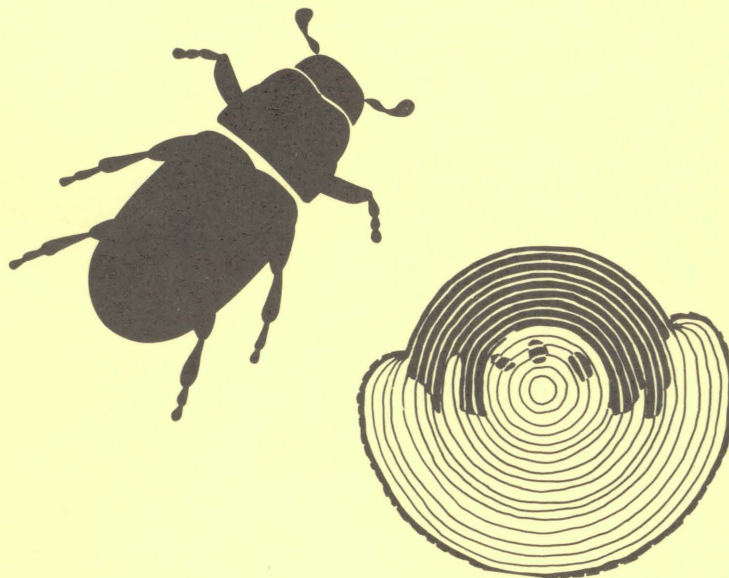


FIDS Report 87-10

MAPS OF MAJOR FOREST INSECT INFESTATIONS: NELSON FOREST REGION 1928-1986

J. Vallentgoed



Forest Insect and Disease Survey

Canadian Forestry Service

Pacific Forestry Centre



Government
of Canada

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Service
canadien des
forêts

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1928-1986**

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Canadian Forestry Service
Pacific Forestry Centre
506 West Burnside Road
Victoria, B.C., V8Z 1M5

1987

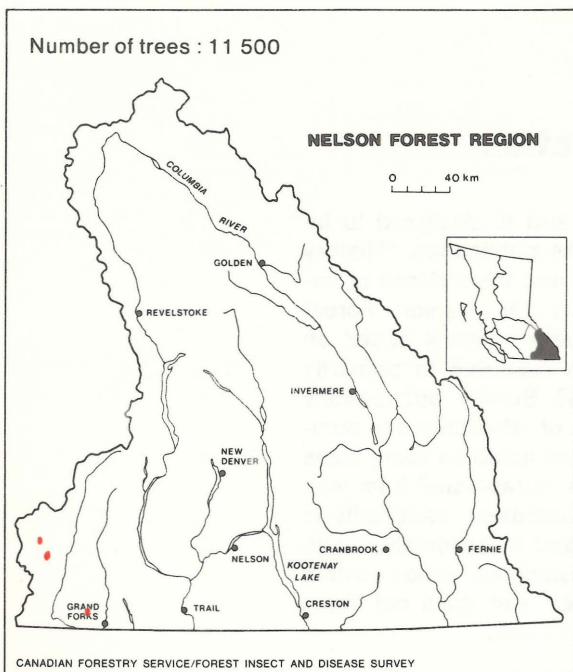
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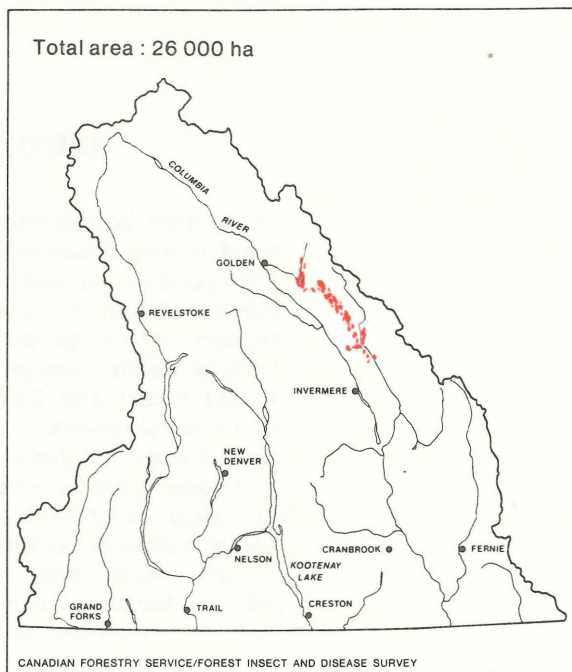
Introduction

This report complements and is designed to be used in conjunction with the publication, "History of Population Fluctuations and Infestations of Important Forest Insects in the Nelson Forest Region". The maps are predominantly based on aerially visible damage as recorded in primarily Forest Insect and Disease Survey publications and internal reports. Areas of infestations or numbers of trees affected are not listed on some maps and some maps have been extrapolated from text, in a dearth of specific information, especially in earlier outbreak periods, and in association with certain pests. Area* designates areas within which infestations occurred and does not imply damage throughout the entire area.

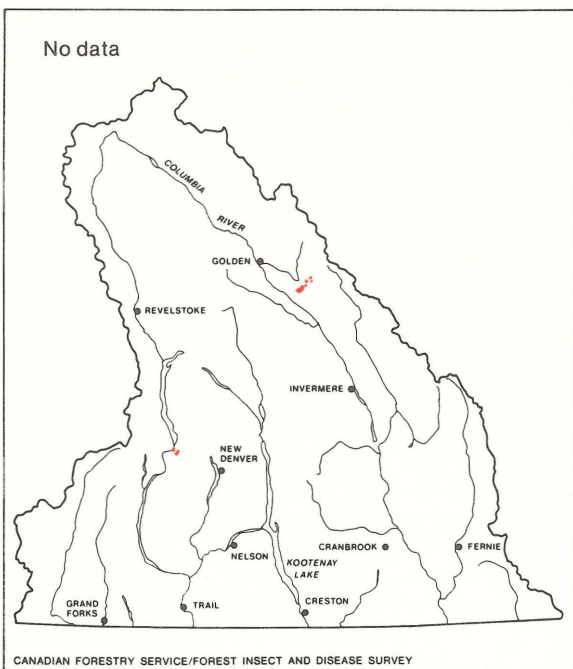
MOUNTAIN PINE BEETLE



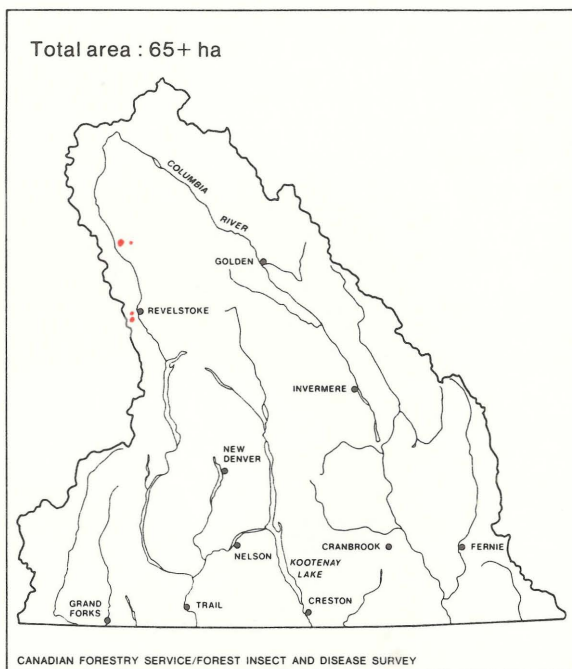
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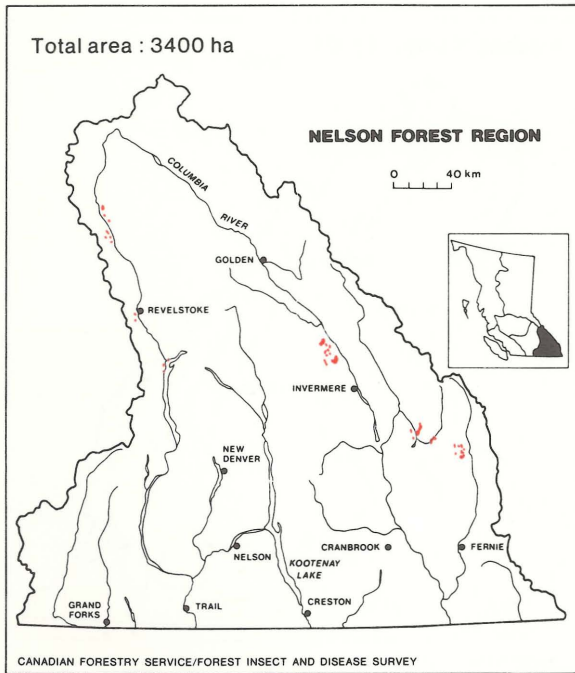
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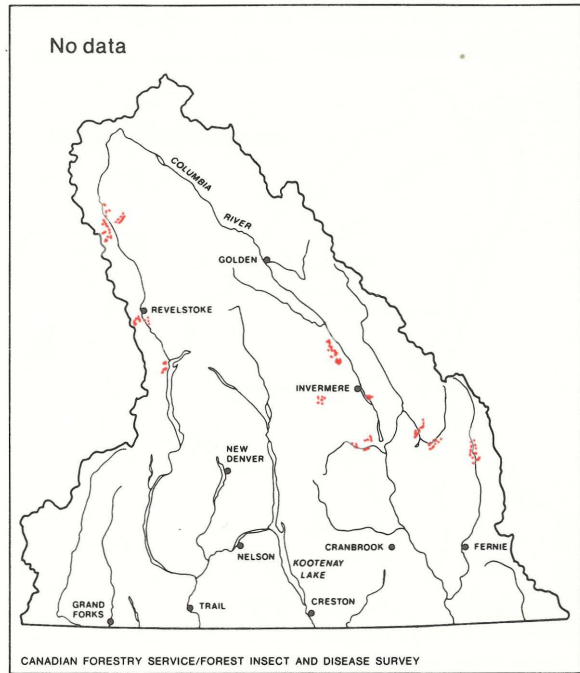
Mountain pine beetle, 1947



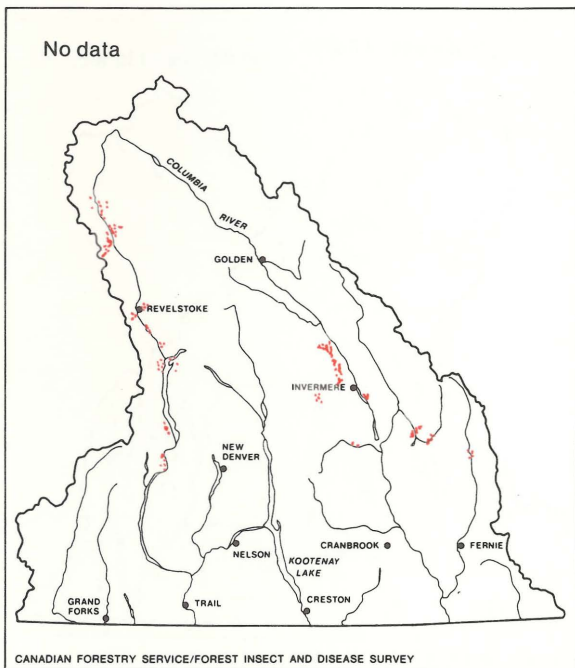
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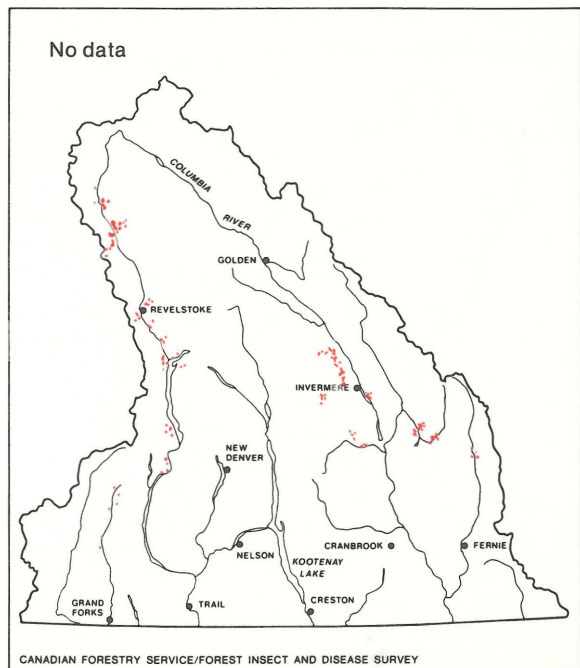
Mountain pine beetle, 1949



