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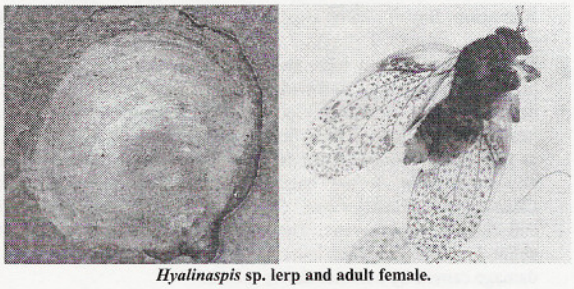
• NEW PSYLLIDS ON EUCALYPTS

Two more psyllids new to New Zealand have been found on eucalypt foliage during a Risk Site Survey in the surrounds of Auckland Airport. On 23rd June, unusual round-shaped lerps[1] were discovered by John Bartram (Vigil) on foliage of *Eucalyptus botryoides* growing at a location along Tom Pearce Drive. These trees were also infested with *Cardiaspina fiscella* and *Ophelimus* spp. (*FHNews* **81**:1, **96**:1). The new psyllid producing the lerps has been tentatively identified as a species of *Hyalinaspis*. This genus is currently undergoing revision, and because the adults and lerps do not match those listed in published keys[2], specimens are being sent to overseas taxonomists for more precise identification. The new lerps found in Auckland are up to ca. 5.5 mm wide, and have distinctive rings on the dorsal surface, and a tail at the base where they are attached to the leaf. To the naked eye the adults are much like those of *C. fiscella,* but microscopically they are distinct.



***Hyalinaspis* sp. lerp and adult female.**

In surveys conducted by MAF and Vigil, vacated lerps of the *Hyalinaspis* sp. were found at low to high densities over a 3.5 km radius from Tom Pearce Drive, extending to Bader Drive in Central Mangere. Very few adults or nymphs were found, of only one generation, so the *Hyalinaspis* sp. is probably a comparatively recent introduction. The adults have undoubtedly dispersed further afield, but their distribution will unfortunately not be known until the second-generation lerps appear in spring. Until this *Hyalinaspis* sp. is formally identified, its host information and potential threat remain unknown. In the mean time it needs to be closely monitored.

During these surveys nymphs of a second species of psyllid were discovered beneath the deserted lerps of the new *Hyalinaspis* sp. The second psyllid was discovered and identified as *Anoeconeossa communis* by New Zealand psyllid expert Pam Dale. As well as residing beneath vacant lerps, the nymphs of this species also shelter between leaves tied together by lepidopterous caterpillars, within the curling margins of leaves deformed by other psyllid species, and even inside leaf mines, if access is provided by a broken epidermis[3]. In Auckland, the nymphs of *A. communis* are being parasitised by a wasp, which is currently being identified to ascertain whether it is also a new introduction. However, there is a possibility that it may be *Psyllaephagus gemitus*, a wasp already present here which attacks *C. fiscella*. Wherever *A. communis* was found parasitised beneath a *Hyalinaspis* lerp, a characteristic emergence hole made by the departing adult parasitoid was present which resembled that found on lerps of parasitised *C. fiscella*. At this stage, there is no evidence to suggest that the *Hyalinaspis* sp. is also being parasitised. The current distribution of *A. communis* is presumed to be similar to that of the *Hyalinaspis* sp. In Australia, *A. communis* has been recorded on *Eucalyptus brevifolia, E. calcicultrix, E. camaldulensis, E. exserta, E. leucoxylon, E. loxophleba, E. microtheca, E. odorata, E. raveretiana,* and *E. rudis* [3].

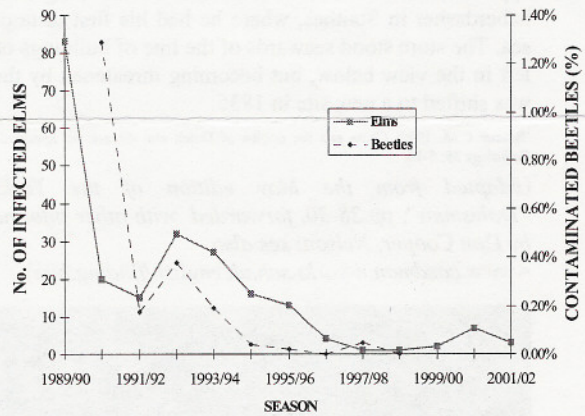
[1]Thin tough protective shields produced by certain psyllids on leaf surfaces.
[2]Taylor K.L. 1962: The Australian genera *Cardiaspina* Crawford and *Hyalinaspis* Taylor (Homoptera: Psyllidae). *Australian Journal of Zoology* **10**: 307-351.
[3]Taylor K.L. 1987: Revision of *Eucalyptolyma* Froggatt (Homoptera: Psylloidea) with two new genera of Australian psyllids. *Journal of the Australian Entomology Society* **26**: 97-127.

