (animal reproduces by budding and is easily broken during sample processing)

Collembola

Note: The following families can be separated from Sminthuridae using the features noted on the Bug Guide.

Dicyrtomidae

Hypogastruridae

Isotomidae

Neelidae

Note: The following families cannot be separated unless slide mounted.

Katiannidae

Sminthuridae

Sminthuridae

Only obligate aquatic species

No key to genera, use distribution (except for WA)

Pygicornides stagnalis Womersley WA

Sminthurides aquaticus Bourlet SA, Vic, WA

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Crustacea

Key to Minor Groups Bug Guide

Anostraca

Key to Families Timms 2004 (all), 2011 ([salt lakes](#))

Artemiidae

Artemia+ franciscana Kellogg (+1 undescribed species) Timms 2011

Branchiopodidae

New Genus A ? species key?

Parartemidae

Parartemia+ 18 species (+1 undescribed species) Timms 2011

Streptocephalidae

Streptocephalus 2 species (+1 undescribed species) Timms 2004

Thamnocephalidae

Branchinella 28 species (+1 undescribed species) Timms 2004

? *Australbranchipus* (not in Timms 2004) is this Genus A?

Branchiura

Argulidae

No key to genera, separate by distribution

Argulus 3 species no key to species, separate by distribution

Note: *A. macropterus* – WA; *A. foliaceus* and *A. japonicus* – NSW, Vic

Dolops tasmanianus Fryer - Tas

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Conchostraca

Key to Families Richter & Timms 2005

Cyzicidae

Key to Genera Richter & Timms 2005

Caenestheria 6 species no key to species

Caenestheriella 2 species no key to species

Cyzicus rufa Dakin

Eocyclus parooensis Richter & Timms

Cyclestheridae

Cyclestheria hislopi Baird

Limnadiidae

Key to Genera Richter & Timms 2005

Eulimnadia 2 species no key to species

Limnadia 7 species no key to species

Limnadopsis 4 species no key to species

Lynceidae

Lynceus 2 species no key to species

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Malacostraca

Key to Orders Bug Guide from Horwitz et al 1995, Lowry & Yerman 2002, Serov 2002

Amphipoda

Key to Families King & Bradbury 2012

Bogidiellidae

Key to Genera King & Bradbury 2012

Bogidiella veneris Leys et al.

Bogidomma australis Bradbury & Williams

Eusiridae

Key to Genera King & Bradbury 2012

Pseudomera 2 species

King & Bradbury 2012

Paraleptamphopus undescribed species

Chiltoniidae (formerly Hyalidae)

Key to Genera King & Bradbury 2012

Arabunnachiltonia murphyi ??

Austrochiltonia 3 species

King & Bradbury 2012

Phreatochiltonia anophthalma Zeidler

Wangiannachiltonia guzikae ??

Corophiidae

Key to Genera King & Bradbury 2012

Corophium 2 species

no key to species

Monocorophium acherusicum ??

Paracorophium brisbanensis ??

Melitidae

Key to Genera King & Bradbury 2012

Brachina invasa Barnard & Williams

Melita plumulosa Zeidler

Nedsia 8 species

Bradbury & Williams 1999 (part)

Norcapensis mandibulis Barnard & Williams

Nurina poulteri Bradbury & Eberhard

Neoniphargidae

Key to Genera King & Bradbury 2012

Jasptorus solepti Bradbury & Williams

Neocrypta 6 species

King & Bradbury 2012

Neoniphargus 10 species

King & Bradbury 2012

Tasniphargus tyleri Williams & Barnard

Uronyctus longicaudus Stock & Iliffe

Wesniphargus 2 species

King & Bradbury 2012

Wombeyanus botulosus Bradbury & Williams

Yulia yuli Smith

Paracalliopiidae

Paracalliope 2 species

King & Bradbury 2012 (only 1 freshwater genus)

Paramelitidae

Key to Genera King & Bradbury 2012

Antipodeus 6 species

King & Bradbury 2012

Austrocrangonyx 2 species

King & Bradbury 2012

Austrogammarus 7 species

King & Bradbury 2012

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<i>Chillagoe thea</i> Barnard & Williams		
<i>Chydaekata</i>	15 species	Bradbury 2000 stygebiont
<i>Giniphargus pulchellus</i> Sayce		
<i>Hurleya kalamundae</i> Straskraba		
<i>Kruptus linnaei</i> ??		
<i>Maarka</i>	2 species	no key to species
<i>Molina pleobranchon</i> Bradbury		
<i>Pilbarus millsii</i> Bradbury & Williams		
<i>Protocrangonyx fontinalis</i> Nicholls		
<i>Totgammarus eximius</i> Bradbury & Williams		
<i>Toulrabria willsi</i> Barnard & Williams		
<i>Uroctena</i>	5 species	King & Bradbury 2012
Perthiidae		
<i>Perthia</i>	2 species (possible undescribed species)	King & Bradbury 2012

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Anaspidacea

Key to Families Bug Guide from Serov 2002

Anaspididae

Key to Genera Serov 2002

<i>Allanaspides</i>	2 species	no key to species
<i>Anaspides</i>	2 species	no key to species
<i>Paranaspides lacustris</i> Smith		

Koonungidae

Key to Genera Serov 2002

<i>Koonunga</i>	2 species	no key to species
<i>Micraspides calmani</i> Nicholls		

Psammaspididae

Key to Genera Serov 2002

Eucrenonaspides oinotheke Knott & Lake
Psammaspides williamsi Schminke

Stygocarididae

Stygocaris giselae Schminke

Family A

(1 undescribed genus) (3 undescribed species) no key to species

Bathynellacea

Key to Families Bug Guide from Serov 2002

Bathynellidae

Bathynella primaustraliensis Schminke

Parabathynellidae

Key to Genera Serov 2002 (part)

<i>Atopobathynella</i>	9 species	no key to species
<i>Brevisomabathynella</i>	2 species	no key to species
<i>Chilibathynella australiensis</i> Schminke		
<i>Kimberleybathynella</i>	6 species	no key to species
<i>Notobathynella</i>	3 species	no key to species

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Decapoda

Key to Families Bug Guide from Horwitz 1995, Horwitz et al 1995

Atyidae

Key to Genera Bug Guide from Horwitz 1995

Australatya striolata McCulloch & McNeill

Caridina 13 species Choy 2012 (SE Aus morphospecies),
Horwitz 1995 (partial)

Caridinides wilkinsi Calman

Paratya 3 species **no key to species**, use distribution

Note: *P. australiensis* - E Aus, Tas; *P. howensis* - Lord Howe Island; *P. norfolkensis* - Norfolk Island

Parisia 2 species Horwitz 1995

Pycneus morsitans Holthuis

Pycnisia raptor Bruce

Stygiocaris 2 species Horwitz 1995

Hymenosomatidae

Amarinus lacustris Chilton ([only 1 freshwater species](#))

Kakaducarididae

Key to Genera Bug Guide from Horwitz 1995

Kakaducaris glabra Bruce

Leptopalaemon gagadju Bruce & Short

Palaemonidae

Key to Genera Bug Guide from Horwitz 1995, Bruce & Short 1993

Calathaemon holthuisi Strength

Macrobrachium 11 species Short 2004 ([inc. marine](#))

Palaemon 3 species **no key to species**

Palaemontes 2 species **no key to species**

Parastacidae

Key to Genera Bug Guide from Horwitz 1995

Astacopsis 3 species Horwitz 1995

Cherax 28 species Horwitz 1995 (partial, unnamed sp.)

Engaeus 35 species Horwitz 1995 (partial),

Engaewa 5 species Horwitz 1995 (partial, unnamed sp.)

Euastacus 46 species Horwitz 1995 (partial, unnamed sp.)

Geocharax 2 species Horwitz 1995 (partial, unnamed sp.)

Gramastacus insolitus Riek

Parastacoides tasmanicus Erichson

Tenuibranchiurus glypticus Riek

Parathelphusidae

Austrothelphusa 8 species Horwitz 1995

Trogloplacidae

Australocarcinus riparius Davie

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Isopoda

Key to Families Bug Guide from Horwitz et al 1995

Key to genera of Phreatoicoidea (without family distinction) Wilson 2012

Amphisopidae

Amphisopus 2 species no key to species
Eophreatoicus kershawi Nicholls (+2 undes sp)
Eremisopus beei Wilson & Keable
Paramphisopus 3 species no key to species
Phreatomerus latipes Chilton
Platypyga subpetrae Wilson & Keable
Synamphisopus 2 species no key to species

Hypsimetopidae

Hyperoedesipus pulmosus Nicholls & Milner
Hypsimetopus intrusor Sayce
Phreatoicoides 3 species (+3 undes. sp.) no key to species
Pilbarophreatoicus platyarthricus Knott & Halse

Phreatoicidae

Colacanthotelson rugosus Nicholls (not in key)
Colubotelson 16 species (+2 undes sp) Wilson & Keable 2000 (partial)
Crenoiacus 4 species (+1 undes sp)
Gariwerdeus 3 species no key to species
Naiopegia xiphagrostis Wilson & Keable
Mesacanthotelson 5 species no key to species
Metaphreatoicus 4 species Wilson & Keable 2000 (partial)
Onchotelson 2 species no key to species
Paraphreatoicus relictus Nicholls
Uramphisopus pearsoni Nicholls

Phreatoicopsidae

Phreatoicopsis 2 species **Wilson & Keable 2002** – find it

Ponderellidae

Ponderella 2 species no key to species

unplaced (nr Amphisopidae) *Crenisopsus acinifer* Wilson & Keable
unplaced (nr Hypsimetopodidae) *Peludo paraliotus* Wilson & Keable

Non Phreatoicoidea

Aegidae

Alitropus typus Milne Edwards (only 1 freshwater species)

Corallanidae

Tachaea caridophaga Riek (only 1 freshwater species)

Janiridae

Heterias 3 species no key to species (only 1 freshwater genus)

Micropasellidae

Angeliara rivularis Stock

Scyphacidae

Haloniscus 4 species **Taiti & Humphreys 2001** (inc. terrestrial)

Enigmata (nr Phreatoicoidea)
no family *Tainisopus* 2 species no key to species

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Spelaeogriphacea

Spelaeogriphidae

Mangkurtu

2 species

no key to species

Tanaidacea

Paraseudidae

Pseudohalmyrapseudes

2 species

Larsen & Hansknecht 2004 – find it

Thermosbaenacea

Halosbaenidae

Halosbaena tulki Poore & Humphreys

Notostraca

Triopsidae

No key to genera

Lepidurus apus Linnaeus

Triops australiensis Spencer & Hall

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Gastropoda

Key to Orders Bug Guide from Smith 1996

Architaenioglossa

Key to Families Bug Guide from Thompson 2004 (USA)

Ampullariidae

Pomacea 2 species (introduced from Asia) Thompson 2004 (USA)

Viviparidae

Key to Genera Smith 1996

Bellamya heudei Kobelt (introduced from China)

Centrapala lirata Tate

Larina strangei Adams

Notopala Cotton 4 species Ponder *et al* 2000 (NSW)

Basommatophora

Glacidorbidae

Key to Genera Ponder & Avern 2000

Benthodorbis 2 species no key to species

Glacidorbis 12 species no key to species

Note: *Glacidorbis costatus* Ponder & Avern is assumed extinct due to draining of wetlands.

