

FOREST INSECT AND DISEASE CONDITIONS

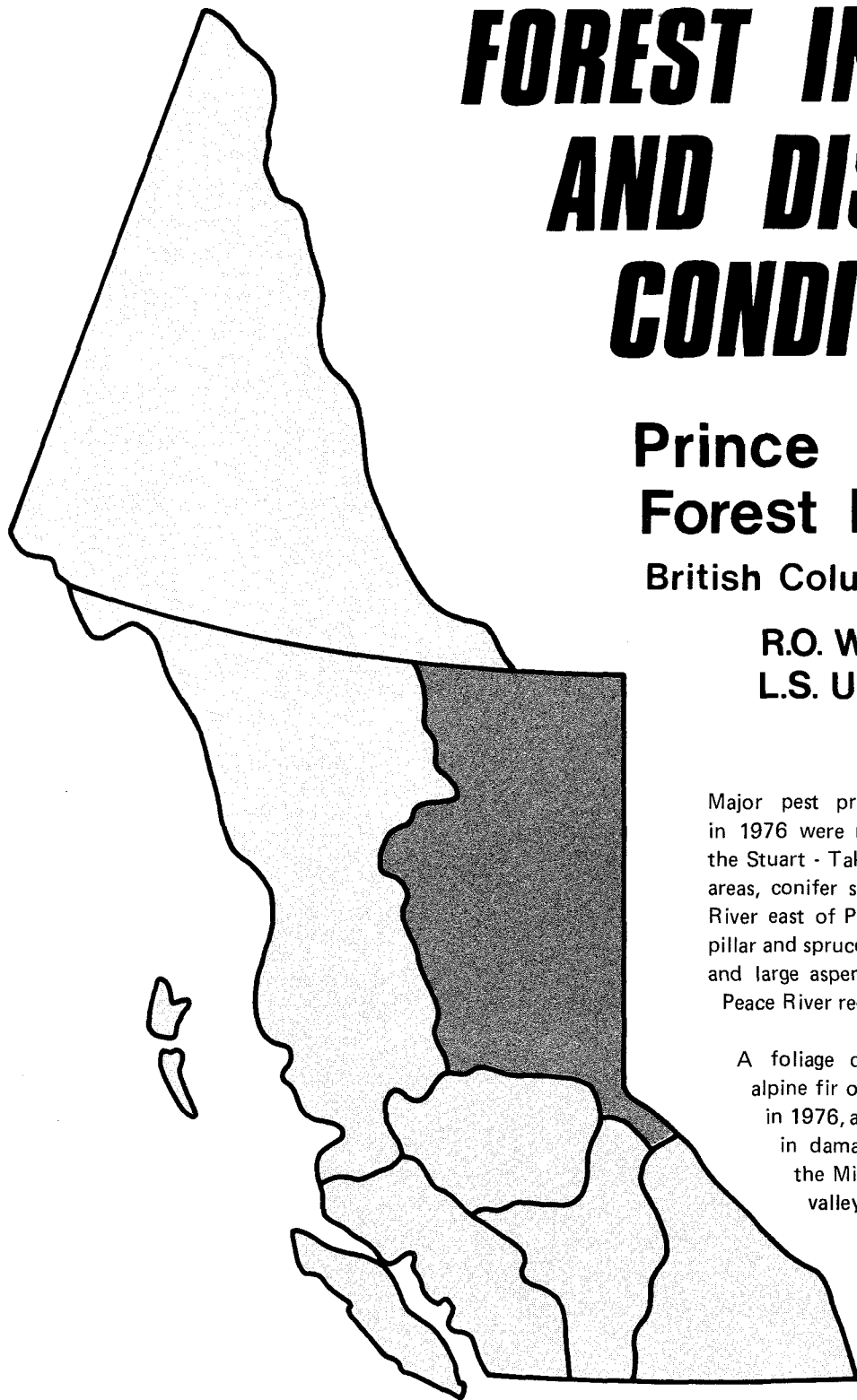
Prince George Forest District

British Columbia, 1976

**R.O. Wood
L.S. Unger**

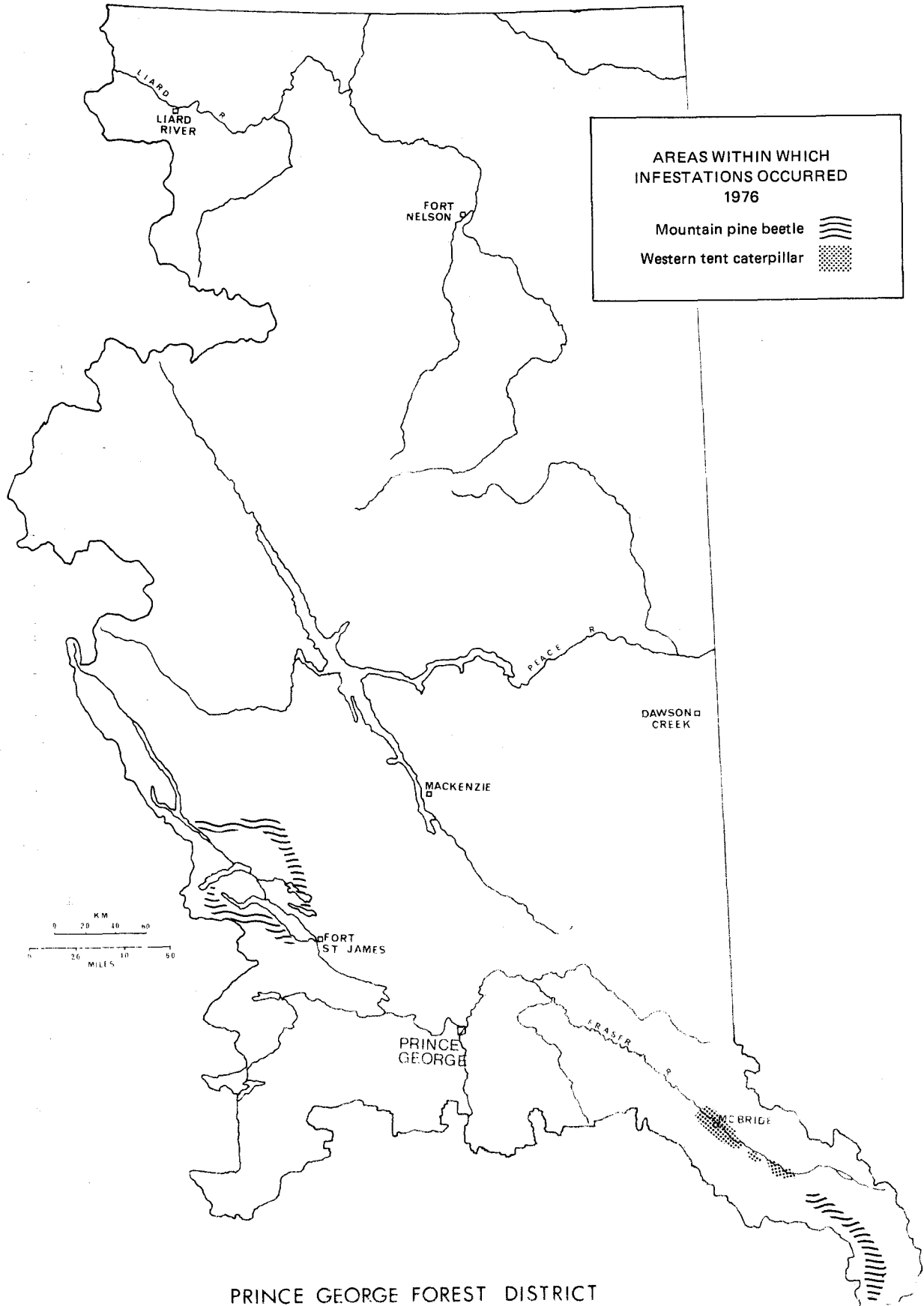
Major pest problems in the District in 1976 were mountain pine beetle in the Stuart - Takla lakes and Valemount areas, conifer sawflies along the Fraser