ANNUAL DISTRICT REPORT

YUKON DISTRICT

YUKON TERRITORY 1969

by

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DEPARTMENT OF FISHERIES AND FORESTRY

JANUARY, 1970

INTRODUCTION

A reduction in large aspen tortrix populations was evident throughout the Yukon. High populations of the woodborer (Oregon fir sawyer) were recorded in the Watson Lake area. Lodgepole pine regeneration along the Cantung Road supported high populations of the pitch nodule maker. Poplar serpentine miner caused foliage discoloration of aspen in southeastern and southwestern Yukon.

Needle rust infections of spruce and fir were generally light throughout the District. Pine needle casts caused severe needle drop in several areas. Comandra blister rust continued to cause mortality of regeneration pine. An increase in the occurrence of aspen shoot blight was noted in the District.

INSECT CONDITIONS

Large Aspen Tortrix, Choristoneura conflictana (Wlk.)

Population levels of this insect declined throughout the Yukon in 1969. Defoliation was notably lighter and the general areas of infestation, although similar to those reported in 1968, were smaller. Parasitism and disease were high in all infestations.

In the Dezadeash Valley, small pockets of severe defoliation were observed around Champagne and from 1.5 to 2.5 miles east of Champagne. Moderate defoliation was noted in an area 9.5 to 12 miles west of Champagne.

Light defoliation was observed in aspen stands along the Aishihik Road from Mile 5 to Otter Falls. Severe defoliation occurred at Haines Junction with light defoliation extending east for 19 miles.

Along the Klondike Highway between Whitehorse and Stewart Crossing populations of tortrix decreased to almost nil. The Fox Lake, Carmacks, and Pelly Crossing outbreaks collapsed completely. Near Stewart Crossing a small area of light defoliation was observed along Crooked Creek.

In the Dawson City area a general reduction of defoliation was observed. Two small patches of defoliation were present west of McQuesten along the Mayo-Dawson Highway and one small stand of aspen along Hunker Road southwest of Dawson City was moderately defoliated.

Along the Watson Lake-Ross River Road patches of light and moderate defoliation occurred south of Ross River from Mile 38.5 to Mile 41. Severe defoliation was evident from Mile 55 to Mile 58. Light to moderate defoliation was observed northeast of Ross River.

A new outbreak of large aspen tortrix covering 10 to 15 acres occurred 1.5 miles west of Beaver Creek. Defoliation was moderate.

Spruce Gall Midge, Mayetiola piceae Felt

High populations of this gall midge were observed on the lower branches of white spruce around Jackson Lakes near Whitehorse. In the Dawson City area high populations were observed 13.8 miles south of Clinton Creek and medium populations at Mile 102.6 Dempster Highway. Low populations were observed at Kluane Lake Campground and 56 miles north of Johnson's Crossing on the Canol Road.

Pitch Nodule Maker, Petrova albicapitana (Busck)

High populations of this nodule maker were observed in a stand of regeneration lodgepole pine at Mile 55 of the Cantung Road. This infestation has persisted for several years and has caused many deformed saplings and broken tops.

Poplar Serpentine Miner, Phyllocnistis populiella Cham.

Populations of this serpentine miner increased in the Watson Lake and Ross River areas during the 1969 season. Severe mining of aspen foliage was observed from Watson Lake to Cantung and Ross River. Between Watson Lake and Teslin damage ranged from severe at Watson Lake to light at Teslin. In the Beaver Creek area damage remained relatively the same as in 1968.

Wood Borers

High larval populations of the Oregon fir sawyer, Monochsmus oregonensis (Lec.), were observed in logs decked at a mill site in the Watson Lake area. These logs had been felled in the summer of 1968 and decked late that fall for milling the following year. Damage was of such extent that immediate milling was necessary to prevent serious loss. Large numbers of adult beetles were observed laying eggs in trees felled early in 1969 and left laying in the cutting areas.

