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NEW SPECIES OF *PHYTOPHTHORA* CAUSING CROWN DIEBACK OF *EUCALYPTUS*

Eucalyptus delegatensis affected by *Phytophthora* spp. in Southland.

A locally severe crown disease of *Eucalyptus* trees has been recorded since 1986. The main species affected are *Eucalyptus saligna, E. botryoides, E. regnans, E. delegatensis,* and *E. fastigata*. Dieback has been recorded in the central North Island and in Southland. The organisms responsible are two species of *Phytophthora* which have recently been described as new — *Phytophthora captiosa* and *P. fallax*. They were described in Mycological Research by Margaret Dick and Kiryn Dobbie, Ensis Forest Biosecurity & Protection, in collaboration with David Cooke and Clive Brasier from the United Kingdom. The paper is available on-line at www. sciencedirect.com.

Leaves, petioles, seed capsules, and peduncles, and also twigs may become infected. The effects of the disease range from minor leaf spots to major foliage loss and sometimes dieback. The two fungi are the first *Phytophthora* species to be described only from New Zealand and the first to be closely associated with the foliage of *Eucalyptus*. The majority of *Phytophthora* species live in the soil and cause root disease, with those species affecting aerial plant parts usually occurring on small plants. One might ask (as has your entomologically orientated editor) what they are doing in canopies of *Eucalyptus* as high as 20 metres? Their modes of infection and dispersal are unknown. *Phytophthora captiosa* has been isolated from the soil beneath symptomatic *E. saligna* and *E. botryoides* and so a 3-year trial was carried out to determine whether invertebrates might be acting as vectors from soil to foliage. Traps were employed on the ground, on tree trunks, and in the canopy of a stand of *E. saligna* that had suffered foliage loss over a 2-year period. Various types of traps were used to catch as wide a range of invertebrate species as possible. Significant numbers of invertebrates were trapped and 20% carried one or more species of *Phytophthora* or the closely related *Pythium*, but the target species was isolated only once. Clearly more work is required on the mode of dispersal, as is work on their distribution and geographic origins. Neither *P. captiosa* nor *P. fallax* has been found on *Eucalyptus* in Australia. It is, however, possible that they do exist there but have attracted no attention because they are in equilibrium with their hosts and produce no overt symptoms. Never mind, at least we now have names for them instead of referring to them as new Phyto.1 and new Phyto.2, or the like.

Editor and Margaret Dick

A BIT OF HISTORY — *AENETUS VIRESCENS*

Most readers of *FH News* will be familiar with *Aenetus virescens* (ghost or puriri moth). The larvae bore in living branches and trunks of a wide variety of indigenous and exotic hardwoods in the North Island (it is not found in the South Island). It is particularly common in *Nothofagus* forests. Generally it is not regarded as a serious pest but small diameter trunks and branches may be girdled and die. It is unusual for trees to be killed. In 1922 Thompson recorded large *Fraxinus, Quercus,* and *Ulmus* trees in Taranaki being killed as a result of *Aenetus*. This reference seems to have been overlooked by subsequent authors; at least Grehan (1984) made no mention of it. One cannot help but wonder if other factors contributed to the deaths of these large trees in Taranaki.

References:

Grehan, J.R. 1984: The host range of *Aenetus virescens* (Lepidoptera: Hepialidae) and its evolution. *New Zealand Entomologist 8*: 52–61.

Thomson, G.M. 1922: "The Naturalisation of Animals and Plants in New Zealand". Cambridge University Press. 607 p.

Editor

*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.*
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NAMBOURIA XANTHOPS IN THE SOUTH ISLAND

Very distinctive *Nambouria* galls on *Eucalyptus* leaf.

Nambouria xanthops has been found in the South Island for the first time. *See* New Records for details.

Editor

URABA LUGENS ON *BETULA PENDULA*

Uraba lugens (gum leaf skeletoniser), an Australian species, was first found in New Zealand in 1992 at Mt Maunganui but is now thought to be eradicated from there. It was found in 2001 at Onehunga and is now widespread and common in the Auckland region. The main hosts are *Eucalyptus* spp. but it has also been recorded from *Lophostemon confertus, Angophora floribunda, A. costata, Tristaniopsis confertus, Metrosideros excelsa, Quercus coccinea, Q. palustris, Fraxinus excelsior,* and *Betula pendula.* It is uncommon on all the non-*Eucalyptus* hosts except *Lophostemon* and *Betula*. It is causing considerable damage to many *Lophostemon* trees. This is of concern to arborists because they are common street trees in many parts of Auckland. In January this year it was found on *Betula* for the first time during surveys for *Hyphantria cunea* (fall webworm) which was declared eradicated in March. Eggs and larvae were found and there were no *Eucalyptus* trees in the immediate vicinity. Subsequent surveys found that *Uraba* were common on *Betula* and the surveyor (Rod Baigent) reported that *Uraba* were easier to find on that host than on *Eucalyptus.* Many of the *Betula* were very heavily skeletonised and the damage was very apparent in some cases. For further information and a map showing the distribution of *Uraba* see http://www.biosecurity.govt.nz/pest-and-disease-response/pests-and-diseases-watchlist/gum-leaf-skeletoniser.

