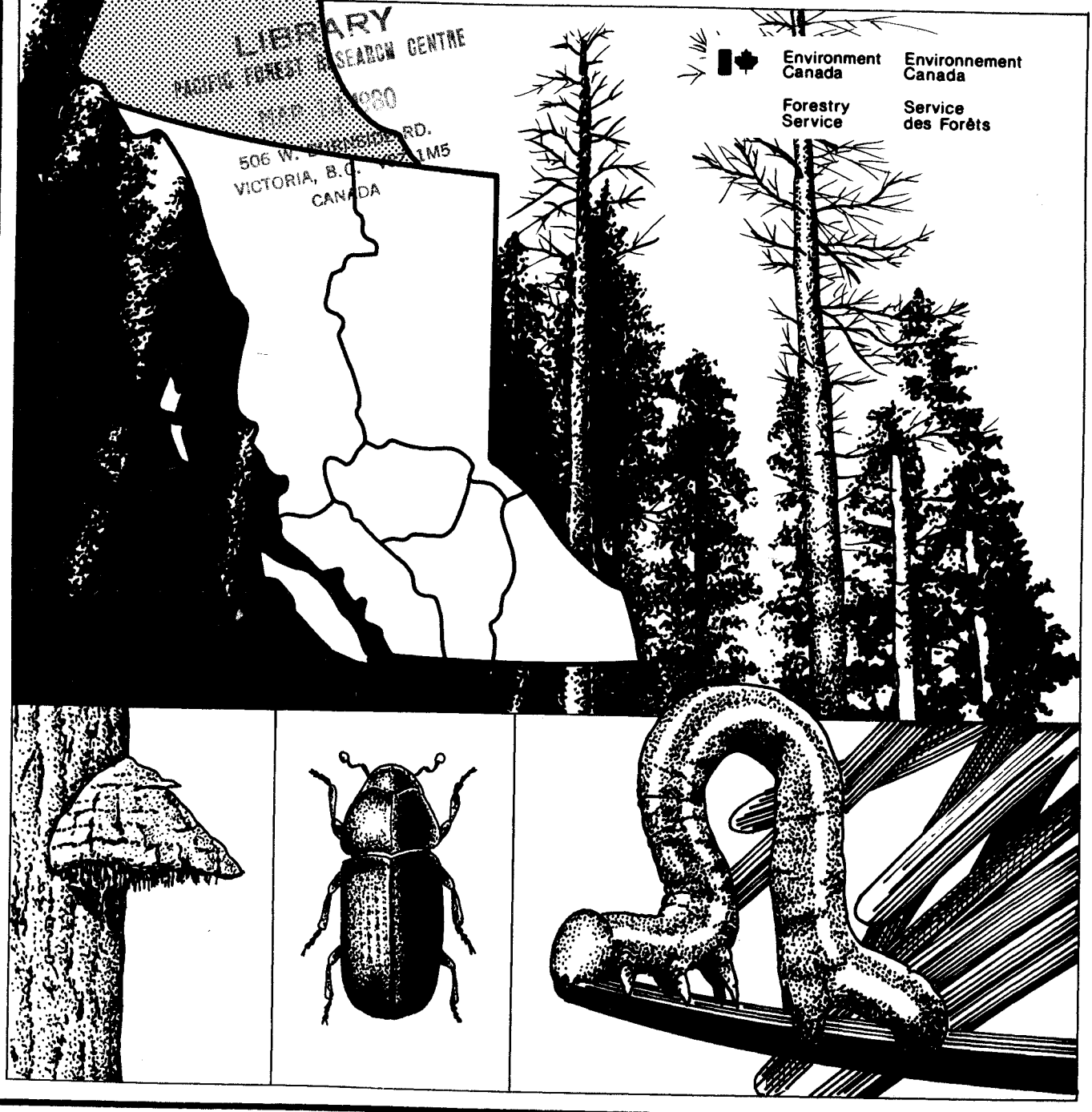
Forest Insect & Disease Conditions 1979

YUKON TERRITORY / J. S. MONTS



CANADIAN FORESTRY SERVICE • PACIFIC FOREST RESEARCH CENTRE

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SUMMARY

This report outlines the status of forest insect and disease conditions in the Yukon for 1979, emphasizing pests capable of sudden, damaging outbreaks.