Gondwanorbis no species list

Striadorbis 3 species no key to species

Tasmodorbis punctatus Ponder & Avern

Cerithimorpha

Thiaridae

Key to Genera Smith 1996

Brotia supralirata Smith

Melanoides 3 species Ponder *et al* 2000 (NSW)

Ripalania queenslandica Iredale

Sermylasma venustula Brot

Thiara 3 species Ponder *et al* 2000 (NSW)

Cycloneritomorpha

Neritidae

No key to genera

Clithon oualaniensis Lesson

Neritina 4 species no key to species

Hygrophila

Key to Families Bug Guide from Smith 1996

Ancylidae

No key to genera

Ferrissia 2 species Ponder *et al* 2000 (NSW)

Stimulator consetti Iredale

Lymnaeidae

Key to Genera Smith 1996

Austropeplea 2 species Smith 1996 (partial)

Index of Keys

Kutikina hispida Ponder & Waterhouse

Lymnaea 3 species (intro ex Europe/Asia) **Smith 1996 (partial), Lloyd et al 2007 (liver fluke snails as *Lymnaea*) CHOOSE or combine**

Note: This key uses incorrect genus names.

Pseudosuccinea columella Say (intro ex Nth America)

Physidae

Physa acuta Draparnaud (introduced from Europe)

Planorbidae

Key to Genera Smith 1996

<i>Amerianna</i>	5 species	check
<i>Ancylastrum</i>	2 species	Ponder et al 2000 (NSW)
<i>Bayardella</i>	2 species	Ponder et al 2000 (NSW)
<i>Glyptophysa</i>	11 species	Ponder et al 2000 (NSW)
<i>Gyraulus</i>	10 species	Ponder et al 2000 (NSW)
<i>Helicorbis</i>	2 species	Ponder et al 2000 (NSW)
<i>Isidorella</i>	5 species	Ponder et al 2000 (NSW)
<i>Kesmeria papillosa</i> Walker & Ponder		
<i>Leichhardtia sisurnius</i> Walker		
<i>Planorbarius corneus</i> Linnaeus		
<i>Pygmanisus</i>	3 species	Ponder et al 2000 (NSW)

Hypsogastropoda

Key to Families Bug Guide from Smith 1996

Assimineidae

No key to genera

Austroassimineia lethae Solem et al

Aviassimineia palitans Fukuda & Ponder

Bithyniidae

Gabbia australis Tryon

Hydrobiidae

Key to Genera **Smith & Kershaw 1979 (SE Aus)**

<i>Austropyrgus bunyaensis</i> Miller et al		
<i>Beddomeia</i>	45 species	Ponder et al 2000 (NSW)
<i>Fluvidona</i>	19 species	Ponder et al 2000 (NSW)
<i>Fonscochlea</i>	6 species	Ponder et al 2000 (NSW)
<i>Caldicochlea</i>	2 species	Ponder et al 2000 (NSW)
<i>Trochidrobia punicea</i> Ponder et al		
<i>Jardinella</i>	3 species	Ponder et al 2000 (NSW)
<i>Nanocochlea</i>	3 species	Ponder et al 2000 (NSW)
<i>Pharnetela</i>	12 species	Ponder et al 2000 (NSW)
<i>Posticobia</i>	2 species	Ponder et al 2000 (NSW)
<i>Potamopyrgus antipodarum</i> Gray (intro ex NZ)		
<i>Victodrobia</i>	4 species	Ponder et al 2000 (NSW)
<i>Westrapyrgus</i>	2 species	Ponder et al 2000 (NSW)

Pomatiopsidae

Coxiella 8 species **no keyto species**

Hirudinea

Key to Orders Govedich 2001

Arhynchobdellida

Note: A key to families has not been included here because dissection of specimens and slide mounting is required for all characters to be viewed.

Rhynchobdellida

Key to Families Govedich 2001

Glossiphoniidae

Ozobranchidae

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Insecta

Key to Orders Bug Guide

Coleoptera

Key to Families adults – Bug Guide from Lawrence 1995
 larvae - Bug Guide from Lawrence 1995, Watts 2002

Carabidae

Key to Subfamilies and Tribes Lawrence & Britton 1994, 1991 (adults, inc. terrestrial) CHOOSE

Apotominae

Apotomus 3 species Baehr 1990a (adults)

Brachiniinae

Pheropsophus 6 species Giachino 2003 (adults)

Bembidiinae

No key to genera

Bembidion 12 species Toledano 2005 (adults)

Tasmanitachoides 20 species Baehr 2001 (adults)

Chlaeniinae

Chlaenius 10 species no key to species

Oodinae

Oodes 13 species no key to species

Odacanthinae

Key to Genera Baehr 2005 (adults)

Anasis howittii Castelnau

Archicolliuris 2 species Baehr 2005 (adults)

Aulacolius triordinatus Sloane

Basistichus micans Macleay

Clarencia 4 species Baehr 2005 (adults)

Deipyrus 2 species Baehr 2005 (adults)

Dicraspeda 7 species Baehr 2006 (adults)

Eudalia 10 species Baehr 2005, 2006 (adults)

Gestroania 4 species Baehr 2005 (adults)

Giachinoana carinipennis Baehr

Lachnothorax tokkia Gestro

Myrmecodemus 5 species Baehr 2005 (adults)

Neoeudalia nigra Sloane

Ophionea 4 species Baehr 2005 (adults) (*O. indica* introduced to WA)

Porocara 5 species Baehr 2005 (adults)

Renneria kamouni Baehr

Pogoninae

Pogonus 4 species Hudson 2000 (adults) (inc. salt)

Pterostichitinae

No Key to Genera

Catadromus 5 species Giachino 2005 (adults)

Loxandrus 15 species no key to species

Scaritinae

Clivina 100 species no key to species

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Trechinae

No key to genera

Perileptus 6 species no key to species
**Tasmanotrechus* 5 species Moore 1994 adults (Tas, [cave](#))

Chrysomelidae

Key to Subfamilies Lawrence & Britton 1991 ([adults or larvae](#))

Donacinae

Donacia australasiae Blackburn

Galerucinae

No key to genera

Altica ? species no key to species
Agasicles hygrophila Selman & Vogt (introduced ex South America)

Curculionidae

No key to subfamilies

Bagoinae

Bagous australasiae Blackburn

Erirhininae

Key to Genera Zimmerman 1994 (larvae)

Cyrtobagous 2 species (introduced ex Sth America) Zimmerman 1994 (larvae)
Echinocnemus ? species no key to species
Neochetina eichhorinae Warner (introduced ex Argentina via Florida)
Neohydronomus pulchellus Hustache (introduced ex Brazil)

Dytiscidae

Key to Genera Watts 2002 (adults and larvae), ([Hendrich 2001](#))

Allodessus bistrigatus Clark

<i>Allomatus</i>	2 species	Watts 1978 (adults partial)
<i>Antiporus</i>	14 species	Watts 1997 (adults partial)
<i>Australphilus</i>	2 species	Watts 1978 (adults partial) No key to larva
Note: <i>A. montanus</i> Watts SE NSW, <i>A. saltus</i> Watts Vic, Tas		
<i>Austrodytes</i>	2 species	Watts 1978 (adults partial)
<i>Barretthydrus</i>	3 species	Watts 1978 (adults partial)
<i>Batrachomatus</i>	2 species	Watts 1978 (adults partial) & 2006 adults
<i>Bidessodes</i>	5 species	Watts & Humphries 2006, 2004 (Stygobiotic adults)
<i>Carabhydrus</i>	5 species	Larson & Storey 1994 (adults)
<i>Chostonectes</i>	5 species	Watts 1978 (adults partial)
<i>Clypeodytes</i>	4 species	Watts 1978 (adults partial)
<i>Copelatus</i>	22 species	Watts & Humphries 2006, 2004 (Stygobiotic adults)
<i>Cybister</i>	5 species	Hendrich 1997 (adults)
<i>Eretes</i>	2 species	Watts 1978 (adults partial)
<i>Gibbidessus chipi</i> Watts		
<i>Hydaticus</i>	2 species	Watts 1978 (adults partial)
<i>Hydroglyphus</i>	10 species	Hendrich 1999 (adults)
<i>Hydrovatus</i>	7 species	Bistrom 1996 (adults)
<i>Hyphydrus</i>	4 species	Watts & Leys 2006 (adults), Alarie & Watts 2005 (larvae)
<i>Kintingka kurutjutu</i> Watts & Humphreys		
<i>Laccophilus</i>	9 species	Watts 1978 (adults partial)
<i>Lancetes lanceolatus</i> Clark		
<i>Limbodessus</i>	47 species	Watts & Humphries 2006, 2004 (Stygobiotic adults) , Watts & Leys 2005 (adults)
<i>Megaporus</i>	8 species	Watts 1978 (adults partial)
<i>Necterosoma</i>	9 species	Watts 1978 (adults partial)
<i>Nirripiriti</i>	12 species	Watts & Humphries 2006, 2004 (Stygobiotic adults)

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<i>Onychohydus</i>	2 species	Watts 1978 (adults partial)
<i>Paroster</i>	11 species	Watts 1978 (adults partial)
<i>Platynectes</i>	12 species	Watts 1978 (adults partial)
<i>Rhantus</i>	2 species	Balke <i>et al.</i> 2000 (adults)
<i>Rhantaticus congestus</i>	Sharp	
<i>Sandracottus bakewelli</i>	Clark	
<i>Sekaliporus kriegi</i>	Watts	
<i>Spencerhydus</i>	2 species	Watts 1978 (adults partial)
<i>Sternopriscus</i>	29 species	Hendrich & Watts 2004 (adults partial)
<i>Terradessus</i>	2 species	Brancucci & Monteith 1996 (adults)
<i>Tiporus</i>	11 species	Watts 2000 (adults)
<i>Uvarus pictipes</i>	Lea	

Elmidae

Key to Genera Lawrence 1992 (adults), Glaister 1999 (larvae)

In-house key in process?

<i>Austrolimnius</i>	53 species	Hinton 1965 (adults)
<i>Coxelmis</i>	3 species	Carter & Zeck 1929 (adults), Glaister 1999 (larvae)
<i>Graphelmis pallidipes</i>	Carter	
<i>Hydora laticeps</i>	Cater & Zeck (adults riparian)	
<i>Kingolus</i>	11 species	Carter & Zeck 1929 (adults partial), Glaister 1999 (larvae)
<i>Notriolus</i>	16 species	Carter & Zeck 1929 (adults), Glaister 1999 (larvae)
<i>Ovolara</i>	2 species (adults riparian)	
<i>Potamophilinus</i>		

Note: This genus is thought to occur in northern Aus. but has not been confirmed.