Editor

NECTRIA ECOLOGY RESEARCHER

We are extremely pleased to announce the appointment of Anna Hopkins to take on the role of key researcher on the ecology of *Nectria fuckeliana*. Anna is presently completing a project on the ecology and taxonomy of wood decay fungi in the southern forests of Tasmania and also lectures part time at the University of Tasmania. Anna has a strong interest in plant pathology and fungal ecology, along with extensive field, laboratory, and glasshouse research experience.

The Nectria ecology project is fixed at 2 years and is funded by the FBRC (for the first year), FRST, and FIDA (Forest Industry Development Agenda). Anna will be continuing research on conditions necessary for fungal infection and spread, and the role of host response in disease development.

Lindsay Bulman

NEW RECORDS

New to New Zealand record – Fungus: *Phyllosticta abietis*; **Bioregion:** Gisborne; **Host:** *Cedrus atlantica*; **Coll:** B Rogan, 09/03/2006; **Ident:** P Gadgil, 19/05/2006; **Comments:** *Phyllosticta abietis* was described as a new species in 1989. It was previously reported as *Phyllosticta* sp. associated with needle blight of *Abies grandis* in the USA. There are very few reports of the fungus or disease associated with it. It has now been reported from Canada and on *Pseudotsuga menziesii.* Most *Phyllosticta* species are understood to be foliar pathogens but the effects of *P. abietis* in North America appear to be minor.

New distribution record for New Zealand – Fungus: *Coniothyrium ovatum*; **Region:** Otago Lakes; **Host:** *Eucalyptus* sp.; **Coll:** P Bradbury, 22/05/2006; **Ident:** M Dick, 31/05/2006; **Comments:** This fungus causes leaf spots on *Eucalyptus* spp. but they are of little significance. It is widespread in the North Island but in the South Island had previously been recorded from only Nelson and mid-Canterbury.

New host record for New Zealand – Alga: *Cephaleuros virescens*; **Region:** Auckland; **Host:** *Griselinea littoralis*; **Coll:** S Jones, 15/05/2006; **Ident:** M Dick, 19/05/2006; **Comments:** This alga is extremely common throughout much of New Zealand, causing leaf spots on a wide range of exotic and indigenous plants.

New distribution record for New Zealand – Insect: *Cardiaspina fiscella* (Psyllidae); **Region:** Rangitikei; **Host:** *Eucalyptus deanei*; **Coll:** B Rogan, 29/04/2006; **Ident:** D Jones, 02/05/2006; **Comments:** This Australian lerp-forming psyllid was first found in New Zealand in 1996. It is widespread in the North Island and is common on *Eucalyptus botryoides* and *E. saligna.*

New distribution record for New Zealand – Insect: *Phylacteophaga froggatti* (Pergidae); **Region:** Rangitikei; **Host:** *Eucalyptus deanei*; **Coll:** B Rogan, 29/04/2006; **Ident:** D Jones, 02/05/2006; **Comments:** This Australian leaf-mining sawfly was first found in New Zealand in 1985. It has been recorded from a wide range of *Eucalyptus* spp. throughout nearly all of the North Island and in the Marlborough Sounds, Nelson, Marlborough, Buller, mid-Canterbury, and South Canterbury.

New distribution record for New Zealand – Insect: *Nambouria xanthops* (Pteromalidae); **Region:** Mid Canterbury; **Host:** *Eucalyptus nicholii*; **Coll:** R Thum, 22/05/2006; **Ident:** D Jones, 25/05/2006; **Comments:** This Australian, gall-forming insect was first found in New Zealand in 1999 and has been recorded from about ten species of *Eucalyptus* here. It is common on *E. nicholii* and *E. cinerea.* This is the first record from the South Island; it has been previously recorded from Auckland, Coromandel, Waikato, Bay of Plenty, and Gisborne.

New distribution record for New Zealand – Insect: *Trachymela sloanei* (Chrysomelidae); **Region:** Mid Canterbury; **Host:** *Eucalyptus viminalis*; **Coll:** B Rogan, 22/05/2006; **Ident:** D Jones, 25/05/2006; **Comments:** This Australian species was first recorded from New Zealand in 1976. It has previously been recorded from Auckland, Waikato, Bay of Plenty, Gisborne, Hawke's Bay, Taupo, Taranaki, Rangitikei, Marlborough Sound, and Marlborough.

New distribution record for New Zealand – Insect: *Stegommata sulfuratella* (Lyonetiidae); **Region:** Mid Canterbury; **Host:** *Banksia integrifolia*; **Coll:** B Rogan, 22/05/2006; **Ident:** D Jones, 25/05/2006; **Comments:** This Australian leaf miner was first recorded in New Zealand in 1999. It is found throughout nearly all of the North Island and Marlborough Sounds, Marlborough, and Nelson.

New host record for New Zealand – Insect: *Ctenopseustis obliquana* (Tortricidae); **Region:** Auckland; **Host:** *Alberta magna*; **Coll:** S Jones, 20/05/2006; **Ident:** D Jones, 23/05/2006; **Comments:** This native, leaf-rolling caterpillar has a very wide host rang

(*John Bain and Diane Jones, Ensis*)