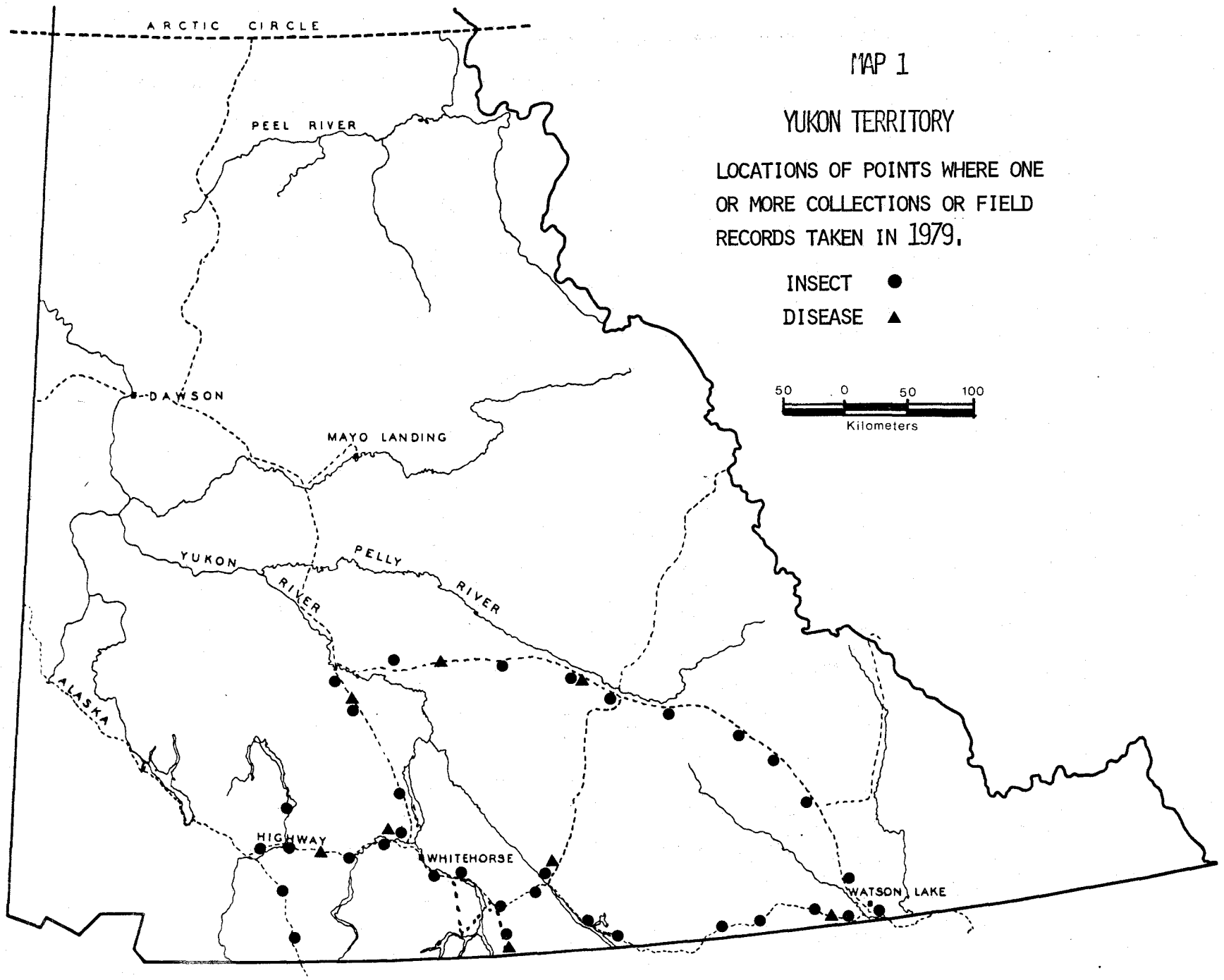
The area surveyed in 1979 was reduced from the previous year and consisted of monitoring pest populations at specified sample points along the Alaska highway between Watson Lake and Haines Junction, the Atlin road, Whitehorse to Carmacks and the entire Robert Campbell highway. The survey planned for 1980 is expected to cover a portion of the above and an alternate route: Whitehorse to Beaver Creek; Dawson City to Carmacks; Carmacks to Ross River and the Canol road.

