Investigating the potential of *Eadya paropsidis* (Braconidae) from Tasmania as a biocontrol agent for *Paropsis charybdis* in New Zealand

T.M. Withers, G.R. Allen, V.S. Patel, D. Satchell and G. Manley

Scion, PB 3020, Rotorua 3046, New Zealand

Corresponding author: toni.withers@scionresearch.com

Despite considerable efforts, the eucalyptus tortoise beetle *Paropsis charybdis* continues to defoliate *Eucalyptus nitens* plantations throughout New Zealand, preventing expansion of this forest resource or requiring constant management through aerial insecticide application. A parasitoid wasp of the spring-time larval stage of the eucalyptus leaf beetle *Paropsisterna agricola* (Chapuis) (Chrysomelidae) in Tasmania is being investigated as a potential biological control agent for New Zealand. The potential agent, *Eadya paropsidis* Huddleston and Short (Braconidae), was caught as adults on the wing from *E. nitens* plantations in northern Tasmania and brought into the laboratory in Hobart for preliminary host specificity testing. Using a sequential no-choice test method to examine the response of individual females, 9 of the 10 female parasitoids attacked *P. agricola*, while 7 of those 9 attacked *P. charybdis* larvae. Those *P. charybdis* larvae that were attacked proved to be a highly suitable physiological host for *E. paropsidis* development, emerging as a larger sized parasitoid larva from *P. charybdis* than from *P. agricola*. This potential agent will be further evaluated in a collaborative project with New Zealand eucalyptus growers and the Sustainable Farming Fund.

Initial establishment and further releases of *Cotesia urabae*, a biological control agent for *Uraba lugens*, in New Zealand

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

Scion, Private Bag 3020, Rotorua 3046, New Zealand

Corresponding author: belinda.gresham@scionresearch.com

Cotesia urabae (Hymenoptera: Braconidae), a solitary larval endoparasitoid of the eucalypt pest *Uraba lugens* (Lepidoptera: Nolidae), was approved for use as a biological control agent in New Zealand in July 2010 and initial releases were made at two sites in central and south Auckland between January and June 2011. Initial establishment of *C. urabae* has now been confirmed at the central Auckland Domain site as parasitoid cocoons were found in February 2012 in the original release tree, as well as in several trees nearby where releases had not occurred for the previous 8 months. Two further releases of *C. urabae* were made in January 2012, the first in a *Eucalyptus bosistoana* plantation in Morningside, near Port Whangarei, Northland, and the second onto a large *Eucalyptus cinerea* tree located in Matapihi, Tauranga, Bay of Plenty. At both of these sites, host *U. lugens* larvae that had been attacked by *C. urabae* females were released, rather than adult parasitoids. This method provided additional flexibility around timing of release, and improved ease of transportation and handling.