<i>Simsonia</i>	16 species	Carter & Zeck 1929 (adults partial), Glaister 1999 (larvae)
<i>Stetholus elongatus</i>	Cater & Zeck (adults riparian)	

Georissidae

Georissus 3 species **no key to species**

Gyrinidae

Key to Genera Watts 2002 (adults and larvae)

<i>Aulonogyrus strigosus</i>	Fabricius	
<i>Dineutus</i>	2 species	Lawrence 1992 subgenus & many sp. (adults), Ochs 1949 (adults)
<i>Gyrinus convexiusculus</i>	MacLeay	
<i>Macrogyrus</i>	15 species	Lawrence 1992 subgenus & many sp. (adults), Ochs 1949 (adults)

Note: *Aulonogyrus* and *Macrogyrus* larvae cannot be separated.

Haliplidae

Haliplus 15 species Vondel 1995 (adults)

Heteroceridae

No key to genera

Elythomerus elongatus Waterhouse
Heterocerus 7 species **no key to species**

Hydraenidae

Key to Genera & Subtribe Watts 2002 (adults partial)

Hydraena 85 species **no key to species**
Limnebius acupunctus Perkins
Tympanogaster (**possibly only the subgenus *Tympanogaster* (*sensu stricto*) are semi-aquatic**)
38 species Perkins 2006 (adults inc. possible terrestrials)

Subtribe Octhebiinae

No key to genera

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<i>Gymnanthelius</i>	8 species	Perkins 2004a (adults)
<i>Gymnochthebius</i>	33 species	Perkins 2005 (adults)
<i>Octhebius queenslandicus</i> Hansen		

Hydrochidae

<i>Hydrochus</i>	25 species	Watts 1999 (adults)
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Hydrophilidae

Key to Genera Watts 2002 (adults partial, larvae partial), **Hebauer 2003** (adults/larvae partial, worldwide)

Note: Watts 2002 (adults) does not include *Gentilina*

<i>Agraphydrus coomani</i> Orchymont (larva unknown)		
<i>Allocotocerus</i>	3 species	Watts 1998b (adults)
<i>Amphiops</i>	5 species	Watts 1998b (adults)
<i>Anacaena</i> (<i>Paranacaena</i>)	8 species (larva unknown)	Komarek 2007 (adults)
<i>Berosus</i>	35 species	Watts 1987 (adults)
<i>Coelostoma fabrici</i> Montrouzier (larva unknown)		
<i>Chaetarthria nigerrima</i> Blackburn (larva unknown)		
<i>Chasmogenus nitescens</i> Fauvel		
<i>Crenitis neogallica</i> Gentili (larva unknown)		
<i>Enochrus</i>	14 species	Watts 1998a (adults)
<i>Gentilina nitens</i> Gentili		
<i>Helochaes</i>	13 species	Hebauer & Hendrich 1999 (adults)
<i>Hydrogralius hartmeyeri</i> Regimbart		
<i>Hydrobiomorpha</i>	5 species	Watts 1990 (adults)
<i>Hydrophilus</i>	8 species	Watts 1988a (adults)
<i>Laccobius</i>	12 species	Gentili 1980 (adults)
<i>Limnoxenus zelandicus</i> Broun		
<i>Notothydrus</i>	6 species (larva unknown)	Gentili 2006 (adults)
<i>Paracymus</i>	9 species (larva unknown)	Gentili 2000 (adults)
<i>Phelea breviceps</i> Hansen (larva unknown)		
<i>Regimbartia attenuata</i> Fabricius		
<i>Sternolophus</i>	3 species	Watts 1989 (adults)
1 undescribed genus Hebauer ? species (larva unknown)		key?

Hygrobiidae

<i>Hygrobia</i>	4 species	Britton 1981 (adults), Alarie <i>et al</i> 2004 (larvae inc. world) (2 sp. larva unknown)
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Limnichidae

Semi-aquatic

No key to genera

<i>Limnichus</i>	3 species	no key to species
<i>Byrrhinus</i>	4 species	no key to species
<i>Paralimnichus castaneus</i> Lea		

Nanophyidae

<i>Austronanodes</i>	5 species (4 sp. larva unknown)	Zimmerman 1993 (adults)
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Noteridae

Key to Genera Watts 2002 (adults and larvae)

<i>Canthydrus</i>	2 species	Watts 2001 (adults partial)
<i>Hydrocanthus</i>	3 species	Toledo & Hendrich 2006 (adults, inc. Asian species), Watts 2001 (adults, partial)

Neohydrocoptus subfasciatus Sharp

Notomicrus tenellus Clark (larva unknown)

Psephenidae

Adults terrestrial

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Sclerocyphon 13 species, +5 undes. sp. Davis 1998 (larvae)

Ptilodactylidae

Adults terrestrial

Byrrocyptus 4 species no key to species

Scirtidae

Adults terrestrial

No key to genera

Cyphon 2 species no key to species

Heterocyphon 2 species no key to species

Macrocyphon spencei Armstrong

Macrodascillus 2 species no key to species

Macrohelodes 9 species no key to species

Ora 3 species no key to species

Pseudomicrocara 1 8 species no key to species

Prionocyphon niger Kitching & Allsopp

Scirtes 2 species no key to species

Spercheidae

Spercheus 2 species no key to species

Sphaeriusidae

Sphaerius 2 species no key to species

Staphylinidae

Adults terrestrial

No key to genera

Bledius 2 species no key to species

Stenus ? species no key to species

Paederus sjoestedti Bernhauer

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Diptera

Key to Families Madden 2011

Athericidae

No subfamily

No key to genera

Dasyomma 11 species no key species
Suraginella macalpinei Stuckenberg

Blephariceridae

Key to Subfamilies Bug Guide from Zwick 1977

Blepharicerinae

Key to Genera Zwick 1998 (larvae & pupae)

Apistomyia 2 species Zwick 1998 (larvae & pupae)
Austocurupira nicholsoni Tillyard
Parapistomyia 3 species Zwick 1998 (larvae & pupae)
Theischingeria rieki Zwick

Edwardsininae

Edwardsina 21 species Zwick 1977 (larvae & pupae)

Ceratopogonidae*

Key to Subfamilies Bug Guide from Cranston 1995, Borkent & Craig 2004

Austroconopinae

+*Austroconops* 2 species no key to species

Ceratopogoninae

Key to Genera Elson-Harris 1990 (larvae & pupae, partial)

Allohelea 4 species no key to species
Alluaudomyia 12 species Elson-Harris & Kettle 1985b (larvae & pupae, partial)
Austrohelea 2 species no key to species
Bezzia 2 species no key to species
Chimaerohelea caligula Debenham
Clinohelea 3 species Elson-Harris 1986 (larvae & pupae, partial)
Crispomyia 2 species no key to species
Culicoides 52 species Hagan & Reye 1986 (larvae, partial)
Downshelea 2 species no key to species
Echinohelea 2 species no key to species
Hebetula 12 species no key to species
Johannsenomyia novaeguineae Tokunaga
Lanatomyia 2 species no key to species
Leehelea 3 species no key to species
Mackerrasomyia 2 species no key to species
Macrurohelea 3 species no key to species
Mallochohelea 5 species no key to species
Metahelea bifasciata Kieffer
Monohhelea 15 species no key to species
Nilobezzia 9 species Elson-Harris 1987 (larvae & pupae, partial)
Paradasyhelea 3 species Elson-Harris & Kettle 1985a (larvae, partial)
Palpomyia 3 species no key to species
Pellucidomyia 2 species no key to species
Serromyia reyei Debenham
Sphaeromyias decoratus Debenham
Stilobezzia 7 species no key to species

Dasyheleinae

Dasyhelea 4 species no key to species

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Forcipomyiinae

No key to genera

Atrichopogon 3 species no key to species
Forcipomyia 110 species no key to species

Lectoconopinae

+*Leptoconops* 18 species no key to species

Note: May be noted as a Family in Madden Key?

Chaoboridae

Chaoborinae

Key to Genera: Colless 1986 (larvae & pupae, inc. genera no longer in Chaoboridae)

Australomochlonyx nitidus Freeman
Chaoborus 5 species Colless 1986 (larvae & pupae)
Promochlonyx australiensis Ferguson

Chironomidae

Key to Subfamilies Madden 2010

Aphroteniinae

Key to Genera Madden 2010

Aphrotenia australiensis Hergstrom
Aphroteniella 2 species Cranston & Edward 1992
Paraphrotenia fascipennis Brundin

Chironominae

Key to Genera Cranston 2000

Anuncotendipes 2 species no key to species
Anuncotendipes kakadu Cranston
Chironomus 29 species Cranston 2000
Cladopelma curtivalva Kieffer
Cladotanytarsus 5 species no key to species
Conochironomus 4 species no key to species
Cryptochironomus griseidorsum Kieffer
Cryptotendipes 1 species (larva unknown)
Demicryptochironomus 3 species no key to species
Dicrotendipes 15 species Cranston 2000
Fissimentum ? species ? key
Harnischia curtilamellata Malloch
Harrisius montanus Skuse
Imparipecten pictipes Freeman
Kiefferulus 7 species Cranston 2000
Lauterborniella 1 species
Megacentron erebeum Skuse
Microchironomus tener Kieffer
Microtendipes umbrosus Freeman
Neozavrelia 2 species no key to species
Nilothauma 1 species
?Omisus ? species
Paraborniella tonnoiri Freeman
Parachironomus delinificus Skuse
Paracladopelma angustum Freeman
Paratanytarsus 5 species no key to species
Parvitergum fuscipenne Freeman
Polypedilum 11 species Cranston 2000
Pontomyia 4 species no key to species
Riethia 4 species Cranston 2000
Rheotanytarsus 9 species no key to species
Robackia ? species key?

