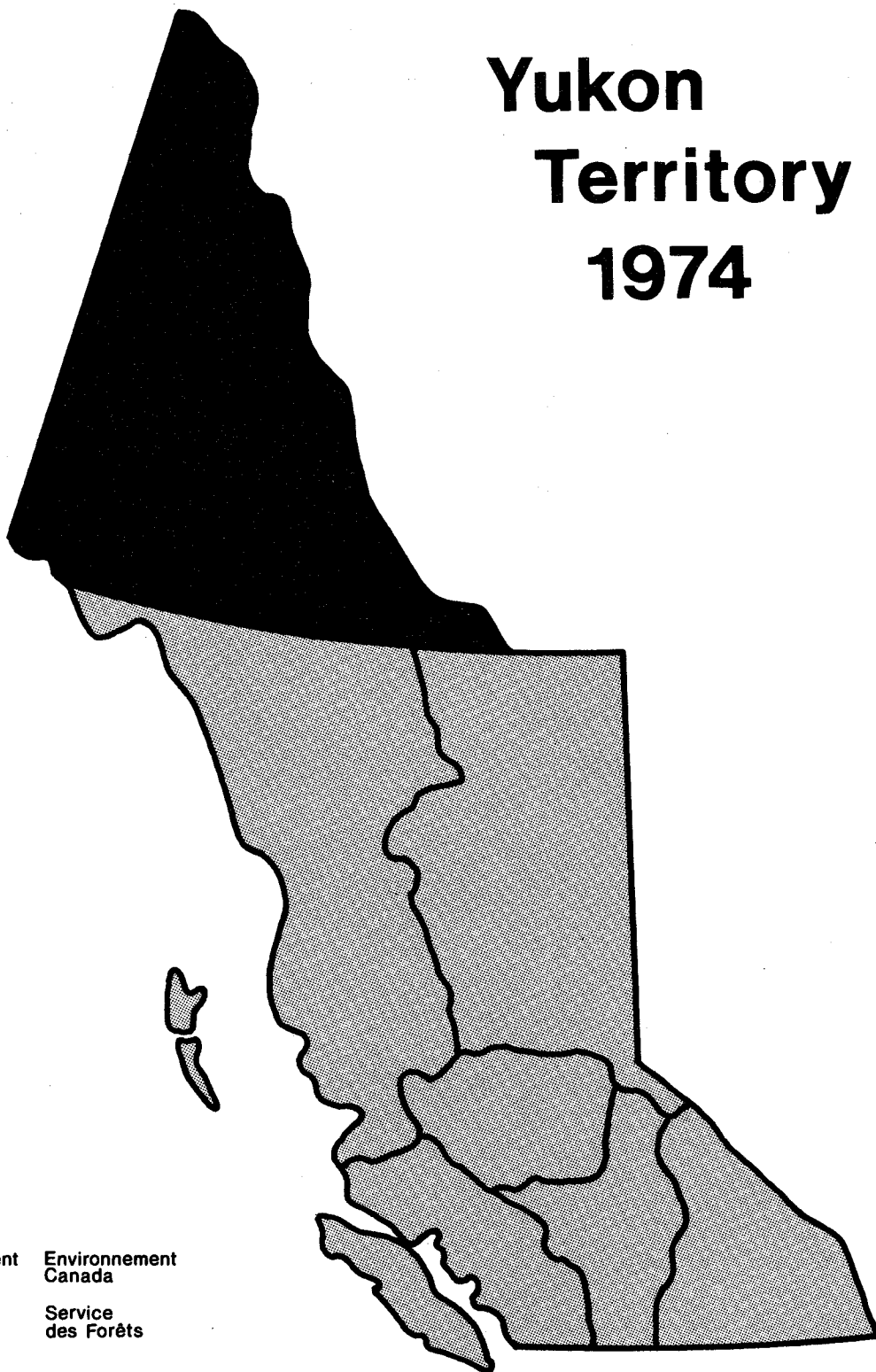


# Yukon Territory 1974



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## Forest Insect & Disease Conditions