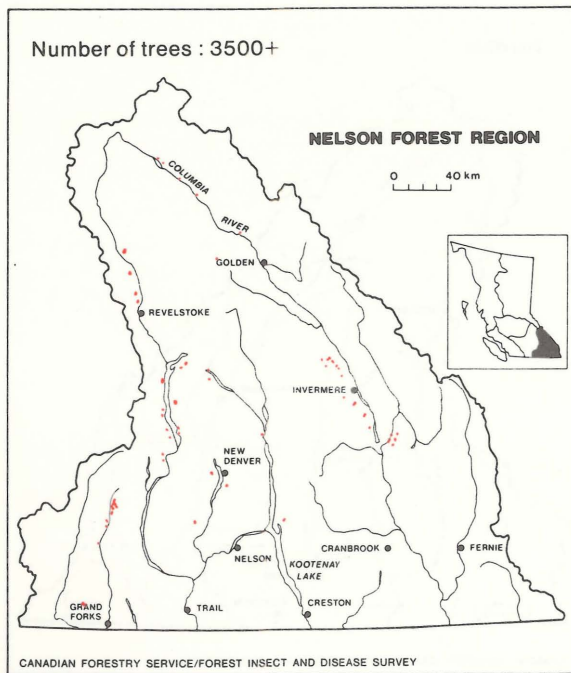
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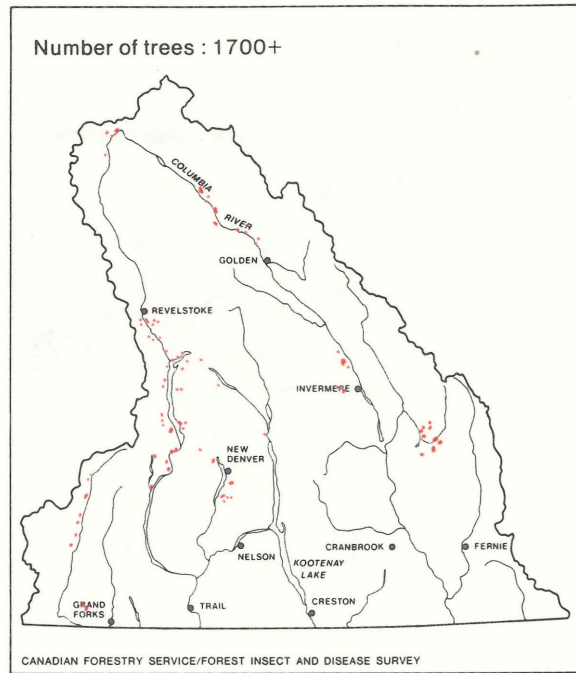
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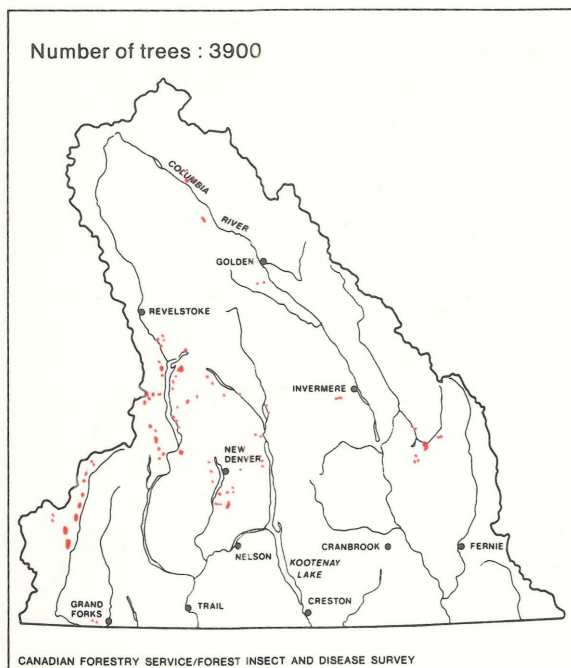
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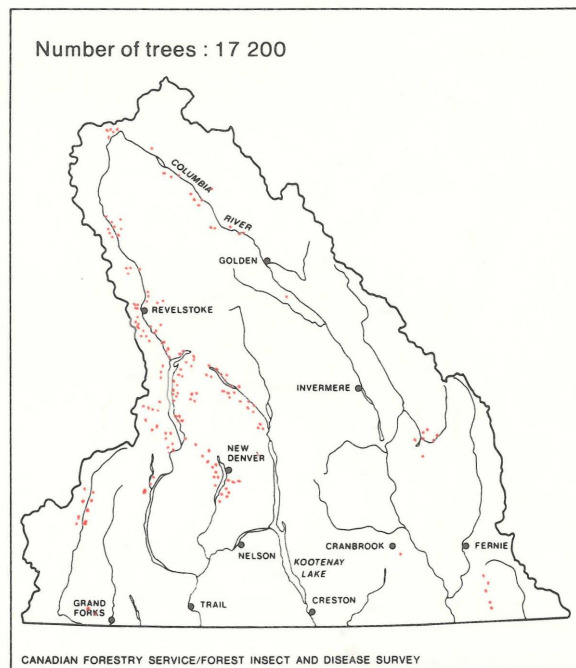
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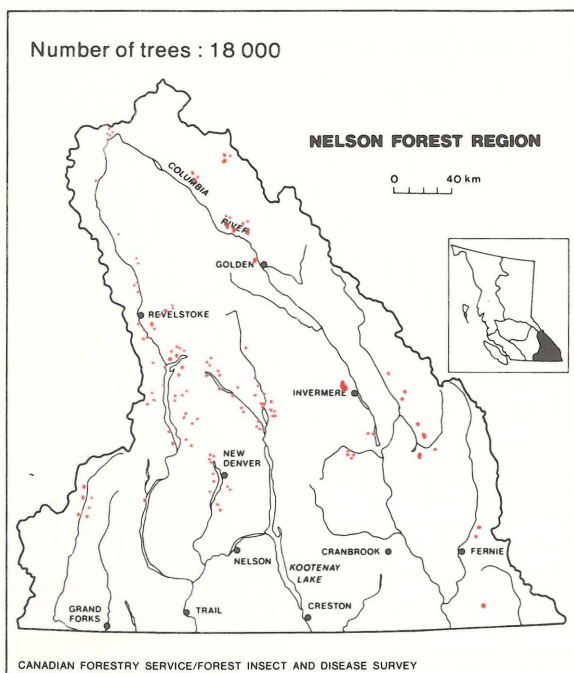
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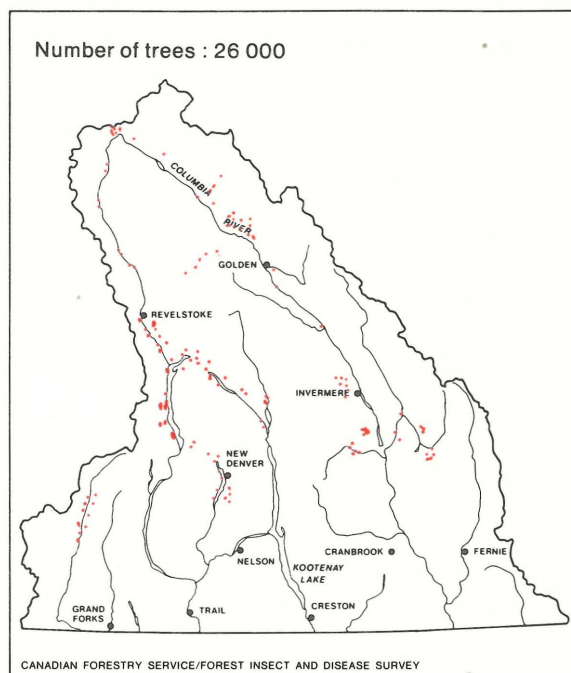
Mountain pine beetle, 1961



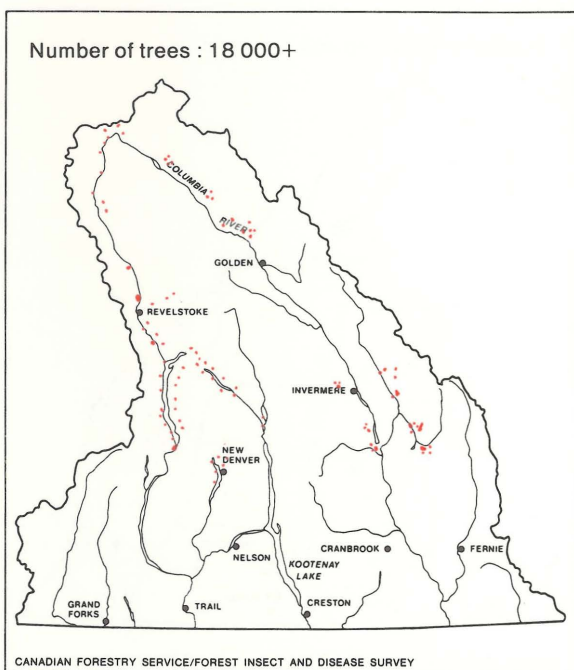
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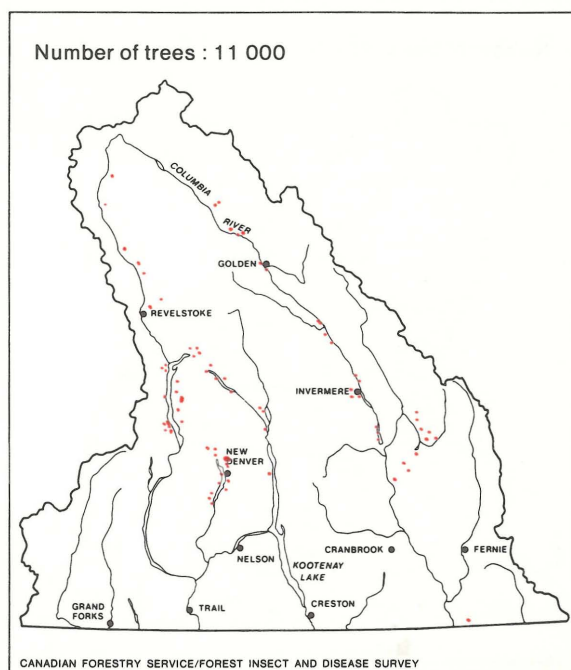
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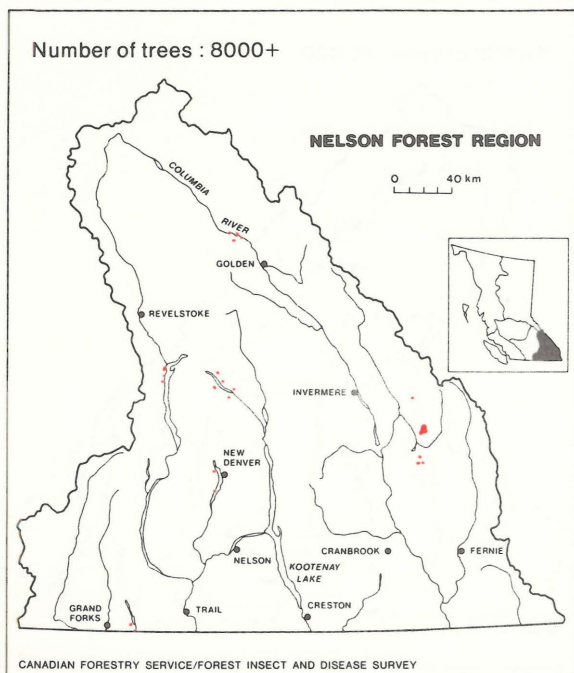
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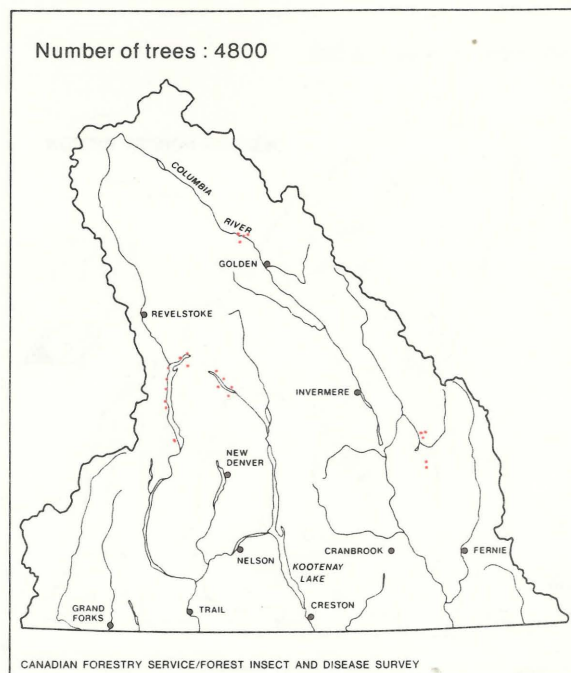
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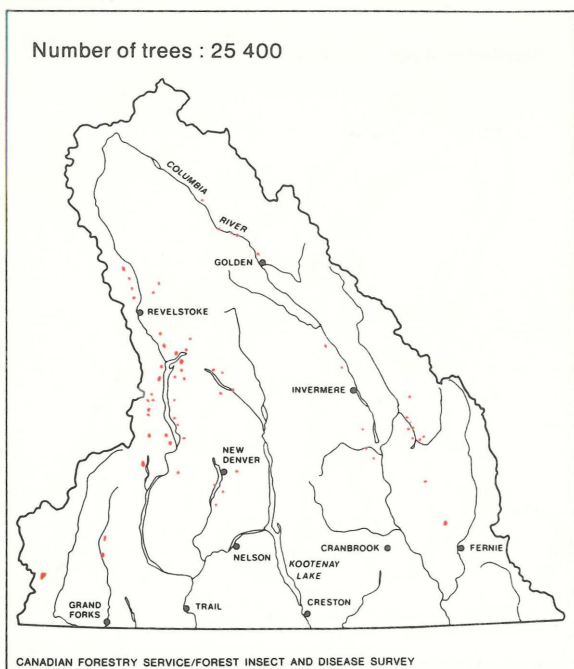
Mountain pine beetle, 1967-68