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Skusella subvittata Skuse
Stempellina australiensis Freeman
Stempellina johni Glover
Stempellinella 1 species
Stenochironomus 2 species no key to species
Stictochironomus 2 species no key to species
Tanytarsus 37 species Cranston 2000
Xenochironomus canterburyensis Freeman
Xylochironomus kakadu Cranston
Zavreliella marmorata van der Wulp +3 undes. sp. Cranston 2000
 1 undescribed genus

Key to Genera Madden 2009 or 2010

Not in key *Lauterborniella* *Megacentron* ?*Omisus* *Parvitergum*

Anuncotendipes 2 species no key to species
Anuncotendipes kakadu Cranston
Axarus ? species key ?
Chironomus 29 species Cranston 2000
Cladopelma curtivalva Kieffer
Cladotanytarsus 5 species no key to species
Conochironomus 4 species no key to species
Cryptochironomus griseidorsum Kieffer
Cryptotendipes 1 species (larva unknown)
Demicryptochironomus 3 species no key to species
Dicrotendipes 15 species Cranston 2000
Fissimentum ? species ? key
Harnischia curtilamellata Malloch
Harrisius montanus Skuse
Imparipecten pictipes Freeman
Kiefferulus 7 species Cranston 2000
Microchironomus tener Kieffer
Microtendipes umbrosus Freeman
Neozavrelia 2 species no key to species
Nilothauma 1 species
Paraborniella tonnoiri Freeman
Parachironomus delinificus Skuse
Paracladopelma angustum Freeman
Paratanytarsus 5 species no key to species
Polypedilum 11 species Cranston 2000
Pontomyia 4 species no key to species
Riethia 4 species Cranston 2000
Rheotanytarsus 9 species no key to species
Robackia ? species ? key
Skusella subvittata Skuse
Stempellina australiensis Freeman
Stempellina johni Glover
Stempellinella 1 species
Stenochironomus 2 species no key to species
Stictochironomus 2 species no key to species
Tanytarsus+ 37 species Cranston 2000
Xenochironomus canterburyensis Freeman
Xylochironomus kakadu Cranston
Zavreliella marmorata van der Wulp +3 undes. sp. Cranston 2000
 2 undescribed genus

Diamesinae

Paraheptagyia 2 species (1 sp. larva unknown) no key to species

*Orthoclaadiinae

Key to Genera Cranston 2000

Allometriocnemus 2 species no key to species
Allotrissocladus amphibius Freeman

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<i>Austrobrillia</i>	2 species	no key to species
<i>Austrocladius</i>	3 species	no key to species
<i>Bryophaenocladus</i>	? species	? key
<i>Botryocladus</i>	9 species	no key to species
<i>Camptocladus stercorarius</i> De Geer		
<i>Cardiocladus australiensis</i> Freeman		
<i>Clunio</i>	2 species	no key to species
<i>Comptosmittia pectinata</i> Freeman		
<i>Corynoneura</i>	2 species	no key to species
<i>Cricotopus annuliventris</i> Skuse		Cranston 2000
<i>Doloplastus monticola</i> Skuse		
<i>Echinocladus martini</i> Cranston		
<i>Eukiefferiella insolida</i> Skuse		
? <i>Gymnometriocnemus</i>	3 species	no key to species
<i>Kiefferophyes</i>	3 species	no key to species
<i>Limnophyes vestitus</i> Skuse		
<i>Metriocnemus hornsbyensis</i> Freeman		
<i>Nanocladus</i>	3 species	no key to species
<i>Nasuticladus</i>	5 species	no key to species
<i>Nilothauma</i>	2 species	no key to species
<i>Parakiefferiella</i>	4 species	no key to species
<i>Paralimnophyes</i>	2 species	no key to species
<i>Parametriocnemus ornaticornis</i> Kieffer		
<i>Paratrachocladus pluriserialis</i> Freeman		
<i>Pirara australiensis</i> Boothroyd & Cranston		
<i>Pseudosmittia</i>	2 species	no key to species
" <i>Psectrocladius</i> "	1 species	
<i>Rheocricotpus</i>	1 species	
<i>Rhinocladus tonnoiri</i> Freeman		
<i>Semiocladus crassipennis</i> Skuse		
<i>Smittia</i>	4 species	no key to species
<i>Stictocladus</i>	3 species	no key to species
<i>Symbiocladus aurifodinae</i> Hynes		
<i>Thienemanniella trivittata</i> Goetghebuer		
"genus Australia"	? species	Cranston 2000
7 undescribed genera		

Key to Genera Madden 2009 or 2010

Not in key: *Allometriocnemus Austrocladius Comptosmittia Doloplastus Kiefferophyes Metriocnemus Nasuticladus Nilothauma Rhinocladus*

Note: *Echinocladus martini* = MO3

<i>Allotrissocladus amphibius</i> Freeman		
<i>Austrobrillia</i>	2 species	no key to species
<i>Bryophaenocladus</i>	? species	? key
<i>Botryocladus</i>	9 species	no key to species
<i>Camptocladus stercorarius</i> De Geer		
<i>Cardiocladus australiensis</i> Freeman		
<i>Clunio</i>	2 species	no key to species
<i>Corynoneura</i>	2 species	no key to species
<i>Cricotopus annuliventris</i> Skuse		Cranston 2000
<i>Echinocladus martini</i> Cranston		
<i>Eukiefferiella insolida</i> Skuse		
<i>Gymnometriocnemus</i>	3 ? species	no key to species
<i>Limnophyes vestitus</i> Skuse		
<i>Nanocladus</i>	3 ? species	no key to species
<i>Parakiefferiella</i>	4 species	no key to species
<i>Paralimnophyes</i>	2 species	no key to species
<i>Parametriocnemus ornaticornis</i> Kieffer		
<i>Paratrachocladus pluriserialis</i> Freeman		
<i>Pirara australiensis</i> Boothroyd & Cranston		
<i>Pseudosmittia</i>	2 species	no key to species
" <i>Psectrocladius</i> "	1 species	

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Rheocricotpus 1 species
Semiocladius crassipennis Skuse
Smittia 4 species no key to species
Stictocladius 3 species no key to species
Symbiocladius aurifodinae Hynes
Thienemanniella trivittata Goetghebuer
"genus Australia" ? species Cranston 2000
 4 undescribed genera

Podonominae

Key to Genera Madden 2009

Note: *Austrochlus* = *Archaeochlus*

Austrochlus 3 or 4 species Cranston *et al* 2002 (3 species)
?Parochlus 4 species no key to species
Podochlus 2 species no key to species
Podonomopsis 4 species no key to species
?Podonomus 2 species no key to species
Rheochlus wirthi Freeman (larva unknown)

Tanypodinae

Key to Genera Cranston 2000 (except *Alotanypus*)

Ablabesmyia 2 species no key to species
Alotanypus dalyupenis ??
Anatopynia 2 species no key to species
Apsectrotanypus maculosus Freeman
Australopelopia prionoptera Cranston
Clinotanypus crux Wiedemann
Coelopynia pruinosa Freeman
Coelotanypus wirthi Freeman
Djalmabatista 1 species
Fittkauimyia disparipes Karunakaran
Hayesomyia 2 species (larva unknown)
Isoplastus formulosus Skuse
Larsia 2 species no key to species
Macropelopia dalyupensis Freeman
Monopelopia 1 species
Nilotanypus 1 species
Paramerina 3 species no key to species
Pentaneura punctipennis Freeman
Procladius 5 species Cranston 2000 (partial)
Tanypus mastersi Skuse
?Telmatopelopia 1 species
Thienemannimyia 1 species
 6 undescribed genera

Key to Genera Madden 2009 or 2010

Not in key *Anatopynia* *Coelotanypus* *Hayesomyia* *Isoplastus* *Macropelopia* *Pentaneura*

Ablabesmyia 2 species no key to species
Alotanypus dalyupenis ??
Apsectrotanypus maculosus Freeman
Australopelopia prionoptera Cranston
Clinotanypus crux Wiedemann
Coelopynia pruinosa Freeman
Djalmabatista 1 species
Fittkauimyia disparipes Karunakaran
Larsia 2 species no key to species
Monopelopia 1 species
Nilotanypus 1 species
Paramerina 3 species no key to species
Procladius 5 species Cranston 2000 (partial)
Tanypus mastersi Skuse

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Telmatopelopia 1 species

Thienemannimyia 1 species

Zavrelimyia ? species key ?

Corethrellidae

No subfamily

Corethrella 5 species (4 sp. larva unknown) no key to species

Culicidae

Key to Subfamilies Bug Guide using characters from Bugledich 1999

Anophelinae

No key to genera

Anopheles 14 species Russell 1993 (SE Aus)

Bironella 2 species no key to species

Culicinae

Key to Genera Russell 1993 (SE Aus), CHOOSE Snell 2005 (New Zealand, some Aus overlap)

Aedeomyia 2 species Snell 2005 (New Zealand, part Aus), Russell 1993 (SE Aus partial)

Aedes 96 species Snell 2005 (New Zealand, part Aus), Russell 1993 (SE Aus partial)

Culex 25 species Snell 2005 (New Zealand, part Aus), Russell 1993 (SE Aus partial)

Culiseta 12 species Snell 2005 (New Zealand, part Aus), Russell 1993 (SE Aus partial)

Mimomyia 2 species 2005 NZ part Aus, Russell 1993 (SE Aus)part

Hodgesia 2 species Snell 2005 (New Zealand, part Aus), Russell 1993 (SE Aus partial)

Coquillettidia 4 species Snell 2005 (New Zealand, part Aus), Russell 1993 (SE Aus partial)

Mansonia 3 species Snell 2005 (New Zealand, part Aus), Russell 1993 (SE Aus partial)

?*Orthopodomyia papuensis* Zavortink

Malaya genurostris Leicester

Tripteroides 11 species Snell 2005 (New Zealand, part Aus), Russell 1993 (SE Aus partial)

Uranotaenia 15 species Snell 2005 (New Zealand, part Aus), Russell 1993 (SE Aus partial)

Dixidae

No subfamily

No key to genera

Dixella 4 species no key to species

Nothodixa 2 species no key to species

Dolichopodidae

No key to subfamilies

Diaphorinae

No key to genera

Asyndetus 2 species no key to species

**Chrysotus* 3 species no key to species

**Cryptophleps* 4 species no key to species

**Diaphorus* 14 species no key to species

Dolichopodinae

No key to genera

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- * *Lichtwardtia ziczac* Wiedemann
- * *Metaparaclius australiensis* Parent
- * *Paraclius* 9 species no key to species

Hydrophorinae

No key to genera

- Cymatopus* 3 species no key to species
- Hydrophorus praecox* Lehmann
- Paralipus mirabilis* Bezzi
- Scorpiurus aenescens* Parent
- Thinophilus* 4 species no key to species

Medeterinae

No key to genera

- * *Atlalia flaviseta* Bickel
- * *Atlalia grisea* Bickel
- * *Corindia* 9 species no key to species
- * *Medetera* 20 species no key to species
- Systemus* 2 species no key to species
- * *Thrypticus* 3 species no key to species
- * unplaced *extranea* Becker

Sympycninae

No key to genera

- * *Chaetogonopteron anachroscopicum* Meuffels & Grootaert
- * *Chrysotimus* 9 species no key to species
- * *Liparomyia sedata* White
- * *Liparomyia separata* Parent
- * *Nothorhaphium* 4 species no key to species
- Sympycnus* 15 species no key to species
- * *Syntormon* 6 species no key to species
- Teuchophorus* 2 species no key to species
- * *Yumbera* 5 species no key to species

Empididae

Key to Vouchers **EPA key** (Vic) [Bug Guide = No key to subfamilies]

Empidinae

No key to genera

- * *Apalocnemis sanguinea* Hardy
- * *Bandella* 9 species no key to species
- * *Cunomyia unica* Bickel
- * *Empis* 13 species no key to species
- * *Eugowra* 3 species no key to species
- * *Hilara* 6 species no key to species
- * *Hilarempis* 6 species no key to species
- * *Munburra bulbicornis* Bickel
- * *Rhampella inconspicua* Malloch
- Rhamphomyia* 3 species no key to species
- * *Thinempis* 4 species no key to species

Hemerodrominae

- * *Ptilophyllodromia biroi bezzi*

Clinocerinae

No key to genera

- Asymphyloptera quadriseta* Smith
- Clinocera* 7 species no key to species
- Dolichocephala* undetermined species

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?*Proagomyia* ~8 species no key to species