(*Clive Appleton, Forest Research*)

We wish Clive well as he leaves Forest Research to take up a new position in Hamilton.

• DUTCH ELM DISEASE - 2001/02 SEASON

Last season's eradication campaign in Auckland consisted of three disease detection surveys and a survey to determine the incidence of *Ophiostoma novo-ulmi* (the fungus that causes Dutch elm disease) in inner growth rings of asymptomatic elm trees. As a result of the disease detection surveys infected trees were found at three locations, all in the Howick-Pakuranga area. These trees were displaying symptoms typical of the disease, and all yielded cultures of the fungus from the current wood. This suggests that the trees were infected in the current season from beetles carrying viable spores.



Number of infected elms (1989/90-2001/02), excluding those found during the asymptomatic surveys, and contaminated beetles (1990/91-98/99)

The survey to determine the incidence of *O. novo-ulmi* in old wood was started in Auckland on 31 January and finished on 3 April. A total of 990 elm trees throughout greater Auckland were visited and 6 branches were cut off

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each tree. The branches were then sectioned and each cut surface was examined for staining (staining is a feature of infection by *O. novo-ulmi*). All samples showing stain were sent to Forest Research for fungal isolation tests. We tested stain in 1,090 individual growth rings from 176 trees and *O. novo-ulmi* was isolated from three elms (two in Howick-Pakuranga and the other in Remuera). The fungus was recovered from the current wood only in one elm, but was widespread in the current and older wood of the other two elms. After three seasons, almost 6,000 elms have been sampled and *O. novo-ulmi* has been recovered from 6 trees.

A survey, funded from the Ministry of Agriculture and Forestry Operational Research fund, was carried out in the Waikato to determine the incidence of staining of elms in a region where Dutch elm disease has not been recorded. The incidence of staining was significantly lower in the Waikato (4%) compared with Auckland (13%). It appears likely that *O. novo-ulmi* was responsible for some of the staining found in Auckland but the fungus was not recovered because it was either no longer viable, or the sampling intensity was not sufficient to guarantee its recovery.

A sub-committee of the Dutch Elm Disease Control Advisory Committee will be meeting shortly to consider the programme for next season's eradication campaign.

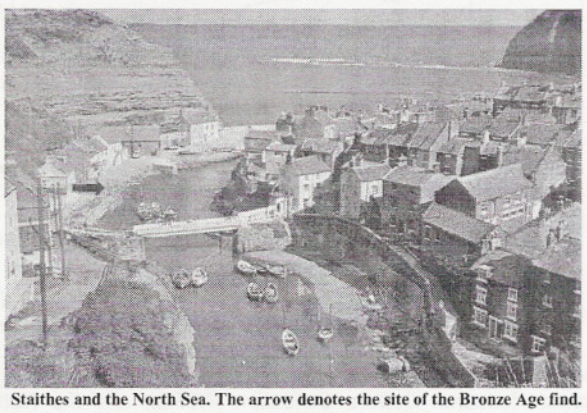
(*Lindsay Bulman, Forest Research*)

• DUTCH ELM DISEASE AND JAMES COOK

Archaeologists at Staithes on the Yorkshire coast have discovered what is believed to be a Bronze Age dock embedded in the bank of the tidal creek that runs through the town. The platform structure is composed of tree trunks carbon dated at an age of 3,500 years. One piece of timber has been found with markings resembling those caused by one of the insect vectors of Dutch elm disease. Noting that levels of elm pollen plummeted during the Bronze Age, the dig supervisor, Paul Johnson, has suggested that the apparent decline in the population of elm trees at that time may have been due to this disease. This theory, while not new, and highly speculative[1], is undeniably of interest. And Captain Cook? Just that at the age of 17 years he was apprenticed for 18 months to a Mr Sanderson, a grocer and haberdasher in Staithes, where he had his first taste of the sea. The store stood seawards of the line of buildings on the left in the view below, but becoming threatened by the sea was shifted to a new site in 1835.

[1]Brasier C.M. 1990: China and the origins of Dutch elm disease: an appraisal. *Plant Pathology* **39**: 5-16.