# YUKON TERRITORY

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FOREST INSECT AND DISEASE CONDITIONS 1974  
YUKON TERRITORY

by



Leo Unger  
Survey Ranger

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## INTRODUCTION

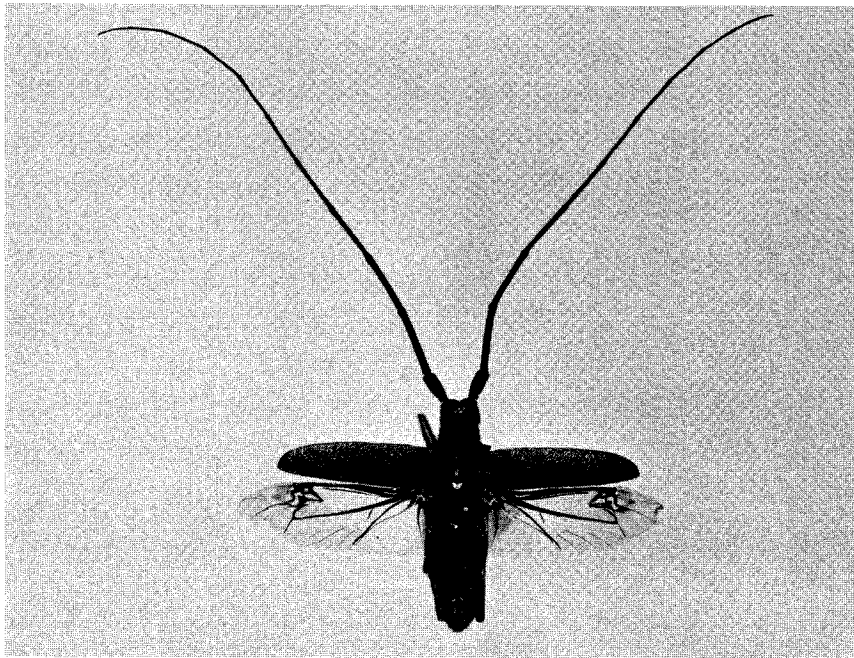
This report outlines the status of forest insect and disease conditions in the Yukon Territory for 1974.

Field work was done during the period of optimum insect activity from mid-June to early July, and covered much of the readily accessible areas. Contact was made with the Yukon Forest Service personnel at headquarters and most of the ranger stations. Forest pest conditions reported by public and private cooperators were particularly valuable in the interpretation of the general pest situation and in gauging population trends.

The larch budmoth lightly defoliated eastern larch north of Watson Lake. Other than that, numbers of larval defoliators in field collections were low. Wood borers degraded logs stock-piled at Watson Lake.

Common tree diseases in the Yukon were the spruce broom rust, spruce needle rusts, and the terminal dieback of black and white spruce.

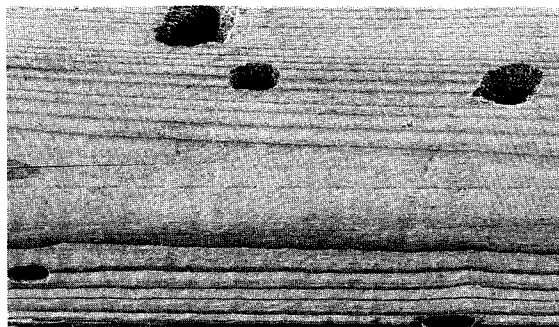
## WOOD BORERS



Roundheaded wood borer  
*Monochamus* adult.

Wood borers were prevalent in the Yukon Territory in 1974. Roundheaded and flatheaded wood borers damaged decked logs at a Watson Lake mill. There was an average of 20 roundheaded wood borer entrance holes per square foot in some logs. Borers were also present in the logs at Teslin; however, the damage was light.

Earlier surveys have shown that the most frequently destructive wood borers in logs, in the Yukon, are the roundheaded or long-horned wood-boring beetles. This family contains a number of economically important species but most of the damage has been attributed to two groups of "sawyer beetles", *Monochamus* spp. and *Tetropium* spp. The larvae of these groups spend several weeks feeding in and under the bark, then some time



Roundheaded wood borer larva  
and damaged lumber.

after mid-June they penetrate the wood to complete their feeding and development. *Monochamus* spp. are large beetles with antennae longer than their bodies. Their larvae burrow two or three inches into the sapwood, filling their galleries, as they advance, with packed shreds of wood. The *Tetropium* spp. are small beetles whose larvae penetrate less than two inches into the sapwood. These borers are frequently a problem in spruce lumber that has not been satisfactorily kiln-treated.

Freshly cut logs left in the woods or in decks in the mill-yard during the summer are vulnerable to borer attack. Therefore, the best preventive measure is utilization of the logs shortly after felling.

Water misting for log protection from borers should be investigated where logs are to be left in a deck throughout the summer.

LARCH BUDMOTH larvae were collected in all eastern larch stands. However, defoliation was observed only on several acres of eastern larch 30 miles (48 km) north of Watson Lake. Though foliage discoloration may be evident, this budmoth is not likely to cause severe growth loss or any tree mortality.