?**Ceratomerinae**

Ceratomerus 19 species no key to species

Unsure of subfamily

No key to genera

Hydropeza ? species no key to species
several undescribed genera

Ephydridae

No key to subfamilies

Discomyzinae

No key to genera

**Clasiopella* 2 species no key to species

**Ceropsilopa* 2 species no key to species

**Hostis guamensis* Cresson

**Psilopa* 4 species no key to species

Ephydrinae

No key to genera

**Brachydeutera* 3 species no key to species

**Ephydrella* 4 species no key to species

**Limnellia maculipennis* Malloch

**Neoscatella* 12 species no key to species

Gymnomyzinae

No key to genera

**Allotrichoma alium* Cresson

**Athyroglossa* 2 species no key to species

**Chlorichaeta orba* Mathis & Zatwarnicki

**Ditrichopora niveifrons* Cresson

**Glenanthe ismayi* Mathis

**Gymnopiella paucula* Cresson

**Hecamede* 3 species no key to species

**Hecamedoides* 4 species no key to species

**Lamproclasiopa biseta* de Meijere

**Ochthera* 2 species no key to species

**Orasiopa* 2 species no key to species

**Placopsidella cynocephala* Kertesz

**Polytrichophora brunneifrons* de Meijere

**Stratiothyrea femorata* de Meijere

**Trimerogastra* 2 species no key to species

Hydrelliinae

No key to genera

**Atissa suturalis* Cresson

**Eleleides chloris* Cresson

**Hydrellia* 16 species no key to species

**Notiphila* 2 species no key to species

**Paralimna* 5 species no key to species

**Ptilomyia* undescribed species

**Typopsilopa chinensis* Wiedemann

Ilytheinae

No key to genera

**Hyadina pullipes* Cresson

**Nostima duoseta* Cresson

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*Zeros 2 species no key to species

Muscidae

No key to subfamilies

Muscinae

No key to genera

**Balioglutum illingworthi* Aldrich

**Haematobia exigua* de Meijere

**Hydrotaea* 6 species no key to species

**Morellia hortensia* Wiedemann

**Musca* 6 species no key to species

**Muscina stabulans* Fallen

**Myiophaea spissa* Walker

**Neomyia* 3 species no key to species

**Passeromyia* 3 species no key to species

**Pyrella* 2 species no key to species

**Synthesiomyia nudiseta* Wulp

Phaoniinae

No key to genera

**Atherigona* 27 species no key to species

**Brontaea* 3 species no key to species

**Buccophaonia* undescribed species

**Dichaetomyia* 22 species no key to species

**Helina* 37 species

**Hennigola setlifera* Stein

**Metopomyia atropunctipes* Malloch

**Neohelina* 2 species no key to species

Phaonia 3 species no key to species

**Prohardyia* 5 species no key to species

Mydaeinae

No key to genera

**Hebecnema uniseta* Hennig

**Helinomydaea* 2 species no key to species

Graphomya 2 species no key to species

**Gymnopapuaia hypopleuralis* Malloch

**Myospila flavicans* Malloch

**Papuaia immaculata* Vockeroth

*unplaced *fuscitarsis* Bergroth

*unplaced *inducta* Walker

Coenosiinae

No key to genera

**Heliographa* 2 species no key to species

Limnophora 6 species no key to species

Lispe 8 species no key to species

Psychodidae

No key to subfamilies

Bruchomyiinae

No key to genera

Nemapalpus australiensis Alexander

Psychodinae

No key to genera

Didicrum 2 species no key to species

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<i>Paratelmatoscopus</i>	5 species	no key to species
<i>Rotundopteryx</i>	15 species	no key to species
<i>Brunettia</i>	4 species	no key to species
<i>Clogmia</i>	2 species	no key to species
<i>Peripsychoda</i>	7 species	no key to species
<i>Telmatoscopus</i>	10 species	no key to species
<i>Notiocharis</i>	3 species	no key to species
<i>Epacretron pulchrum</i>	Duckhouse	
<i>Psychoda</i>	21 species	no key to species
<i>Threticus</i>	3 species	no key to species
<i>Trichopsychoda montana</i>	Satchell	
Sycoracinae		
<i>Sycorax australis</i>	Duckhouse	
Trichomyiinae		
<i>Trichomyia</i>	19 species	no key to species
Sciomyzidae		
Sciomyzinae		
<i>Dichetophora</i>	6 species	no key to species
Simuliidae		
Simulinae		
Key to Genera	EPA key (Vic) [Bug Guide = Mackerras & Mackerras 1949]	
<i>Austrosimulium</i>	12 species	EPA key (Vic, partial) [Bug Guide = Mackerras & Mackerras 1949, partial]
<i>Simulium</i>	14 species	EPA key (Vic) [Bug Guide = Colbo 1976, partial]
<i>Paracnephia</i>	9 species	EPA key (Vic, partial inc. Undes. sp.) [Bug Guide = Mackerras & Mackerras 1949, as <i>Cnephia</i> , partial]
Stratiomyidae		
Stratiomyinae		
<i>Odontomyia</i>	23 species	no key to species
Syrphidae		
Eristalinae		
<i>Eristalis</i>	?3 species	no key to species
Tabanidae		
No key to subfamilies		
Chrysopsinae		
No key to genera		
* <i>Lilaea</i>	7 species	no key to species
* <i>Phibalomyia carteri</i>	Taylor	
* <i>Pseudopangonia australis</i>	Ricardo	
* <i>Pseudotabanus</i>	24 species	no key to species
* <i>Rhigioglossa</i>	3 species	no key to species
<i>Chrysops australis</i>	Ricardo	
*Pangoniinae		
No key to genera		
* <i>Austroplex</i>	3 species	no key to species
* <i>Caenoprosopon</i>	5 species	no key to species
* <i>Ectenopsis</i>	11 species	no key to species
* <i>Scaptia</i>	69 species	no key to species

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**Therevopangonia insolita* Mackerras

Tabaninae

Key to Tribes Mackerras 1971

No key to genera

* <i>Anabasis postica</i> Wiedemann		
* <i>Cydistomorpha</i>	6 species	no key to species
* <i>Cydistomyia</i>	22 species	no key to species
* <i>Dasybasis</i>	36 species	no key to species
* <i>Dolichapha</i>	3 species	no key to species
* <i>Lissimas australis</i> Ricardo		
* <i>Mackerrasus</i>	2 species	no key to species
* <i>Parabasis</i>	5 species	no key to species
* <i>Plesiobasis</i>	2 species	no key to species
* <i>Sznablius</i>	5 species	no key to species
<i>Tabanus</i>	24 species	no key to species

Tanyderidae

No subfamily

No key to genera

<i>Eutanyderus</i>	2 species	no key to species
<i>Nothoderus australiensis</i> Alexander (larva unknown)		
<i>Radinoderus</i>	3 species (larva unknown)	

Thaumaleidae

No subfamily

Key to Genera Sinclair 2000a

<i>Austrothaumalea</i>	18 species	no key to species
<i>Niphta</i>	3 species	no key to species

Tipulidae

Note: In the Northern hemisphere, the three subfamilies are given family status (Evenhuis 2008). The Australian Zoological Catalogue (Bugledich 1999) indicates that "there is no obvious phylogenetic basis for such elevation of ranks."

Key to Vouchers **EPA key** (Vic) [Bug Guide = No key to subfamilies]

Cylindrotominae

* <i>Stibadocerodes</i>	2 species	no key to species
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Limoniinae

No key to genera

* <i>Amphineurus</i>	15 species	no key to species
<i>Antocha</i>	2 species	no key to species
* <i>Atarba</i>	13 species	no key to species
* <i>Austrolimnophila</i>	12 species	no key to species
* <i>Baeoura</i>	4 species	no key to species
* <i>Bergrothomyia</i>	3 species	no key to species
* <i>Cheilotrichia</i>	2 species	no key to species
* <i>Collessophila chookachooka</i> Theischinger		
* <i>Conosia irrorata</i> Wiedemann		
* <i>Diemenomyia</i>	2 species	no key to species
* <i>Elephantomyia</i>	2 species	no key to species
* <i>Epiphragma</i>	6 species	no key to species
<i>Erioptera</i>	13 species	no key to species
<i>Gonomyia</i>	24 species	no key to species
* <i>Gymnastes</i>	7 species	no key to species
* <i>Gynoplistia</i>	105 species	no key to species
<i>Helius</i>	12 species	no key to species

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<i>Hexatoma</i>	4 species	no key to species
* <i>Horistomyia</i>	4 species	no key to species
* <i>Idiocera collessi</i> Theischinger		
* <i>Lechria</i>	3 species	no key to species
* <i>Leolimnophila</i>	2 species	no key to species
<i>Limnophila</i>	68 species	no key to species
<i>Limonia</i>	134 species	no key to species
<i>Molophilus</i>	295 species	no key to species
<i>Orimarga</i>	3 species	no key to species
* <i>Paralimnophila</i>	59 species	no key to species
<i>Pedicia</i>	2 species	no key to species
<i>Pilaria brooksi</i> Alexander		
<i>Rhabdomastix</i>	4 species	no key to species
* <i>Skuseomyia eximia</i> Alexander		
* <i>Sigmatomera</i>	3 species	no key to species
* <i>Styringomyia</i>	3 species	no key to species
* <i>Symplecta pilipes</i> Fabricius		
* <i>Tasiocera</i>	23 species	no key to species
* <i>Teucholabis</i>	2 species	no key to species
* <i>Trentepohlia</i>	7 species	no key to species
* <i>Tipulimnoea woodhilli</i> Alexander		
* <i>Tonnoirella gemella</i> Alexander		
* <i>Tonnoiromyia</i>	3 species	no key to species
* <i>Toxorhina</i>	6 species	no key to species

Tipulinae

No key to genera

* <i>Acracantha</i>	3 species	no key to species
<i>Brachypremna</i>	2 species	no key to species
* <i>Clytocosmus</i>	6 species	no key to species
* <i>Dolichopeza</i>	46 species	no key to species
<i>Holorusia</i>	2 species	no key to species
* <i>Ischnotoma</i>	15 species	no key to species
<i>Leptotarsus</i>	76 species	no key to species
<i>Megistocera filipes</i> Weidemann		
* <i>Nephrotoma</i>	2 species	no key to species
* <i>Platyphasia</i>	7 species	no key to species
* <i>Ptilogyna</i>	24 species	no key to species
<i>Tipula</i>	3 species	no key to species

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Ephemeroptera

Key to Families Bug Guide from Dean & Suter 1996

Ameletopsidae

Mirawara 3 sp (adults) 6 undes. sp.(nymphs) Suter & Webb 2012a

Note: Specimens without wing pads are early instars and cannot be confidently identified at species level.

Baetidae

Key to Genera Webb & Suter 2010

Note: Specimens without wing pads are early instars and cannot be confidently identified at genus level.

Offadens and *Edmundsiops* have been synonymised

Bungona 2 species Webb & Suter 2010

Note: *B illiesi* was within *B. narilla*

"*Centroptilum*" 2 sp +9 undes.sp (2 sp. nymph unknown) Webb & Suter 2010

Cloeon 5 sp +6 undes.sp (2 sp. nymph unknown) Webb & Suter 2010 (inc. undes. sp., except *C. nandirum*)

Offadens 7 species + 25 undes. sp. Webb & Suter 2010

Note: Webb & Suter 2010 lists names of Suter 1997 undescribed species where *Edmundsiops*=Genus 2, *Offadens* = Genus 1, Genus 4 and Genus 5

"*Platybaetis*" *gagadjensis* ??

