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Article



Foreword*

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Introduction

With the publication of the ABRS Zoological Catalogue to Australian amphipods (Lowry & Stoddart 2003) it became apparent that nearly all of the effort to document the Australian amphipod fauna was concentrated in the temperate southern parts of the country. In tropical Australia, only the monograph of Zeidler (1978) on the pelagic hyperiidean amphipods of Queensland and several short papers on benthic amphipods (K.H. Barnard 1931; Lowry 1981; Berents 1983; Stock 1984; Thomas & Barnard 1990, 1991a, b) specifically targeted the Great Barrier Reef (GBR). Other workers included GBR species within broader Australian studies on benthic amphipods (Myers 1988; Lowry & Stoddart 1990, 1992). Since the publication of the catalogue (Lowry & Stoddart 2003), several important monographs: Guerra-Garcia 2006 on the caprellids of Queensland; Peart 2007a, b on the ampithoid genera *Ampithoe* and *Cymadusa* and several short papers: Lowry & Azman 2008; and Yerman & Krapp-Schickel 2008 have recorded tropical species. Prior to the beginning of this project there were about 1000 benthic amphipods known from temperate Australia, but less than 90 species known from tropical Australia. This book is therefore the foundation study on the tropical benthic amphipods of Australia. Although it describes many of the amphipods of the Great Barrier Reef, it indicates the richness of species only on the GBR and certainly not the richness of amphipod species in tropical Australian waters. A checklist of the amphipod species known from tropical Australia is given below.

Tropical Australia is extensive and much of it is difficult to access and has little or no infrastructure for diving and collecting. It was therefore decided to work on the Great Barrier Reef because of its accessibility and the existence of research stations located along the Reef (figure 1). The main effort was concentrated at Lizard Island (figure 2).

Attempting such a project required a group of experienced taxonomists with a proven publishing record in amphipod taxonomy. Historically, short-term projects targeting specific areas and involving many participants have been difficult to manage and consequently have often ended up with few published results (Evenhuis 2007). Collecting is only a small component of the project. Studying and publishing the collections requires a considerable time commitment by all participants and can fail for a number of reasons (Evenhuis 2007). Sponsorship for projects of this magnitude is always a problem (Flowers 2007). Fortunately Australia has a specific agency, the Australian Biological Resources Study (ABRS), for funding taxonomic research and other agencies such as the National Heritage Trust, who are sympathetic to the documentation of the Australian fauna.

Although Lizard Island became the main study site, other collections were used in the study. Jim Thomas (Nova Southeastern University, Fort Lauderdale, Florida) made collections from Orpheus Island available for study. Sara LeCroy (Gulf Coast Research Laboratory Museum, Ocean Springs, Mississippi) had a personal