



The sand shrimp genus *Philocheras* (Caridea: Crangonidae) from the continental margin of Western Australia including the description of a new species and a key to Australian species*

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Abstract

Eight species of *Philocheras* (Crustacea: Caridea: Crangonidae) are reported from the Northwest Shelf of Western Australia. One species is new to science *Philocheras anthonyi* sp. nov. Five species are reported for the first time from Australian waters, *P. angustirostris* (De Man, 1918), *P. incisus* (Kemp, 1916), *P. japonicus* (Doflein, 1902), *P. modestus* (De Man, 1918) and *P. plebs* (Kemp, 1916). A range extension within Australia is reported for *Philocheras lowisi* (Kemp, 1916) and *P. planoculminus* Bruce, 1994. These records expand the number of *Philocheras* species previously recorded from Australian waters from ten to 16. A revised key and illustrated guide to the species from Australia is provided.

Key words: Crustacea, Decapoda, Caridea, Crangonidae, sand shrimp, *Philocheras*, new species, key, Western Australia, Australia, taxonomy

Introduction

The crangonid shrimp genus *Philocheras* comprises 53 species in temperate to tropical regions around the world (Komai 2008). These small, often cryptic sand shrimp inhabit mud or sand in shallow to bathyal waters. Over two-thirds of the species occur in the Indo-West Pacific region with endemism evident in southern Australia and New Zealand (Yaldwyn 1960, 1971; Poore 2004; Komai 2008). Ten species are recorded from Australian waters; *P. brucei* Komai, 2004, *P. flindersi* (Fulton & Grant, 1902), *P. intermedius* (Bate, 1863), *P. lowisi* (Kemp, 1916), *P. obliquus* (Fulton & Grant, 1902), *P. pilosus* (Kemp, 1916), *P. planoculminus* Bruce, 1994, *P. poorei* Komai, 2008, *P. triangulus* Komai, 2006 and *P. victoriensis* (Fulton & Grant, 1902) (Davie 2002; Poore 2004; Komai 2004, 2006, 2008).

To date, no *Philocheras* species collected from Western Australian waters have been identified to species. CSIRO Division of Fisheries Research reported on the decapods collected on the Northwest Shelf in 1983 (cruise SO2-1983) (Ward & Rainer 1988). They reported that the fifth most abundant taxon was *Philocheras* spp. although they did not attempt to determine the species. This material was subsequently lodged in the Northern Territory Museum and Art Gallery (NTM). Recent sampling cruises off the continental margin of Western Australia on board FRV *Southern Surveyor* in 2005 and 2007 were mounted by CSIRO Marine and Atmospheric Research (CMAR) and Museum Victoria, (project entitled “Mapping benthic ecosystems on the deep continental shelf and slope in Australia’s South West Region”). A report on the decapods from voyage SS10-2005 revealed the decapod crustacean fauna to be highly diverse (Poore *et al.* 2008) and two unidentified species of *Philocheras* were listed, one of which has since been redetermined as belonging to the genus *Parapontophilus* (referred to as *Philocheras* sp. MoV 5439 in the report). This contribution is based on those two collections and on those taken during a second phase of the CMAR-MV project along the northern Western Australian continental margin (cruise SS05-2007). Examination of *Philocheras* specimens collected