Pseudocloeon 3 species + 1 undes. species Webb & Suter 2010

Note: Webb & Suter 2010 lists names of Suter 1997 undescribed species where *Pseudocloeon* = Genus 3

Caenidae

Key to Genera Bug Guide from Suter 1999

Irpacaenis 3 species (2 undes. sp.) Suter 1999 (inc. undes. sp., partial)

Note: *Irpacaenis* = genus C, *I. deani* = sp A, *I. coolooli* = sp B, *I. kaapi* = sp C

Tasmanocoenis 6 species +11 undes. sp. Suter 1999 (partial, inc. undes. sp.)

Note: *T. tilyardi* and *T. rieki* cannot be separated

Wundacaenis 3 species Suter 1999

Coloburiscidae

Coloburiscoides 3 species (1 sp. nymph unknown) +4 undes. sp. Suter et al. 2009

Leptophlebiidae

Key to Genera Dean 2011

Atalomicria 7 species (1 sp. nymph unknown) +1 undes. sp. Dean 1999a (partial)

Atalophlebia 19 species (7 sp. nymph unknown) +14 undes. sp. Dean 1999a (partial, inc. undes. sp.)

Austrophlebioides 6 species +9 undes. sp. Dean 1999a (partial, inc. undescribed species)

Bibulmena kadjina Dean

Garinjuga maryannae Campbell & Suter +1 undes. sp. no key to species

Jappa 5 species (1 sp. nymph unknown) +3 undes. sp.

Dean 1999a (inc. undes. sp.); Bae & Finlay 2003 (named sp. only) – combine or remove?

Note: AV4 = *J. campbellii*

Kalbaybaria doantranga Campbell

Kaninga gwabbalitcha Dean

Kirrara 3 species +1 undes. sp. Dean 1999a (inc. undescribed species)

Koormonga 6 species (3 sp. nymph unknown)+6 undes. sp. Dean 1999a (undescribed species)

Loamaggalangta pedderensis Dean et al +6 undes. sp. Dean 1999a (undescribed species)

Mangabora wapitja Dean & Suter

Marmenuera 2 undescribed species Dean 1999a

Neboissophlebia 2 species Dean 1999a

Nousia 4 species +15 undes. sp. Dean 1999a (undescribed species)

Nyungara 2 species (1 sp. nymph unknown) no key to species

Thraulus 3 undescribed species Dean 1999a (undescribed species)

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Tillyardophlebia 3 species +5 undes. sp. Dean 1999a (inc. undescribed species)
Thraulophlebia lucida Ulmer (nymph unknown)
Ulmerophlebia mjobergi Ulmer (nymph unknown) +4 undes. sp. Dean 1999a (undescribed species)
Leptophlebiidae Genus O 1 undescribed species
Leptophlebiidae Genus P 3 undescribed species Dean 1999a
Leptophlebiidae Genus Z 1 undescribed species
Note: Genus Q = *Kanina*, Genus S & K = *Loamaggalangta*, Genus V = *Manggabora*, Genus W = *Marmenuera*,, *Thraulophlebia* = *Koornunga*, *Riekophlebia* = *Tillyardophlebia* in part

Oniscigastridae

Tasmanophlebia 3 sp + 3 undes. sp Suter & Webb 2012

Note: Specimens without wing pads are early instars and cannot be confidently identified at species level.

Prosopistomatidae

Prosopistoma pearsonorum Campbell & Hubbard

Nesameletidae

Ameletoides lacusalbinae Tillyard (+3 undes. sp.) Suter & Webb 2012b (inc. undes. sp.)

Teloganodidae

Austremerella picta Riek

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Hemiptera

Key to Families Bug Guide from Andersen & Weir 2004, Carver et al 1991

Aphelocheiridae

Aphelocheirus australicus Usinger

Belostomatidae

Key to Genera Bug Guide from Andersen & Weir 2004

Diplonychus 2 species Andersen & Weir 2004
Lethocerus 2 species Andersen & Weir 2004

Corixidae

Key to Genera Bug Guide from Andersen & Weir 2004

Agraptocorixa 6 species Andersen & Weir 2004 (males)
Cnethocymatia nigra Hungerford
Diaprepocoris 3 species Andersen & Weir 2004
Micronecta 18 species Andersen & Weir 2004
Sigara 7 species Andersen & Weir 2004 (males)

Dipsocoridae

Cryptostemma 4 species Hill 1987

Gelastocoridae

Nerthra 24 species Andersen & Weir 2004

Gerridae

Key to Genera Bug Guide from Andersen & Weir 2004

Aquarius 2 species Andersen & Weir 2004
Austrobates rivularis Andersen & Weir
Calyptobates 3 species Andersen & Weir 2004
Halobates 2 species Andersen & Weir 2004 (inc marine)
Halobates robinsoni Andersen & Weir
Limnogonus 4 species Andersen & Weir 2004
Limnometra 3 species Andersen & Weir 2004
Rhagadotarsus anomalus Polhemus & Karunaratne
Rheumatometra 2 species Andersen & Weir 2004
Tenagogerris 3 species Andersen & Weir 2004
Tenagogonus australiensis Andersen & Weir

Hebridae

Key to Genera Bug Guide from Andersen & Weir 2004

Austrohebrus apterus Andersen & Weir
Hebrus 4 species Andersen & Weir 2004
Merragata hackeri Hungerford

Hydrometridae

Hydrometra Andersen & Weir 2004 (males)

Leptopodidae

Valleriola 2 species +1 undes. sp. no key to species

Mesoveliidae

Key to Genera Bug Guide from Andersen & Weir 2004

Austrovelia queenslandiae Malipatil & Monteith
Mesovelia 6 species Andersen & Weir 2004

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Naucoridae

Naucoris 6 species Andersen & Weir 2004

Nepidae

Key to Genera Bug Guide from Andersen & Weir 2004

Austronepa angusta Hale

Cercotmetus brevipes Lansbury

Goondnomdanepa 3 species Andersen & Weir 2004

Laccotrephes tristis Stal

Ranatra 3 species Andersen & Weir 2004

Notonectidae

Key to Genera Bug Guide from Andersen & Weir 2004

Anisops 32 species Andersen & Weir 2004 (males)

Enithares 5 species Andersen & Weir 2004

Paranisops 2 species Andersen & Weir 2004

Notonecta handlirschi Kirkaldy

Nychia sappho Kirkaldy

Walambianisops wandjina Lansbury

Ochteridae

Key to Genera Bug Guide from Andersen & Weir 2004

Megochterus 2 species Andersen & Weir 2004

Ochterus 9 species Andersen & Weir 2004

Pleidae

Paraplea 3 species Andersen & Weir 2004

Saldidae

No key to genera

Saldula 6 species no key to species

Pentacora 3 species (riparian) no key to species

Veliidae

Key to Genera Bug Guide from Andersen & Weir 2004

Drepanovelgia 4 species Andersen & Weir 2004 (males)

Lacertovelgia hirsuta Andersen & Weir

Microvelgia 39 species Andersen & Weir 2004 (males)

Microvelopsis 3 species Andersen & Weir 2004

Nesidovelgia howensis Hale

Petrovelgia 2 species Andersen & Weir 2004

Phoreticovelgia 2 species Andersen & Weir 2004

Rhagovelgia australica Kirkaldy

Tarsoveloides brevitarsus Andersen & Weir

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Lepidoptera

Crambidae

Key to Genera	Hawking 2012 (incomplete)	
<i>Parapoynx</i>	14 species (+1 undes. sp.)	Hawking 2001 (incomplete) with ref to Hawking 2012
<i>Elophila</i>	4 species	no key to species
<i>Margarosticha</i>	2 species (+5 undes. sp.)	Hawking 2012 (incomplete)
<i>Strepsinoma</i>	4 species (1 larva unknown)	Hawking 2012
<i>Tetrernia</i>	2 sp. (+2 undes. sp.; 1 larva unknown)	Hawking 2012
<i>Eoophyla</i>	4 species (+3 undes. sp.)	Hawking 2012 (incomplete)
<i>Paracymorzia eromenalis</i> (formerly <i>Ambia ptolycusalis</i>) Walker		
Genus <i>C siennata</i> Warren		
Not in key to genera		
<i>Araeomorpha</i>	2 species	no key to species
<i>Hygraula</i>	2 species	no key to species
<i>Neoschoenobia caustodes</i> Turner		
<i>Nyctiplanes polypenthes</i> Turner		
<i>Paracataclysta fuscalis</i> Hampson		
<i>Cataclysta</i>	7 species	no key to species
<i>Hylebatis scintillifera</i> Turner		
<i>Anydraula</i>	2 species	no key to species
<i>Nymphicula queenslandica</i> Hampson		
<i>Theila</i>	4 species	no key to species

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Mecoptera

Nannochoristidae

Nannochorista 4 species no key to species

Megaloptera

Key to Families Bug Guide from Theischinger 2000a

Corydalidae

Key to Genera Theischinger 2000a

Apochauliodes cervulus Theischinger

Archichauliodes 18 species

Theischinger 2000a (species groups)

Protochauliodes 3 species

no key to species

Sialidae

Key to Genera Theischinger 2000a

Austrosialis 2 species

no key to species

Stenosialis 2 species

no key to species

Neuroptera

Nevrorthidae

Austroneurorthus bruneipennis Esben-Petersen

Osmylidae

No key to genera

Australysmus 4 species

no key to species

Clydosmylus montanus New

Kempynus 7 species

no key to species

Sisyridae

No key to genera

Sisyra 5 species

no key to species

Sisyrina tropica Smithers (only in NE Qld)

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Odonata

Key to Families Bug Guide from Theischinger & Hawking 2006

Aeshnidae

Key to Genera Bug Guide from Theischinger 2002

Aeshna (Adveraeschna) brevistyla Rambur

Agyrtacantha dirupta Karsch (nymph unknown)

Anaciaeschna jaspidea Burmeister

Anax 3 species Theischinger 2002

Austrogynacantha heterogena Tillyard

Gynacantha 5 species (2 sp. nymphs unknown) Theischinger 2002

Hemianax papuensis Burmeister

Archipetaliidae

Archipetalia auriculata Tillyard

Austrocorduliidae

Key to Genera Bug Guide from Theischinger & Hawking 2006

Apocordulia macrops Watson

Austrocordulia 3 species Theischinger 2001

Austrophya mystica Tillyard

Lathrocordulia 2 species (1 sp. nymph unknown) no key to species

Micromidia 2 species (1 sp. nymph unknown) Theischinger 2001

Austropetaliidae

Austropetalia 2 species Theischinger 2002

Calopterygidae

Neurobasis australis Selys

Chorismagrionidae

Chorismagrion risi Morton

Coenagrionidae

Key to Genera Bug Guide from Theischinger & Hawking 2006

Aciagrion fragile Tillyard

Agriocnemis 2 species Hawking & Theischinger 1999 (partial, NSW)

Archibasis mimetes Tillyard (nymph unknown)

Argiocnemis 7 species (5 sp. nymph unknown) no key to species

Austroagrion 4 species Hawking 1986 (partial, SE Aus)

Austrocnemis 3 species Hawking & Theischinger 1999 (NSW)

Caliagrion billinghami Martin

Ceriagrion aeruginosum Brauer

Coenagrion lyelli Tillyard

Ischnura 3 species Hawking & Theischinger 1999 (NSW);
Theischinger & Hawking 2002 (partial, Vic)

Pseudagrion 6 species (1 sp. nymph unknown) Hawking & Theischinger 1999 (NSW)

Teinobasis rufithorax Selys

Xanthagrion erythroneurum Selys

Cordulephyidae

Cordulephya 4 species (1 sp. nymph unknown) Hawking & Theischinger 1999 (partial, NSW)

Corduliidae

Metaphya tillyardi Ris (nymph unknown)

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Pentathemis membranulata Karsch

Diphlebiidae

Diphlebia 5 species Hawking & Theischinger 1999 (partial, NSW)

Gomphidae

Key to Genera Bug Guide from Theischinger 2000

Antipodogomphus 6 species (1 sp. Nymph unknown) Theischinger 2000

Armogomphus armiger Tillyard

Austrogomphus 21 species (4 sp. Nymph unknown) Theischinger 2000

Hemigomphus 7 species (1 sp. nymph unknown) Theischinger 2000

Note: *H. gouldii* and *H. heteroclytus* cannot be separated.