River east of Prince George, tent caterpillar and spruce budworm near McBride and large aspen tortrix in parts of the Peace River region.

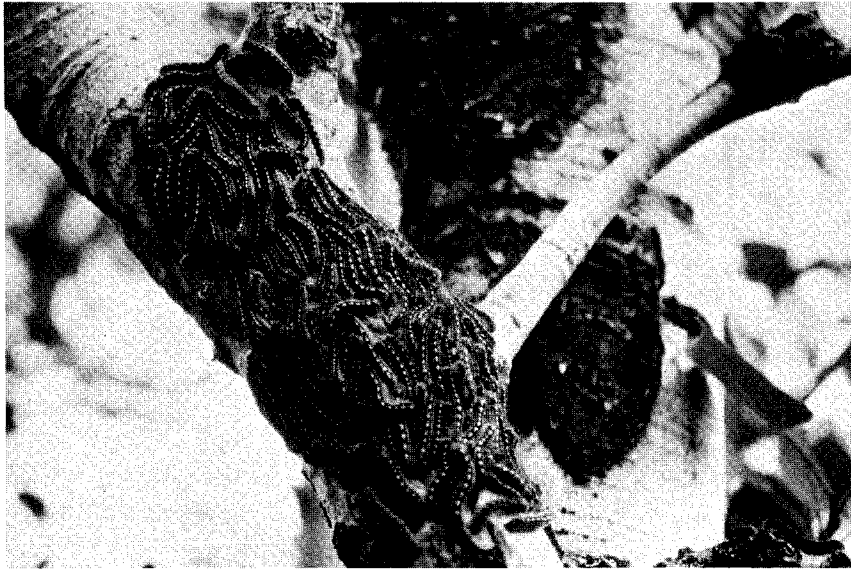
A foliage disease was evident on alpine fir over much of the District in 1976, and winter drying resulted in damage to lodgepole pine in the Minaker and Prophet River valleys.