Small numbers of galls caused by a SPRUCE GALL APHID, *Pineus* spp., were prevalent on the foliage of most of the white spruce between Whitehorse and Beaver Creek. The heaviest infestation was found between Ross River and Frances Lake where, by early July, galls were present on 25% of the current foliage in small patches of white spruce reproduction.

Gall aphids reduce growth of young spruce reproduction, and often kill the galled portion of the new growth.

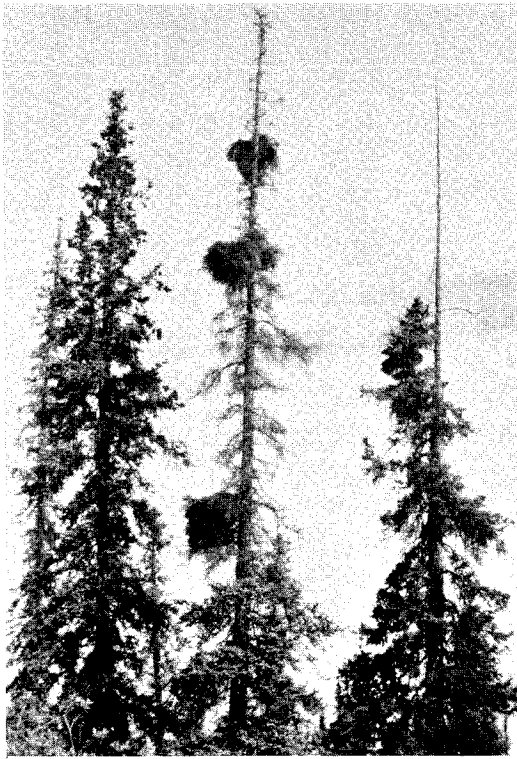


Galls on spruce branch.

# INSECTS AND MITES OF MINOR SIGNIFICANCE

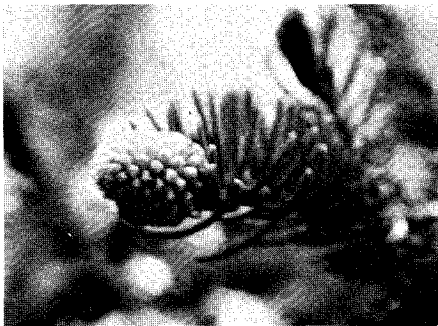
Causal agent	Host	Locality	Remarks
<i>Acleris gloverana</i> Blackheaded budworm	White spruce	Mi.22 Dempster Hwy., Carmacks	Defoliator. Low populations.
<i>Choristoneura conflictana</i> Large aspen tortrix	Trembling aspen	Bonanza Creek	Defoliator. Low population.
<i>Choristoneura fumiferana</i> Spruce budworm	White spruce	Throughout Yukon	Defoliator. Low population.
<i>Chrysomelidae</i> Leaf beetles	Trembling aspen	Carmacks	Defoliator. Low population.
<i>Dendroctonus rufipennis</i> Spruce beetle	Spruce	Throughout Yukon	No attacked living trees, nor broods in windfall found.
<i>Epirrita</i> sp. A looper	White spruce	Haines Jct.	Defoliator. Low population.
<i>Pikonema</i> spp. Spruce sawflies	White spruce	Dempster Hwy., Pelly Crossing, Carmacks	Defoliator. Low populations.
<i>Zeiraphera destitutana</i> Spruce budmoth	White spruce, black spruce	Mi.10 Dempster Hwy., Ross River, Frances Lake	Defoliator. Low populations.
<i>Aceria parapopuli</i> A mite	Trembling aspen	Faro, Whitehorse	Gall-causing mite. All age classes affected.





A SPRUCE BROOM RUST caused by *Chrysomyxa arctostaphyli*, was common throughout most of the Yukon. Intensity ranged from light to moderate in localized areas with heavy infection at Aishihik Lake, where it was associated with deformity and spike tops. In addition to current and continuing growth loss, tree mortality can occur, either from the rust or from fungi which frequently follow the death of the brooms.

TERMINAL DIEBACK OF SPRUCE - An unknown causal agent was killing spruce terminals. Black spruce was the more common host, but several white spruce had dead tops near the Snag airfield. On an area behind the Midnite Dome at Dawson, up to 25% of the black spruce had dead tops. Other areas with scattered dead tops were: Mile 340 on Highway 9, Mile 150 on Highway 2, and Mile 3 on the Dempster Highway.



