WESTERN AUSTRALIA - PESTS

Janet Farr (Compiler)
Department of Environment and Conservation. (DEC).
Science Division
Brain Street
Manjimup WA 6258

PLANTATIONS

Pinus radiata

***Sirex*:** 52 trap tree plots (for *Sirex noctillio*) were installed throughout the Forest Product Commission's mature estate during the summer of 05/06. Although this did not constitute all plantations, the distribution did focus on those areas of higher risk (Swan cell). (M. Lobb, FPC)

Live "Steely-blue wood wasps" (*Sirex juvencus*) were detected in dunnage from Germany in April 2006**.** The initial detection was a Post Quarantine Detection at Laminex Dardanup in Bunbury, Western Australia. The consignment consisted of 9 containers and 4 flat racks of dryer components. All components were on skids, pallets and crates. The crates and pallets were ISPM 15 approved with stamps intact. The truck driver noticed live wasps on the outside of one of the skids upon delivery and collected three specimens. He handed them to the transport company manager who phoned the broker. The broker contacted AQIS. Adult wasps were found on the outside of a skid upon delivery. The first of the two containers had been unpacked and wood packaging was stored in the Laminex yard. Adult wasps could have emerged from this packaging and after examination by AQIS, *Sirex* emergence holes were found. After the broker contacted AQIS Breach management, AQIS officers in Bunbury went to the premise and collected the three wasps that had been caught by the truck driver. Upon consultation with the senior entomologist, all wood packaging was contained by being placed into a container and returned to Fremantle for fumigation. This consisted of two containers and one crate. The rest of the consignment was held in Fremantle for fumigation prior to release to importer. No further action was required by AQIS. (I Dumbrell, FPC)

Thrips: The first known occurrence of thrips (*Heliothrips haemorrhoidalis*) in a thinned *Pinus radiata* plantation in WA was recorded in March 2006. Incursion at this stage is restricted to the understorey "wilding" population with no noticeable effect on the mature trees. The affected area is approximately 3 ha and spreading slowly. (I Dumbrell, FPC)

***Ips grandicollis*:** No reports on high numbers have been received for this past year. (JF)

Monterey Pine Aphid *(Essigella californica)*

Although Essigella is present it is still not a real problem in WA. Ian Dumbrell (FPC) is the WA representative on the Essigella biocontrol project steering committee. (I Dumbrell, FPC)

Pinus radiata & Pinus Pinaster

European House Borer *(Hylotrupes bajulus)*: Surveillance of every gazetted road between Geraldton and Esperance, inland to the 400mm isohyet, occurred again from April – August 2006 as part of the annual delimiting surveillance. No further finds were made outside of the broader Perth metropolitan area. Within the metropolitan area our number of confirmed sites has grown to 104, with no increase to the existing 4 government owned plantations, 1 private plantation and the FPC seed orchard at Rottnest. Increased understanding of the biology of the EHB has resulted in an increase in the intensity of tree destruction activities by the EHB response on private properties. Regulations have now been enacted (Agricultural and Related Resources Protection (European House Borer) Regulations 2006) which place restrictions on the movement of pinewood, of certain types within certain geographical and seasonal constraints. These have resulted in modification of some of the FPC's harvesting activities. A number of research activities have been undertaken into the EHB, such as DNA profiling, acoustic detection, pheromone trapping and efficacy of insecticidal timber preservatives. (J. Lette, FPC)

Pinus Pinaster

Wingless Grasshopper (*Phaulacridium.sp*): During November 2005 to January 2006 Midwest plantations had incursions of Wingless grasshopper on plantations in the Brookton, Muchea and Gingin areas, misting with alphacypermethrin was undertaken on affected properties on a fortnightly basis (approximately 605ha misted and baited). (D. McMillan, FPC)

Rutherglen Bug (Nysius vinitor): October to late December Midwest plantations misted approx 605ha in conjunction with wingless grasshopper control. (D. McMillan, FPC)

Port Lincoln (28) Parrot: Trapping and shooting has taken place in the Midwest Plantation areas over the last 12 months on 9 properties.(also see below) (D. McMillan, FPC)

Eucalypt plantations

Leaf Blister Sawfly: Leaf blister sawfly has been noted on stress exposed *E saligna*. (G. Hodgson, FPC)