Fisheries and Environment Canada

Pêches et Environnement Canada





Forest tent caterpillar

MOUNTAIN PINE BEETLE, Dendroctonus ponderosae, continued to kill lodgepole pine at Whitefish Lake, Nancut and Takla Lake. Additional areas of red-tops were recorded in 1976 at Cunningham Lake, Chuchi Lake, Chuius Mountain, Hatdudatehl Creek, Pinchi Creek and in the eastern part of the District north of Valemount. Mortality of western white pine occurred south of Valemount at Ptarmigan, Hugh Allan and Buster creeks.

The 780 beetle-killed pine trees recorded in 1976 represent more than a 100% increase over the 1975 total and could be a forerunner of more serious outbreaks.

A SAWFLY ON HEMLOCK, Neodiprion sp., caused moderate defoliation of overmature western hemlock along the Fraser River from Hungary Creek to Dore Creek for the second consecutive year. An estimated loss of 60% of the needle complement was noted at Goat River. Defoliation of understory trees was light, although high numbers of sawfly larvae were found on these trees at Hungary Creek, Penny

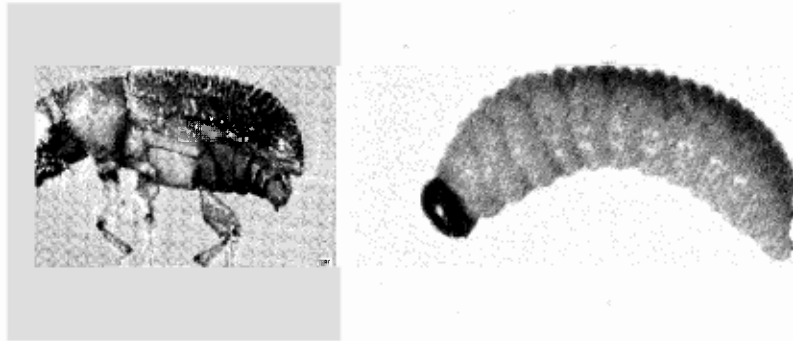
Road, Ptarmigan Creek, Goat River, Dome and Dore creeks. Lighter defoliation occurred as far south as Tete Jaune Cache.

Past infestations of this sawfly have not persisted for more than 3 years; hence there may be 1 more year of high populations after which they should decline.

FOREST TENT CATERPILLAR, Malacasoma disstria, defoliated 6 600 ha (16,500 acres) of trembling aspen from McKale Creek south to Tete Jaune Cache. Although there were patches of severe defoliation, the overall damage was reduced by cold, wet weather which kept larvae clustered on trees during much of the feeding season.

A nuclear polyhedral virus was present in late-instar larvae and pupae in July which should result in a decreased population in 1977.

No evidence of tent caterpillar was seen near McKenzie or Miworth where defoliation occurred in 1975.



Spruce beetle larva and adult

TWO-YEAR-CYCLE SPRUCE BUDWORM, Choristoneura biennis, caused light to moderate defoliation of white spruce and alpine fir for 6 miles along the Holmes River near McBride. This was the first time since 1964 that defoliation by this insect was recorded in the District. Low numbers of larvae were found in scattered areas from Summit Lake south to Prince George and east to Yellow Lake.

The number of male moths caught in pheromone traps was similar to the number caught in 1974, the previous flight year of the budworm. However, the fact that some moths are trapped every year indicates that there is probably a mixture of 1 and 2-year-cycle budworm in many areas of the District. No serious defoliation is expected in 1977.

SPRUCE BUDWORM, Choristoneura fumiferana, populations from Liard River to Fireside were reduced to 28% of the 1975 level and defoliation was very light. Defoliation in 1977 is expected to be light.