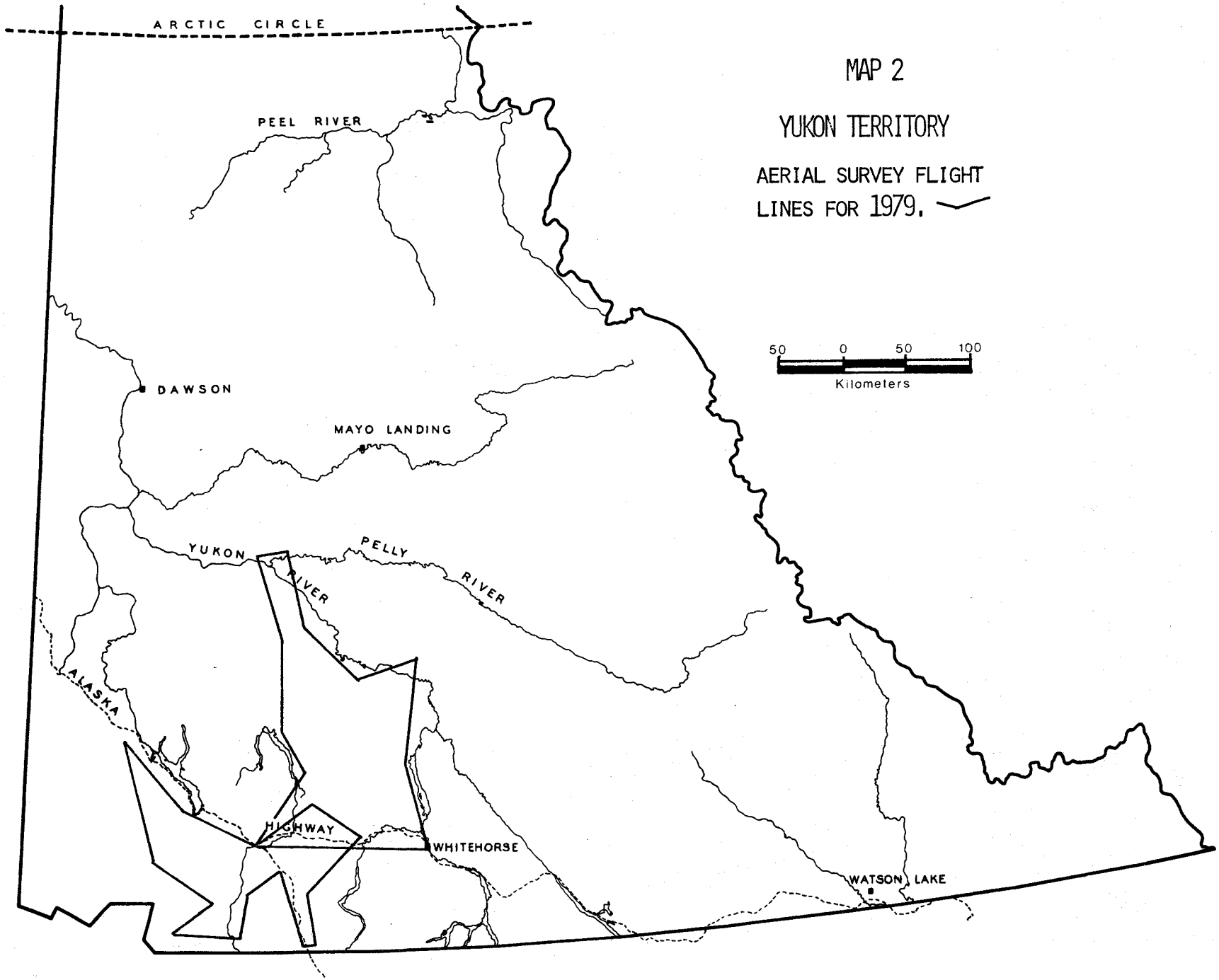
The 1979 survey commenced on July 6 and was completed on July 15 during which time 40 insect and 11 disease collections were submitted to the Pacific Forest Research Centre. Collection localities are shown on Map 1. A four hour aerial survey in a fixed wing aircraft provided by Yukon Lands and Forests covered the area from Whitehorse to Carmacks, Aisihihik Lake, Haines Junction, Alsek River, Desadeash Lake and return to Whitehorse (Map 2).

Pest populations were generally low with the exception of an infestation of large aspen tortrix at Carmacks and near Dawson, McQuesten and Mayo. Light spruce beetle attacks occurred along the Aisihihik River near Haines Junction: Salt damage continued to cause severe browning of foliage along some portions of the Alaska highway and between Carmacks and Faro. Black army cutworm larvae defoliated vegetable plants at a farm near Little Atlin Lake. Black army cutworm larvae have caused serious defoliation and mortality to forest plantations at several locations in British Columbia in recent years.