Aspen in several widely separated areas of the Yukon were infested by a root collar borer, Saperda adspersa Lec. Medium populations caused scattered mortality at Lake Laberge. Low populations caused some mortality to fringe trees near Whitehorse, Carcross and Haines Junction.

Low populations of another wood borer, Saperda sp., were found infesting regeneration willow at Sixtymile and Dawson City. High populations of the same species were found infesting balsam poplar near Dawson City and Carmacks.

DISEASE CONDITIONS

Comandra Blister Rust, Cronartium comandrae Pk.

Infection of lodgepole pine by this rust was common throughout the range of pine in the Yukon. Damage in regeneration pine varied from light to severe in many areas. The hyperparasites, Tuberculina sp. and Cladosporium sp., were recorded on the rust fungi at Mile 1 of the Canol Road.

Fir Needle Rusts

Pucciniastrum goeppertianum (Kuehn) Kleb. on alpine fir was reported from several locations in the Yukon in 1969. Light infections were evident near Teslin, Mile 29.7 of the Cantung Road, 31 miles northeast of Ross River, Keno Hill and Gravel Lake. The hyperparasite, Tuberculina maxima Rostr., was collected on the rust fungi at Gravel Lake and Keno Hill. Tuberculina persicina (Ditm.) Sacc. was collected 26.9 miles east of Teslin.

Pucciniastrum epilobii Otth. caused light damage to alpine fir regeneration 48 miles west of Watson Lake.

Pine Needle Casts

Pine needle casts caused discoloration and needle drop in large areas of lodgepole pine in the southern Yukon. The most prevalent needle cast, Lophodermella concolor (Dearn.) Darker, caused extensive needle drop along the Canol Road, 44 miles north of Watson Lake and from Mile 670 to Mile 680 of the Alaska Highway. Light damage was recorded from several other areas. Light damage by Lophodermella montivaga Petr. was recorded 31.5 miles north of Watson Lake. Lophodermium pinastri (Schrad. ex Hook.) Chev. caused light needle drop near Kusawa Lake and 34.9 miles northeast of Ross River.

Black band disease (as yet undescribed) was severe on one tree 44.1 miles north of Watson Lake.

Spruce Needle Casts

Spruce needle casts were common in the Yukon during the 1969 season. Isthmiella crepidiformis (Darker) Darker caused light damage 32 miles northeast of Ross River, Mile 110 of the Canol Road, Mile 22 Atlin Road, 131.5 miles north of Watson Lake, near Granville and Sixtymile. Severe damage was recorded near Mayo and moderate damage at Finlayson Lake.

Immature stages of other needle casts caused light discoloration and needle drop 94.6 miles east of Carmacks, 35 miles northeast of Ross River and at Mile 90.5 of the Canol Road.

Spruce Needle Rusts

An increase in the occurrence of Chrysomyxa woroninii Tranz. was observed throughout the southeastern Yukon. An area of severe infection on both spruce and labrador tea was noted at Mile 29.7 of the Cantung Road. In the Dawson City area damage was light, although more widespread than in 1968. White spruce 13.8 miles south of Clinton Creek was severely infected. Cladosporium sp., a hyperparasite of rust fungi was collected on C. woroninii near Teslin and Little Salmon Lake.

Chrysomyxa weirii Jacks. caused light defoliation of white spruce at Frances Lake and scattered severe damage near Mile 30 of the Cantung Road.

Aspen Shoot Blight, Venturia tremulae Aderh.

Aspen shoot blight was common on regeneration aspen in the Yukon in 1969. Damage increased from that found in 1968 and, in a few areas, reached moderate proportions.

OTHER NOTEWORTHY INSECTS AND DISEASES

Causal Agent	Host	Remarks
Insect		
Black-headed budworm, Acleris variana (Fern.)	W. spruce	Low populations near Whitehorse and Kluane Lake.

Other Noteworthy Insects and Diseases - Cont'd.