(*adapted from the May edition of the Yorkshire "Dalesman", pp.28-30, forwarded with other information by Don Cooper, Nelson; see also:* <*www.caedmon.n-yorks.sch.uk/english/finding.htm*)



Staithes and the North Sea. The arrow denotes the site of the Bronze Age find.

• NEW RECORDS

The following records reported by the Forest Health Reference Laboratory (*Forest Research*) result from a general surveillance programme comprising public enquires, and small block and risk site surveys, funded by the Ministry of Agriculture and Forestry. Members of the public are encouraged to submit to this laboratory any samples of pests or pest damage on trees or shrubs that they suspect might be new to New Zealand. This is a free service funded by Ministry of Agriculture and Forestry for the detection of new pest introductions.

Extension to known distribution – Fungus: *Mycosphaerella suberosa*: **Bioregion:** Coromandel; **Host:** *Eucalyptus globulus*; **Coll:** IA Nicholas, 17/5/2002; **Ident:** MA Dick, 31/5/2002; **Comments:** Forest Health Database records of *M. suberosa* date back to 1998 on *Eucalyptus muelleriana, E. globulus* ssp. *maidenii* and *Eucalyptus* sp. All previous records are from Northland. The fungus is known in both Australia and South America but is not reported to cause any significant damage.

Extension to known distribution – Fungus: *Mycosphaerella suberosa*: **Bioregion:** Bay of Plenty; **Host:** *Eucalyptus globulus*; **Coll:** IA Nicholas, 17/5/2002; **Ident:** MA Dick, 31/5/2002; **Comments:** See comments above.

Extension to known distribution – Fungus: *Uromycladium alpinum*: **Bioregion:** Rangitikei; **Host:** *Acacia mearnsii*; **Coll:** BJ Rogan, 31/5/2002; **Ident:** K Dobbie, 6/6/2002; **Comments:** *Uromycladium alpinum* has caused significant losses in nursery seedlings in the Auckland and Northland bioregions. Dieback on older trees has been recorded in some areas.

New to New Zealand - Insect: *Hyalinapsis* sp; **Bioregion:** Auckland; **Host:** *Eucalyptus botryoides*; **Coll:** JA Bartram, 23/6/2002; **Ident:** C Appleton, 24/6/2002; **Comments:** New undescribed species.

New host record for New Zealand – Insect: *Prionoplus reticularis*; **Bioregion:** Bay of Plenty; **Host:** *Cupressus lusitanica*; **Coll:** CB Low, 5/6/2002; **Ident:** J Bain, 7/6/2002; **Comments:** The larvae of *P. reticularis* bore in logs, stumps, dead parts of living trees, and untreated sawn timber. Infestations in the heartwood of living trees are not uncommon, larval entry occurs through wounds that expose the heartwood and through dead branch stubs. It is most commonly found in native and exotic softwoods but partially decayed hardwoods can also be utilised. It has been found in the heartwood of living *Chamaecyparis lawsoniana*, *Cupressus macrocarpa*, *Thuja plicata* and *Sequia sempervirens*. The damage in the heartwood extended about 1 m above ground level. Entry was apparently gained via root damage caused by a tractor drawn mower.

New host record for New Zealand – Insect: *Prionoplus reticularis*; **Bioregion:** Bay of Plenty; **Host:** ×*Cupressocyparis leylandii*; **Coll:** CB Low, 10/6/2002; **Ident:** R Crabtree, 11/6/2002; **Comments:** See comments above.

Extension to known distribution – Insect: *Trachymela sloanei*: **Bioregion:** Rangitikei; **Host:** *Eucalyptus nitens*; **Coll:** BJ Rogan, 31/5/2002; **Ident:** R Crabtree, 6/6/2002; **Comments:** Found in adjacent bioregions.

(*Geoff Ridley, Forest Research*)

✞ COLIN BARR ✞

Colin Barr passed away suddenly and unexpectedly on the morning of 2 July at his sister's home at Otorohanga where he was recovering from recent open heart surgery. His funeral, held at Otorohanga on 5 July, was attended by a large gathering of family, friends, and many past and present colleagues involved in forestry and forest health from all around the country. Many tributes were paid to Colin's skills as a careful field health observer, his love of nature and the outdoors, his helpfulness in dealing with many people, and his quiet effectiveness as an administrator. Colin recently wrote a short article in the Forest Research *Directions* (No.33) outlining aspects of his life, with a characteristic dry humour. He will be sadly missed by all who knew him, particularly those in Vigil where his experience and presence will be hard to replace.