

Douglas-fir tussock moth, *Orgyia pseudotsugata*, in south-eastern British Columbia

The Douglas-fir tussock moth was first reported defoliating Douglas-fir trees at Cascade in 1929. Since 1929 outbreaks have occurred at Cascade, Grand Forks and Kettle Valley 1930-31, 1954, and 1981.

Year	Remarks
1929	Tussock moth infestations reported at Cascade and Kettle Valley area on Douglas-fir.
1930	Douglas-fir tussock moth infestation on Douglas-fir remains active near Grand Forks and Kettle Valley.
1931	The tussock moth infestations reported during 1930 continued and increased in size.
1932	Tussock moth infestations subsided throughout the areas of infestation at Cascade, Grand Forks and Kettle Valley.
1933-53	Tussock moth populations remained at a low level, with no damage reported during this period.
1954	There was a small increase in larval numbers at Cascade, although no defoliation was apparent. A polyhedral virus disease caused high mortality in reared larvae collected near Cascade.
1955	A 2 hectare stand of open-grown Douglas-fir trees near Cascade was fairly heavily infested by the tussock moth. A virus disease greatly reduced larval numbers during the late larval instars.
1956	No larvae were observed near Cascade where an infestation occurred in 1955.
1957-73	Populations remained at a low level during this period. No reports of tussock moth defoliation.
1974	Low population levels. Two tussock moth larvae found at Cascade, the site of past infestations.
1975	Pheromone traps set out near Cascade to trap adult male tussock moths. Eight traps contained 46 adults. No larvae collected in area.
1976	Pheromone traps averaged 14 adults at Kingsgate, 7 at Grasmere and 3 at Cascade. This is the first record of Douglas-fir tussock moth in the East Kootenay.
1977	Pheromone traps averaged the following number of adults per trap: Cascade, 6; Radium, 9; Dutch Creek, 0; Wasa Lake, 0; Grasmere, 1; and Kingsgate, 1.
1978-79	No adults found in pheromone traps and no larvae collected.
1980	Populations increased in pheromone traps at Cascade, Downie Creek, Mica Creek and Fauquier all contained moths.

- 1981 Small infestation on 20 ha at Christina Lake Golf Course, where defoliation of Douglas-fir averaged 10%. Male cocoons were 68% infected by virus and parasites. Numbers of adults collected in pheromone traps increased at Christina Lake, Eholt, and Rock Creek.
- 1982 Tussock moth damage increased, covering 270 ha. At Christina Lake, 5 ha were severely defoliated, with light-to-moderate over 15 ha. Scattered pockets of light defoliation were mapped between Rock and Johnstone creeks.
- 1983 Populations increased with 2275 ha of light to severe defoliation between Johnstone Creek, Rock Creek and Midway, and north towards Westbridge. High incidence of nuclear polyhedrosis virus was found in the larval population.
- 1984 Populations collapsed.
- 1985-89 Tussock moth remained at endemic levels.
- 1990 No defoliation was noted, but there was an increase in the number of adults in pheromone traps.
- 1991 Populations increased, with trace to light defoliation near the Christina Lake.
- 1992-94 Populations collapsed at Christina Lake, but moderate defoliation of ornamental spruce occurred at Montrose, continuing into 1994.
- 1995 No significant defoliation was reported.

Extracted from:

Unger, L. 1996? Population fluctuations of important forest insects in the Nelson Forest Region 1923 - 1995. Canadian Forest Service, Forest Insect and Disease Survey, Pacific Forestry Centre, Victoria, BC. Unpublished file report.