

TERRESTRIAL OSTRACODS IN AUSTRALIA

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SUMMARY

Two new species of terrestrial ostracods are described from Australia: *Mesocypris australiensis* n.sp., mainly recorded from near the east and south coast of eastern Australia, and *M. tasmaniensis* from south-west Tasmania. An additional species *Scottia audax* is also recorded from Queensland and New South Wales.

Ecological notes on *M. australiensis* are given and the distribution of the terrestrial ostracods found only in the southern hemisphere is discussed.

INTRODUCTION

Ostracods occur in most aquatic environments ranging from typically marine to freshwater. They are present in interstitial and non-marine saline waters and are also found outside the typical aquatic habitats, living among moss and leaf litter characterised by a high moisture content. The term 'terrestrial' used here refers to that particular environment. Such cases of terrestrial adaptation for ostracods have been recorded from African forests by Klie (1939) with *Mesocypris pubescens* Daday, 1908 and by Lawrence (1953) and Harding (1953) with *Mesocypris terrestris* Harding, 1953, from New Zealand native forests by Chapman (1960, 1961) with *Scottia audax* (Chapman, 1961), and from a variety of terrestrial environments in Madagascar by Danielopol and Betsch (1980) who described *Mesocypris madagascariensis* and *M. pauliani* and also *Terrestricandona minuta*. Additionally, Schornikov (1969) described a highly adapted terrestrial ostracod *Terrestricythere ivanovae* Schornikov, 1969 living in vegetal debris of marine origin on a beach of the Kuril Archipelago. It is only recently that ostracods have also been recorded from litter and soil in wet sclerophyll forests in Victoria (as *Mesocypris* sp. by Ahern and Yen, 1977) and Queensland (no identification given by Plowman, 1979) and New South Wales (De Deckker, 1980).

All the ostracods found in terrestrial environments, including the Australian species here, belong to the family Cyprididae Baird, 1845, which groups non-marine ostracods with the exception of *Terrestricythere ivanovae* and *Terrestricandona minuta*. The former belongs to the superfamily Terrestricytheracea, which has marine affinity, and the latter belongs to the Candonidae, which groups mainly freshwater and some marine forms. Danielopol and Betsch (1980) claim that *T. minuta* originates from a typical interstitial freshwater candonid ancestor.

In Australia there are three species of terrestrial ostracods known: *Mesocypris tasmaniensis* n.sp from SW Tasmania, *M. australiensis* n.sp from northern Queensland to New South Wales and Victoria (see Table 1, Fig. 6) and *Scottia audax* (Chapman, 1961) from Queensland and New South Wales. The latter species has recently been re-examined by De Deckker (1980).

SYSTEMATICS

Superfamily Cypridacea Baird, 1845

Family Cyprididae Baird, 1845

Subfamily Scottinae Bronstein, 1947

Remarks: This subfamily is characterised by: smooth oviform shell, dorsally arched and ventrally flat and often densely pilose, especially in the ventral area. Central muscle field consisting of an almost