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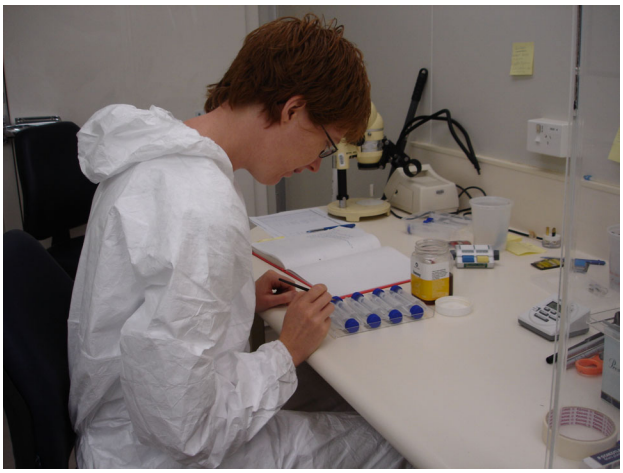
URABA LUGENS BIOLOGICAL CONTROL PROGRESSING NICELY

Uraba lugens (gum leaf skeltoniser) (Nolidae) is an Australian moth that was first found in New Zealand in 1992 at Mount Maunganui. After several years it was eradicated from there but in 2001 it was found in Auckland. It is not known whether the Auckland population originated from the Mount Maunganui ones or represents a separate incursion from Australia. It has now spread throughout the greater Auckland region, with additional records in Waikato, Northland, and Bay of Plenty — (see http://gis.scionresearch.com/maful/viewer.htm for a map of the distribution). Modelling work carried out at Ensis predicts that *Uraba* has the potential to survive in all the commercial eucalypt growing regions of New Zealand and is thus a threat to the expanding eucalypt industry as well as to amenity trees.

Uraba lugens has been recorded from nearly 50 species of *Eucalyptus* in New Zealand and, as the common name implies, these are the main hosts. However, it has been recorded from other species as well. These include *Agonis, Angophora, Lophostemon, Metrosideros,* and *Tristaniopsis.* These are not so surprising because they all in the family Myrtaceae as is *Eucalyptus*. What is somewhat surprising are records from *Betula, Fagus, Fraxinus, Liquidambar, Populus,* and *Quercus.* Of particular note is the heavy damage sustained by *Lophostemon* and *Betula.* As these are widely planted amenity trees in Auckland (*Lophostemon* is quite a common street tree) the damage is of some concern to arborists.

Cotesia urabae on *Uraba lugens*



Lisa Berndt working with *Cotesia urabae* in the quarantine facility

In 2004 Ensis gained approval to import four parasitoids of *Uraba lugens* into containment (*FH News* 143 August 2004), and work began to determine if any of these would be suitable biological control agents. (*FH News* 150 April 2005). Since then many problems have been encountered with mating and rearing the parasitoids, and with hyperparasitoid contamination of the parasitoid shipments from Australia. In addition, rearing *U. lugens* in the laboratory as hosts for the parasitoids has been difficult, with disease affecting the colony at various times. Two of the four potential parasitoids have been ruled out — one (*Euplectrus* sp. (Eulophidae)) because a hyperparasitoid is present in New Zealand, and the other (*Eriborus* sp. (Ichneumonidae)) because of difficulties obtaining enough from Australia. However, progress has been made with the remaining two species (*Cotesia urabae* and *Dolichogenidea eucalypti* (Braconidae)) over the past two summers. Hyperparasitoid problems have been solved, and both species have now been reared through three generations in the laboratory. The methods for ensuring mating have been refined, and maintaining continuing cultures should not be a problem in the future. Host range testing of *C. urabae* is nearly complete for two non-target host species, the exotic pests *Spodoptera litura* and *Heliothis armigera* (Noctuidae). Further host range testing on native species will continue next summer, funding permitting. An application has been submitted to the Sustainable Farming Fund, in conjunction with the Gum Leaf Skeletoniser Stakeholders Group, which, if successful, will allow the project to be completed over the next 3 years.

Lisa Berndt

Newsletter of the ***Ensis Forest Biosecurity and Protection Unit****, and the* ***Forest Health Reference Laboratory*** *(incorporating the Forest Research Mycological Herbarium (NZFRI-M), the Forest Research Culture Collection (NZFS), and the National Forest Insect Collection (FRNZ). Edited by John Bain, New Zealand Forest Research Institute Ltd, Private Bag 3020, Rotorua. <john.bain@ensisjv.com> Web site < http://www.ensisjv.com/biosecurity >*

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BUDDLEIA BIOLOGICAL CONTROL AGENT OFF TO A GOOD START

Ensis FBP staff have been busy both in the field and rearing cleopus (*Cleopus japonicus*), a new biological control agent for buddleia *(Buddleja davidii),* since the release last September in Whakarewarewa Forest (see *FH News 165,* August 2006). Five additional field releases sites have been established in plantations in the North Island — Whakarewarewa, Kinleith, Lake Taupo Forests, Esk Forest in Hawke's Bay, and Rawhiti Forest Farm near Ohope. These were selected to maximise the climatic range cleopus might encounter in areas with buddleia in New Zealand. Cleopus releases at these sites began in October 2006 and have been monitored closely. Early signs are that cleopus is doing well at all sites, with a number of generations recorded. Feeding damage to buddleia plants within the central release area is considerable, with cleopus feeding on both new and old foliage. Weevils and larvae have been found up to 30 m from the release point. Each population will be monitored to see when cleopus begins to overwinter and how well it survives winter conditions to begin feeding in spring. If cleopus populations are able to build to sufficient numbers, it has the potential to reduce buddleia growth and competition with plantation trees and native vegetation.

