A new genus and four new species of millipedes from Tasmania, Australia (Diplopoda: Polydesmida: Dalodesmidae), with notes on male leg setae in some Tasmanian dalodesmids

ROBERT MESIBOV
Queen Victoria Museum and Art Gallery, Wellington Street, Launceston, Tasmania, Australia 7250; mesibov@southcom.com.au

Abstract

Bromodesmus catrionae n. gen., n. sp. (type species), B. militaris n. sp., B. riparius n. sp. and B. rufus n. sp. are described. The new genus is characterized by greatly reduced paranota and a gonopod telopodite expanded at the distal end into a posteriorly concave ‘hood’ fringed with teeth; the ‘hood’ partly protects a long, curved, acutely pointed solenomerite. Male leg setation in the type species of six Tasmanian dalodesmid genera is briefly discussed and illustrated with scanning electron micrographs. The sphaerotrichome shaft is sharply pointed in Atrophotergum; gently tapered in Dasystigma, Lissodesmus and Tasmanodesmus; expanded at the tip in Bromodesmus; and entirely absent in Gasterogramma. Tips of the setae forming the dense ventral ‘brush’ on male podomeres are gently tapered in Dasystigma and Lissodesmus, truncated in Gasterogramma, expanded in Bromodesmus and forked in Tasmanodesmus.

Key words: Diplopoda, Polydesmida, Dalodesmidae, Bromodesmus, Tasmania, Australia, biogeography, setae

Introduction

The four species grouped here in Bromodesmus n. gen. share an unusual gonopod structure but vary in size (Fig. 2), habits and paranotal development. B. catrionae n. sp., B. militaris n. sp. and B. riparius n. sp. are soil-burrowing forms only occasionally seen above the ground surface, while B. rufus n. sp. can be found in leaf and woody litter. In all four species the paranota are reduced to lateral swellings, but the degree of reduction varies: B. rufus n. sp. has small but noticeable paranota, B. riparius n. sp. is nearly cylindrical and the remaining two species show intermediate paranotal development.

Bromodesmus n. gen. is so named (from the Greek bromos, ‘stench’) for the acrid and unpleasant odor of a highly volatile component or components in the defensive secretion.