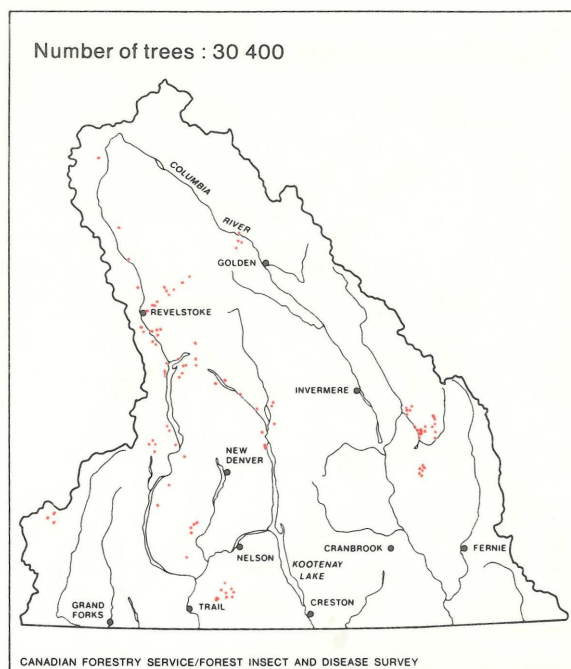
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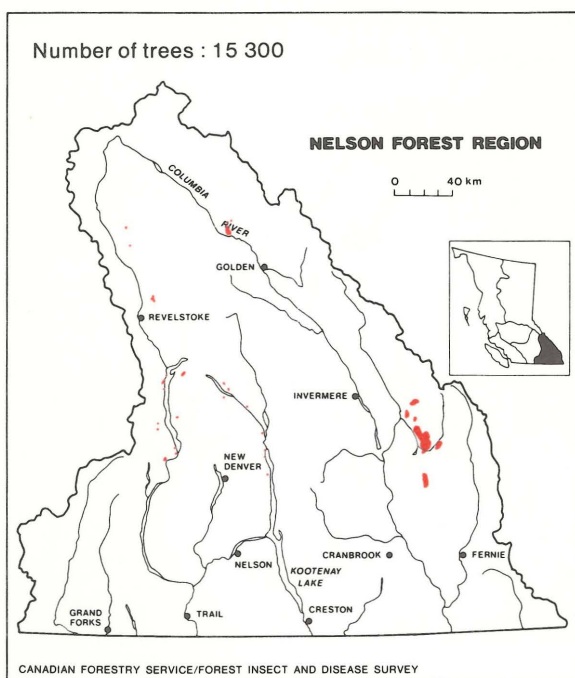
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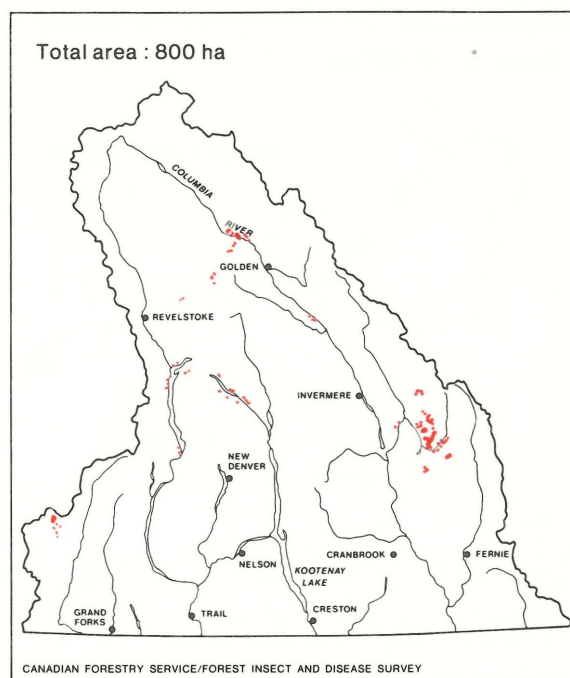
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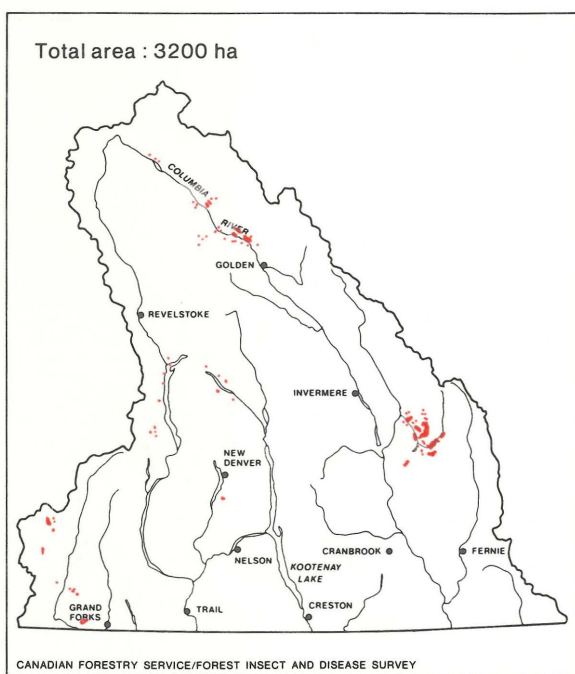
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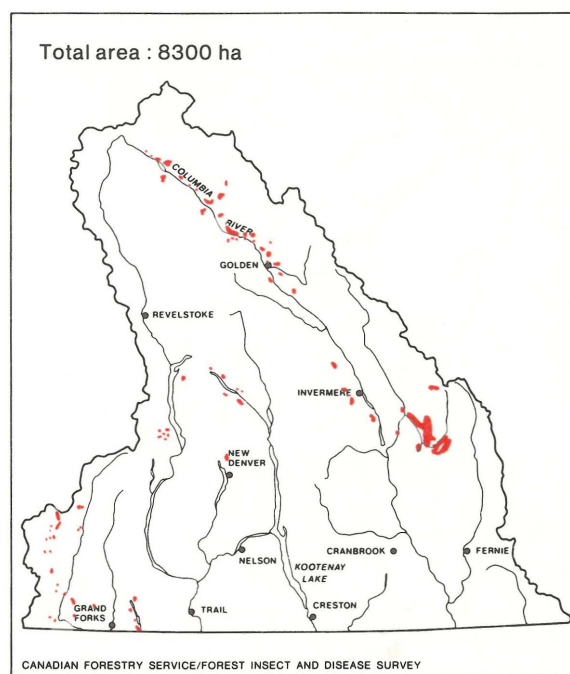
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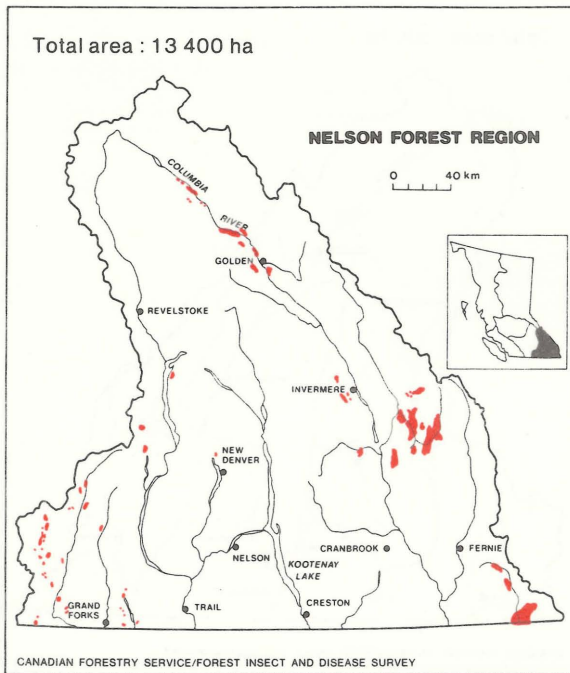
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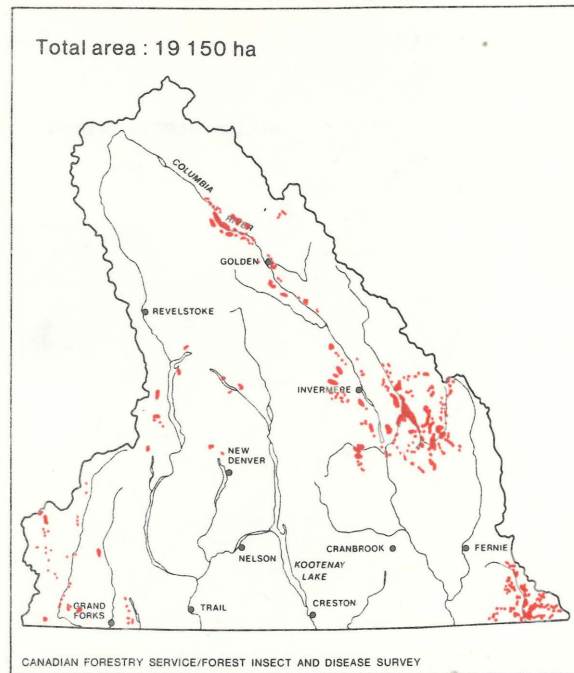
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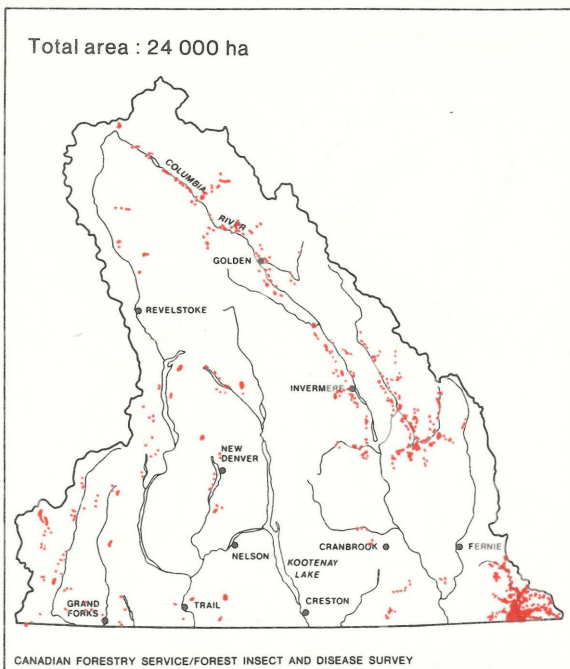
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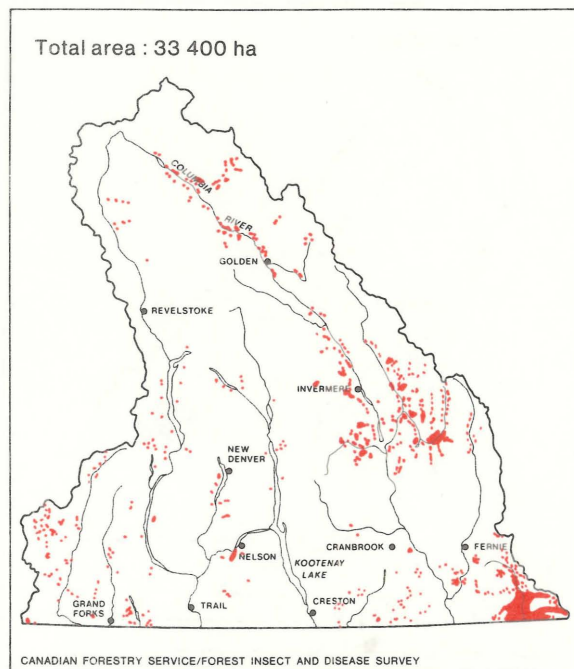
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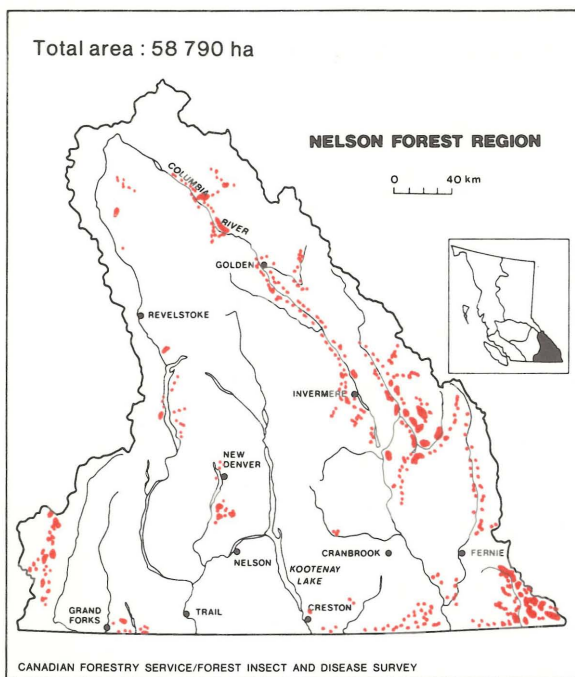
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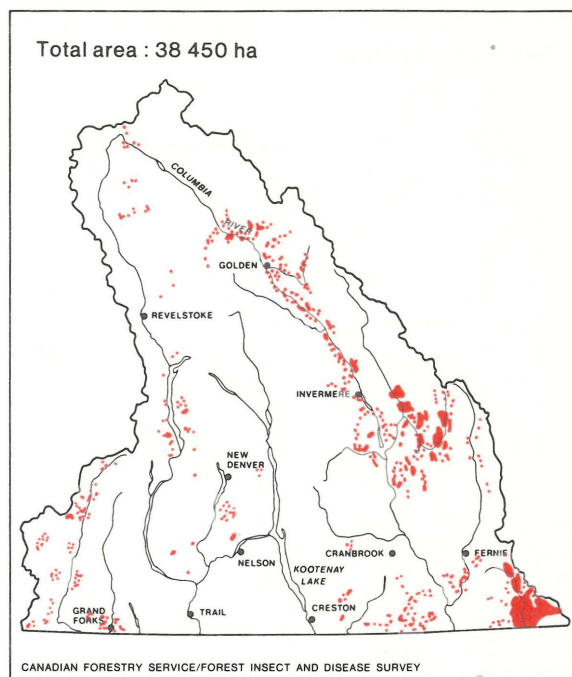
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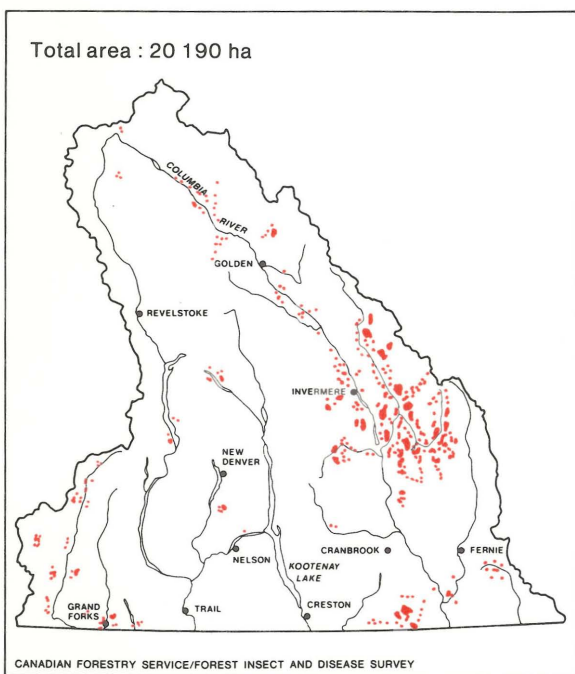
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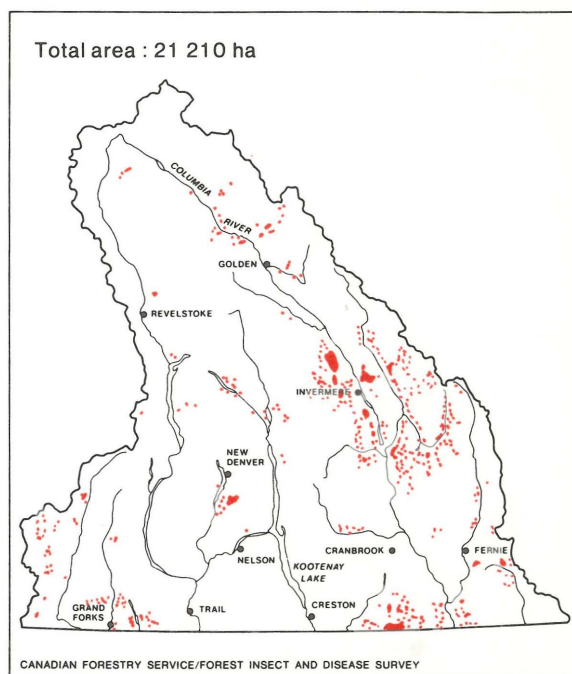
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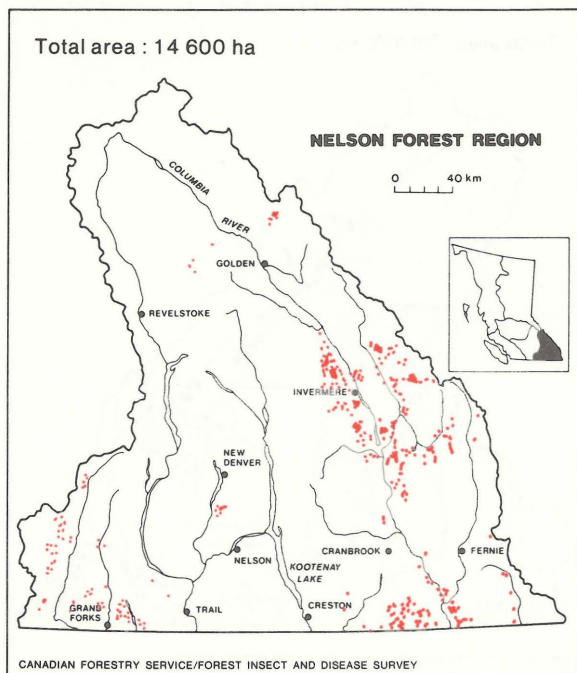
Mountain pine beetle, 1982