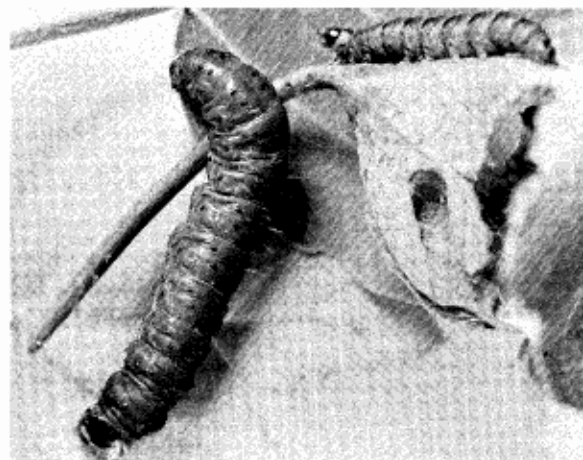
LARGE ASPEN TORTRIX, Choristoneura conflictana, caused moderate to severe defoliation of trembling aspen on more than 160 ha (400 acres) near Dawson Creek and Fort St. John. Defoliation, for at least 3 consecutive years, has resulted in twig die-back on 25% of the trees examined in the Progress and Clayhurst areas.

SPRUCE BEETLE, Dendroctonus rufipennis, populations were generally low in the District in 1976, although several areas of blowdown occurred

during the winter of 1975-76 which could foster population increases unless salvage logging is conducted. About 618 ha (1,545 acres) of blowdown occurred near Narrow Lake, along the Purden - Bowron boundary south of Craze Creek and near Indianpoint Creek and Indian Lake.

Low numbers of beetle larvae were found in a 32 ha (80 acre) patch of blowdown at Thursday Creek and in scattered blowdown near Narrow Lake, along Highway 16 east of Prince George, at Pine Pass, along Mesalinka River north of Germansen Landing and along the Nation River. Beetle attack density was heaviest at the latter location.

The most serious threat from spruce beetle was on 128 ha (320 acres) near Narrow Lake where



Large aspen tortrix larva

there was an average of nine blowdown spruce per acre. Attack densities ranging from light to heavy occurred on 93% of these trees. About 30% of the beetle attacks failed because of heavy pitch flow. Between 10% and 20% of the beetle broods should complete development and emerge to attack in 1977; the balance will attack in 1978.

THE LEAF BLOTCH MINER, Lyonetia saliciella, caused severe foliage discoloration of western white birch, willow and alder between McBride and Tete Jaune Cache and as far east as Mount Robson Park. The most severe damage was noted in the Valemount area.

INFESTATIONS OF AMBROSIA BEETLES, Trypodendron lineatum, caused degrading of white spruce sawlogs in a 32 ha (80 acre) area of blowdown at Thursday Creek southeast of Prince George. An average of 30 entrance holes per ft² was recorded on 30% of the trees examined.

Ambrosia beetle attacks were also noted on occasional blowdown trees along the Bowron River, Tumuch Lake and Bowron - Coal roads.

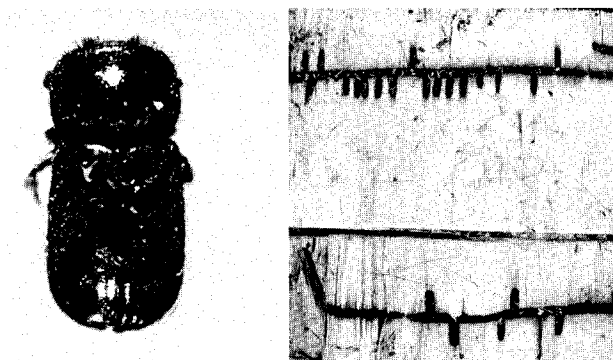
LIGHT INFESTATIONS OF LODGEPOLE terminal weevil, Pissodes terminalis, occurred in an

old burned area south of Uslika Lake. Fifty lodgepole pine trees, averaging four feet in height, were examined at three locations. Nine, 8 and 4 leaders were infested at the respective plots.

WINTER DRYING RESULTED IN EXTENSIVE damage to lodgepole pine and white spruce trees along the Minaker and Prophet River valleys from km 280 to 339 (Mile 175 to 212), Alaska Highway. At Trutch Mountain, the second-highest point on the Alaska Highway, white spruce trees over a large area had lost all the foliage and most of the buds appeared to be dead. Extensive tree mortality will probably result.

Bands of reddened trees were also observed from the Highway between km 643 and 648 (Mile 402 to 405) near Muncho Lake, Toad River Valley and the Wokkpash - Racing River area.

