

# ZOOTAXA

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**A review of the families and genera of the hyperiidean amphipod  
superfamily Phronimoidea Bowman & Gruner, 1973  
(Crustacea: Amphipoda: Hyperiidea)**

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### Table of contents

Abstract	4
Introduction	5
Materials and methods	7
Abbreviations used in text	7
Abbreviations used in illustrations and text	8
Systematics	8
Superfamily PHRONIMOIDEA Bowman & Gruner, 1973	8
Key to the families of the superfamily PHRONIMOIDEA	8
Family PHRONIMIDAE Dana, 1852	9
Key to the genera of the family PHRONIMIDAE	10
Genus <i>Phronima</i> Latreille, 1802	10
<i>Phronima sedentaria</i> (Forsskål)	11
<i>Phronima atlantica</i> Guérin-Méneville	12
<i>Phronima solitaria</i> Guérin-Méneville	12
<i>Phronima pacifica</i> Streets	13
<i>Phronima bucephala</i> Giles	14
<i>Phronima colletti</i> Bovallius	14
<i>Phronima curvipes</i> Vosseler	14
<i>Phronima stebbingii</i> Vosseler	15
<i>Phronima bowmani</i> Shih	15
<i>Phronima dunbari</i> Shih	15
Genus <i>Phronimella</i> Claus, 1871	16
<i>Phronimella elongata</i> (Claus)	16
Family PHROSINIDAE Dana, 1852	17
Key to the genera of the Family PHROSINIDAE	17
Genus <i>Phrosina</i> Risso, 1822	18
<i>Phrosina semilunata</i> Risso	18
Genus <i>Anchylomera</i> Milne-Edwards, 1830	19
<i>Anchylomera blossevillii</i> Milne-Edwards	19

Genus <i>Primno</i> Guérin-Méneville, 1836	20
Key to the species of the genus <i>Primno</i>	21
<i>Primno macropa</i> Guérin-Méneville	22
<i>Primno latreillei</i> Stebbing	22
<i>Primno abyssalis</i> Bowman	23
<i>Primno brevidens</i> Bowman	23
<i>Primno johnsoni</i> Bowman	24
<i>Primno evansi</i> Shearer	24
Family HYPERIIDAE Dana, 1852	24
Key to the genera of the Family HYPERIIDAE	25
Genus <i>Hyperia</i> Latreille, in Desmarest, 1823	26
Genus <i>Themisto</i> Guérin 1825	27
Key to the species of the genus <i>Themisto</i>	28
Genus <i>Hyperiella</i> Bovallius, 1887	29
Genus <i>Hyperoche</i> Bovallius, 1887	29
Genus <i>Pegohyperia</i> Barnard, 1931	29
Genus <i>Laxohyperia</i> Vinogradov and Volkov, 1982	30
Family LESTRIGONIDAE, new family	30
Key to the genera of the family LESTRIGONIDAE	31
Key to male species of LESTRIGONIDAE with pereonites 1–2 fused (except <i>Phronimopsis</i> )	32
Genus <i>Lestrigonus</i> Milne-Edwards, 1830	32
Genus <i>Phronimopsis</i> Claus, 1879	33
Genus <i>Themistella</i> Bovallius, 1887	33
Genus <i>Hyperioides</i> Chevreux, 1900	34
Genus <i>Hyperietta</i> Bowman, 1973	34
Genus <i>Hyperionyx</i> Bowman 1973	34
Family IULOPIDIDAE, new family	35
Genus <i>Iulopis</i> Bovallius, 1887	36
Key to the species of the genus <i>Iulopis</i>	37
<i>Iulopis loveni</i> Bovallius (Figs 1–3)	37
<i>Iulopis mirabilis</i> Bovallius (Figs 4–6)	42
Family BOUGISIDAE, new family	46
Genus <i>Bougisia</i> Laval, 1966	46
<i>Bougisia ornata</i> Laval	47
Family DAIRELLIDAE Bovallius, 1887	48
Genus <i>Dairella</i> Bovallius, 1887	48
<i>Dairella californica</i> (Bovallius) (Figs 7–10)	50
Acknowledgements	55
References	56

## Abstract

A taxonomic review of the families and genera of the hyperiidean amphipod superfamily Phronimoidea is presented. The systematic relationship of genera is examined in detail. The current genera seem to be well-defined taxonomic units but some such as *Themisto* and *Hyperoche* are in need of thorough taxonomic revision. The genera of the families Phronimidae, Phrosinidae and Dairellidae remain unaltered. Prior to this review, the family Hyperiidae comprised fourteen genera. These genera, except for *Iulopis* and *Bougisia*, are readily separated into two groups; 1) those with

all pereonites separate, with coxae separate from pereonites, with mandibular palp in both sexes and in which both antennae of females consist of four articles, and 2) those with some anterior pereonites fused (up to the first five), with coxae fused with pereonites, with mandibular palp absent in females, and in which females have first antennae of two articles (2–3 in *Hyperioides*), and the second antennae are reduced to one article. The latter group comprises the genera *Lestrigonus*, *Phronimopsis*, *Themistella*, *Hyperioides*, *Hyperietta*, and *Hyperionyx*. It is proposed that this group be placed in a new family, Lestrigonidae **fam. nov.**, derived from *Lestrigonus*, the oldest available generic name in the group. The remainder, which includes *Hyperia*, are retained in the family Hyperiidae. *Iulopis* and *Bougisia* do not fit into either of the above families, or with each other. Thus, two new families are proposed to accommodate them, Iulopididae **fam. nov.** and Bougisidae **fam. nov.** Keys are provided to families, genera and some species.

**Key words:** Amphipoda, Hyperiidea, Phronimoidea, review, taxonomy, families & genera, Lestrigonidae **fam. nov.**, Iulopididae **fam. nov.**, Bougisidae **fam. nov.**

## Introduction

Bowman and Gruner (1973) proposed the superfamily Phronimoidea to encompass the families Phronimidae, Phrosinidae, Hyperiidae and Dairellidae. These families are united by the morphology and positioning of the male antennae. The first antennae have a multi-articulate flagellum (except for *Themisto*) and are inserted on the anterior surface of the head. The second antennae are similar to the first (except for some species of *Phronima*, where A2 is reduced) and are also inserted on the anterior surface of the head.

The superfamily is a very diverse group that has received little attention at the higher taxonomic levels. In this study the systematic relationship of genera is examined in detail, resulting in the recognition of three new families. The genera seem to be well-defined taxonomic units, many having been reviewed by previous authors. However, some such as *Themisto*, and *Hyperoche*, are in need of thorough taxonomic revision, while others, such as *Hyperia* and *Lestrigonus*, warrant further study because species of these genera are difficult to distinguish. Also, because of the taxonomic difficulty experienced with these genera, it is likely that more undescribed species remain to be discovered.

The systematics of the families is, mostly, relatively well known. Thus, only minimal additional information is provided for species of the families Phronimidae and Phrosinidae. Similarly, most of the genera of the family Hyperiidae have either been reviewed by previous authors (except *Hyperoche*), or are monotypic. Thus, only limited information is provided for species, but the family is reviewed at the generic level because some genera differ in a number of significant characters. The genera *Iulopis* and *Bougisia* are reviewed in detail, as is the family Dairellidae.

Prior to the current review, the family Hyperiidae comprised fourteen genera which appeared morphologically similar, and presented considerable taxonomic difficulties. However, except for *Iulopis* and *Bougisia*, they are readily separated into two groups; 1)