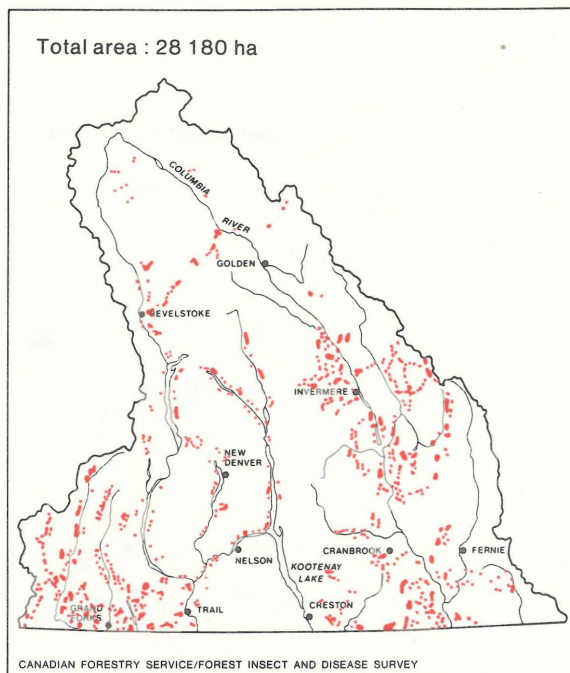
Mountain pine beetle, 1983



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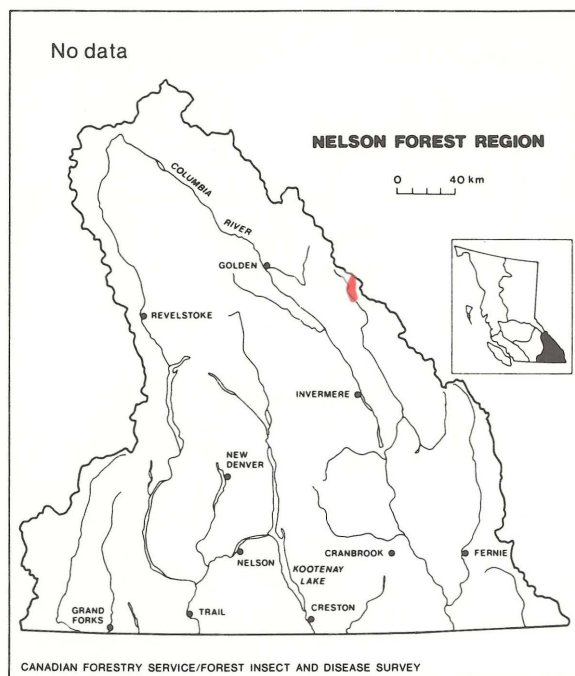


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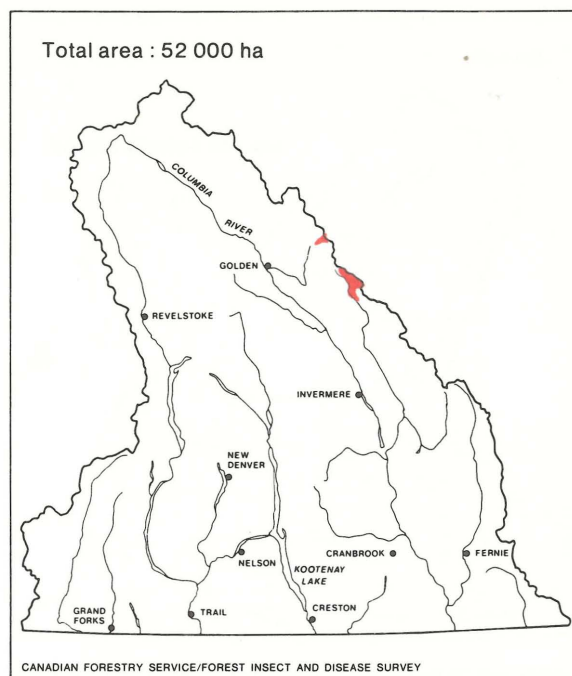


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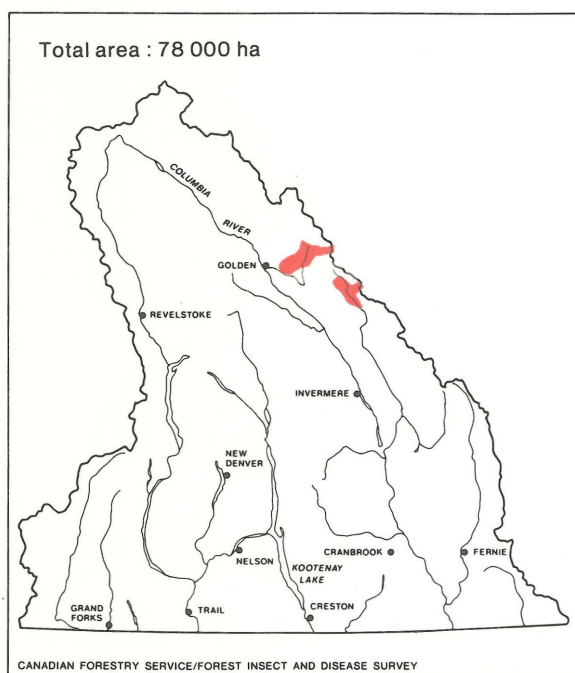
LOGEPOLE PINE NEEDLE MINER



