

THE ALPHEID SHRIMP OF AUSTRALIA

Part III: The remaining alpheids, principally the genus *Alpheus*, and the family Ogyrididae

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SUMMARY

This third part of the study, based on almost 4,600 specimens, deals principally with the genus *Alpheus* Fabricius, but also included are the species of the genera *Athanopsis*, *Prionalpheus*, *Batella*, and *Metalpheus* found in Australia. We have also included the Australian species of the closely related family Ogyrididae. Since the publication of Parts I and II, we have received on loan additional collections which have contained two species of the genus *Synalpheus* which we are describing as new, one species of the genus *Athanas* and one species of the genus *Salmoneus* which are new records for Australia; these and other additional records for the species previously reported are contained in Appendix I. Another appendix gives the tabulation of the known distribution of all species known from Australian waters and a zoogeographic summary. This publication also includes the full bibliography for the three parts and a species index.

The species discussed in this paper are listed below; those that are new species or subspecies and those that are new records to Australian waters are marked by an asterisk.

Species of the genus *Alpheus*

- **Alpheus acutocarinatus* De Man
- **Alpheus acutofemoratus* De Man
- **Alpheus alcyone* De Man
- **Alpheus amirantei sizou* Banner and Banner
- **Alpheus architectus* De Man
- **Alpheus arethusa* De Man
- **Alpheus astrinx* sp. nov.
- **Alpheus australosulcatus* sp. nov.
- **Alpheus balaenodigitus* sp. nov.
- **Alpheus barbatus* Coutière
- **Alpheus bicostatus* De Man
- Alpheus bidens* (Olivier)
- **Alpheus bisincisus* De Haan
- Alpheus brevirostris* (Olivier)
- Alpheus bucephalus* Coutière
- **Alpheus bunburius* sp. nov.
- **Alpheus chiragricus* Milne-Edwards
- Alpheus collumianus* Stimpson
- **Alpheus cristatus* Coutière
- Alpheus deuteropus* Hilgendorf
- **Alpheus diadema* Dana
- Alpheus distinguendus* De Man
- **Alpheus djiboutensis* De Man
- **Alpheus dolerus* Banner
- **Alpheus edamensis* De Man

- Alpheus edwardsii* (Audouin)
 **Alpheus ehlersii* De Man
 **Alpheus euphrosyne euphrosyne* De Man
 **Alpheus euphrosyne richardsoni* Yaldwyn
 **Alpheus eulimene* De Man
 **Alpheus facetus* De Man
Alpheus frontalis Milne-Edwards
 **Alpheus georgei* sp. nov.
 **Alpheus gracilis* Heller
Alpheus gracilipes Stimpson
 **Alpheus hailstonei* Coutière
 **Alpheus heronicus* sp. nov.
 **Alpheus hippothoe* De Man
 **Alpheus hutchingsae* sp. nov.
 **Alpheus inopinatus* Holthuis and Gottlieb
 **Alpheus labis* sp. nov.
 **Alpheus leviusculus leviusculus* Dana
 **Alpheus australiensis* sp. nov.
 **Alpheus lobidens lobidens* De Haan
Alpheus lottini Guérin
Alpheus macrodactylus Ortmann
 **Alpheus maindroni* Coutière
 **Alpheus malabaricus trefzae* subspec. nov.
Alpheus malleodigitus (Bate)
Alpheus microstylus (Bate)
Alpheus miersi Coutière
 **Alpheus mitis* Dana
 **Alpheus moretensis* sp. nov.
Alpheus novaezealandiae Miers
Alpheus obesomanus Dana
 **Alpheus ovaliceps* Coutière
Alpheus pachychirus Stimpson
Alpheus pacificus Dana
 **Alpheus papillosus* sp. nov.
Alpheus paracrinitus Miers
 **Alpheus paralcione* Coutière
 **Alpheus parasocialis* sp. nov.
 **Alpheus pareuchirus imitatrix* De Man
 **Alpheus pareuchirus pareuchirus* Coutière
Alpheus parvirostris Dana
 **Alpheus polyxo* De Man
 **Alpheus pubescens* De Man
 **Alpheus rapacida* De Man
Alpheus rapax Fabricius
 **Alpheus serenei* Tiwari
Alpheus socialis Heller
 **Alpheus splendidus* Coutière
Alpheus spongiarum Coutière
 **Alpheus staphylinus* Coutière
Alpheus stephensoni Banner and Smalley
 **Alpheus strenuus cremnus* subspec. nov.
Alpheus strenuus strenuus Dana
 **Alpheus sudara* Banner and Banner
 **Alpheus sulcatus* Kingsley
 **Alpheus tasmanicus* sp. nov.

