

New larval host plants for ten Australian longicorns (Coleoptera, Cerambycidae)

by

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Abstract - New larval host plants are recorded for 10 Australian longicorn beetles (*Cerambycidae*) from the genera *Ancita*, *Bethelium*, *Clytus*, *Depsages*, *Penthea*, *Phoracantha*, *Platyomopsis*, *Rhinophthalmus* and *Syllitus*. General bionomic notes are provided on each species from the previously published literature and/or personal observations.

Riassunto - Vengono citate nuove piante ospiti della larva di 10 *Cerambycidae* australiani appartenenti ai generi *Ancita*, *Bethelium*, *Clytus*, *Depsages*, *Penthea*, *Phoracantha*, *Platyomopsis*, *Rhinophthalmus* e *Syllitus*. Per ciascuna specie vengono date note biologiche basate sulla letteratura e/o osservazioni dell'autore.

Observations and collections of Australian beetles have been made by the author over a number of years. Of particular interest are beetle/plant relationships, on which little has been recorded for most Australian species. The following notes on Australian *Cerambycidae* are in addition to those recently recorded by HAWKESWOOD (1985a) and WILLIAMS (1985).

LIST OF SPECIES

SUBFAMILY CERAMBYCINAE

Bethelium signiferum (Newman)

On 19 October 1982, one adult was collected from beneath dead bark of *Acacia leiocalyx* (Domin) Pedley subsp. *leiocalyx* (*Mimosaceae*) growing at Mt. Nebo, about 20 km west of Brisbane, Queensland. FROGGATT (1894) recorded *A. decurrens* (Wendl.) Willd. as a host and noted that adults emerged during October and November from infested twigs of the dead host. Recently, WILLIAMS (1985) recorded *A. melanoxylon* R. Br. and *Eucalyptus paniculata* Sm. (*Myrta-*

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ceae) as hosts, from the Lansdowne area, central eastern New South Wales. In both cases, adults emerged from dead, dry branches.

Clytus curtisi (Laporte & Gory)

On 8 October 1980, one live adult was extracted from a dead branch (32 mm diameter) of *Acacia bidwillii* Benth. (*Mimosaceae*), in a *Eucalyptus*-woodland, on the James Cook University grounds, Townsville, north Queensland. The beetle was situated 5-6 mm below the thick, corky bark, near the intersection of sapwood and heartwood in a chamber measuring 35 mm long, 3 mm high and 3.5 mm wide. One end of the chamber led outwards to a hole blocked with loose wood fragments. This is only the second host recorded for *C. curtisi*, the previous one being *Acacia leiocalyx* subsp. *leiocalyx* (HAWKESWOOD, 1985a). The species occurs from north to southern Queensland where the adults are nectar and pollen feeders, e.g. on *Angophora woodsiana* F. M. Bail. (*Myrtaceae*) (HAWKESWOOD, 1981). At Townsville, during November, adults visit the flowers of *A. bidwillii* for pollen (HAWKESWOOD, 1981, pers. obs.).

Phoracantha recurva Newman (Yellow Longicorn, Yellow *Phoracantha*)

On 15 December 1981, fragments of a dead adult were collected from a living trunk of *Eucalyptus drepanophylla* F. Muell. ex Benth. (*Myrtaceae*) in open woodland on the James Cook University grounds, Townsville. DUFFY (1963) noted the species bred in *Eucalyptus* spp., viz. *E. maculata* Hook. and *E. intermedia* R. T. Baker (from records of A. R. Brimblecombe), while FROGGATT (1916, 1923) recorded *E. novaanglica* Dean et Maiden and *E. camaldulensis* Dehn. FROGGATT (1916) noted the larval duration was about 6 months, during which the larvae chewed extensive, irregular galleries below the bark before boring into the sapwood and finally the heartwood.

Rhinophthalmus modestus Blackburn

During September and October 1982, several live larvae, pupae and teneral adults were extracted from dead branches (1.5-3 cm diameter) of *Acacia leiocalyx* subsp. *leiocalyx* (*Mimosaceae*) on the Griffith University grounds, Brisbane. The pupae and adults were situated in narrow chambers immediately below the bark. The tunnels constructed by the larvae were packed with fine, dry, powdery wood dust. The only other published host record for this species is *Acacia pendula* A. Cunn. ex G. Don (DUFFY, 1963).

Syllitus grammicus (Newman) (Slender-bodied Longicorn)

During November 1982, several adults were extracted from dead branches (1.5-6 cm diameter) of *Bursaria spinosa* Cav. (*Pittosporaceae*) which were collected from the Armidale area, north-eastern New South Wales during September 1982. The only other published host record is *Acacia decurrens* by FROG-

GATT (1894). Adults of *S. grammicus* emerge during December to February and feed on the nectar and pollen of *B. spinosa* in the Armidale district (HAWKESWOOD, 1977, pers. obs.).