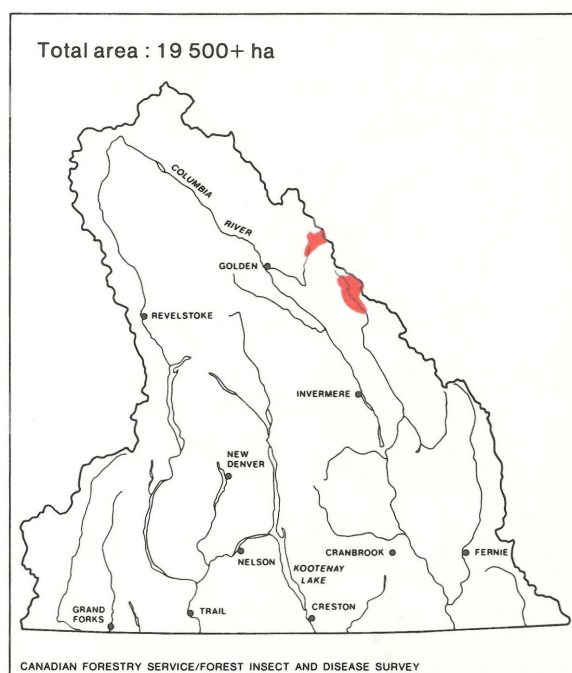
Lodgepole pine needle miner, 1942-43



Lodgepole pine needle miner, 1944-45

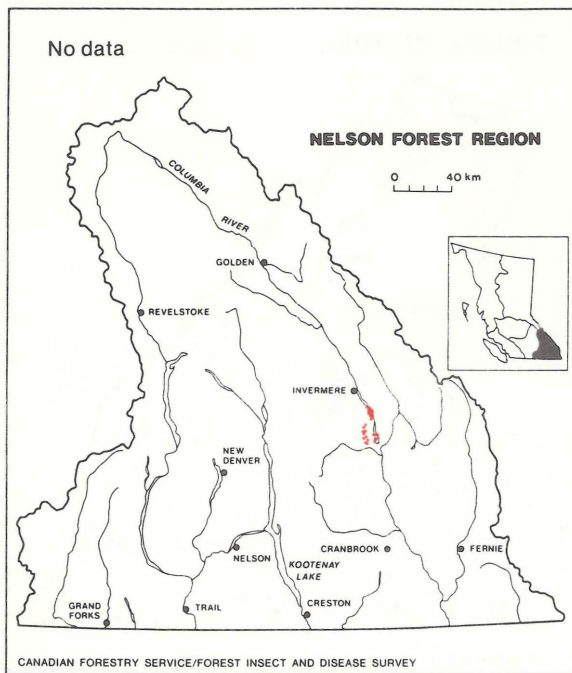


Lodgepole pine needle miner, 1946-47

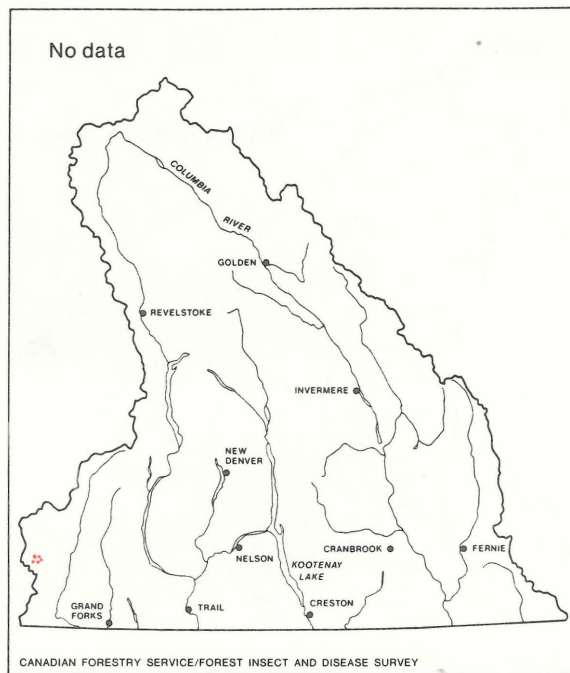


Lodgepole pine needle miner, 1948-54

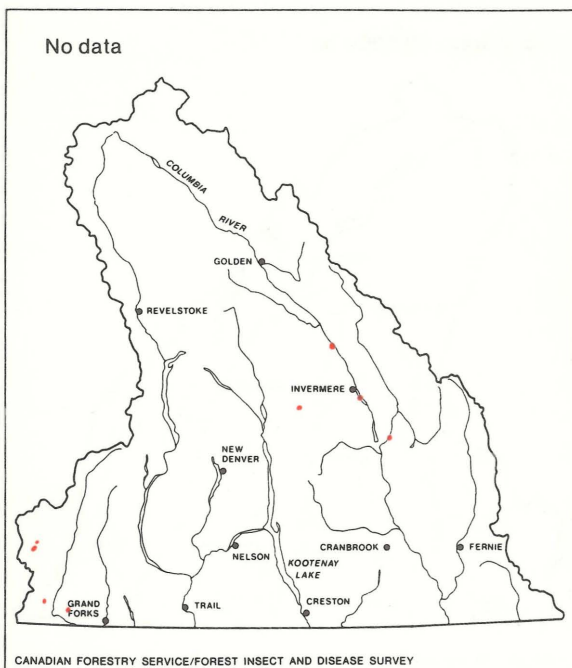
DOUGLAS-FIR BEETLE



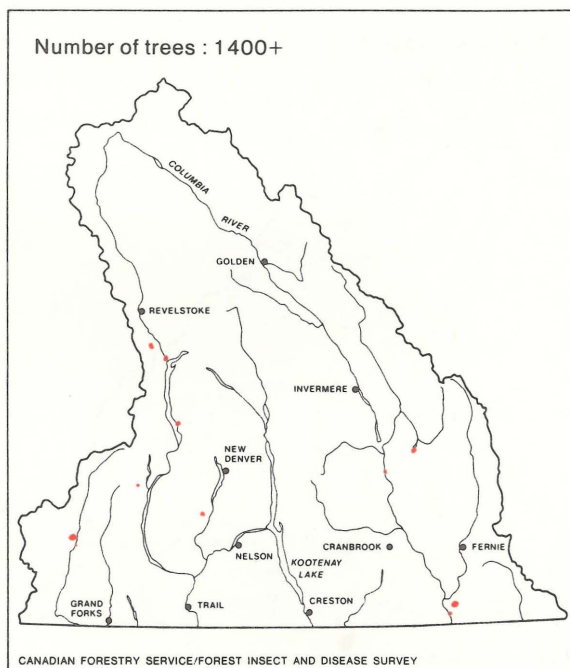
Douglas-fir beetle, 1939



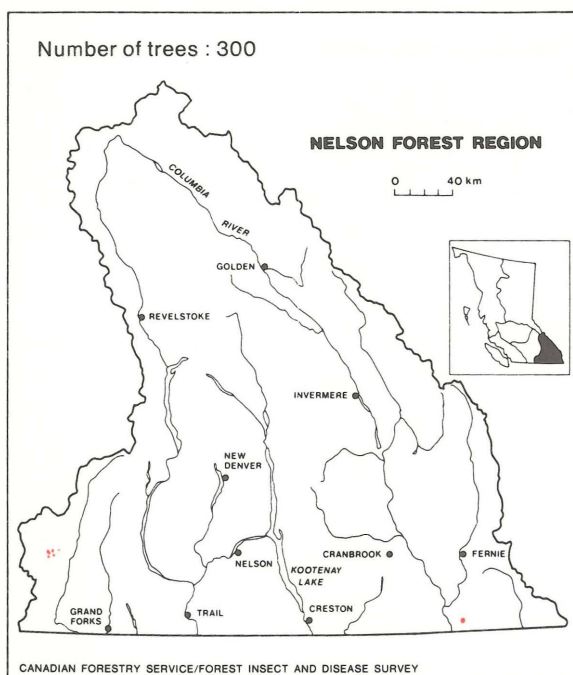
Douglas-fir beetle, 1949



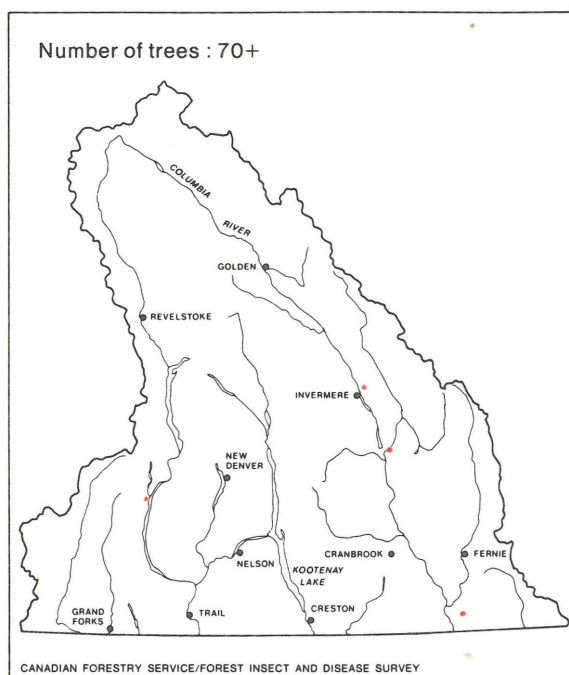
Douglas-fir beetle, 1952-55



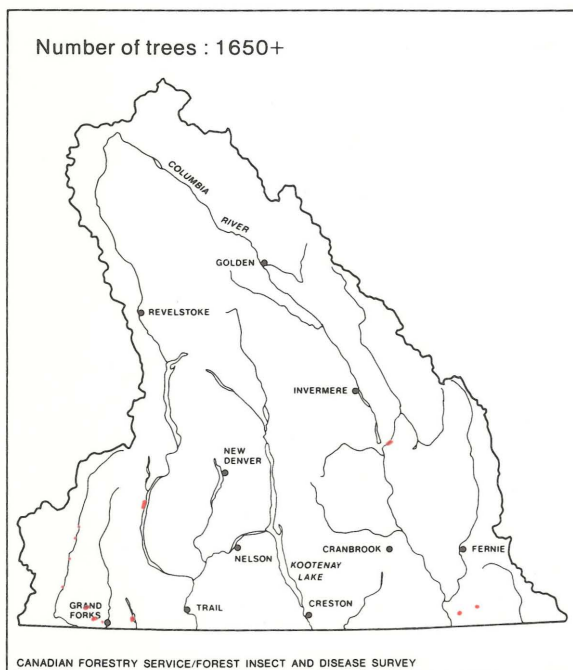
Douglas-fir beetle, 1957-59



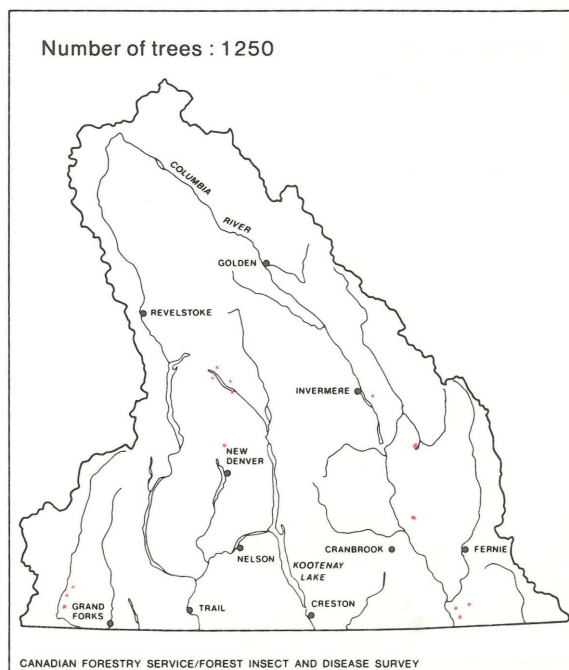
Douglas-fir beetle, 1961



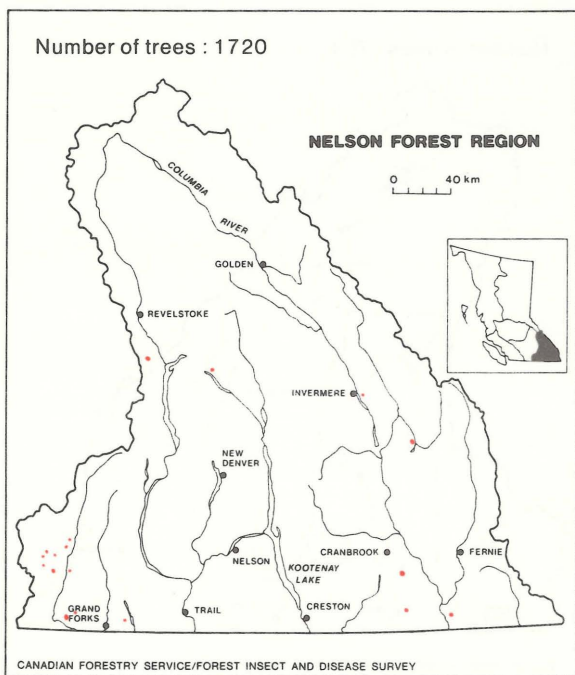
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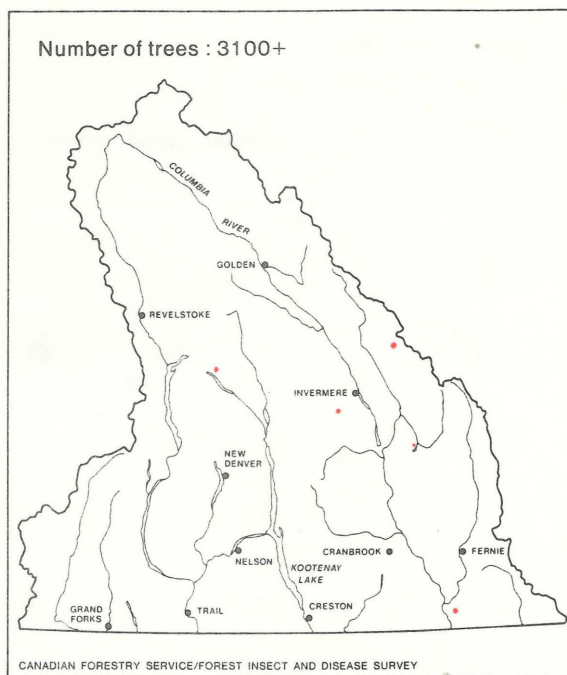
Douglas-fir beetle, 1963