Alpheus villosus (Olivier)

**Alpheus* sp.

Genera other than *Alpheus*

Athanas polynesia Banner and Banner

**Athanopsis australis* sp. nov.

Batella parvimanus (Bate)

**Metalpheus paragracilis* Coutière

Metalpheus rostratipes (Pocock)

**Ogyrides delli* Yaldwyn

Ogyrides mjobergi (Bals)

**Prionalpheus triarticulatus* Banner and Banner

**Salmoneus sibogae* (De Man)

**Synalpheus paralaticeps* sp. nov.

**Synalpheus tijou* sp. nov.

We have placed the following species and subspecies of *Alpheus* in synonymy:

A. bisincisus malensis Coutière 1905 (= *A. bisincisus* De Haan 1850)

A. bisincisus stylirostris Coutière 1905 (= *A. bisincisus* De Haan 1850)

A. bisincisus variabilis De Man 1909 (= *A. bisincisus* De Haan 1850)

A. braschi Boone 1931 (= *A. parvirostris* Dana 1852)

A. bullatus Barnard 1955 (= *A. architectus* De Man 1897)

A. collumianus inermis Banner 1956 (= *A. collumianus* Stimpson 1861)

A. collumianus medius Banner 1956 (= *A. collumianus* Stimpson 1861)

A. collumianus probabalis Banner 1956 (= *A. collumianus* Stimpson 1861)

A. dissodontonotus Stebbing 1915 (= *A. bidens* (Olivier) 1811)

A. eurydactylus De Man 1920 (= *A. euphrosyne euphrosyne* De Man 1897)

A. gracilis alluaudi Coutière 1905 (= *A. gracilis* Heller 1861)

A. gracilis luciparensis De Man 1911 (= *A. gracilis* Heller 1861)

A. gracilis simplex Banner 1953 (= *A. gracilis* Heller 1861)

A. hailstonei assimulans De Man 1908 (= *A. hailstonei* Coutière 1905a)

A. hailstonei laetabilis De Man, 1908 (= *A. hailstonei* Coutière 1905a)

A. hailstonei paucispinata Banner 1953 (= *A. hailstonei* Coutière 1905a)

A. luciae Barnard 1946 (= *A. sulcatus* Kingsley 1878)

A. macrochirus Richters 1880 (= *A. sulcatus* Kingsley 1878)

A. malhaensis Coutière 1908 (= *A. collumianus* Stimpson 1861)

A. pareuchirus leucothea De Man 1909 (= *A. pareuchirus pareuchirus* Coutière 1905)

A. pomatoceros Banner and Banner 1966b (= *A. splendidus* Coutière 1897a)

A. praedator De Man 1908 (= *A. bidens* (Olivier) 1811)

A. sp. Forest and Guinot 1958 (= *A. inopinatus* Holthuis and Gottlieb 1958)

Crangon bucephalus var. Rathbun 1914 (= *A. bucephalus* Coutière 1905a)

We have reduced *Alpheus richardsoni* Yaldwyn 1971 and *A. langi* (Schmitt) 1926 to subspecific rank, creating new combinations *A. euphrosyne richardsoni* and *A. euphrosyne langi*. We have also reduced *A. bouvieri* Milne-Edwards 1880 to *A. leviusculus bouvieri*, and have raised *A. bouvieri hululensis* Coutière 1905a to specific rank as *A. hululensis*.

