A Spondyalaspid Infesting *Eucalyptus occidentalis* in the Western Australian wheatbelt

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MIEucalyptus occidentalis, commonly known as flat-topped yate, is found throughout the Western Australian southern wheatbelt in remnant stands of vegetation on farming properties and uncleared land. Farmers in the region recognise the important role of this eucalypt in reducing water table levels thus contributing to the control of salinity. A decline in health of these trees, characterised by a scorched appearance of the crown was first officially noted between Gnowangerup and Ongerup in June 1982. Since then the decline in vigour of *E. occidentalis* has spread so that by 1983 the entire range of this eucalypt was affected.

The cause of this tree decline was attributed to an outbreak of a Spondyalaspid, tentatively identified as *Cardiaspina brunnea* (Froggatt). According to Taylor (1962) there is no description of this species by Froggatt although a detailed illustration was made of the lerp case. *C. brunnea* was originally thought to be confined to N.S.W. on *E. paniculata* and *E. rubida,* although there is some doubt as to the identity of the hosts (Taylor, pers comm 1987). The outbreaking Spondyalaspid in Western Australia has been observed on *E. occidentalis, E. wandoo, E. platypus* var *heterophylla, E. sargentii, E. gomphocephala* (planted) and *E. rudis.*

Since these species are not closely related to the N.S.W. hosts there is some doubt as to the identification of the Western Australian insect. As yet only a few specimens of the late instar nymphs have been collected in Western Australia and there are no known adult specimens.

Damage due to this insect on *E. occidentalis* is most apparent from March to July when leaf browning occurs. Investigation of the affected area during July 1988 revealed extensive epicormic growth on trees known previously to be severely attacked. However population levels of the Spondyalaspid had subsided from the high numbers observed during 1982 to 1986. Knowledge of other species of *Cardiaspina* particularly *C. albitextura* (Morgan 1984) and *C. densitexta* (White 1969), where these species are cyclic outbreakers, suggest that further outbreaks of *C. brunnea* (?) are likely to occur. Investigations are therefore being made into the biology and population dynamics of this insect together with clarification of its identity. Eggs have been collected in July and November 1988 indicating at least two generations a year if not more. A trapping programme has been established with the co-operation of local farmers and national park rangers. This, together with leaf tagging techniques is hoped to shed some light on the biology of an insect that until now has been exceedingly elusive.

References

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