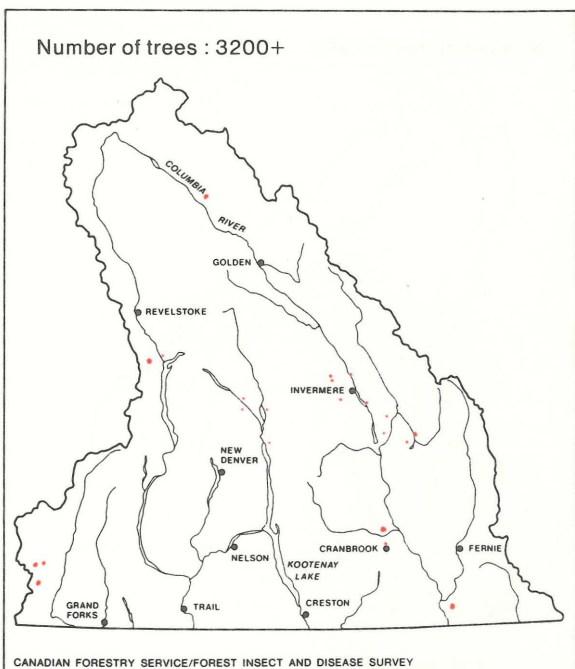
Douglas-fir beetle, 1964



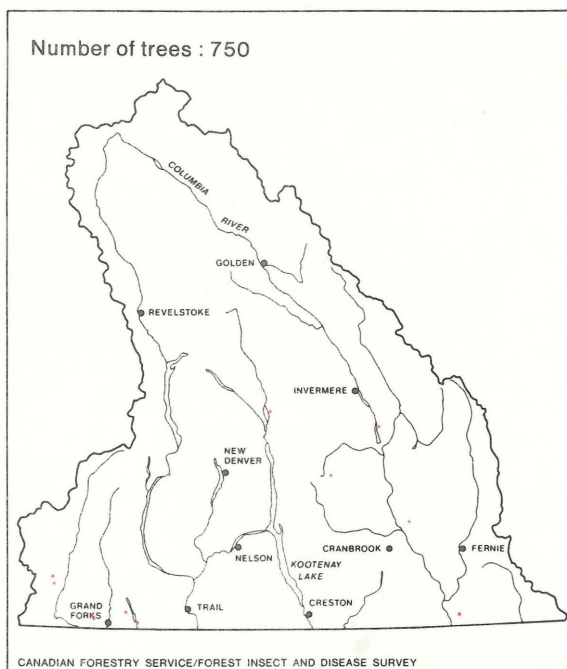
Douglas-fir beetle, 1965



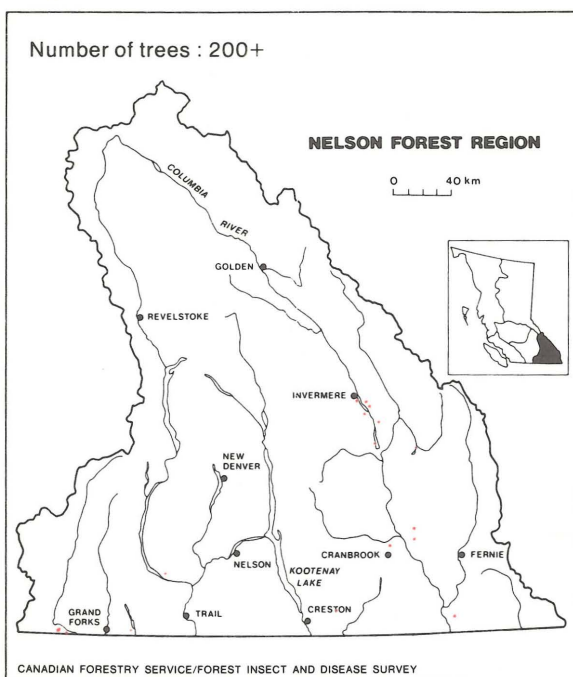
Douglas-fir beetle, 1966-67



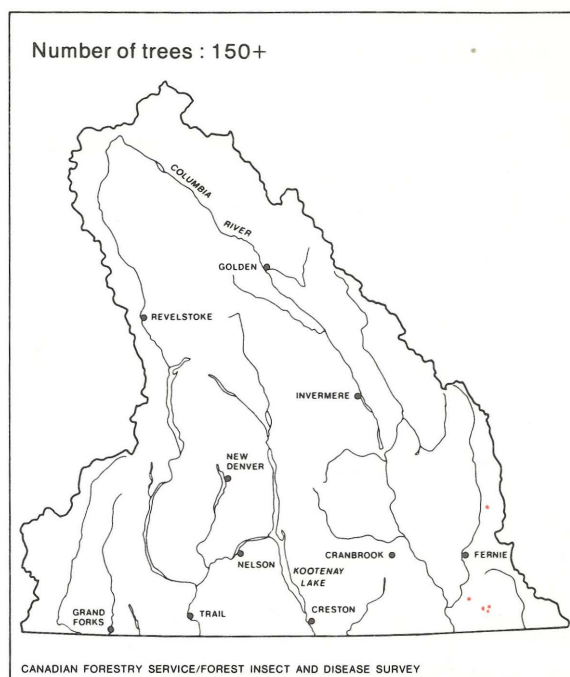
Douglas-fir beetle, 1968-71



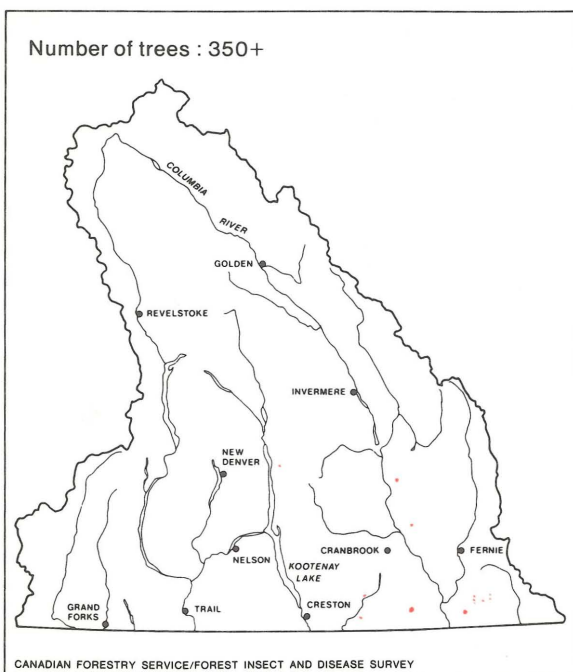
Douglas-fir beetle, 1972



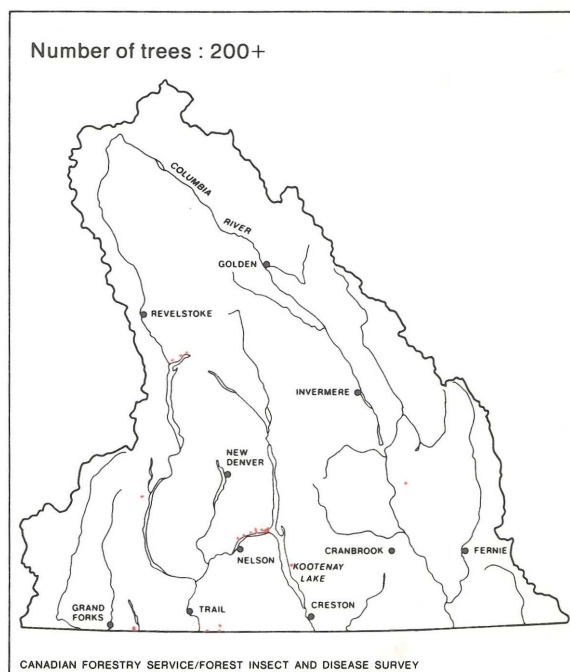
Douglas-fir beetle, 1973-79



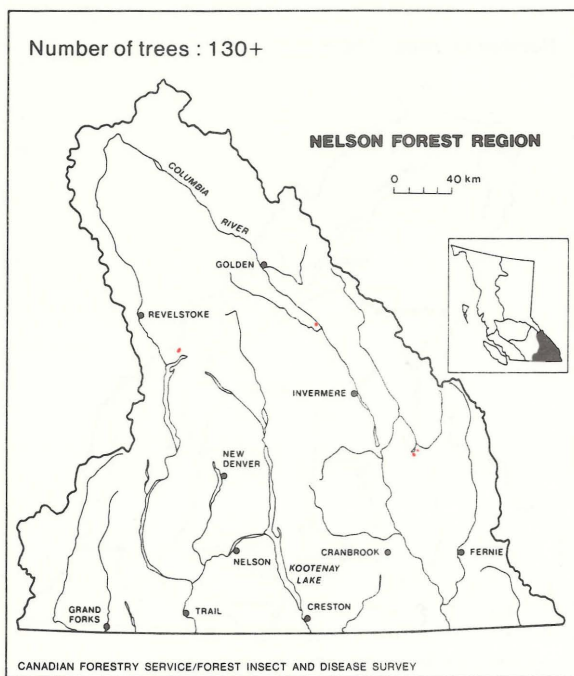
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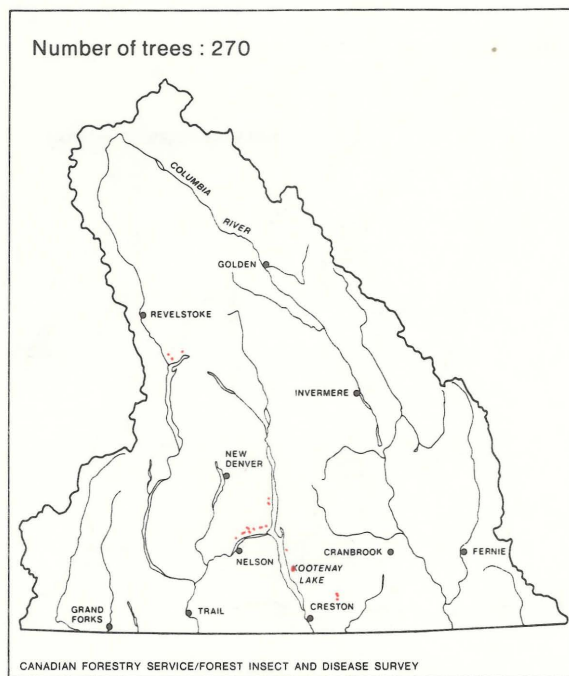
Douglas-fir beetle, 1983



Douglas-fir beetle, 1984

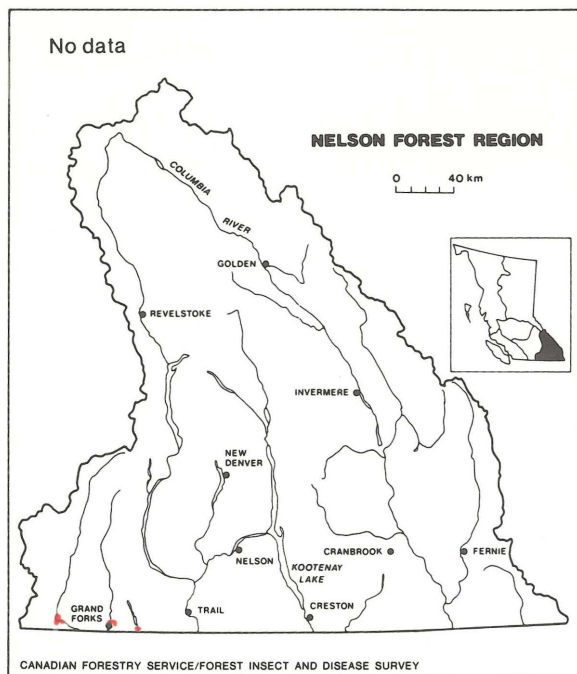


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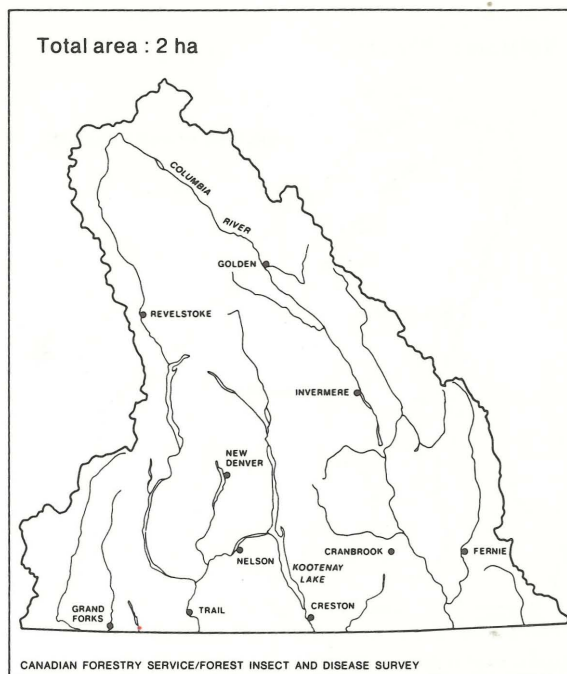