A SPRUCE NEEDLE RUST, *Chrysomyxa woroninii*, was prevalent on spruce at Kluane Lake, Beaver Creek, and the Dempster Highway. At Dawson's Midnite Dome, individual white spruce trees had up to 40% of the buds infected.

*Chrysomyxa woroninii* infected shoot.



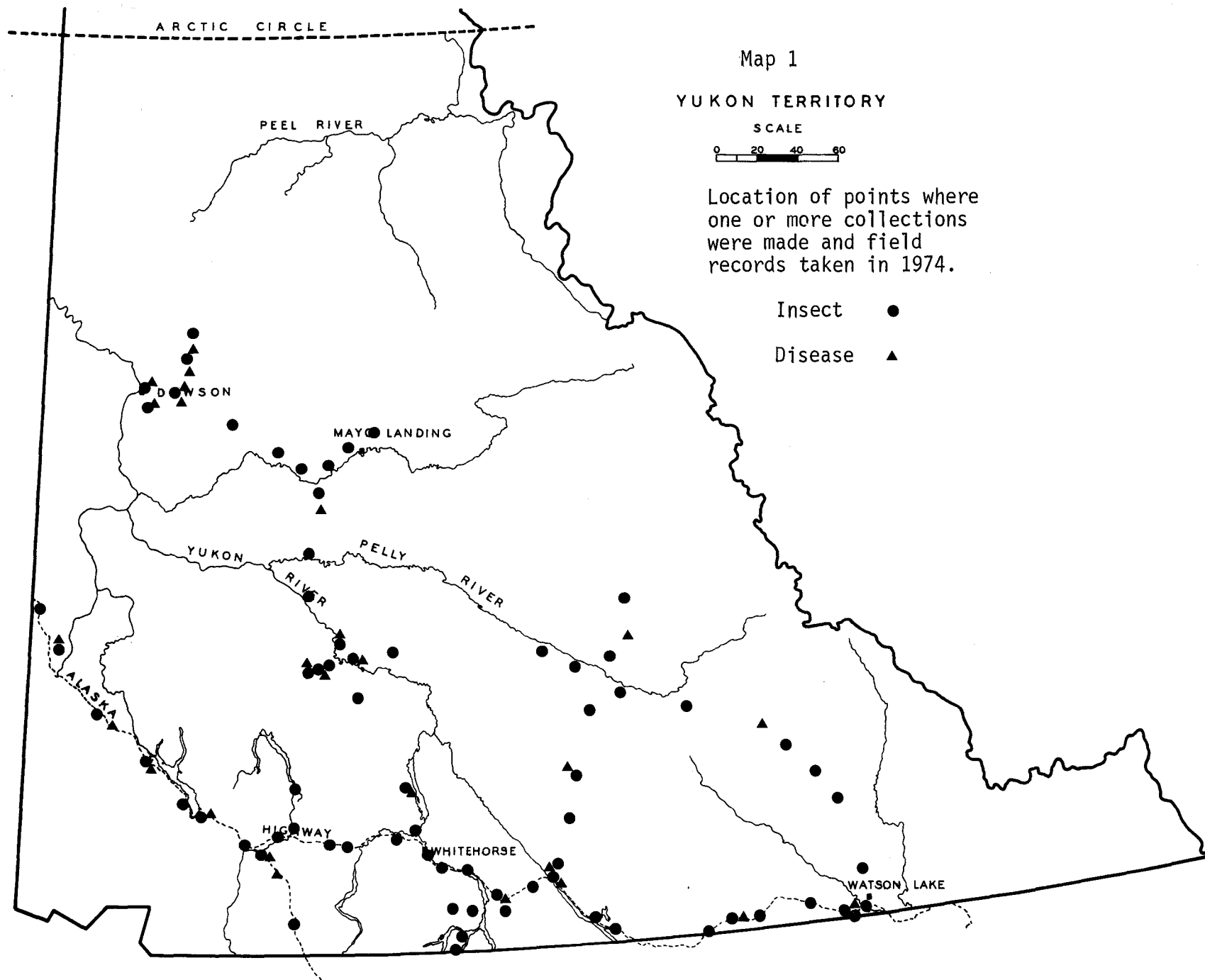
Lodgepole pine  
damaged by rabbits.

RODENT DAMAGE - Rabbit damage was generally light except for small, severely affected areas of lodgepole pine near Takhini Nursery. Here, leaders on advanced regeneration had been chewed down to the winter snow level, leaving small patches of almost branchless stems.

Porcupines had girdled individual trees throughout the lodgepole pine range, causing scattered dead tops and dead trees.