Causal Agent	Host	Remarks
Spruce budworm, *Choristoneura fumiferana* (Clem.)	W. spruce	Low populations near Kluane Lake and Whitehorse.
Lodgepole pine beetle, *Dendroctonus murrayanae* Hopk.	Lp. pine	Low populations in weakened trees 72.2 miles north of Johnson's Crossing.
Fir defoliator, *Gelechiidae*	A. fir	Moderate defoliation observed at Quiet Lake along the Canol Road.
Striped alder sawfly, *Hemichroa crocea* (Fourc.)	Alder	Low populations near Twin Lakes.
Willow tent maker, *Ichthyura apicalis* Wlk.	Willow	Low populations near Ross River.
Bark beetle, *Ips perturbatus* Eich.	W. Spruce	Present in weakened trees 41 miles east of Carmacks.
Pine engraver beetle, *Ips pini* (Say)	Lp. pine	Low populations 72.2 miles north of Johnson's Crossing.
Bark moth, *Laspeyresia populana* Busck.	B. poplar	Low populations 125.6 miles north of Johnson's Crossing.
A twig borer, *Laspeyresia* sp.	T. aspen	Moderate twig damage at Moose Creek Campground. Light damage on Midnight Dome near Dawson City.
Bark beetle, *Orthotomicus latidens* Lec.	Lp. pine	Low populations 92.2 miles north of Johnson's Crossing.
Spruce gall aphid, *Pineus pinifoliae* (Fitch)	W. spruce	Common throughout the Yukon.

Other Noteworthy Insects and Diseases - Cont'd.

Causal Agent	Host	Remarks
Lodgepole terminal weevil, *Pissodes terminalis* Hopping	Lp. pine	Low populations near Kusawa Lake and Whitehorse.
Four-eyed spruce bark beetle, *Polygraphus rufipennis* Kby.	W. spruce B. spruce	Low populations at Sixtymile and Clinton Creek.
Spruce bud midge, *Rhabdophaga swainei* Felt.	W. spruce B. spruce	Light damage common on regeneration throughout the Yukon.
Leaf miner, *Zeugophora* sp.	T. aspen	Low populations on aspen near Whitehorse.
Disease		
Leaf spot, *Atopospora betulina* (Fr.) Petr.	Birch	High incidence on Keno Hill. Low incidence 81.4 miles east of Teslin.
Spruce cone rust, *Chrysomyxa pirolata* Wint.	W. spruce Wintergreen	Light infections common on wintergreen at Dawson City and Whitehorse and on spruce at Teslin.
Cytospora canker, *Cytospora chrysosperma* Pers. ex Fr.	T. aspen	Some mortality of ornamental aspen in Whitehorse.
Needle cast, *Lophodermium autumnale* Darker	A. fir	Light damage at Mile 87.3 of the Cantung Road.
Yellow witches' broom of fir, *Melampsorella caryophyllacearum* Schroet.	A. fir	Collections from Keno Hill, Gravel Lake and Mile 90.5 of the Canol Road.
Birch leaf rust, *Melampsoridium betulinum* (Fr.) Kleb.	Birch	Light infection 53.3 miles south of Haines Junction.

Other Noteworthy Insects and Diseases - Cont'd.

Causal Agent	Host	Remarks
Western gall rust, *Peridermium harknessii* J.P. Moore	Lp. pine	Rust galls were collected at Mile 29.7 of the Cantung Road, 35 miles west of Watson Lake, 44.1 miles north of Watson Lake and 11.5 miles east of Whitehorse. A hyperparasite of the rust fungi, *Cladosporium* sp. was collected 35 miles west of Watson Lake.
Leaf rust, *Pucciniastrum sparsum* (Wint.) Fisch.	Alpine bearberry	Collected 32.4 miles south of Haines Junction.
Shoot blight of balsam poplar, *Venturia populina* (Vuill.) Fabric.	B. poplar	Damage increased to moderate in some areas.