SUBFAMILY LAMIINAE

Ancita crocogaster (Boisduval) (Small Grey Longicorn)

On 22 October 1983, remains of a dead adult were extracted from a dead, infested branchlet of *Acacia leiocalyx* subsp. *leiocalyx* (*Mimosaceae*) on the Griffith University grounds, Brisbane. BEST (1881) recorded *A. decurrens* as a larval host, while FROGGATT (1893) recorded *A. falcata* Willd. and DIXON (1908) recorded *A. dealbata* Link and *A. mearnsii* De Wild (as *A. mollissima* Willd.). FROGGATT (1923) noted that the larvae feed and pupate in dead branches of the host plant. Sometimes the larvae remain over 2 years in the infested wood, although normally their life-cycle is 12 months duration (FROGGATT, 1923).

Ancita marginicollis (Fabricius) (White-cheeked Longicorn)

On 20 August 1982, one pupa was collected from a dead branch of *Acacia leiocalyx* subsp. *leiocalyx* (*Mimosaceae*) growing in *Acacia*-shrubland, near Kingston, 20 km south of Brisbane, Queensland. Five days later the new adult emerged; the cuticle took a further 3 days to reach full colour. BEST (1881) recorded *A. decurrens* as a larval host, while DIXON (1908) recorded *A. dealbata* and *A. mearnsii* (as *A. mollissima*). Recently, WILLIAMS (1985) recorded *A. longifolia* (Andrews) Willd. and *Eucalyptus paniculata* (*Myrtaceae*) as larval hosts from woodland, littoral rainforest and wet sclerophyll forest of central eastern New South Wales. FROGGATT (1902) noted that adults feed on the bark of wattles (*Acacia*) and eggs are deposited in the bark or smaller branches in dead or drying wood. Young larvae feed in the sapwood, in which they tunnel in an irregular manner (FROGGATT, 1902).

Depsages solandri (Fabricius) (Grass-tree Longicorn)

During 6-12 September 1982, several adults were observed feeding upon and resting amongst leaves of the grass-tree, *Xanthorrhoea johnsonii* Lee (*Xanthorrhoeaceae*) in open woodland on the Griffith University grounds, Brisbane. During August to October 1982 and 1983, various larvae and pupae were collected from the dead flower stalks of *X. johnsonii* at Griffith University, and in heathland at Beerwah, about 80 km north of Brisbane. FROGGATT (1894) noted that the species attacked the flower stalks of grass-trees, but did not identify these larval hosts. Further notes on *D. solandri* are found in HAWKESWOOD (1985b).

***Penthea pardalis* (Newman)**

On 16 November 1981, three larvae (32-43 mm long) were extracted from a severely infested and decaying portion of the main trunk of *Acacia aulacocarpa* A. Cunn. ex Benth. (*Mimosaceae*) growing in open woodland on the James Cook University grounds, Townsville. The larvae had chewed wide, extensive channels in the trunk about one metre above ground level (height of tree about 3 metres) causing the death of many branches and the tree to bend at the main point of infestation. The larvae had eaten most of the sapwood below the bark layers but not the bark itself (bark 2-3 mm thick). One dead larva apparently affected by virus of bacteria lay rotting in one tunnel. Extensive amounts of frass and chewed wood fragments had piled on the ground below. Nearby, one pupa of *P. pardalis* was extracted from a chamber between two branches of *A. leptostachya* Benth., a common species in northern Queensland, especially in the Townsville district. On 12 December 1981, another two larvae were extracted from infested portions of the main trunk of *A. holosericea* A. Cunn. ex G. Don. growing on the other side of the JCU grounds. During January and February 1981, several females were observed laying eggs into bark fissures of *A. holosericea* chewed by the female. Mating also occurred on this plant during the day. Other adults fed on the leaves of *A. holosericea*. The only other published host record for *P. pardalis* is that of FROGGATT (1923) who recorded *A. cunninghamii* Hook. However, as pointed out by HAWKESWOOD (1985c), the name *A. cunninghamii* is no longer valid and at least 5 *Acacia* species have been erroneously assigned to *cunninghamii*. Therefore the record of *A. cunninghamii* for *P. pardalis* needs further investigation.

***Platymopsis egena* (Pascoe) (Grey Ringbarker)**

P. neglecta Pascoe

On 25 November 1981, one live adult was collected from a dead branch (85 mm diameter) of the bloodwood, *Eucalyptus polycarpa* F. Muell. (*Myrtaceae*) at the base of Mt. Stuart, Townsville. On 29 November 1981, one adult was observed feeding on leaves of a young *E. polycarpa* saplings near the same site, while one adult was collected at lights on 2 December 1981 at Townsville, indicating nocturnal as well as diurnal activity. FROGGATT (1893) recorded *A. longifolia* as host, while DUFFY (1963) recorded *A. pendula* and *Toona australis* (F. Muell.) Harms (*Meliaceae*) (as *Cedrela australis*) as well as introduced species from the genera *Morus* (*Moraceae*) and *Wistaria* (*Fabaceae*). Further notes on the biology of this beetle are found in DUFFY (1963).

ACKNOWLEDGEMENTS

Thanks are expressed to Mr. K. J. Houston, Dept. of Entomology, DPI, Indooroopilly, Brisbane for access to insect collections in his care.

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Typescript received 18 October 1985, accepted for publication 22 October 1985.