

The Ampeliscid Amphipods of South-eastern Australia (Crustacea)

J.K. LOWRY^a AND G.C.B. POORE^b

^aAustralian Museum, P.O. Box A285, Sydney South, NSW 2000, Australia.

^bMuseum of Victoria, 71 Victoria Crescent, Abbotsford, Vic. 3067, Australia.

ABSTRACT. The Ampeliscid amphipods of south-eastern Australia are studied in detail for the first time. The two known species, *Ampelisca australis* Haswell and *A. acinaces* Stebbing, are rediscovered, and 15 new species in the genera *Ampelisca*, *Byblis* and *Haploops* are described. These include *Ampelisca ballina*, *A. bidura*, *A. calooma*, *A. dimboola*, *A. euroa*, *A. jingera*, *A. narooma*, *A. tilpa*, *A. toora*, *A. yuleba*, *Byblis bega*, *B. gerara*, *B. mildura*, *B. tinamba* and *Haploops oonah*. A key is provided to the ampeliscid species of south-eastern Australia.

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The Australian ampeliscid amphipods have never been studied in detail. Only two species, *Ampelisca australis* Haswell, 1879, and *A. acinaces* Stebbing, 1888, have been recorded. Stebbing (1910) reported *Ampelisca pusillus* Sars from south-eastern Australia but the record is dubious. In collections from the Australian Museum, the Museum of Victoria and from other sources we have rediscovered *A. australis* and *A. acinaces*. In addition, we have discovered 14 new species in the genera *Ampelisca*, *Byblis* and *Haploops*. This is only part of our collection, and indicates that when the Australian ampeliscids are better known the number of species will be similar to, or exceed that of, other well-known areas such as New England (Bousfield, 1973), southern California (J.L. Barnard, 1960), the north-eastern Pacific (Dickinson, 1982, 1983), the Mediterranean Sea (Bellan-Santini, 1982), the British Isles (Lincoln, 1979) and southern Africa (Griffiths, 1976).

Groups of ampeliscid species are usually very similar in general morphology and differ most clearly through distinctions in antennae, gnathopod 1, pereopod 7, urosome, uropods and telson. In this paper we have diagnosed species using these characters plus a few others, thereby avoiding long, repetitious descriptions. Later, when more material is available for study, certain species such as *A. australis*, may be recognized as complex species groups. This paper illustrates the diagnostic characters of each species and gives a lateral view of the whole animal for most species. In addition,

a key is provided to aid in identification.

Most of the material used in this study comes from macrobenthic surveys of the bays and continental shelf and slope of south-eastern Australia, between southern Queensland and Tasmania. The New South Wales material comes from dredge samples made by the FRV *Kapala* (Division of Fisheries, New South Wales Department of Agriculture), grab samples taken during the Australian Museum's Hunter District Water Board Survey (HDWBS) and grab and SCUBA samples taken during the Australian Museum Shelf Benthic Survey (AMSBS). Collections from the Hawkesbury River and Broken Bay were made by the Department of Marine Ecology, Australian Museum (AMHRS) and collections from Botany Bay were made by the State Pollution Control Commission (SPCC). Most of this material is held in the Australian Museum (AM).

Collections from Bass Strait were obtained from the Museum of Victoria's Bass Strait Survey (BSS). The Victorian Ministry for Conservation, Marine Studies Group, sampled in Western Port as part of the Crib Point Benthic Survey (CPBS) and the Westernport Bay Environmental Study (WBES). The Marine Studies Group also sampled in Port Phillip Bay as part of the Port Phillip Bay Environmental Study (PPBES). Details of this work were reported by Poore, *et al.* (1975). These collections are held in the Museum of Victoria, Melbourne (NMV) (formerly known as the National Museum of Victoria).