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A new species of *Paropsisterna* Motschulsky, 1860, a significant pest of plantation eucalypts in Tasmania and Ireland (Coleoptera: Chrysomelidae: Chrysomelinae)

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Abstract

A new species of chrysomeline leaf beetle, *Paropsisterna selmani* Reid & de Little, is described, including all larval instars. This species, native to Australia, is now a significant pest of *Eucalyptus* plantations in Australia and Ireland, and has been recorded in southern England. Its occurrence in the British Isles represents the first record of establishment of a eucalypt feeding chrysomelid in Europe.

Key words: leaf beetle, larva, adult, taxonomy, morphology, forestry, Eire, British Isles, Australia

Introduction

In 2007 the authors were notified by colleagues of the occurrence of a species of the subfamily Chrysomelinae attacking cultivated *Eucalyptus* species in County Kerry, Ireland. In 2012 it was photographed in a garden in England. This species clearly belonged to the genus *Paropsisterna* Motschulsky, 1860 (Reid 2006), which is native to Australia and New Guinea (Reid 2006). Examination of live and preserved material showed the species to be identical to a pest species on *Eucalyptus nitens* plantations in Tasmania, which had been tentatively identified as *Chrysophtharta gloriosa* (Blackburn, 1899) by the late Brian Selman (*pers. comm.*, to DWdL 1980; de Little 2011). The name *Paropsisterna gloriosa* was then supplied to our Irish colleagues and has been used in several publications or web sites (Anonymous 2008, 2012; Fanning *et al.* 2009; Withers 2011). The purpose of this paper is to rectify that misidentification.

Chrysophtharta Weise, 1901 was described for those species formerly placed in *Paropsis* Olivier, 1807, which lack pronotal trichobothria and lose their colour after death. Most of these had earlier been distinguished as a species group by Blackburn (1899). Reid (2006) synonymised *Chrysophtharta* with *Paropsisterna*, which became a large genus of 122 described species (Reid 2006, 2012), 17 of which occur in Tasmania (de Little 2011). In practice, the majority of the species formerly placed in *Chrysophtharta* have a typical facies (Reid 2006) and may best be retained conceptually as a species group within *Paropsisterna*, which we will refer to as the “*nobilitata* species group” based on the type species of *Chrysophtharta* (Kelly & Reid, 1999). This species group includes several well-known pests of naturally grown and cultivated eucalypts in Australia and overseas: *P. agricola* (Chapuis, 1877); *P. bimaculata* (Olivier, 1807) and *P. m-fuscum* (Boheman, 1859) (Carne *et al.* 1974; de Little 1989, 2011; Nahrung 2006; Millar *et al.* 2009). The Irish pest species certainly belongs to this species group.

The *P. nobilitata* species group is difficult to work with taxonomically, as almost all of the approximately 55 species fade to dull straw-brown at death and most have been described without knowledge of the living colours (Blackburn 1899). The living beetles are brilliantly coloured, with diagnostic patterns, although these vary with maturity of the insect (Figs 1–4). Besides colour, the best attributes for separating the species are surface sculpture and male genitalia. Blackburn (1899) provided the only key to species of the *P. nobilitata* group, which was based on colour patterns recovered by soaking specimens in benzene. From this key, the Irish and Tasmanian species is