Odontogomphus donnellyi Watson

Gomphomacromiidae

Archaeophya 2 species Theischinger 2001

Hemicorduliidae

Key to Genera Bug Guide from Theischinger & Hawking 2006

Hemicordulia 9 species (2 sp. nymph unknown) Theischinger 2007

Procordulia 2 species Theischinger 2007

Hemiphlebiidae

Hemiphlebia mirabilis Selys

Hypolestidae

Lestoidea 4 species no key to species

Isostictidae

Key to Genera Bug Guide from Theischinger & Hawking 2006

Austrosticta 3 species (2 sp. nymph unknown) no key to species

Eurysticta 4 species (1 sp. nymph unknown) no key to species

Labidiosticta vallis Fraser

Lithosticta macra Watson

Neosticta 3 species (1 sp. nymph unknown) no key to species

Oristicta fillicola Tillyard

Rhadinosticta 2 species no key to species

Lestidae

Key to Genera Bug Guide from Theischinger & Hawking 2006

Austrolestes 10 species Hawking & Theischinger 1999 (NSW), Theischinger & Hawking 2002 (partial, Vic)

Indolestes 3 species (2 sp. nymph unknown) no key to species

Lestes concinnus Hagen

Libellaginidae

Rhinocypha tinctoria Selys

Libellulidae

Key to Genera Bug Guide from Theischinger & Hawking 2006

Agrionoptera 2 species no key to species, separate by distribution
BUT NOT in NE QLD

Note: *A. insignis* NSW, SEQld, NEQld, NNT; *A. longitudinalis* NE Qld

Austrothemis nigrens Martin

Brachydiplax 2 species (1 sp. nymph unknown) no key to species

Camacinia othello Tillyard

Crocothemis nigrifrons Kirby

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<i>Diplacodes</i>	5 species	Hawking & Theischinger 1999 (partial, NSW), Theischinger & Hawking 2002 (partial, Vic)
<i>Huonia melvillensis</i> Brown & Theischinger		
<i>Hydrobasileus brevistylus</i> Brauer		
<i>Lathrecista asiatica</i> Fabricius (nymph unknown)		
<i>Nannodiplax rubra</i> Brauer		
<i>Nannophlebia</i>	3 species	no key to species
<i>Nannophya</i>	4 species	Hawking & Theischinger 1999 (partial, NSW), Theischinger & Hawking 2002 (partial, Vic)
<i>Neurothemis</i>	2 species (1 sp. nymph unknown)	no key to species
<i>Notolibellula bicolour</i> Theischinger & Watson (nymph unknown)		
<i>Orthetrum</i>	7 species	Hawking & Theischinger 1999 (partial, NSW), Theischinger & Hawking 2002 (partial, Vic)
<i>Pantala flavescens</i> Fabricius		
<i>Potamarcha congener</i> Rambur		
<i>Raphismia bispina</i> Hagen (nymph unknown)		
<i>Rhodothemis lieftincki</i> Fraser		
<i>Rhyothemis</i>	5 species (1 sp. nymph unknown)	no key to species
Note: <i>R. graphiptera</i> is only species in ENSW (also in SEQLD, NQLD, NWA, NNT, KIM, IA- WA, NT, SA), other species occur only in NQLD, NNT, KIM		
<i>Tetrathemis irregularis</i> Tillyard		
<i>Tholymis tillarga</i> Fabricius		
<i>Tramea</i>	4 species (1 sp. nymph unknown)	no key to species
<i>Zyxomma</i>	3 species	no key to species; separate by distribution
Note: <i>Z. elgner</i> is only species in ENSW (also in SEQLD, CY, EQLD, NQLD, NNT, KIM, NWA, SWA), other species occur only in Cape York, NEQLD and NNT		

Lindeniidae

Ictinogomphus 3 species (1 sp. nymph unknown) Theischinger 2000

Macromiidae

Macromia 2 species Theischinger 2001

Megapodagrionidae

Key to Genera Bug Guide from Theischinger & Hawking 2006

<i>Archiargiolestes</i>	3 species	Hawking 1986 (partial, SE Aus)
<i>Austroargiolestes</i>	10 species (6 sp. nymphs unknown)	no key to species
<i>Griseargiolestes</i>	7 species (2 sp. nymphs unknown)	Hawking & Theischinger 1999 (partial, NSW), Theischinger & Hawking 2002 (partial, Vic)

Miniargiolestes minimus
Podopteryx selysi Forster

Oxygastridae

Hesperocordulia berthoudi Tillyard

Petaluridae

Petalura 5 species (1 sp. nymphs unknown) Theischinger 2002

Protoneuridae

Nososticta 10 species no key to species

Pseudocorduliidae

Pseudocordulia 2 species no key to species

Synlestidae

Key to Genera Bug Guide from Hawking & Theischinger 1999

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<i>Episynlestes</i>	2 species	no key to species	Theischinger et al 1993 on req - seems to be same as already have so re-search ref.
<i>Synlestes</i>	3 species	Hawking & Theischinger 1999 (partial, NSW)	

Synthemistidae

Key to Genera	Bug Guide from Theischinger 2001		
<i>Archaeosynthemis</i>	4 species	Theischinger 2001	
<i>Austrosynthemis cyanitincta</i>	Tillyard		
<i>Choristhemis</i>	2 species (1 sp.nymph unknown)	no key to species	
<i>Eusynthemis</i>	13 species (3 sp.nymph unknown)	Theischinger 2001	
<i>Parasynthemis regina</i>	Selys		
<i>Synthemiopsis gomphomacromioides</i>	Tillyard		
<i>Synthemis</i>	2 species	Theischinger 2001	
<i>Tonyosynthemis</i>	2 species	Theischinger 2001	

Telephlebiidae

Key to Genera	Bug Guide from Theischinger 2002		
<i>Acanthaeschna victoria</i>	Martin		
<i>Antipodophlebia asthenes</i>	Tillyard		
<i>Austroaeschna</i>	20 species	Theischinger 2002	
<i>Austrophlebia</i>	2 species	Theischinger 2002	
<i>Dendroaeschna conspersa</i>	Tillyard		
<i>Notoaeschna</i>	2 species	Theischinger 2002	
<i>Spinaeschna</i>	2 species	Theischinger 2002	
<i>Telephlebia</i>	6 species (1 sp. nymph unknown)	Theischinger 2002	

Urothemistidae

Key to Genera	Bug Guide from Theischinger & Hawking 2006		
<i>Aethriamanta</i>	2 species	no key to species	
<i>Macrodiplax cora</i>	Brauer		
<i>Urothemis aliena</i>	Selys		

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Plecoptera

Key to Families Bug Guide from Hynes 1978 & 1989

Austroperlidae

Key to Genera Yule 1997

Acruroperla atra Amal

Austroheptura 3 species Yule 1997

Austropentura 2 species Yule 1997

Crypturoperla paradoxa Illies

Tasmanoperla 2 species Yule 1997

Eustheniidae

Key to Genera Yule 1997

Cosmioperla 5 species Yule 1997

Eusthenia 6 species Yule 1997

Thaumatoperla 4 species Yule 1997

Gripopterygidae

Key to Genera Yule 1997

Cardioperla 10 species Yule 1997

Dinotoperla 35 species Thomas 2012 (Vic), If samples are from NSW, Goulburn area, or further north then you must also use Yule 1997 (partial, inc. undescribed species)

Note: *D. thwaitesi* and *D. serricauda* cannot be separated.

Dundundra wanungra Theischinger

Eunotoperla kershawi Tillyard

Illiesoperla 12 species Yule 1997

Kirrama 2 species Yule 1997

Leptoperla 30 species Tsyrlin 2001

Neboissooperla 3 species Yule 1997

Nescioperla curtisae Theischinger

Newmanoperla 5 species Yule 1997

Riekoperla 29 species Mynott 2011 (partial, inc. undescribed species)

Trinotoperla 17 species Yule 1997

Notonemouridae

Key to Genera Yule 1997

Austrocerca 2 species Yule 1997

Austrocercella 15 species Yule 1997

Austroceroidea 5 species Yule 1997

Kimminsoperla 7 species Yule 1997

Notonemoura 2 species Yule 1997

Tasmanocera bifasciata Kimmins

Check Yule 1997 has all genera.

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Trichoptera

Key to Families Bug Guide from Dean et al 2004

Antipodoeciidae

Antipodoecia turneri Mosely +3 undes. sp. Dean 2000 (undescribed species)

Atriplectididae

Atriplectides 2 species Dean 2000

Calamoceratidae

Anisocentropus 10 species (9 sp. larva unknown) no key to species

Calocidae

Note: There are no clear diagnostic characters for the separation of larval Calocidae and Helicophidae at family level. The key to genera enables specimens to be placed in the appropriate family.

Key to Genera Bug Guide from Jackson 1998

Caenota 5 species (4 sp. larva unknown) no key to species

Caloca 5 species (5 sp. larva unknown) no key to species

Note: *Caloca saneva* Mosely (terrestrial larva)

Calocoides (larva unknown)

Pliocaloca 3 species (3 sp. larva unknown) +1 undes. sp. no key to species

Tamasia 3 species (1 sp. larva unknown) +1 undes. sp. Jackson 1998 (inc. undes. sp.)

Note: *Tamasia AV2* = *Tamasia acuta*

Genus B 4 undescribed species Jackson 1998 (undescribed species)

Genus D 3 undescribed species Jackson 1998 (undescribed species)

Genus F 1 undescribed species

Genus G 1 undescribed species

Genus H 1 undescribed species

Conoesucidae

Key to Genera Bug Guide from Dean et al. 2004

Coenoria boera Mosely (larva unknown) +5 undes. sp. Jackson 1998 (undescribed species)

Conoesucus 6 species (1 sp. larva unknown) +8 undes. sp. Jackson 1998 (inc. undes. sp.)