Samples of white spruce trees, killed during a spruce beetle infestation in the late 1940's were collected along the Haines Road, for Dr. E. Holsten of U.S. Department of Agriculture in Alaska with assistance from Yukon Lands and Forests at Haines Junction. Arrangements were made with Yukon Lands and Forests to transport the bolts to Alaska in late summer.

The subsequent sections are listed according to major tree species and pests causing damage to these hosts.


ARCTIC CIRCLE
PEEL RIVER
DAWSON
MAYO LANDING
YUKON RIVER
PELLY RIVER
ALASKA
HIGHWAY
WHITEHORSE
WATSON LAKE
MAP 1
YUKON TERRITORY
LOCATIONS OF POINTS WHERE ONE OR MORE COLLECTIONS OR FIELD RECORDS TAKEN IN 1979.
INSECT
DISEASE
50 0 50 100
Kilometers



MAP 2

YUKON TERRITORY

AERIAL SURVEY FLIGHT LINES FOR 1979.

WHITE SPRUCE PESTS

Spruce beetle, Dendroctonus rufipennis

Light spruce beetle attacks (1-5% of stand affected) were observed throughout the mature white spruce stands between Haines Junction and Champagne, along the Aisihihik River and adjacent to an area of recent blowdown near Little Fox Lake north of Whitehorse.

Adult beetles were constructing galleries and laying eggs in early July but many attacks were "pitched out" and it is likely that brood production in partially attacked trees will be minimal and fewer standing trees will be attacked in 1980.

Wood quality samples of beetle-killed white spruce trees

A request for samples of dead trees, killed by spruce beetles in the late 1940's near Desadeash Lake was fulfilled for Dr. Edward Holsten of the United States Forest Service in Alaska with assistance from Yukon Lands and Forests at Haines Junction.

A total of fifteen log bolts, each 24 inches long, were cut from the mid-bole of 15 standing dead trees at 3 locations south of Desadeash Lake. The dead trees were sound except for deep checks and appeared to be free of decay rot or wood borer damage. The samples were individually bagged in plastic and stored at Haines Junction until Edo Nyland of Yukon Lands and Forests transported them to the Institute of Northern Forestry at Fairbanks Alaska, where they are to be examined in a wood quality study.

Black headed budworm, Acleris gloverana

Larvae of this defoliator were common in collections from white spruce in the Haines Junction area. Samples at Marshall Creek, Aisihihik River and Haines Junction averaged 10 larvae. Very light feeding damage was evident on 1979 foliage growth. Light feeding may be evident in 1980.

LODGEPOLE PINE PESTS

Mountain pine beetle Dendroctonus ponderosae

A lodgepole pine stand was examined at the request of the B.C. Ministry of Forests and was included during the Yukon survey of the Atlin Road.

The stand, located near Grotto Creek, south of Atlin B.C. had been selectively cut for house logs and the high stumps and considerable slash was infested by Dendroctonus ponderosae. Bark samples from the stumps averaged 4 adults per 450 cm^2 examined which indicated a static population level. Adjacent mature standing trees had successfully "pitched out" the beetle attacks.

Although Dendroctonus ponderosae has been collected as far north as the Yukon, this appears to be the first report of significant attacks on slash and stumps and a threat to standing trees.

It was suggested that the B.C. Ministry of Forests ensure that the stumps are peeled and the slash burned prior to beetle flights in the early summer of 1980.

This information is included in the Yukon report because of the close proximity to the Yukon border and the increased interest in log house construction in the north.

The Stalactiform rust, Cronartium coleosporioides

Lodgepole pine saplings adjacent to the plantations at Takhini Forest Nursery near Whitehorse were infected with C. coleosporioides. Two of the 25 saplings examined had stem canker infections. No infections were observed in the nursery seedlings.

A lodgepole pine twig moth Dioryctria spp.

Occasional lodgepole pine saplings at the Takhini Forest Nursery had branch damage caused by Dioryctria spp. larvae. Twig moth larvae bore into small branches and cause dieback or deformed twigs.

Northern pitch twig moth, Petrova albicapitana

Lodgepole pine saplings at Albert Creek near Watson Lake were infested by P. albicapitana. The larva of the pitch moth bores into the stems of lodgepole pine, often causing dieback. Pitch masses containing larvae were evident on the main stem of 6% of the trees examined, not a significant number in very thick pine stands.

SALT DAMAGE TO CONIFERS

Severe foliage browning and light tree mortality, caused by salt damage, were conspicuous on white spruce and lodgepole pine trees along the Alaska Highway west of Champagne and along the Robert Campbell Highway between Carmacks and Faro. Heavy use of salt on these major roads will likely continue to cause damage to the roadside trees.