



First New Zealand record of the genus *Macrolophus* Fieber, 1858 (Hemiptera: Miridae: Bryocorinae: Dicyphini): *Macrolophus pygmaeus* (Rambur, 1839), a beneficial predacious insect

A. C. EYLES¹, T. MARAIS², & S. GEORGE³

¹ 30 Mahana Rd, Paraparaumu Beach, New Zealand. alan.pat@xtra.co.nz

² Zonda Resources Ltd, PO Box 756, Pukekohe, Auckland, New Zealand. terril@zonda.net.nz

³ Plant Health and Environment Laboratory, MAF Biosecurity New Zealand, Ministry of Agriculture and Forestry, PO Box 2095, Auckland 1140, New Zealand.

Abstract

Macrolophus pygmaeus (Rambur, 1839) is recorded for the first time in New Zealand. Viable adult *M. pygmaeus* were collected in the field in Auckland, in 2007, indicating that the species had already established itself in this country. The biology of *M. pygmaeus* is briefly discussed in the light of its potential economic benefits to growers of vegetable crops affected by whitefly (Aleyrodidae). The adults and nymphs are described and illustrated. An updated key to the genera and species of Bryocorinae in New Zealand is provided.

Key words: established; economic importance; description; diagnosis; biology; key to genera and species

Introduction

The mirid species *Macrolophus pygmaeus* (Rambur, 1839) was first collected in Auckland Botanic Gardens in February 2007. Further specimens were collected in August and September 2007 from the same site, indicating that a breeding population is present. Based on the length of time that *M. pygmaeus* is known to have been present and the abundance of suitable prey (whitefly), it is likely that the species will establish well in other parts of New Zealand with climates similar to Auckland's.

There are now three members of the subfamily Bryocorinae in New Zealand, all in the tribe Dicyphini. The two previously recorded are *Felisacus elegantulus* (Reuter, 1904) and the introduced *Engytatus nicotiana* (Koningsberger, 1903), which has been in New Zealand for at least 60 years (Eyles & Schuh 2003).

Biology

M. pygmaeus is a predator of whitefly in Spain, Russia, and Greece, and of green peach aphid, *Myzus persicae* (Sulzer, 1776), in Armenia and Greece (Wheeler, 2001). In New Zealand it has been collected along with *E. nicotiana* on whitefly-infested vegetables and other plants. While confined in rearing cages, adults and nymphs of *M. pygmaeus* were observed feeding directly on the adult and immature greenhouse whitefly *Trialeurodes vaporariorum* (Westwood, 1856). Martinez-Cascales *et al.* (2006) reviewed the economic importance of the closely related *Macrolophus melanotoma* (Costa, 1853) and *M. pygmaeus*. Both are well-known