CONTENTS

Summary.....	1
Introduction	6
Support and acknowledgements.....	7
Key to the genera of Alpheidae and Ogyrididae found in Australian waters.....	7

Genus <i>Athanopsis</i> Coutière	9
<i>Athanopsis australis</i> sp. nov.	9
Genus <i>Prionalpheus</i> Banner and Banner	12
<i>Prionalpheus triarticulatus</i> Banner and Banner	14
Genus <i>Batella</i> Holthuis	15
<i>Batella parvimanus</i> (Bate)	16
Genus <i>Alpheus</i> Fabricius	18
Change from <i>Crangon</i> to <i>Alpheus</i>	19
Related genera and species	20
Subgeneric Groups	20
Variation in the genus <i>Alpheus</i>	21
Notes on some special characteristics	21
A study on Tasmanian alpheids	24
Key to the species of the genus <i>Alpheus</i>	25
Macrocheles Group	35
<i>A. astrinx</i> sp. nov.	35
<i>A. hailstonei</i> Coutière	38
? <i>A. staphylinus</i> Coutière	41
<i>A. deuteropus</i> Hilgendorf	42
<i>A. collumianus</i> Stimpson	45
Sulcatus Group	49
<i>A. villosus</i> (Olivier)	49
<i>A. architectus</i> De Man	55
<i>A. splendidus</i> Coutière	56
<i>A. gracilis</i> Heller	60
<i>A. facetus</i> De Man	62
<i>A. lottini</i> Guérin	65
<i>A. socialis</i> Heller	68
<i>A. parasocialis</i> sp. nov.	72
<i>A. amirantei sizou</i> Banner and Banner	74
<i>A. acutofemoratus</i> Dana	77
<i>A. sulcatus</i> Kingsley	79
<i>A. australosulcatus</i> sp. nov.	83
Obesomanus Group	87
<i>A. obesomanus</i> Dana	89
<i>A. malleodigitus</i> (Bate)	92
<i>A. microstylus</i> (Bate)	92
Crinitus Group	93
Species found in fabricated tubes	93
<i>A. ovaliceps</i> Coutière	98
<i>A. frontalis</i> Milne-Edwards	99
<i>A. pachychirus</i> Stimpson	102
<i>A. eulimene</i> De Man	105
<i>A. arethusa</i> De Man	110
<i>A. alcyone</i> De Man	110
<i>A. paralcyone</i> Coutière	113
<i>A. spongiarum</i> Coutière	116
<i>A. bucephalus</i> Coutière	120
Diadema Group	122
<i>A. cristatus</i> Coutière	122
<i>A. bicostatus</i> De Man	124
<i>A. labis</i> sp. nov.	127

<i>A. paracrinitus</i> Miers	129
<i>A. ehlersii</i> De Man	132
<i>A. mitis</i> Dana	134
<i>A. bidens</i> (Olivier)	136
<i>A. diadema</i> Dana	140
<i>A. gracilipes</i> Stimpson	143
<i>A. novaezealandiae</i> Miers	145
<i>Alpheus</i> sp.	148
Brevirostris Group	150
<i>A. acutocarinatus</i> De Man	151
<i>A. stephensoni</i> Banner and Smalley	153
<i>A. distinguendus</i> De Man	157
<i>A. rapacida</i> De Man	160
<i>A. barbatus</i> Coutière	163
<i>A. pubescens</i> De Man	167
<i>A. miersi</i> Coutière	168
<i>A. brevirostris</i> (Olivier)	170
<i>A. rapax</i> Fabricius	174
<i>A. moretensis</i> sp. nov.	177
<i>A. djiboutensis</i> De Man	180
Edwardsii Group	184
<i>A. parvirostris</i> Dana	185
<i>A. edamensis</i> De Man	188
<i>A. hutchingsae</i> sp. nov.	191
<i>A. hippothoe</i> De Man	193
<i>A. serenei</i> Tiwari	196
The identity of <i>A. euchirus</i> Dana, 1852	197
<i>A. georgei</i> sp. nov.	200
<i>A. maindroni</i> Coutière	203
<i>A. dolerus</i> Banner	205
<i>A. malabaricus trefzae</i> subspec. nov.	207
<i>A. macrodactylus</i> Ortmann	210
<i>A. bunburius</i> sp. nov.	213
<i>A. tasmanicus</i> sp. nov.	215
<i>A. pacificus</i> Dana	217
<i>A. heronicus</i> sp. nov.	220
<i>A. balaenodigitus</i> sp. nov.	223
<i>A. strenuus strenuus</i> Dana	225
<i>A. strenuus cremnus</i> subspec. nov.	229
<i>A. euphrosyne euphrosyne</i> De Man	232
<i>A. euphrosyne richardsoni</i> Yaldwyn	235
<i>A. inopinatus</i> Holthuis and Gottlieb	241
<i>A. sudara</i> Banner and Banner	243
<i>A. leviusculus leviusculus</i> Dana	246
<i>A. lobidens lobidens</i> De Haan	252
<i>A. australiensis</i> sp. nov.	256
<i>A. papillosus</i> sp. nov.	260
<i>A. bisincisus</i> De Haan	263
<i>A. chiragricus</i> Milne-Edwards	267
<i>A. edwardsii</i> (Audouin)	270
<i>A. polyxo</i> De Man	274
<i>A. pareuchirus pareuchirus</i> Coutière	276
<i>A. pareuchirus imitatrix</i> sp. nov.	278