Buddleia damaged by *Cleopus japonicus*

Michelle Watson

NEW ARRIVALS

Elizabeth Orton

Elizabeth, who is a graduate of the University of Oxford and the University of Wales (Bangor), has recently joined Forest Biosecurity & Protection after working at Forest Research, Alice Holt, UK, for 3 years as a Research Technician in the busy Tree Health Division. Elizabeth spent the majority of her time focusing on the quarantine pathogens *Dothistroma septosporum* (= *D. pini*), *Phytophthora ramorum,* and *P. kernoviae.* Although it has been known to be present in the UK since the 1950s, *D. septosporum* (or red band needle blight as it is known there) has only relatively recently been noted there as a major forest pathogen. In the UK it affects mostly Corsican pine (*Pinus nigra* var. *maritima*), but also some other pine species that play a more minor forestry role. The work involved both field surveys assessing presence and level of infection and laboratory research. The research in the UK is focused primarily on control of the disease as it is against the forestry standard to spray crops in the UK, but also involved molecular diagnostics and comparing isolates from across the UK. The work on *P. ramorum* and *P. kernoviae* was mostly laboratory work, dealing with field samples as well as organising experiments to gather knowledge on these invasive pathogens. Elizabeth's experimental work was focused on foliar samples and looking at how plant species differed in terms of susceptibility to infection and ability to produce inoculum.

Elizabeth says "I am very excited to be working in New Zealand, especially as part of the FBP team. I'm really enjoying my role as diagnostician and learning about all the different plant species and their related pathogens."

Andrea Sharpe

Andrea, who is originally from Newfoundland, Canada, has joined the Forest Biosecurity and Protection team as a senior Technical Officer in entomology. She is a graduate of the University of New Brunswick where she majored in Forestry and Environmental Management with a minor in Parks and Wilderness. She has also completed a 2-year course in Forest Resources Technology at the College of the North Atlantic in Newfoundland. Her main duties here will be rearing insects for biological control programmes in our quarantine facility and supporting other staff with both laboratory and field experiments.

Andrea has been involved in quite a range of field and laboratory work while working for the Canadian Forest Service, the Newfoundland & Labrador Department of Natural Resources, Forest Protection Ltd, and the University of New Brunswick.

She has worked with a variety of insects including the yellow-headed spruce sawfly (*Pikonema alaskensis*), the black-headed budworm (*Acleris variana*), and the brown spruce longhorn (*Tetropium fuscum*). The latter is a European species that became established in Nova Scotia about 20 years ago. Andrea has also worked with the Canadian Forest Service's insect collection in New Brunswick so has experience in curating and preserving insects.

Andrea arrived in Rotorua in mid-January and cannot get over how tropical it is here! Given where she comes from, she will no doubt be wondering why we heat our buildings here in the winter. [I think I will have to find some plots in central Otago that need to be assessed in August — that will make her feel like home, Ed.]

Editor

NEW RECORDS

New host record for New Zealand — Insect: *Ceroplastes sinensis* (Coccidae); **Region:** Gisborne; **Host:** *Raukaua simplex*; **Coll:** B Rogan, 10/01/2007; **Ident:** J Bain, 15/01/2007; **Comments:** This introduced scale insect is found in most regions in the northern half of the North Island. It has quite a wide host range that includes both native and exotic plants.

New host record for New Zealand — Insect: *Uraba lugens* (Nolidae); **Region:** Auckland; **Host:** *Liquidambar styraciflua*; **Coll:** J Goodenough & C Scott, 18/01/2007; **Ident:** J Bain, 19/01/2007; **Comments:** *Uraba lugens* was first found in New Zealand in 1992 at Mt Maunganui. It has been eradicated there but is now widespread in Auckland. The main hosts are *Eucalyptus* spp. but it has also been recorded from *Lophostemon, Angophora, Tristaniopsis, Metrosideros, Agonis, Fagus, Quercus, Fraxinus, and Betula.*

New host record for New Zealand — Insect: *Calliprason pallidus* (Cerambycidae); **Region:** Rangitikei; **Host:** *Pinus greggi*; **Coll:** B Rogan, 28/01/2007; **Ident:** J Bain, 31/01/2007; **Comments:** This native beetle infests the dead wood of a wide range of native and exotic softwoods. It was previously known as *Stenopotes pallidus.*

New host record for New Zealand — Insect: *Prionoplus reticularis* (Cerambycidae); **Region:** Rangitikei; **Host:** *Pinus greggi*; **Coll:** B Rogan, 28/01/2007; **Ident:** J Bain, 31/01/2007; **Comments:** This native longhorn beetle is usually associated with the dead wood of conifers but there are a few records of it from hardwoods, e.g., *Acacia, Beilschmiedia, Eucalyptus,* and *Nothofagus.*

John Bain

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