Douglas-fir beetle, 1986

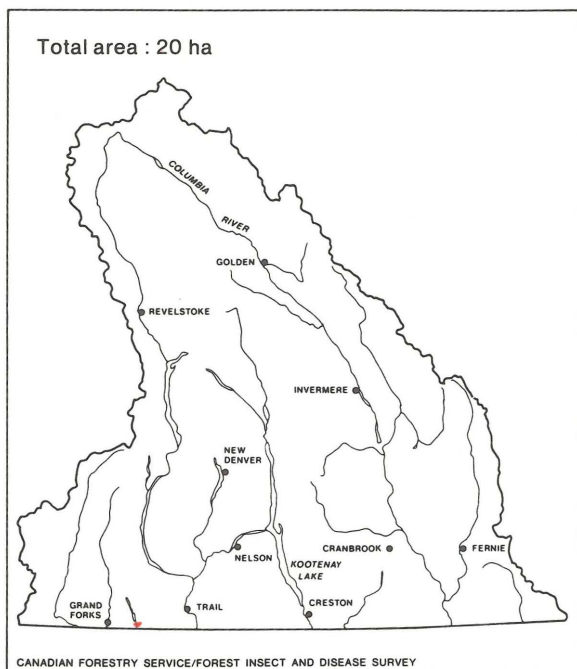
DOUGLAS-FIR TUSSOCK MOTH



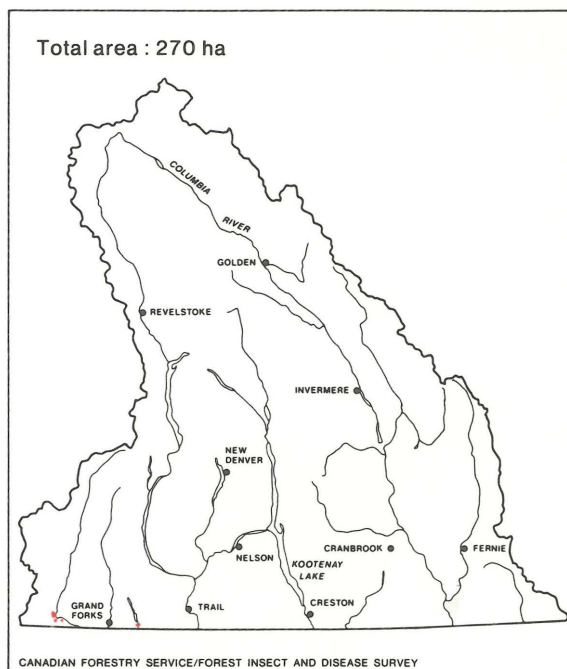
Douglas-fir tussock moth, 1929-31



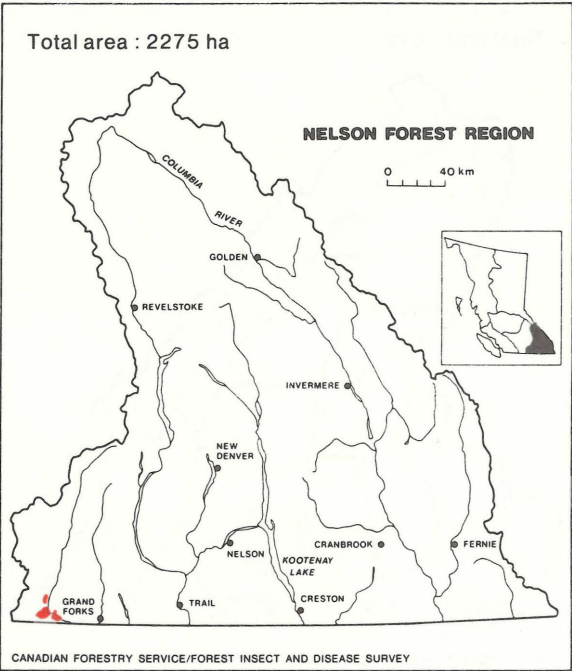
Douglas-fir tussock moth, 1955



Douglas-fir tussock moth, 1981

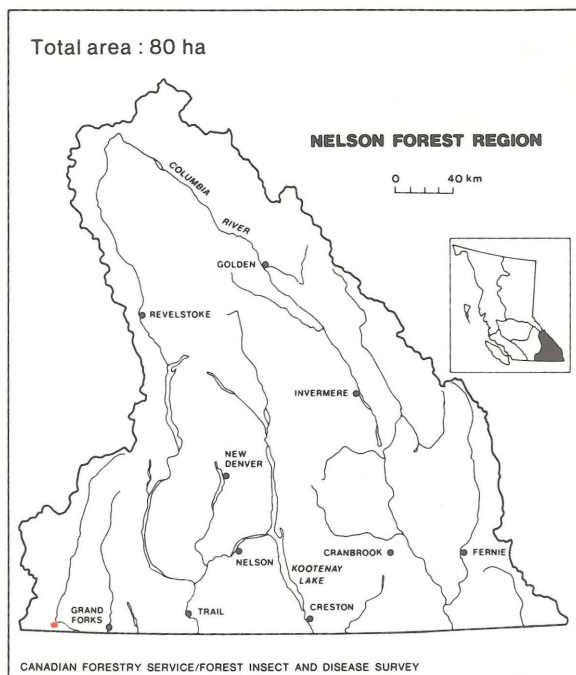


Douglas-fir tussock moth, 1982

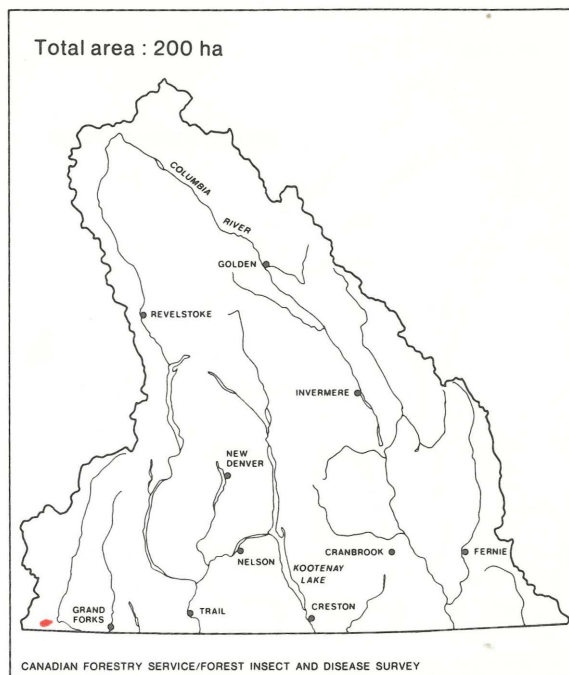


Douglas-fir tussock moth, 1983

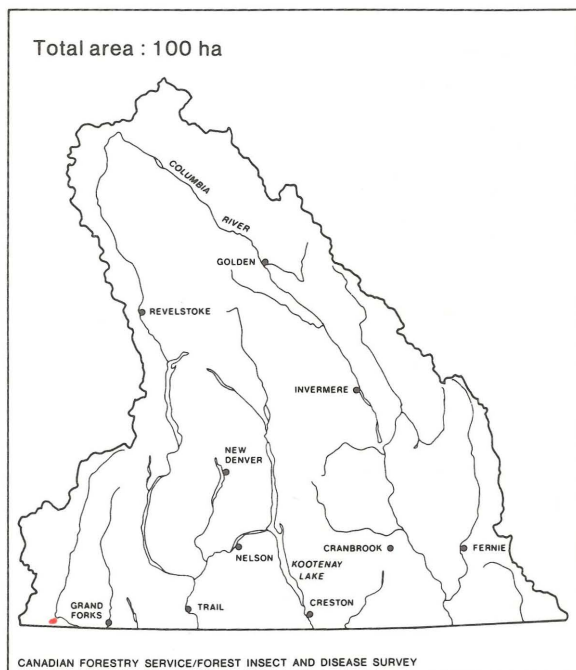
WESTERN SPRUCE BUDWORM



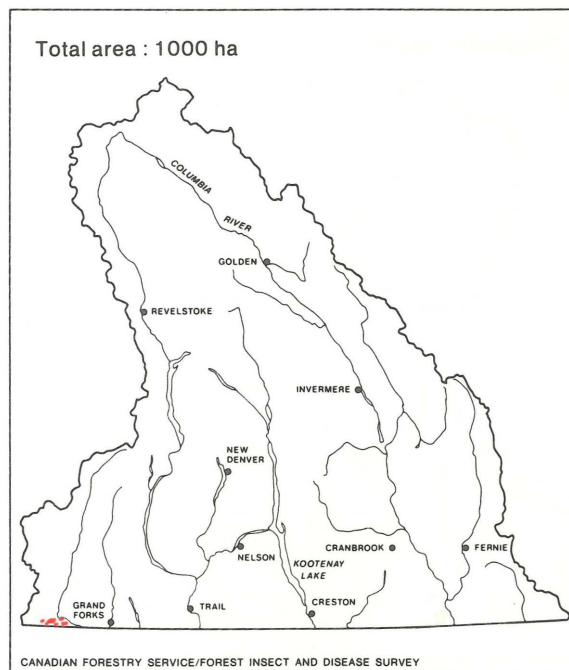
Western spruce budworm, 1978



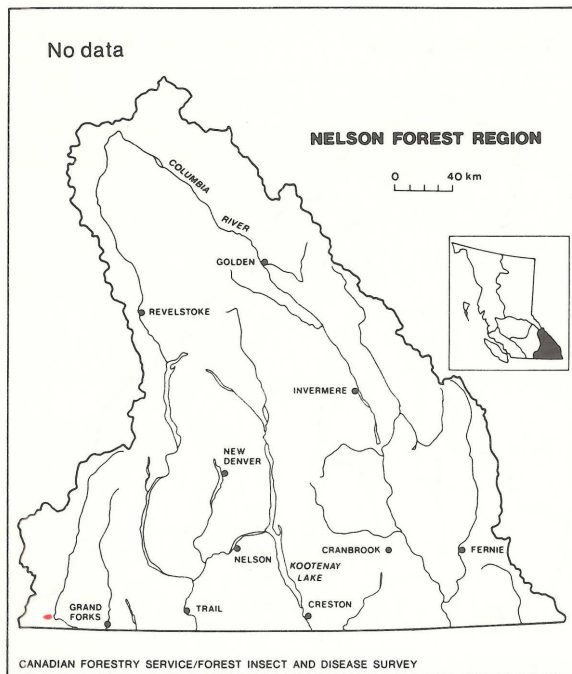
Western spruce budworm, 1979



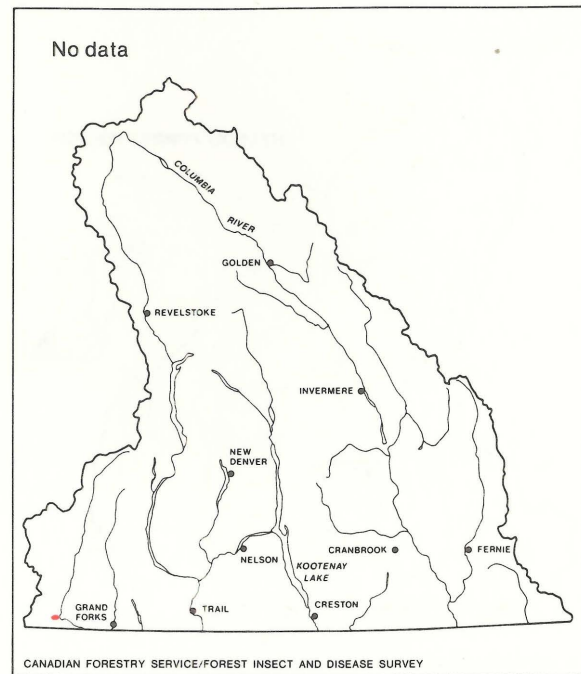
Western spruce budworm, 1980



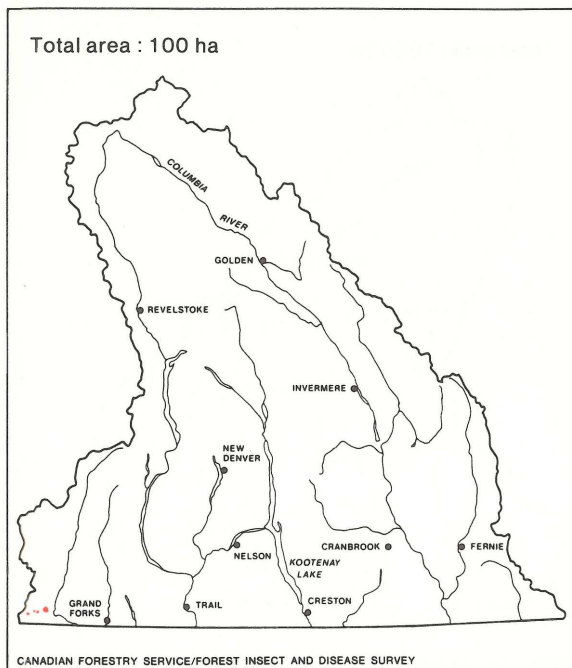
Western spruce budworm, 1981



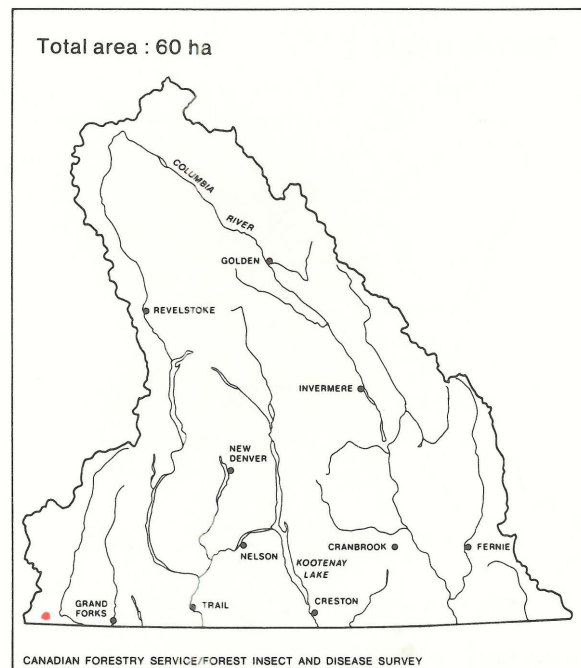
Western spruce budworm, 1982



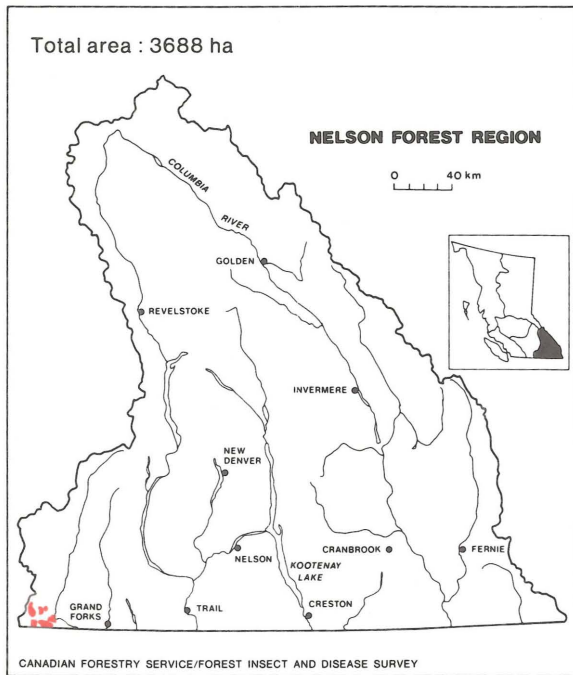
