Detection and identification of a self-introduced parasitoid of the *Acacia* tortoise beetle

T.J. Murray and T.M. Withers

*Scion, Private Bag 3020, Rotorua, New Zealand*
Corresponding author: toni.withers@scionresearch.com

*Dicranosterna semipunctata* (Coleoptera: Chrysomelidae) was detected in New Zealand in 1996. This Australian tortoise beetle has no specific natural enemies in New Zealand and has become a moderate pest of blackwood (*Acacia melanoxylon*). Although a number of potential biological control agents have been identified in Australia, none has been intentionally introduced. In January 2009, parasitised eggs of *D. semipunctata* were found in Rotorua. Comparison of the emergent parasitoids to hymenoptera held in the NZIC and ANIC confirm that the wasp is from the genus *Neopolycystus*. The taxonomy of this genus is poorly resolved but there were three species of particular interest to which to compare the new specimens. The first, *Neopolycystus* sp. nr *insectifurax*, was introduced from Perth against *Paropsis charybdis* in 1989 but did not establish. The second, *Neopolycystus* sp., was reared from *D. semipunctata* eggs in NSW but was never imported into New Zealand as a biocontrol agent for *D. semipunctata*. The third, *N. insectifurax* Girault, is self-introduced since 2001 and is well established in New Zealand, contributing significantly to the control of *P. charybdis*. The parasitoids reared from *D. semipunctata* eggs in Rotorua were not analogous to any of these. This new species, *Neopolycystus* sp., from Rotorua has since been recorded in the Northland, Auckland, Waikato and Bay of Plenty regions.

Southern ladybird (*Cleobora mellyi*) is now well established in New Zealand

L.A. Berndt, T.M. Withers and B.A. Gresham

*Scion, Private Bag 3020, Rotorua 3046*
Corresponding author: lisa.berndt@scionresearch.com

The southern ladybird, *Cleobora mellyi* (Coleoptera: Coccinellidae), is a biological control agent of Eucalyptus and *Acacia* pests, such as *Chrysophtharta bimaculata* (Coleoptera: Chrysomelidae) in Tasmania. *Cleobora mellyi* was introduced to New Zealand from Australia in the 1970s and 1980s in the hope that it would help control the Eucalyptus tortoise beetle, *Paropsis charybdis* (Coleoptera: Chrysomelidae). However, establishment was successful at only one site in the Marlborough Sounds. Since that time, additional psyllid species have established on eucalypts and acacia, providing a needed alternative food source for *C. mellyi*. Further releases were made in 2005 and 2007, and 17 of the 21 release sites were reassessed in the summer of 2009/10. Established populations were found at eight of the sites checked, across the upper North Island and in Southland. *Cleobora mellyi* is therefore now established in Northland, Auckland, Coromandel, Waikato, Bay of Plenty and Southland, as well as the Marlborough Sounds site. *Paropsis charybdis* appears to be an alternative, as opposed to primary, food source for *C. mellyi*, so this predator is unlikely to exert control over *P. charybdis* as originally hoped. It remains to be determined whether *C. mellyi* will be beneficial in controlling psyllids or the chrysomelid pest *Dicranosterna semipunctata* on *A. melanoxylon*. 