

Short Communication

A longicorn leaf miner, *Microlamia pygmaea* (Coleoptera: Cerambycidae: Lamiinae) found in New Zealand

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Cerambycid larvae live in all the woody parts of live and dead shrubs, trees and vines, from the small twigs to trunks and roots (Linsley 1959). Some species also live in herbaceous plants, especially in stems (Linsley 1959). Here I report *Microlamia pygmaea* Bates from dead leaves on fallen branchlets of kauri, *Agathis australis* (D. Don) Lindley (Gymnospermae: Araucariaceae). This species was previously found in association with *Phormium tenax* Forster et Forster f., *P. cookianum* Le Jolis and *Astelia banksii* A. Cunn. (Kuschel 1990); all these plants are monocotyledons.

On 5 July 1998, a chance stop under kauri trees on the Parau Track, near the lower Huia dam in the Waitakere Ranges, Auckland, together with the picking up of a fallen kauri twig with dead leaves attached and a leaf miner biologist's tendency to hold leaves up to the light, revealed signs of insect excavation in the dead leaves. Stereomicroscope examination with transmitted light showed an insect larva in each of two leaves. Dissection of one leaf revealed the larva to be a cerambycid.

More larvae were found in dead kauri leaves at three other sites in the Waitakere Ranges: two larvae at Sharp Bush (23 August), two larvae on Fletcher Track (5 September) and seven larvae on Opanuku Pipeline Track (13 September). Mines were found in dead leaves of various ages (i.e. the last flush of growth, penultimate growth, and the growth before that) on branches on the forest floor or suspended in plants. Leaves with mines had sharply defined clear areas while other leaves had clear areas with a fuzzy outline when viewed in transmitted light.

Mined leaves were kept in individual 25 mm diameter Petri dishes. Labelled dishes were enclosed in a sealed plastic bag in order to retain moisture and placed in part of the author's garden that remained damp and cool. Two beetles had emerged from leaves by 9 December, while larvae could still be seen inside other leaves. On 6 January, two live larvae, one pupa and five adults were present; the fully pigmented beetles had emerged from the leaves. Tunnels in leaves containing pupae and beetles were

mainly filled with frass.

133 specimens from 45 field collections examined in the New Zealand Arthropod Collection, Auckland were caught in all months except June and September. Most beetles were caught between November and March though 15 were caught in July.

Microlamia pygmaea larvae had not been previously found. The geographic range of the beetles, which extends into the South Island where kauri is absent, showed no strong association with the tree. Earlier collections indicate a connection with New Zealand flax, *Phormium* spp., though large numbers of adults had been collected from a variety of habitats. Host data indicate that larvae may live in relatively thick leaves of a number of plants and a key requirement may be that the dead leaves remain relatively dry.

Acknowledgement

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References

- Kuschel G. 1990.** Beetles in a suburban environment: a case study. The identity and status of Coleoptera in the natural and modified habitats of Lynfield, Auckland (1974-1989). *DSIR Plant Protection Report No. 3.*, 118p.
- Linsley EG. 1959.** Ecology of Cerambycidae. *Annual Review of Entomology* 4: 99-139.