A TIP BLIGHT, Delphinella sp., was widespread on alpine fir in 1976. The disease affected only the current year's growth on trees of all sizes in patches from Hixon to north of the Parsnip River, and from Prince George east to Mount Robson Park. Infection caused needles to wither curl and drop and by late July up to 90% of the current year's growth on individual trees had been lost.



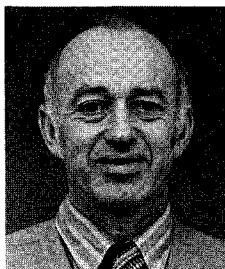
Ambrosia beetle adult and damage
Adult X12

STATUS OF FOREST PESTS IN PACIFIC REGION 1976

PEST	DISTRICTS						
	PRINCE RUPERT	PRINCE GEORGE	VANCOUVER	CARIBOO	KAMLOOPS	NELSON	YUKON
MOUNTAIN PINE BEETLE	infestations, Cedarvale to Babine L	small infestations, Stuart L area	extensive infestation, Klinaklini R	infestations in central and western regions	widespread infestations on lodgepole and white pine	scattered infestations	not found
SPRUCE BEETLE	small infestations, Smithers Landing, Otter L	low populations	not found	low populations	infestations, Yalakom PSYU	small infestation, Kootenay L	low population, Haines Jct to Watson Lake
DOUGLAS-FIR BEETLE	not found	low populations	light attacks, Fraser Canyon - Pemberton - Vancouver Island	low populations	attacks on tussock moth-defoliated trees	low populations	no host
WESTERN SPRUCE BUDWORM (1-YEAR-CYCLE)	trace	low populations	extensive infestations, Fraser Canyon - Pemberton areas	low populations	extensive infestations, Lillooet - Adams and Shuswap lakes	moderate populations, Revelstoke	trace
SPRUCE BUDWORM (2-YEAR-CYCLE)	low populations, Bell-Irving R	defoliation, Holmes R	not found	infestations, Horsefly to Bowron L	infestation, Lempriere Cr	low populations	not found
WESTERN BLACKHEADED BUDWORM	light infestation, Bell-Irving R	low populations	low populations	low populations	infestation, Blue R	low populations	trace
FOREST TENT CATERPILLAR	low populations	severe defoliation, McBride area	not found	not found	infestation north of Barriere	infestations, Golden and Fort Steele	not found
CONIFER SAWFLIES <i>Neodiprion</i> spp.	infestations, islands south of Prince Rupert	infestations east of Prince George	low populations	low to moderate populations	infestations, Vavenby to Avola	moderate populations, Beaton	trace
CONE RUSTS	common on white and Sitka spruce	common on white spruce	not found	light infection	not found	not found	not found

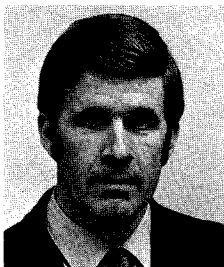
Forest District Ranger Assignments - 1977

CARIBOO

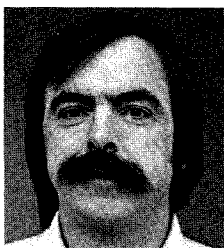


Stan Allen

VANCOUVER

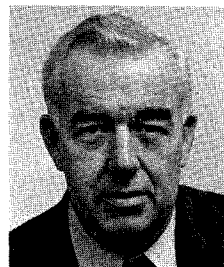


Ernie Morris

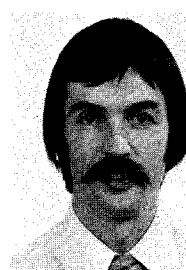


Colin Wood

KAMLOOPS



Dick Andrews

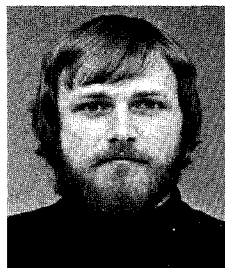


Jack Monts

PRINCE GEORGE & YUKON TERRITORY

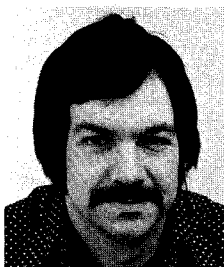


Roly Wood



Leo Unger

PRINCE RUPERT



Don Doidge

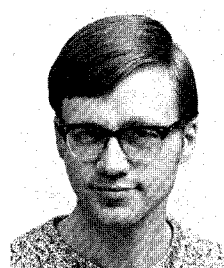


Peter Koot

NELSON



Cliff Cottrell



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