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Catotrichinae (Diptera: Cecidomyiidae) in Tasmania, with the description of *Trichotoca edentula* gen. et sp. n.

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Abstract

Two species of catotrichine gall midges are shown to occur in Tasmania: *Trichotoca edentula* **sp. n**. and *Trichotoca fraterna* (Jaschhof) **comb. n.**, the latter known previously from the Australian mainland. A new genus, *Trichotoca*, is founded to receive these two species and is shown to be sister-group of *Catotricha* Edwards, the genus now comprising all the extant catotrichine species in the northern hemisphere. Another new genus, †*Mesotrichoca*, is founded for the only known fossil catotrichine, †*Catotricha mesozoica* Kovalev. Adult morphology of the Catotrichinae is revised and briefly discussed.

Key words: Cecidomyiidae, Catotrichinae, new genera, new species, Tasmania

Introduction

Catotrichinae Edwards 1938 are a small subfamily of primitive, fungivorous Cecidomyiidae. A catotrichine, †*Catotricha mesozoica* Kovalev from the Cretaceous/Jurassic of Siberia, is the oldest fossil cecidomyiid (Kovalev 1990), and catotrichine wing venation is the most generalized vein pattern found among the extant cecidomyiids (cf. Fig. 1D). Living Catotrichinae were long thought to occur only in the northern hemisphere, until *Catotricha fraterna* Jaschhof was described from south-east Australia (Jaschhof 2001)—the latest addition to this subfamily.

Despite the putatively great phylogenetic age of the Catotrichinae, morphology of their adults – larvae are known of only one species (cf. Krivosheina 1986) – is amazingly uniform. Hence all the species described, whether fossil or extant, northern or southern hemispherical, were assigned to a single genus, *Catotricha* Edwards. This practice is now abandoned with a new catotrichine found recently in Tasmania which is here described and named as *Trichotoca edentula* **gen. et sp. n.** Also, we have reasons to classify †*Catotricha mesozoica* in a genus of its own, †*Mesotrichoca* gen. n., which are explained below.

Findings of Catotrichinae in North America and Asia are exceptional events. The latest finding, of *Catotricha marinae* Mamaev in west Siberia, dates from almost 30 years ago (cf. Mamaev 1985). The situation with Catotrichinae in Australia appears to be different. The description of *Catotricha fraterna* was based on 22 museum specimens collected in six different sites on several occasions between 1964 and 1980 (Jaschhof 2001). For the present study we had 75 specimens available of two species, collected mostly in the course of an ongoing invertebrate trapping program conducted at Warra Long Term Ecological Research Site, south-west Tasmania. To our present knowledge Catotrichinae depend on very specific breeding site qualities, including the presence of strongly decayed tree trunks for larval development and moist soil for pupation

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