Genus <i>Metalpheus</i> Coutière	280
Key to the known species of <i>Metalpheus</i>	282
<i>M. paragracilis</i> Coutière.....	282
<i>M. rostratipes</i> (Pocock).....	285
Family Ogyrididae	287
Genus <i>Ogyrides</i>	289
Key to the species of the genus <i>Ogyrides</i> in Australian waters.....	289
<i>Ogyrides delli</i> Yaldwyn.....	289
<i>Ogyrides mjobergi</i> (Balss)	294
Appendix I — Two new species, notes and additional records of genera covered in Parts I and II).....	296
<i>Synalpheus tijou</i> sp. nov.	296
<i>Synalpheus paralaticeps</i> sp. nov.	299
<i>Athanas polynesia</i> Banner and Banner.....	301
<i>Salmoneus sibogae</i> (De Man).....	305
Appendix II — New locality lists for alpheid collections.....	309
Appendix III — Species of alpheids listed in the literature as from Australia under other than current names	319
Appendix IV — Zoogeographic summary.....	321
Appendix V — Errata.....	326
References	329
Index to name of alpheids and ogyridids in parts I, II, III	344
Index to plants and animals reported to be associated with alpheid shrimp	355

INTRODUCTION

This, the third portion of our tripartite work on the family Alpheidae in Australian waters, was originally planned to contain only the genus *Alpheus*, but new specimens have required us to include the genera *Athanopsis*, *Prionalpheus* and *Metalpheus*; we also discovered that we forgot to include *Batella* in Part I, and have chosen to include records of two species of the related family, *Ogyrididae*. In the years since Parts I and II were written (dates of submission 1971 and 1974) new species and new records which extend the ranges of previously reported genera have been sent to us; these will be placed in Appendix I. The new collection records, recorded by our alphameric system and listed up to 1971 in the Appendix of Part I, are given in Appendix II. In Appendix III we have given the current names for those species previously reported from Australia in the literature under other generic or specific names. In Appendix IV we have given a zoogeographic summary for all Australian species. Finally in Appendix V we list the *errata* we have been able to detect in the first two parts. This final part also carries the bibliography and an index for all three parts of the study. As in Part II (p. 271) we have continued to mark unpublished distributional records with an asterisk — however, some of these will have been published by the time this paper appears.

Inasmuch as this part contains the bibliography, we have shortened our references form under synonymy to the author, date, page and relevant figures; the full reference may be found in the bibliography. Also in an effort to save printing space, we have abbreviated references except under synonymy to our own works to *B* and *B&B*; for this we ask the reader's indulgence.

In this paper, as in the parts previously published, the lengths given are total body lengths from the tip of the rostrum to the tip of the telson with the specimen laid as