

Mount Maxwell

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129

ECOLOGICAL RESERVES COLLECTION  
GOVERNMENT OF BRITISH COLUMBIA  
VICTORIA, B.C.  
V8V 1X4

Mt. Maxwell Ecological Reserve

Summary Research Reports

1984, 1985

on <sup>the</sup> Pest Conditions

by

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Mt. Maxwell Eco Reserve Summary Report - 1984

Several visits were made to Mt. Maxwell Eco Reserve by PFRC staff in 1984, primarily concerning the oak looper infestation on the reserve. Surveys included three-tree beatings, bark beetle survey, special mass collection and a pheromone trapping program. Results were as follows:

1. May 31 three-tree beatings of Garry oak: Lambdina f. somnaria (oak looper) - 6 larvae, Operophtera brumata (winter moth) - 2 larvae, other larvae - 6 species, 10 larvae total.
2. May 31 Douglas-fir bark beetle survey - 1 of 10 marked Douglas-fir lightly attacked, 1 Douglas-fir dead, no defoliation.
3. July 27 Mass collection resulted in 320 oak looper larvae collected for rearing.
4. Nov. 21, Dec. 7 Surveys for winter moth male adults through use of attractant pheromone and trap - 47 adults caught (1 adult oak looper found).

Defoliation caused by oak looper was nil in May and ranged from 1 to 10%, average less than 5% in July. Efforts to rear larvae were mostly unsuccessful due to their apparent inability to feed. The infestation has apparently collapsed; with the inability of larvae to succeed in the lab and the lack of adults found in December, little defoliation is expected in 1985.

Most Douglas-fir previously defoliated by oak looper have fully recovered. One tree died, probably due to severe bark beetle attack in 1982. One tree was lightly attacked by bark beetle in 1984.

Winter moth was positively identified for the first time from May larval samples. Nov.-Dec. trapping results indicate a substantial population and while direct correlations between pheromone trap results and projected defoliation has not been made, the possibility of increasing damage by this pest should be considered.

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Mt. Maxwell Eco Reserve Summary Report - 1985

Several visits were made to Mt. Maxwell Eco Reserve by Forest Insect and Disease Survey staff during the 1985 field season. The surveys were primarily to monitor the collapse of western oak looper using three-tree beating sampling, but included a bark beetle survey and a random cone crop collection to identify and monitor cone and seed pests in Douglas-fir in the Region. Results were as follows:

1. June 12 three-tree beating (g0): Telphusa sedulitella (micro-lepidoptera) - approximately 80 larvae, Abebaea subsylvella (micro-lepidoptera) - 13 larvae, Operophtera spp. (winter moth?) - 1 larva, Chionodes trichostola (lepidoptera) - 3 larvae, Cyclophora dataria (lepidoptera) - 3 larvae, Epinotia emarginana (lepidoptera) - 1 larva.
2. June 12 bark beetle and damage survey - no bark beetles or further damage found on ten numbered Douglas-fir trees previously defoliated by the oak looper.
3. August 20 three-tree beating (g0): Lambdina somniaria (western oak looper) - 2 larvae.
4. August 20 leaf samples (g0): Phylloxera (aphids) - + 999 nymphs.
5. August 20 Douglas-fir cone samples (20 cones examined): Contarinia oregonensis (cone gall midge) - 10 larvae; Dioroctria abietivorella (fir coneworm) - 1 larva, Megastigmus spermotrophus (seed chalcid) - 3 larvae.

Defoliation was not caused by the oak looper in 1985, and the trace of oak leaf skeletonizing found throughout the site was attributed primarily to the moderate population of Telphusa sedulitella. The 25-40% chlorosis on three trees was due primarily to feeding by an aphid (Phylloxera). This aphid was also common throughout the Greater Victoria-Saanich Peninsula area, causing light to severe chlorosis. Damage by this insect was insignificant, especially in view of the late timing of this pest's activity. No defoliation related to winter moth was noted, despite a large number of male moths trapped in November-December of 1984. Other species identified from samples have no significant histories as damaging agents and caused no visible damage.

Populations of the western oak looper are expected to remain at endemic levels. No significant insect damage is anticipated in 1986.

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