# OTHER NOTEWORTHY DISEASES

Causal agent	Host	Locality	Remarks
<i>Chrysomyxa ledi</i>	White spruce	Carmacks	Needle rust on spruce.
<i>Chrysomyxa ledicola</i>	<i>Ledum</i> sp.	Throughout	Needle rust on spruce.
<i>Cronartium comandrae</i>	Lodgepole pine	Host range	Stem rust, low levels. Several severe pockets at Mi.870 Alaska Hwy.
<i>Endocronartium harknessii</i>	Lodgepole pine	Watson Lake	Stem rust, light.
<i>Lirula macrospora</i>	White spruce, Black spruce	Mi.828 Alaska Hwy., Kluane Lake, Mi.60 Cano1 Rd.	Spruce needle blight. Individual trees at Kluane Lake severely infected.
<i>Potebniamyces balsamicola</i>	Alpine fir	Mi.716 Alaska Hwy.	Top-killing canker. Scattered trees infected.
<i>Pucciniastrum goeppertianum</i>	Alpine fir	Watson Lake to Johnson Crossing	Needle rust, light. Heavy on individual trees.
<i>Pseudomonas syringae</i>	Balsam poplar	Dawson	Virus on climatically weakened host.
Winter drying	Lodgepole pine	Mi.890 Alaska Hwy., Little Salmon Lake	Small acreage, good recovery.



# CURRENT STATUS OF FOREST PESTS IN PACIFIC REGION

P E S T	D I S T R I C T S		
	PRINCE RUPERT	PRINCE GEORGE	VANCOUVER
MOUNTAIN PINE BEETLE	epidemic, Houston, Hazelton, Kitwanga	light populations	Klinaklini R, Anderson L and Fraser R
SPRUCE BEETLE	small infestation along Cranberry R	trace at Bowron R and Wendle Cr	not found
DOUGLAS-FIR BEETLE	not found	light at Bear L	scattered light patches on Vancouver Island
WESTERN BLACK- HEADED BUDWORM	epidemic, increased in most areas	moderate increase at Pine Pass and McLeod L	collapsed
SPRUCE BUDWORM, ONE-YEAR-CYCLE	trace at Kitimat	epidemic in Liard R area	epidemic in Lillooet and Fraser valleys
SPRUCE BUDWORM, TWO-YEAR-CYCLE	light popula- tions near Bell-Irving R	light populations	not found
DOUGLAS-FIR TUSsock MoTH	not found	not found	not found
WESTERN HEMLOCK LOOPER	light in coastal stands	light, decreased	light populations
FALSE HEMLOCK LOOPER	not found	not found	not found
BLACK ARMY CUTWORM	populations in Interior decreased	localized outbreaks	not found
FOREST TENT CATERPILLAR	common near Kitimat	epidemic east of Prince George	localized in a few areas
LARCH CASEBEARER	not found	not found	not found
DWARF MISTLETOE	widespread on Hw and P1	southern areas on P1	widespread on Hw
WINTER DAMAGE	moderate on Sw in Bulkley Va	McBride, east	extensive on P1 at Klinaklini R

D I S T R I C T S			
CARIBOO	KAMLOOPS	NELSON	YUKON
increased on Pl at Cariboo L, Riske Cr, Klinaklini R	epidemic in Okanagan Valley	epidemic in E & W Kootenays, 30,000 Pl killed	not found
trace at Quesnel L	general collapse	light, few current windfall infested	not found
increased, Fraser R, Meldrum Cr - Dog Cr	light increase in west, scattered occurrence	light, few red-tops recorded in East Kootenay	no host
light population Wingdam	generally light population	increase at Upper Arrow L	trace
Kelly L, light population	epidemic in Lillooet area	increase at Trout L in stands of Hw	trace
epidemic in interior wet belt	moderate defoliation at Lempriere Cr	population collapsed at White R	not found
not found	increased in Kamloops area	trace near Cascade	no host
not found	population increased in North Thompson	collapsed in wet belt forests W Kootenay	not found
not found	outbreaks expanded to 14,000 acres (5,600 ha)	trace near Windermere L	no host
not found	declined, North Thompson	epidemic in Golden area expanded	not found
scattered patches only, Macalister to Quesnel	collapsed in Raft R area	infestation near Golden	not found
no host	light population in Okanagan Va	infestations declined	not found
general on Pl in Chilcotin area	severe in localized areas	widespread on Pl, Lw	not found
general, 40,000 acres (16,000 ha)	severe in North Thompson Va	Kootenay L from Wynndel to Boswell	light, M.890, Alaska Hwy., Little Salmon L

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