

Common Forest Insect Pests of Papua New Guinea



***Coptotermes olivus*, *Nasutitermes novaeumbridarius*, *Microcerotermes birai* (Isoptera, Rhinotermitidae and Termitidae)**
Host Tree: *A. cunninghamii*, *Acacia mangium*, *E. deglypta*
Damage: bore wood of living trees causing secondary infestations and death of host.
Distribution: Bulolo, Wau, Madang Province, New Britain
Economic Status: severe pest



Grasshoppers (Orthoptera)
Host Tree: young seedlings of various species
Damage: larvae eat the ringneck seedlings causing their death
Distribution: common in PNG
Economic Status: severe pest



***Agriotes agalactus*, *A. villosissimus* (Coleoptera, Buprestidae)**
Host Tree: *Eucalyptus deglypta*, *Terminalia torresii*
Damage: larvae bore under bark and feed on cambium causing loss of increment and death of host
Distribution: Madang Province, New Britain
Economic Status: severe pest



***Hylarobacterius araneator*, *H. sp.* (Coleoptera, Scolytidae)**
Host Tree: *A. cunninghamii*
Damage: larvae destroy foliage by tunnelling cortex of branches causing loss of increment and death of host
Distribution: Bulolo, Wau, Kairuanu, Chimba, Southern Highlands
Economic Status: severe pest



***Xylorhynchus* spp., *Stenopus* spp. (Coleoptera, Scolytidae)**
Host Tree: *A. cunninghamii* and many other softwood species
Damage: tunnel logs in forest and sawmills; quarantine problem
Distribution: most common wood borer, all over PNG
Economic Status: severe pest



***Platyphus* sp. (Lepidoptera, Platyphidae)**
Host Tree: *A. cunninghamii*, *Acacia mangium*
Damage: larvae feed on foliage causing loss of increment and death of host
Distribution: common all over PNG
Economic Status: severe pest



***Crossocotatus* sp. (Lepidoptera, Crossocotidae)**
Host Tree: *A. cunninghamii*, *Acacia mangium*
Damage: larvae feed on foliage causing loss of increment and death of host
Distribution: common all over PNG
Economic Status: severe pest



***Lycophotia nitens* (Lepidoptera, Lymantriidae)**
Host Tree: *Pinus muricata*
Damage: larvae feed on foliage causing loss of increment and death of host
Distribution: Fayalima plantation, E. H. P.
Economic Status: severe pest



***Curvora* (Lepidoptera, Noctuidae)**
Host Tree: various hosts
Damage: larvae cut off very young seedlings in nurseries
Distribution: common all over PNG
Economic Status: severe pest



***Hyblaea puera* (Lepidoptera, Hyblacidae)**
Host Tree: *Tectona grandis* and young seedlings of other hosts
Damage: larvae skeletonizing and eventually defoliate trees
Distribution: West New Britain Province, Morobe Province
Economic Status: severe pest



***Hypopygia robusta* (Lepidoptera, Pyralidae)**
Host Tree: *Tectona torresii*
Damage: larvae mine shoots causing loss of increment
Distribution: common in PNG
Economic Status: severe pest

Minor Forest Insect Pests of Papua New Guinea



***Pissodes pinis* (Hemiptera, Aphididae)**
Host Tree: *Pinus* spp., *Phaca* spp.
Damage: cause wilt and die-back due to piercing-sucking action
Economic Status: minor pest



***Ceroderus rubens* (Hemiptera, Coreidae)**
Host Tree: *Pinus coriata*
Damage: cause wilt and die-back due to piercing-sucking action
Economic Status: minor pest



***Glycaspis* spp., *Carulaspina* spp. (Hemiptera, Psyllidae)**
Host Tree: *Eucalyptus* spp.
Damage: cause defoliation and die back of very young shoots
Economic Status: minor pest



***Micris profusus* (Hemiptera, Coreidae)**
Host Tree: *Acacia moultonii*
Damage: cause shoot tip wilt due to piercing-sucking action
Economic Status: minor pest



***Xylorhynchus rufoglavus* (Coleoptera, Bostrichidae)**
Host Tree: *Eucalyptus torquillum* and other host trees
Damage: cause common powderpost beetle especially after fire
Distribution: common all over PNG
Economic Status: minor pest



Slug Beetles (Coleoptera, Laccinidae)
Host Tree: *Pinus orientalis* and other regrowth species
Damage: feeds on rotting holes of living tree causing hole to die
Distribution: common all over PNG
Economic Status: minor pest



***Xyloterms glaucus* (Coleoptera, Scarabaeidae, Dynastidae)**
Host Tree: *Tectona muricata*, *Pinus parviflora*, *Parinari* spp., etc.
Damage: adult beetles feed on bark causing secondary infestations and die-back
Distribution: common all over PNG
Economic Status: minor pest



