

A FOSSIL LEAF-MINER TRACE FROM MIOCENE SEDIMENTS OF THE MANUHERIKIA GROUP, CENTRAL OTAGO

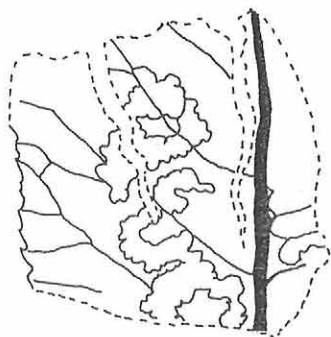
MIKE POLE and TONY HARRIS

A single trace of a leaf mining insect has been located in a leaf bed within lower Miocene sediments (about 17 million years old) of the Manuherikia Group, Central Otago. M. Pole, who is studying the fossil flora, collected the fossil from locality F41/f235, near the Bannockburn. The flora from this locality is thought to have represented a podocarp notophyll vine forest, with the conifers Dacrycarpus and Decussocarpus (Pole, unpublished data). The leaf-miner (specimen OU13685) was passed on to F. Harris who gave the following identification:

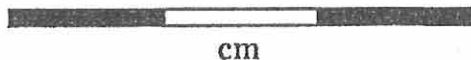
ORDER: Lepidoptera

Family: Nepticulidae

Genus: Stigmella Schrank, 1802.



OU13685



Identification to species level was not possible. The genus, which is still extant in New Zealand, presently includes 28 species (Donner and Wikinson 1989).

Holden (1982) reported the first fossil leaf-miner traces from New Zealand. They were from mid-Miocene and possibly older sediments.

Rozefelds (1985, 1988) and Rozefelds and Sobbe (1987) describe leaf-miner traces from Australia.

REFERENCES

DONNER, H. AND WILKINSON, C. 1989. Fauna of New Zealand. No. 16. Wellington. New Zealand Science Information Publishing Centre, DSIR.

HOLDEN, A.M. 1982. Luvly grubs - crumbs from an extinct insect's tucker box. Geological Society of New Zealand Newsletter 58 : 39.

ROZEFELDS, A. C. 1985. The first records of fossil leaf mining activity from Australia. in Hornibrook Symposium, 1985, extended abstracts. New Zealand Geological Survey Record 9 : 80 - 81.

_____ 1988. Insect leaf mines from the Eocene Anglesea locality, Victoria, Australia. Alcheringa 12 : 1 - 6.

ROZEFELDS, A. C. AND SOBBE, I. 1987. Problematic leaf mines from the Upper Triassic Ipswich Coal Measures of southeastern Queensland, Australia. Alcheringa 11 : 51 - 57.