

SCIENTIFIC NOTE

***Podosesia syringae* (Lepidoptera: Sesiidae):
a new clearwing moth record for British Columbia****VIRGILIU M. AURELIAN¹, MARIO LANTHIER²
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Podosesia syringae (Harris), commonly known as the ash borer, is a clearwing moth (Sesiidae) whose larvae are borers within the trunks of lilac, *Syringa vulgaris* L., and various ash species, *Fraxinus* spp. This native North American insect (Eichlin and Duckworth 1988) is considered a major pest of wild, cultivated and ornamental ash trees in eastern provinces and states (Appleby 1973, Solomon 1983). In their review of North American Sesiidae, Eichlin and Duckworth (1988) reported collections of *P. syringae* from Washington State and eastern Alberta, but British Columbia (BC) was excluded from their description of its western range. Adults of this species occur in two distinct colour morphs, a black morph that has a dark brown abdomen, and a yellow morph that has a light brown abdomen surrounded by yellow bands. The two morphs are geographically distinct, the yellow morph *fraxini* being restricted to Western North America and the nominate morph being restricted to Eastern North America (Eichlin and Duckworth 1988). A wide hybridization zone exists in the mid-West and the prairies (Eichlin and Duckworth 1988), suggesting the two extreme morphs may be two different subspecies. Future molecular research will be important in elucidating whether a subspecies level is warranted for the ash borer.

In winter of 2006 one of us (ML) discovered many unknown lepidopteran larvae infesting various three-year-old *Fraxinus* spp. nursery stock collected from commercial tree nurseries located in Westbank and

Armstrong, BC. In early 2007 cut sections of these infested ashes were brought into the laboratory and the emerging adults were identified by one of us (VMA) as the ash borer, *Podosesia syringae* (Harris). Voucher specimens from BC (CNCLEP00041170 & CNCLEP0041171) were deposited in the Canadian National Collection of Insects, Arachnids and Nematodes, Ottawa, ON and confirmed as the ash borer by J-F. Landry (personal communication).

In spring 2007 we surveyed wild and ornamental lilacs surrounding nursery plantings in Westbank, and found evidence of larval feeding and pupal exuviae characteristic of the ash borer. In June 2007, Pherocon 1-CP style wing traps (PheroTech Int. Inc., Delta, BC) baited with Clearwing Borer lures SC L103 (Scentry Biologicals, Billings, Montana, USA) containing (Z,Z)-3, 13 octadecadienyl acetate, a known clearwing male sex attractant and possibly the major component of the female pheromone for this species (Nielsen and Purrington 1978), were deployed in and around six ash nursery plantings in Westbank and Armstrong, BC. In a total of 102 traps deployed in both regions we captured 325 male *P. syringae* adults. No black morphs were captured in BC. Superficially, the yellow morph resembles a paper wasp (*Polistes* spp.) but on a sticky trap it could also be confused with the Western poplar clearwing, *Paranthrene robiniae* Hy. Edwards; which is native to BC. However, on closer examination *P. syringae* can be distin-

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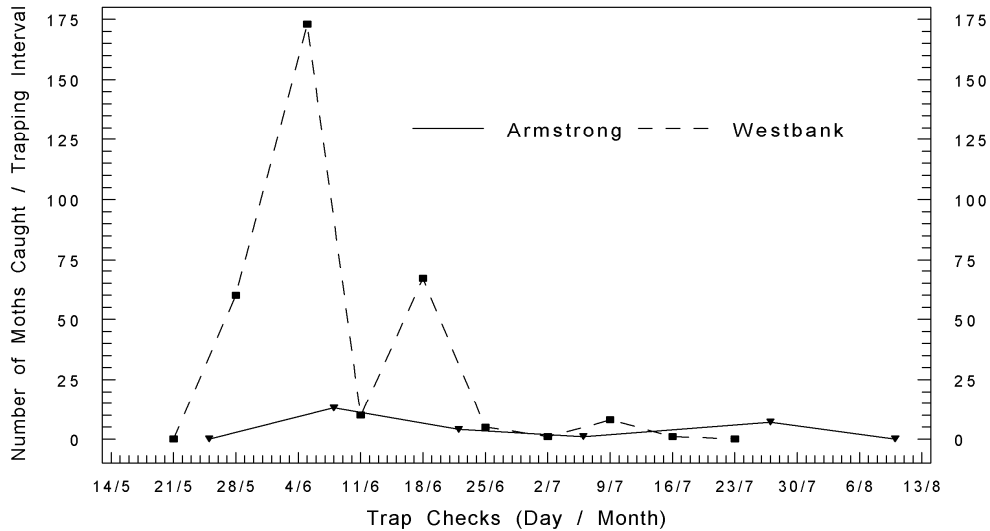


Figure 1. Temporal pattern of seasonal catches of male *P. syringae* adults in sex-attractant baited sticky traps at two locations within the Okanagan Valley, BC, in 2007.

guished from *P. robiniae* by the presence of a very long first metatarsal segment and distinctive forewing venation.

Weekly trap checks revealed a male flight period that lasted six weeks in Westbank with peak flight occurring in the first half of June (Fig. 1). Further north in Armstrong, the flight period was more extended, ending in the first half of August, but the smaller peak flight occurred about the same time as it did in Westbank. In eastern North America adult flight begins in April and ends in July (Neal and Eichlin 1983). In summer 2008 we redeployed sex-attractant traps around a fallow nursery field from which all ash trees had been harvested in

the fall of 2007. Our catches of *P. syringae* confirmed the presence of this species in the absence of ash, supporting the view that local plantings of lilac on residential properties outside the nursery of initial discovery are now a potential source of this insect. From these results we conclude that *P. syringae* is established within parts of the Okanagan Valley, BC. However, the original source of infestation remains unknown.

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