***Rhyacionia carulea* (Coleoptera, Chrysomelidae)**
Host Tree: *Canarium* spp., *Tectona* spp., *Barringtonia* spp., *Eucalyptus* spp.
Damage: can cause complete and severe defoliation of host
Distribution: common all over PNG
Economic Status: minor pest



***Pezomachus* spp., *Dihaganus* spp., *Hypoleccambus severus*, etc. (Coleoptera, Cerambycidae)**
Host Tree: *A. cunninghamii*, *Tectona grandis*, *Anticarsia* spp.
Damage: adult beetle feeds on bark causing secondary infestation and die-back; larvae feed into wood
Distribution: common all over PNG
Economic Status: minor pest



Hypoleccambus severus
Host Tree: *A. cunninghamii*
Damage: larvae feed on cambium causing loss of increment and death of host
Distribution: common all over PNG
Economic Status: severe pest



***Dihaganus* sp.**
Host Tree: *A. cunninghamii*
Damage: larvae feed on cambium causing loss of increment and death of host
Distribution: common all over PNG
Economic Status: severe pest



***Neocpa abnormis* (Coleoptera, Curculionidae)**
Host Tree: *Acacia caroliniana*, *A. leucostoma*, *Calophyllum* spp.
Damage: larvae bore into wood and cambium of living trees resulting in death of host tree
Distribution: Bulolo, Wau, Kairuanu, Gonka
Economic Status: minor pest



***Oribius destructor* (Coleoptera, Curculionidae)**
Host Tree: *A. cunninghamii*, *Eucalyptus* spp.
Damage: defoliates young host
Distribution: common all over PNG
Economic Status: minor pest



***Enneata lucida* (Lepidoptera, Pieridae)**
Host Tree: *Albizia julibrissin*
Damage: larvae defoliate host causing loss of increment
Distribution: common in PNG
Economic Status: minor pest



***Mitonia lucida*, *Mitonia* spp. (Lepidoptera, Geometridae)**
Host Tree: *A. cunninghamii* and other coniferous hosts
Damage: larvae feed on foliage causing loss of increment
Distribution: Bulolo, plantations & Eastern Highlands Province
Economic Status: minor pest



***Malacra* spp. (Lepidoptera, Psychidae)**
Host Tree: *Eucalyptus coriata*, *E. sp.*
Damage: larvae feed at night dragging feces over the leaves causing defoliation and loss of increment
Distribution: Bulolo market
Economic Status: minor pest



***Macra trifasciata* (Lepidoptera, Noctuidae)**
Host Tree: *gambelii* spp.
Damage: larvae feed on shoots of young seedlings and cause loss of increment
Economic Status: minor pest



***Megastigmus* spp. (Hymenoptera, Trypidae)**
Host Tree: *Eucalyptus* spp.
Damage: forms stem, leaf, shoot and fruit galls
Economic Status: minor pest



***Xyloterms arana* (Hymenoptera, Anthophoridae)**
Host Tree: common pest of all major softwoods
Damage: borer holes and builds nests in timber products
Distribution: Papuan coast
Economic Status: minor pest

SIGNS AND DAMAGE OF TERMITE ATTACK

Final Year Project
by Herman Winch & Lekos Heide
supervised by Dr. M. Schneider



The heart wood of this *Eucalyptus* sp. is already eaten up by termites. The cambium is still unaffected, therefore there are no visual signs of attack on the leaves.



Mud galleries at the base of this young Hoop pine are another sign, telling that the tree is attacked by termites.

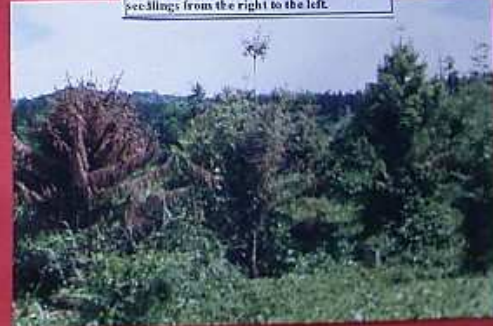


Signs of attack on a mature Hoop pine may occur after 5 to 7 years. Termites slowly eat their way from the heart wood towards the cambium. This causes a hollow sound, when the stem is hit with a piece of wood.



From the root caps the termites eat their way through the main roots, as shown here.

Termite attack results in wilt of the leaves changing their colour from green to yellow and finally brown. The successive stages of termite attack can be seen on the Hoop pine seedlings from the right to the left.



Through the subterranean galleries termites initially attack the root caps which are shown here.