Costora 8 species (1 sp. larva unknown) +3 undes. sp. Jackson 1998 (inc. undes. sp.)

Hampa patona Mosely +1 undes. sp. Jackson 1998 (inc. undescribed species)

Lingora 4 species (3 sp. larva unknown) +1 undes. sp. Jackson 1998 (inc. undes. sp.)

Matasia satana Mosely +1 undes. sp. Jackson 1998 (inc. undescribed species)

Genus A 1 undescribed species

Genus B 2 undescribed species Jackson 1998

Dipseudopsidae

Hyalopsyche disjuncta Neboiss

Ecnomidae

Key to Genera Bug Guide from Dean et al. 2004

Daternomina 8 undescribed species Cartwright 1997

Ecnomina 14 species (13 sp. larva unknown) +6 undes. sp. Cartwright 1997 (inc. undes. sp.)

Ecnomus 38 species (13 sp. larva unknown) Cartwright 1997

Genus D 4 undescribed species Cartwright 1997

Glossosomatidae

Agapetus 10 species (3 sp. larva unknown) +5 undes. sp. Cartwright 1998 (partial, undes. sp.)

Helicophidae

Note: There are no clear diagnostic characters for the separation of larval Calocidae and Helicophidae at family level. The key to genera enables specimens to be placed in the appropriate family.

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Key to Genera	Bug Guide from Jackson 1998
<i>Alloecella</i>	3 species +5 undes. sp. Jackson 1998 (inc. undescribed species)
<i>Helicopha</i> (larva unknown)	
<i>Heloccabus</i>	2 undescribed species Jackson 1998
Genus C	3 undescribed species Jackson 1998
Genus E	1 undescribed species

Helicopsychidae

<i>Helicopsyche</i>	14 species (6 sp. larva unknown) +3 undes. sp. St Clair 1997 (inc. undes. sp.)
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Hydrobiosidae

Key to Genera	Bug Guide from Dean et al. 2004
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<i>Allobiosis erratica</i> Mosely (larva unknown)	
<i>Allochorema</i>	2 species (larva unknown)
<i>Apsilochorema</i>	4 species Dean 1997
<i>Austrochorema</i>	10 species (9 sp. larva unknown) no key to species
<i>Ipsebiosis spicula</i> Neboiss (larva unknown)	
<i>Koetonga clivicola</i> Neboiss	
<i>Moruya</i>	3 species (s p. larva unknown) +2 undes. sp. Dean 1997 (inc. undes. sp.)
<i>Poecilochorema</i>	6 species (larva unknown)
<i>Psyllobetina</i>	5 species (2 sp. larva unknown) Dean 1997
<i>Ulmerochorema</i>	9 species Dean 1997
Genus A	1 undescribed species
Genus B	2 undescribed species Dean 1997
Genus C	1 undes. sp.
<i>Taschorema</i> complex	Dean 1997 (inc. undescribed species)
Note: To date it has proved difficult to find characters that will consistently separate all species in a generic key (Dean 1997).	
<i>Ethochorema</i>	8 species (4 sp. larva unknown)
<i>Megogata necopina</i> Neboiss	
<i>Ptychobiosis</i>	3 species (3 sp. larva unknown) +4 undescribed species
<i>Tanjilana</i>	2 species
<i>Taschorema</i>	9 species (2 sp. larva unknown) +3 undescribed species

Hydropsychidae

Key to Genera	Bug Guide from Dean et al. 2004
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<i>Aethaloptera sexpunctata</i> Kolenati	
<i>Asmicridea</i>	3 species (2 sp. larva unknown) +3 undes. sp. Dean 1999 (undescribed sp.)
Note: AV3 = <i>A. capricornica</i>	
<i>Austropsyche</i>	3 species (3 sp. larva unknown) +1 undes. sp. no key to species
<i>Baliomorpha</i>	4 species (1 sp. larva unknown) Dean 1999
<i>Cheumatopsyche</i>	4 species (1 sp. larva unknown) +14 undes. sp. Dean 1999 (undescribed sp.)
Note: AV10= <i>C. kakaduensis</i> , AV11= <i>C. wellase</i> , AV12= <i>C. suteri</i> , AV13= <i>C. dostinei</i>	
<i>Diemeniluma</i>	(sp list unknown) (larva unknown)
<i>Diplectrona</i>	10 species +13 undes. sp. (10 sp. larva unknown) Dean 1999 (partial, inc. undes. sp.)
<i>Macrostermum saundersii</i> McLachlan	
<i>Smicrophylax</i>	5 species (4 sp. larva unknown) +4 undes. sp. Dean 1999 (inc. undes. sp.)

Hydroptilidae

Key to Genera	Bug Guide from Dean et al. 2004
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Note: *Acritoptila* and *Hellyethira* cannot be separated. Distribution: *Acritoptila* - N Qld, SW WA. *Hellyethira* - Australia wide.

<i>Acanthotrichia</i> (larva unknown)	
<i>Acritoptila</i>	5 species (3 sp. larva unknown) no key to species
<i>Hellyethira</i>	28 species (15 sp. larva unknown) Wells 1997
<i>Hydroptila</i>	9 species (7 sp. larva unknown) Wells 1997
<i>Jabitrachia</i> (larva unknown)	
<i>Maydenoptila</i>	8 species (4 sp. larva unknown) Wells 1997
<i>Mulgravia</i> (larva unknown)	

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<i>Orphninostrichia</i>	10 species	no key to species
<i>Orthotrichia</i>	48 species (30 sp. larva unknown)	no key to species vouchers of commne types
<i>Oxyethira</i>	12 species (11 sp. larva unknown)	no key to species
<i>Tricholeiochiton</i>	5 species (4 sp. larva unknown)	no key to species
<i>Xuthotrichia</i> (larva unknown)		

Kokiriidae

Key to Genera Bug Guide from Dean et al. 2004

<i>Tanjistomella verna</i> Neboiss (larva associated by distribution only)		
<i>Taskiria</i>	3 species (2 sp. larva associated by distribution only)	St Clair 2000a (tentative)
<i>Taskiriopysche</i> (larva unknown)		

Leptoceridae

Key to Genera Bug Guide from Dean et al. 2004

<i>Condocerus</i>	2 species	St Clair 2000
<i>Lectrides</i>	2 species +1 undes. sp.	St Clair 2000 (inc. undescribed species)
<i>Leptocerus</i>	4 species (3 sp. larva unknown) +2 undes. sp.	St Clair 2000
<i>Leptorussa darlingtoni</i> Banks +1 undescribed sp.		St Clair 2000 (inc. undescribed species)
<i>Notalina</i>	15 species (7 sp. larva unknown) +23 undes. sp.	St Clair 2000 (E Aus; WA; Tas; inc. undescribed species)
<i>Notoperata</i>	5 species (2 sp. larva unknown) +4 undes. sp.	St Clair 2000 (inc. undescribed sp.)
<i>Oecetis</i>	possibly 70 species total with 55 described	no key to species
<i>Russobex cuneatus</i> St Clair		
<i>Setodes bracteatus</i> Neboiss		
<i>Symphitoneuria</i>	3 species (1 sp. larva unknown) +1 undes. sp.	St Clair 2000 (inc. undescribed sp.)
<i>Triaenodes</i>	possibly 40 species	no key to species
<i>Triplectides</i>	25 species (9 sp. larva unknown) (10 undes. sp.)	St Clair 2000 (NT; N Qld; SE Qld, NSW, Vic, Tas, SA; inc. undescribed species)
<i>Triplectidina nigricornis</i> Mosely		
<i>Triplexa villa</i> Mosely +1 undescribed species		St Clair 2000 (inc. undescribed species)
<i>Westriplectes</i>	3 species (2 sp. larva unknown)	no key to species
Genus A	1 undescribed species	

Limnephilidae

<i>Archaeophylax</i>	3 species (1 sp. larva unknown)	Dean 2000
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Odontoceridae

Key to Genera Bug Guide from Dean et al. 2004

<i>Barynema</i>	2 species (1 sp. larva unknown) (3 undes. sp.)	St Clair 2000a (inc. undes. sp.)
<i>Marilia</i>	3 species	Key?

Oeconesidae

Tascuna ignota Neboiss

Philopotamidae

Key to Genera Bug Guide from Dean et al. 2004

<i>Chimarra</i>	26 species (23 sp. larva unknown) (11 undes. sp.)	Cartwright 1997 (inc. undescribed species)
<i>Hydrobiosella</i>	14 species (10 sp. larva unknown) (7 undes. sp.)	Cartwright 1997 (inc. undescribed species)

Philorheithridae

Key to Genera Bug Guide from Dean et al 2004

<i>Aphilorheithrus</i>	4 species (6 undes. sp.)	St Clair 1997 (undes. sp.)
<i>Austrheithrus</i>	3 species	no key to species
<i>Kosrheithrus</i>	3 species (2 sp. larva unknown) (1 undes. sp.)	no key to species

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"*Philorheithrus*" (to be confirmed) 2 undescribed species St Clair 1997 (undescribed species)
Ramiheithrus (larva unknown)
Tasmanthrus 2 species +1 undes. sp. (larva unknown) St Clair 1997
Genus A 1 undescribed species
Genus B 1 undescribed species

Plectrotarsidae

Key to Genera Bug Guide from Dean *et al.* 2004
Liapota lavara Neboiss (larva unknown)
Nanoplectrus truchanasi Neboiss (larva unknown)
Plectrotarsus 3 species (1 sp. larva unknown) Dean 2000
Genus A (1 undes. sp.)

Polycentropodidae

Key to Genera Bug Guide from Dean *et al.* 2004
Adectophylax volutus Neboiss (larva unknown)
Neureclipsis napaea Neboiss
Paranyctiophlyax 8 species (8 sp. larvae unknown) +6 undes. sp. Cartwright 1998 (undes. sp.)
Plectrocnemia 6 species (5 sp. larvae unknown) +5 undes. sp. Cartwright 1998 (undes. sp., partial)
Polyplectropus lacusalbinae Kimmins (some undescribed species, larvae unknown)
Tasmanoplegus spilota Neboiss (larva unknown)
Genus I 7 undes. sp. (6 larva unknown) no key to species

Psychomyiidae

Tinodes radona Neboiss
Zealandoptila yuccabina Neboiss (larva unknown)

Stenopsychidae

Stenopsychodes 9 species (6 sp. larva unknown) (1 undes. sp.) no key to species

Tasimiidae

Key to Genera Bug Guide from Dean *et al.* 2004
Tasiagma ciliata Neboiss
Tasimia 5 species Cartwright 1997

Platyhelminthes

Key to Orders

Bug Guide from Williams 1980

Turbellaria: Tricladida: Dugesiidae

Temnocephalidea: Temnocephalida: Temnocephalidae

The following major groups are identified no further;

Aphanoneura: Aeolosomatidae: *Aeolosma*

Bryozoa

Note: Record only as "present" i.e. do not count (colonial animal).

Nematoda

Nematomorpha

Nemertea

Oligochaeta

Polychaeta

Porifera: Spongillidae

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