

other temperatures. It is known (Patton, 1963) that rate of egg production is governed by metabolic rate. Furthermore, nutrition affects fertility of the female, and the demand for nutrients during egg production is great. In the present study, the response to an increased metabolic rate was seen as an increased oviposition rate up to 30°C. At 35°C a further increase in metabolic rate coupled with a lack of available nutrients resulted in a drop in egg production.

Louse populations are very low during the summer months, but the results above suggest that louse transference and survival off the host in summer could occur just as readily as in the more favourable conditions of autumn and winter.

It is considered that a chance of transfer of lice from host to host via the medium of inanimate objects, is very low. However, the results above suggest that a 14 day period (based on the incubation time of the egg) or 7 days (if only adults are considered), would be sufficient to ensure absolute protection in the absence of any additional control by chemical or physical means.

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A NEW HOST RECORD FOR PERRISSINOIDES CERAMBYCIVORAE (DIPTERA : TACHINIDAE)

P. J. ALMA,
Forest Research Institute, Private Bag, Rotorua.

SUMMARY

Perrissinoides cerambycivorae Dugdale is recorded from *Stenopotes pallidus* Pascoe in Douglas fir (*Pseudotsuga menziesii* (Mirbel) Franco).

Small, dead branches (between 4 and 10 cm diameter) of Douglas fir (*Pseudotsuga menziesii* (Mirbel) Franco) were collected from the northern half of Kaingaroa State Forest on 25 August, 1970, to rear and identify a cerambycid which was found boring in the wood. The branches had probably died through suppression

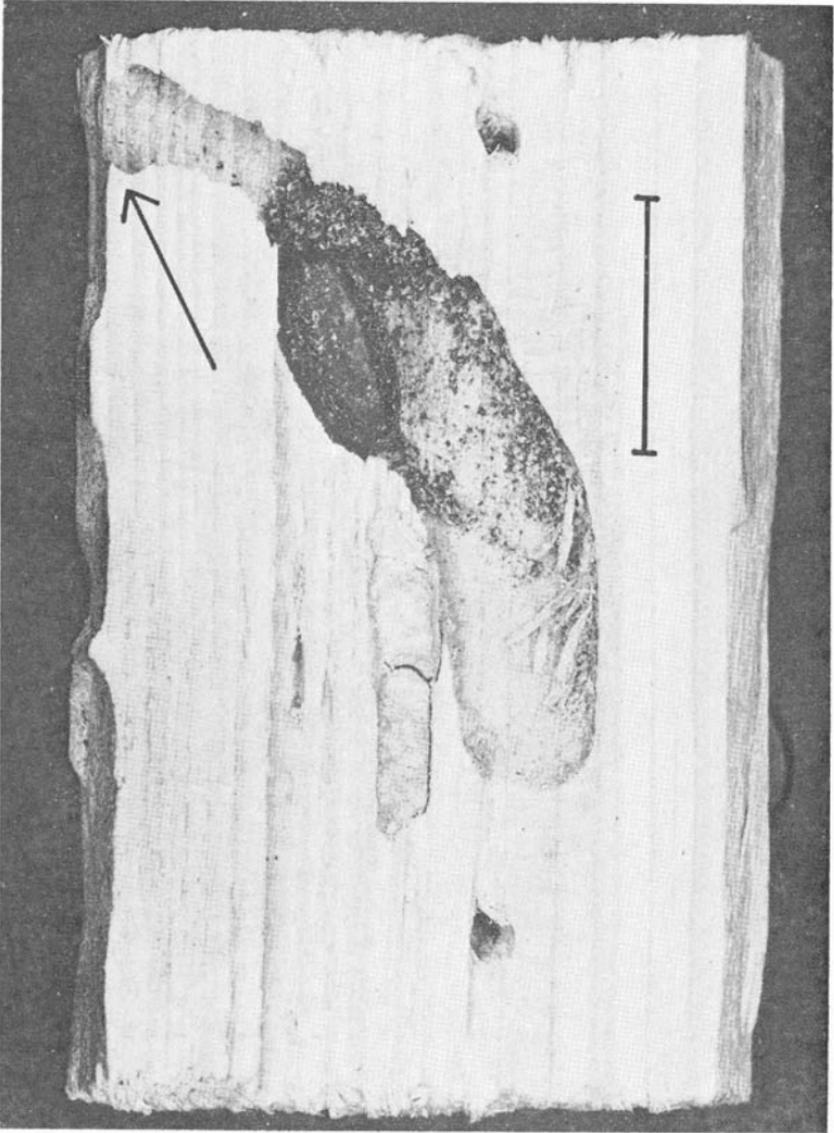


Fig. 1: Pupation chamber of *Stenopotes pallidus* with empty pupal case of *Perrissinoides cerambycivora*. The exit hole of the adult fly is arrowed. (Scale line is 10 mm).

and were still attached to the living tree at heights between 6 and 20 m. At the time of collection the cerambycid was thought, from knowledge of the workings, to be *Stenopotes pallidus* Pascoe (Coleoptera : Cerambycidae). This was the only beetle to emerge from the branches when these were brought into the laboratory. On 6 October 1970 an adult of *Perrissinoides cerambycivora* Dugdale (Diptera : Tachinidae) was found in one of the rearing cages. The branches in the cage were carefully dissected and a pupal case of the parasite was found in a tunnel typical of a *S. pallidus* larva (Fig. 1). All other cerambycid larvae cut from the branches were *S. pallidus*, and no other parasites were noted. The adult fly had emerged from the oval hole bored by the cerambycid when it entered the wood after its initial subcortical feeding. The size of the exit hole (3.2 x 2.2 mm) may be compared with the dimensions of the head (2.5 x 1.7 mm), thorax (2.8 x 2.9 mm), and abdomen (3.0 x 1.6 mm) of the fully chitinised adult.

This record is believed to be the first from *S. pallidus*, and is also notable as the first record from a host living on an exotic plant species. The description, previous host records, and notes on the life history of *P. cerambycivora* may be found in Dugdale (1961). Of the other cerambycids parasitised, *Gastrosarus* sp. (probably *G. nigricollis* Bates) is a green stem borer, and *Didymocantha sublineata* (White) and *D. quadriguttata* Sharp feed on the surface of the sapwood and enter wood to pupate (Duffy, 1963). Presumably *S. pallidus* was parasitised during its feeding period beneath the bark, before it entered the wood to complete its development and pupate.

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