"Spring" Beetle (*Liparetrus jenkinsi*): Spring beetle features as a significant problem in establishment of *E saligna*, *E cladocalyx*, and *E maculata* plantations. Attacks predominate in late September/October. (G. Hodgson, FPC)

Kangaroos: There is a significant Kangaroo issue on several plantation/farm sites. DEC accredited/Licensed shooters are engaged to assist with controlling numbers. (Generally all Kangaroos taken are for Consumer or Petfood use). The major impact is on the Eucalypt/Acacia establishment sites across the Boyup Brook /West Arthur Shires. (G. Hodgson, FPC)

Port Lincoln (28) Parrot:
Parrot Control (Trapping/Shooting) has occurred in the Moodiarup and Katanning area for the last 2 years(since April 2004). Damage is occurring in Eucalypt, Pinaster and Acacia establishment sites. It is expected to have a significant control program in place as new plantations are established. A coordinated program for parrot control was set up in 2006 across 6-7 properties from Quinndanning to Dinninup this year. Trapping is under Permit with DEC. (G. Hodgson, FPC;)

Eucalyptus globulus (Mamouru Matsuki)

Psyllids: The blue gum psyllid is common across the plantation estate but has never caused damage. (FPC, GSP, APFL, WAPRes, Timbercorp)

Autumn gum moth: Due to dry and mild May and June 2006, the mortality of larvae caused by virus was limited. Therefore, a number of two & three year old plantations have been affected (CDI > 50% in some spots). (GSP, APFL, WAPRes, Timbercorp)

Leaf beetles: Although *Cadmus* and *Chrysophtharta* (This genus is now subsumed into *Paropsisterna*: Reid, in press) have not been considered to cause significant defoliation, adult beetles of these species were found to cause nearly as much defoliation of growing tips in January – March as larvae of *Eucalyptus* weevil in October. In March 2006, *Cadmus excrementarius* caused damage in an one year old plantation. This is the first incidence of damage by this species in young plantations in at least five years. Densities of larvae of "Chrysophtharta" variicollis were higher than usual (but still not consistently high enough to trigger spraying) in parts of some plantations between Albany and Porongurup NP. (FPC, GSP, APFL, ITC, WAPRes, Timbercorp)

Eucalyptus weevil: At the time of the annual population assessment of eucalyptus weevil in late September to early October, the weevil population levels were generally lower than previous years, and only a modest numbers of plantations were treated. The distribution range of this species has now expanded to the northern and western limits of blue gum growing areas. In areas where the weevil has recently colonised, damage levels tended to be higher than areas where the weevil populations have been around for a number of years. We think that natural enemies are tracking the expansion of weevil distribution range. Along with chrysomelid beetles and *Heteronyx* beetles, adult *Eucalyptus* weevils defoliate tips of trees in January – March. (FPC, GSP, APFL, ITC, WAPRes, Timbercorp)

***Heteronyx* spp:** At least one plantation near Boyup Brook suffered damage suspected to be caused by larvae of *H. elongatus* (ITC).

Adult *Heteronyx* beetles are now considered to be one of the most significant defoliating insects in blue gum plantations in SW WA (especially from Esperance to Rocky Gully/Frankland area). Currently, there is no effective management tool for *Heteronyx* beetles because: (1) it is difficult to predict when and where the swarming might occur; (2) these beetles are nocturnal; (3) defoliate tree tops (often 10+ m above ground); and (4) repeated spraying is necessary.

Only a small number of plantations were defoliated by *Heteronyx* beetles in 2005-06 in areas between Albany and Bunbury. This is possibly due to low population numbers in the previous season. A number of plantations near Esperance experienced defoliation in tree tops by *H. proxima*. There was also some damage near Albany. Twelve light traps were deployed in blue gum plantations from Esperance to Bridgetown from December 05 to May 06. Over 30 species of *Heteronyx* and related scarabs were recorded, and roughly one-half of those species were undescribed species. (FPC, GSP, APFL, ITC, WAPRes, Timbercorp)

African Black Beetle (*Heteronychus arator*): The use of "socks" on seedlings prior to planting in known African black beetle areas continues to be effective. The impact of this insect has been reduced to minimum. (FPC, GSP, APFL, ITC, WAPRes, Timbercorp)

Leaf Blister Sawfly: Severe defoliation by this species was recorded from plantations east of Albany and near Augusta. There was moderate damage by LBS around Esperance (FPC, GSP, APFL, ITC, WAPRes, Timbercorp)

