

July 1995

**PHANTOM HEMLOCK LOOPER
IN
BURNABY, BC**

R. Turnquist
Forest Insect and Disease Survey

For the third consecutive year, increased phantom hemlock looper, *Nepytia phantasmia*, populations defoliated semi-mature and mature Douglas-fir and some western hemlock, over about 10 square blocks in Burnaby. The extent and severity of the defoliation has increased throughout this residential area from 1994. The mainly moderate to severe defoliation is centered between MacPherson and Gilley Avenues, from Southeast Marine Drive to Rumble Street. Defoliation has not spread into either Byrne Creek Ravine or John Mathews Parks. Larvae are numerous, crawling on houses, cars, fences, patio's etc. Insect droppings (frass) are common, and up to several centimeters' deep on sidewalks and boulevards throughout the area.

Inquiries to the Forest Insect and Disease Survey (FIDS) from local residents and Parks Department concerned about the infestation prompted an assessment of the outbreak by the FIDS group. A mass collection of larvae from the infested area are currently in rearing at the Pacific Forestry Centre in Victoria to determine the presence of disease or parasites. Several mass collections in 1994 found low levels of parasitism and no disease in the population. If these natural control factors are not present, a large flight of the white and grey moths can be expected in August and looper populations may again cause further defoliation in 1996.

Although Douglas-fir has the capacity to recover from defoliation, repeated severe defoliation may cause top-kill or tree mortality. Several trees near the corner of Ewart Street and Gilley Avenue completely defoliated by July 21st, will probably not recover. Deep watering of individual trees as well as light application of fertilizer may help other

defoliated trees in their recovery.

Native to British Columbia, phantom hemlock looper outbreaks have been recorded in the lower mainland at Central Park in Burnaby, Queen's Park in New Westminster, and Hope Municipal Park in 1956-57 and at Coquitlam lake in 1982. Douglas-fir and western hemlock were reported killed at Queen's Park, but not at Hope, Central Park, or at Coquitlam Lake. The infestation at Coquitlam Lake collapsed due to infection of larvae by disease.
