



A new genus and species of Tetrastichinae (Hymenoptera: Eulophidae) inducing galls in seed capsules of *Eucalyptus*

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Abstract

Leprosa milga Kim & La Salle **gen. & sp. nov.** (Hymenoptera: Eulophidae: Tetrastichinae) is described from *Eucalyptus* seed capsules. The new species is an Australian seed gall inducer which has become established in South Africa and Italy. The relationship of *Leprosa* to two other genera of seed gall inducing tetrastichines, *Quadrastichodella* and *Moona*, is discussed.

Key words: Tetrastichinae, *Leprosa*, *Quadrastichodella*, *Moona*, *Eucalyptus*

Introduction

Most members of Tetrastichinae are known to be entomophagous as primary or hyper parasitoids on a wide variety of insects, as well as a few other arthropod hosts, including even spider egg sacs and nematodes (La Salle 1994). However, several species are known to be phytophagous, and these include gall inducers (La Salle 2005). Within Australia, tetrastichine gall-inducers mainly attack *Eucalyptus*, and a few other Myrta-ceae, and can induce galls on twigs, leaves, flower buds and seeds (Bouček 1988; Headrick *et al.* 1995; Noyes 2002, 2003; Kim *et al.* 2004; Kim *et al.* 2005; La Salle 2005). The vast majority of Australian tetrastichines are parasitoids, and many of them are associated with galls as inquiline or parasitoids (Bouček, 1988; La Salle 2005).

Several species of gall-inducing tetrastichines were accidentally introduced from Australia to other areas, and have become invasive pests (Flock 1957; Timberlake 1957; Bouček 1988; Headrick *et al.* 1995; Mendel *et al.* 2004; Kim *et al.* 2005; La Salle 2005). These include *Quadrastichodella nova* Girault (Flock 1957; Timberlake, 1957), *Leptocybe invasa* Fisher & La Salle (Mendel *et al.* 2004), *Epichrysocharis burwelli* Schauff (Schauff & Garrison 2000), *Oncastichus goughi* Headrick & LaSalle (Gough 1988; Redak & Bethke 1995; Headrick *et al.* 1995; Gates & Schauff 2005) and *Moona spermophaga* (Kim *et al.* 2005).

Among those gall-inducing tetrastichines, species in the genus *Quadrastichodella* and *Moona spermophaga* induce galls on seeds of several species of *Eucalyptus* and *Corymbia* (Bouček 1988; Ikeda 1999; La Salle 2005; Kim *et al.* 2005). These two genera appear closely related based on their seed-galling biology as well as morphological characters (Kim *et al.* 2005).

Quadrastichodella species induce galls in eucalypts. The best known species is *Quadrastichodella nova* Girault which was first reported from California (Flock 1957; Timberlake 1957, as *Flockiella eucalypti*). Although Australian in origin, it is now recorded from Israel, Spain, Italy, USA, Argentina and South Africa (Noyes 2002, 2003; La Salle 2005).