Wingless Grasshopper: Wingless grasshoppers caused damage in P2005 plantations from Bremer Bay to Esperance. (GSP, ITC)

***Mycosphaerella*:** *Mycosphaerella* predominantly causes damage to the juvenile leaves of blue gums. Plantations east of Albany affected by AGM and LBS are often also affected by *Mycosphaerella*. Another high risk area is near Northcliffe. *Mycosphaerella* is also found throughout the region at low levels. Damage by *Mycosphaerella* was less extensive and intensive in 2005-06 than in the previous season. Seedlings seem to be infected in nursery. (FPC, GSP, APFL, ITC, WAPRes, Timbercorp)

"Spring" Beetle (*Liparetrus jenkinsi*): Damage by this species was recorded from P2005 plantations near Esperance and east of Albany. There was no swarming of this species near Manjimup and Boyup Brook. Spring of 2005 was the first time without swarming in these areas since blue gum planting started. (FPC, GSP, APFL, ITC, WAPRes, Timbercorp)

Garden Weevil (*Phlyctinus callosus*)?: Seedlings were ringbarked or grazed on the main stem (from the top of the mesh sock upwards) in a number of plantations. The damage in one plantation W of Demark was concentrated in a wet area with peaty soil and rushes. Nearly 100% of seedlings were damaged over about 4ha. There was no direct observation of the insect, and thus, identify of the insect is still to be ascertained.

Frost damage: SW WA experience unusually severe cold snap in winter of 2006. Some plantations less than three years old (new plantings and coppice) from Albany to Collie suffered severe damage on tree tops. Frost was so severe near Collie, canopy of native trees along creeks turned brown. (mm)

Other Eucalyptus species not native to WA
Cardiaspina fiscella is still found on *E. grandis* and *E. robusta* in parts of Albany. The distribution range of this species appear to be spreading within Albany, and this year it was found on *E. saligna* north of Tenterden (about 70km N of Albany). I would like to see this species eradicated from WA before spreading too widely. (mm)

There were some outbreaks of LBS on *C. maculate* in FPC infinitree projects. At least one plantation was misted. I guess that you already have more precise info from FPC. (mm)

Sandalwood (*Santalum spicatum*)

Rutherglen Bug: FPC is finding significant Rutherglen Bug attacks on newly established Sandalwood seedlings. This is providing new challenges in taking Sandalwood into the pastoral areas in the intermediate/low rainfall zones of the Southwest. (G. Hodgson, FPC))

MANAGED NATURAL FORESTS

Eucalyptus marginata

Jarrah leaf miner: No information

***Uraba lugens*:** Populations of gum leaf skeletonizer (*U. lugens*) remain low in the southern Jarrah forest. (JF)

Biodiversity study (Forestcheck): The biodiversity study FORESTCHECK, has now completed its 5th sampling season with over 1500 morpho-species collected. (JF)

NATIVE PLANT COMMUNITIES

***Eucalyptus wandoo*:** No information**.**

***Corymbia callophylla*:** No information

NATIONAL REPORT FORMAT 2006FOR WESTERN AUSTRALIA

Pest	Area with moderate damage (Ha)					Area with severe damage (Ha)					Area inspected (Ha)	Area treated (Ha)	Hosts
	<10	10-100	100-500	500-1000	>1000	<10	10-100	100-500	500-1000	>1000			
Autumn gum moth								x			NA	0	***E. globulus***
Leaf blister sawfly					x	x					NA	0	*E. globulus*
"Spring" beetles (scarabs)					x			x			NA		*E. globulus*
Weevils (defoliating)					x					x	NA		*E. globulus*
Heteronyx (establishment)	x					x					NA	0	*E. globulus*
Heteronyx (post-establishment)					x					x	NA		*E. globulus*
Wingless grasshopper				x			x				NA	605	*E. globulus*
Psyllids	Nil					Nil					nill	0	*E. globulus*
Creis periculosa											Nil (not specifically	Nil	*Eucalyptus rudis*

											inspected)		
Jarrah leaf miner											Nil (not specifically inspected)	Nil	*Eucalyptus marginata*
Gum leaf skeletonizer	Nil										Nil (not specifically inspected)		*Eucalyptus marginata*
Bark beetles (*Ips*)	NA										Nil (not specifically inspected)		***Pinus radiata***
Monterey Pine aphid	Nil										Nil (not specifically inspected)		***Pinus radiata***