



## First record and description of male of *Metavargula adinothrix* Kornicker, 1975 (Ostracoda: Myodocopina) from the Southern Ocean

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### Abstract

Previously unknown male and some juveniles of *Metavargula adinothrix* Kornicker, 1975 were identified in material which was collected by Germany R/V Polarstern from bathyal and abyssal depth of the Atlantic Sector of the Southern Ocean. Diagnosis, description and detailed illustrations of male of this species are presented. Morphological comparison is made between male and female of this species. The distribution of *M. adinothrix* in the Antarctic and Subantarctic waters is shown.

**Key words:** benthic ostracods, Myodocopina, Cypridinidae, taxonomy, morphology, Antarctic, deep sea

### Introduction

The genus *Metavargula* and its type-species *M. ampla* were first singled out and described by Kornicker (1970). Now this genus contains 14 species: *M. optilus* (Kornicker, 1968), *M. ampla* Kornicker, 1970, *M. adinothrix* Kornicker, 1975, *M. iota* Kornicker, 1975, *M. bradfordae* Kornicker, 1979, *M. mazeri* Kornicker, 1979, *M. quintuplex* Kornicker, 1989, *M. bilix* Kornicker, 1989, *M. hex* Kornicker, 1989, *M. procox* Kornicker, 1996, *M. apex* Kornicker, 1996, *M. calyx* Kornicker, 1996, *M. currax* Kornicker, 1996 and *M. spadix* Kornicker, 1996.

Members of this genus have been reported (table 1) from the Atlantic Ocean: Gulf of Mexico (Kornicker 1968) and Bay of Biscay (Golfe de Gascogne) (Kornicker 1989), from the Pacific Ocean: Peru (Kornicker 1970), New Zealand (Kornicker 1975, 1979), South-Eastern Australia and Tasmania (Kornicker 1996), and also from the South (Antarctic) Ocean, but only off the Atlantic Sector (Kornicker 1975) at a depth range from 117 m to 4240 m, mainly deeper than 1000 m. Up to now species of the *Metavargula* are not found in temperate waters of the North Hemisphere and in the tropical area of the Pacific Ocean. It seems likely that *Metavargula* is not present in the myodocopin fauna of the Arctic Ocean.

*M. adinothrix* among other species of *Metavargula* lives in the Southern Ocean (including the Antarctic zone). Only adult females and juveniles are described (Kornicker 1975). Until now adult males of this species were unknown. Within the genus, males are known only from seven species in the following areas: SE Australia (*M. procox*, *M. apex*, *M. spadix*), Biscayne Bay (*M. hex*, *M. bilix*, *M. quintuplex*) and New Zealand (*M. bradfordae*).

Additional benthic ostracod material from depths of the Antarctic was collected by German expeditions in 2002 and 2005 (Fig. 1). In these samples adult male and some juveniles of *M. adinothrix* among other myodocopins were identified. Investigation results of male morphology are presented below.