Records of the Australian Museum (1985) Vol. 37: 325-341. ISSN-0067-1975

Siphonoecetinae (Crustacea: Amphipoda: Corophiidae) 4: *Australoecetes* Just, 1983, including *Stebbingoecetes* n. subgen.

JEAN JUST

Zoological Museum, University of Copenhagen,
Universitetsparken 15, DK-2100 Copenhagen, Denmark

ABSTRACT. Based on type material and old unpublished collections as well as recently collected material *Australoecetes* Just, 1983 is fully described. *A. sellicki* (Sheard, 1936) and *A. australis* (Stebbing, 1910) are redescribed and lectotypes selected. *Australoecetes jervisi* n. sp. is described. Based on morphological and correlated biological differences two subgenera are recognized: *Australoecetes* (with *A. sellicki*, east to west southern Australia) and *Stebbingoecetes* n. subgen. (with *A. australis*, type-species, and *A. jervisi*; both from south-eastern Australia).

JUST, J., 1985. Siphonoecetinae (Crustacea: Amphipoda: Corophiidae) 4: *Australoecetes* Just, 1983, including *Stebbingoecetes* n. subgen. Records of the Australian Museum 37(6): 325-341.

KEYWORDS: Amphipoda, Corophiidae, Siphonoecetinae, *Australoecetes*, Australia, taxonomy, biology.

The first siphonoecetine described from Australia was *Siphonoecetes australis* Stebbing, 1910. Sheard (1936) described a second species, *S. sellicki*, from the Gulf of St Vincent, South Australia. Ruffo (1959) placed *S. sellicki* in synonymy of *S. australis*. Just (1983) erected a new genus, *Australoecetes*, establishing *S. sellicki* Sheard, 1936 as type-species and including *S. australis* Stebbing, 1910. The reason for selecting *S. sellicki* for type-species was the homogeneity of the syntype material; the extant syntype material of *S. australis*, on the other hand, consists of two specimens, one of which belongs in an undescribed genus and species.

During my recent field work in Australia (1984), and sorting through old and new collections primarily in the Australian Museum and the Museum of Victoria, material of the two historical species was found. In addition, an undescribed species closely related to *A. australis* was collected in Jervis Bay, New South Wales.

Biologically *A. australis* and *A. jervisi* n.sp. conform with the normal siphonoecetine way of occupying empty mollusc shells or other suitable abodes (e.g. polychaete tubes), in which they crawl around on top of the sediment. *Australoecetes sellicki*, however, is unique in that it selects for abodes very light materials (normally hollow stem nodes from *Amphibolis* sea grass, occasionally other materials). This enables the specimens to swim away from the bottom with their house by aid of the unique long natatory setae on the peduncle of antenna 2.

The present study has shown that, although the three species differ from all other siphonoecetines as outlined in the original diagnosis of *Australoecetes*, they fall into two distinct groups (*A. sellicki*, and *A. australis* plus *A. jervisi* n. sp.). The main differences are found in the antennal armature, including the presence in *A. sellicki* of true spines on flagellar articles of antenna 1 and of natatory setae in antenna 2.

Differences between the two groups in mouthparts (e.g. mandibular palp, notched *versus* entire upper lip), in coxal plates and in details of the uropods, may be of taxonomic significance at the generic level, but more information on the intrageneric stability of such characters from other goups of siphonoecetines is needed.

The two groups are here considered as subgenera of *Australoecetes*. Distribution of the three species is shown in Fig. 1.

Scales and signatures referring to Figs 3-13 are given in Fig. 2. The term mature female refers to a female with fully developed oostegites (ovigerous, with embryos or with an empty marsupium).

A list of institutional and descriptive abbreviations follows:

AM	Australian Museum, Sydney
NMV	Museum of Victoria, Division of Natural History, Melbourne.
SAM	South Australian Museum, Adelaide
ZMUC	Zoological Museum, University of Copenhagen
a	antenna
ar	article