

Hyperiid Amphipods (Crustacea: Amphipoda: Hyperiidea) Collected Recently from Eastern Australian Waters

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ABSTRACT. A taxonomic report on hyperiid amphipods collected during the period 1970-1977 from waters off New South Wales, and in 1989 from off Sydney and slightly north-east of Brisbane, is presented. The collection consists of sixty one species of which nineteen are new records for Australian waters. Taxonomic features of all of the latter, and some of the lesser known species, are illustrated. A brief diagnosis and a list of synonymies is given for each species and remarks on systematics to aid future identification and comments on taxonomic difficulties are provided where appropriate. Most of the species represent a tropical or warm-temperate fauna indicating the influence of warm-core eddies in the Tasman Sea.

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The hyperiid amphipod fauna of Australian waters has not received much attention in the past. Previous records of hyperiids, mainly from eastern Australia, are by Barnard (1931), Dakin & Colefax (1940), Stebbing (1888), Young & Anderson (1987), and Zeidler (1978). Watson & Chaloupka (1982) record a few species from Bass Strait. Very few of these papers provide a taxonomic treatment of the species studied and our knowledge of the Australian fauna is thus limited with identifications relying on the availability of a variety of, often difficult to obtain, literature concerning fauna from other parts of the world.

Previous to this study, seventy four species of hyperiids were known from Australian waters (Young & Anderson, 1987; Zeidler, 1978); nearly all records

being from the shallower (less than 400 m) waters of eastern Australia. In most cases hyperiids were only collected as part of a general sampling program and it is thus likely that many more species will be added to the Australian fauna in the future. In particular there are very few plankton samples available from deep water (greater than 1000 m) which is the domain of most Physosomata which represent about one third of the world's fauna of about 240 species. Also opening and closing nets were rarely used so that information on the depth preference of species in Australian waters (and indeed worldwide) is very limited.

Since 1971, the New South Wales State Fisheries (now the Fisheries Division of the NSW Department of Agriculture) has been carrying out trawling surveys