Western spruce budworm, 1983



Western spruce budworm, 1984

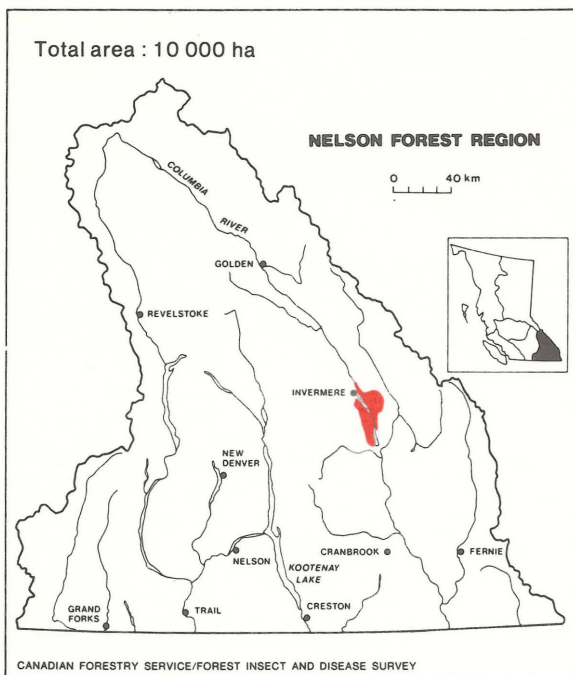


Western spruce budworm, 1985

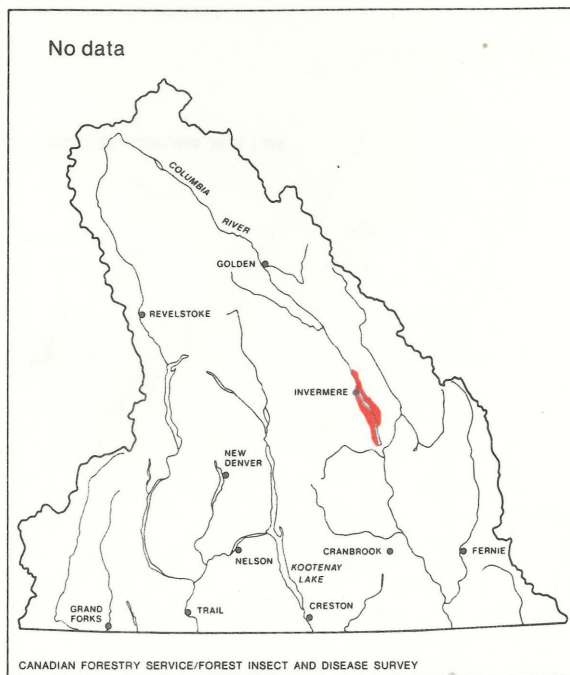


Western spruce budworm, 1986

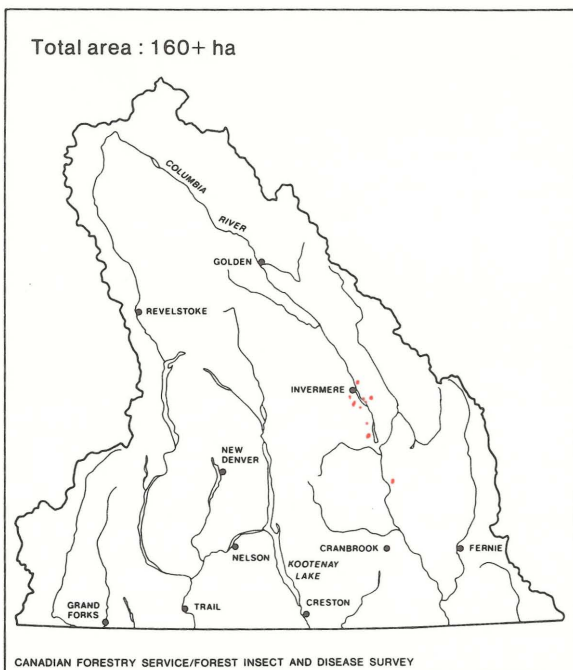
WESTERN FALSE HEMLOCK LOOPER



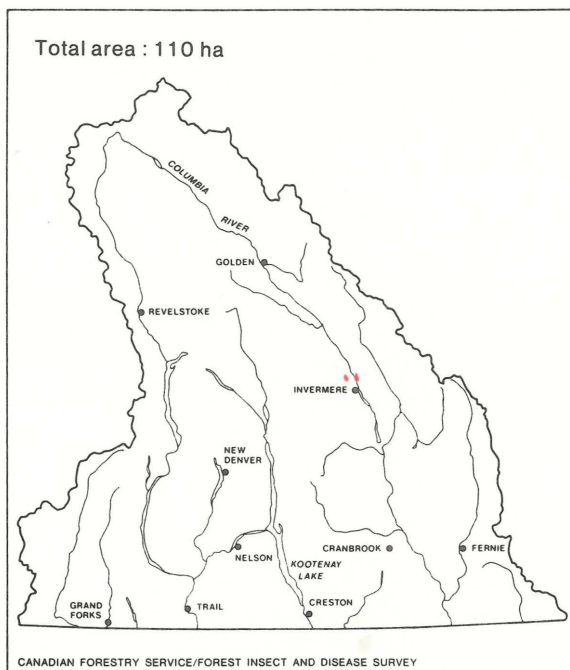
Western false hemlock looper, 1947



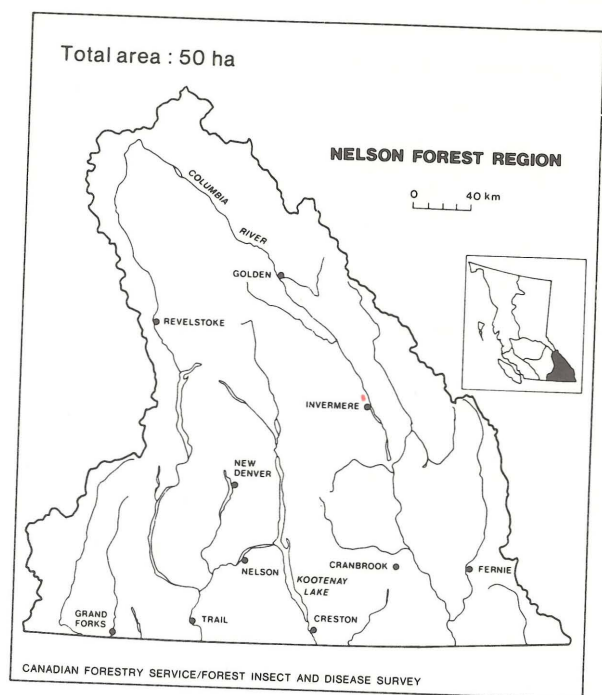
Western false hemlock looper, 1948



Western false hemlock looper, 1973-75

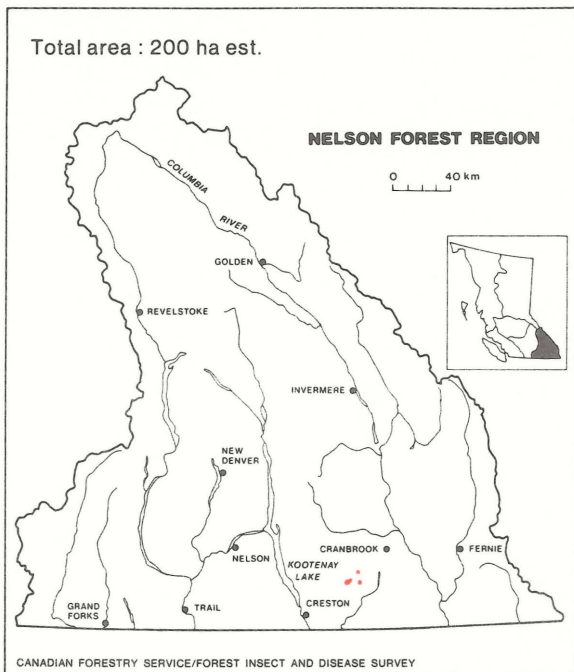


Western false hemlock looper, 1983

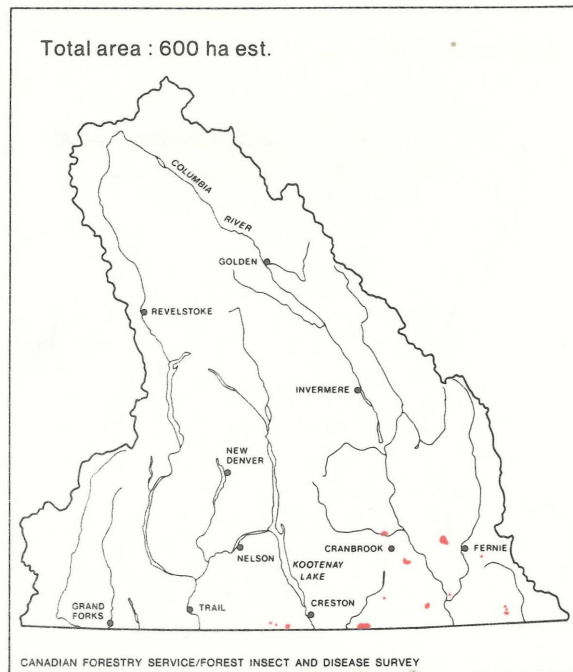


Western false hemlock looper, 1985

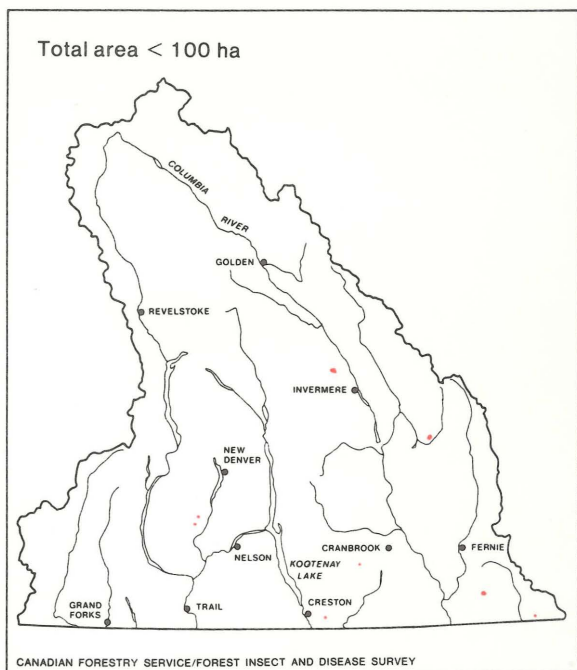
SPRUCE BEETLE



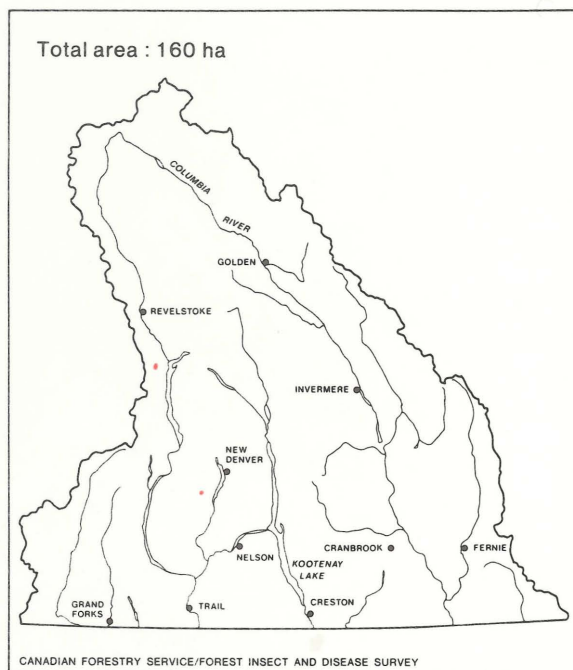
Spruce beetle, 1934



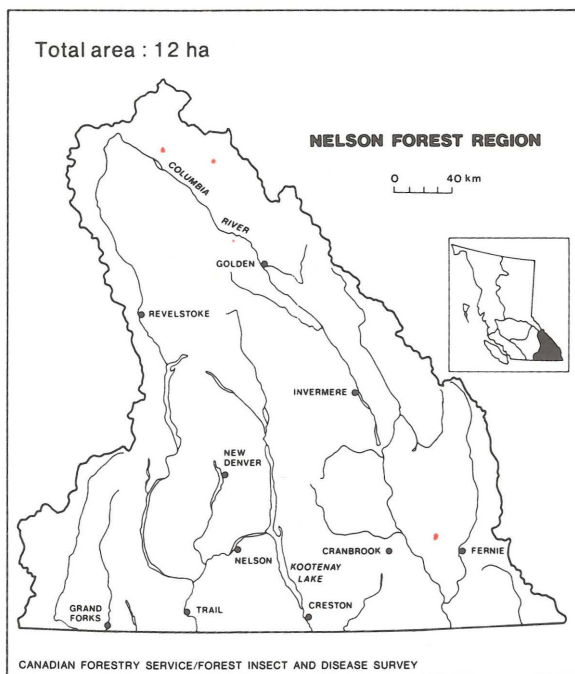
Spruce beetle, 1953-57



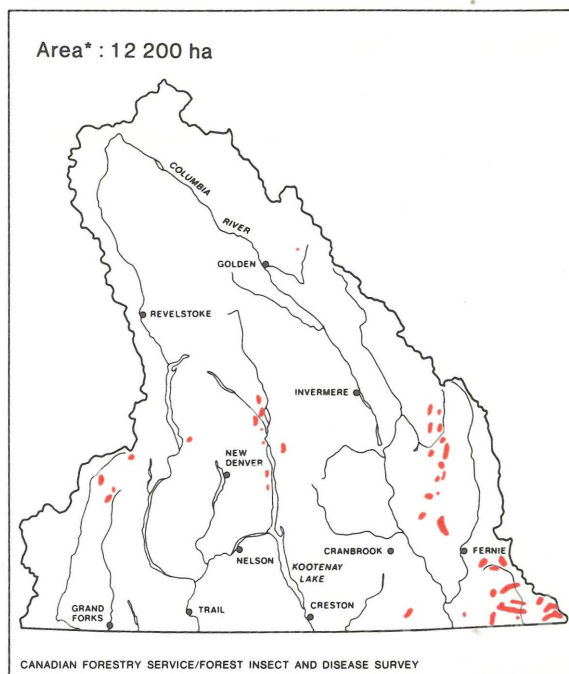
Spruce beetle, 1958-59



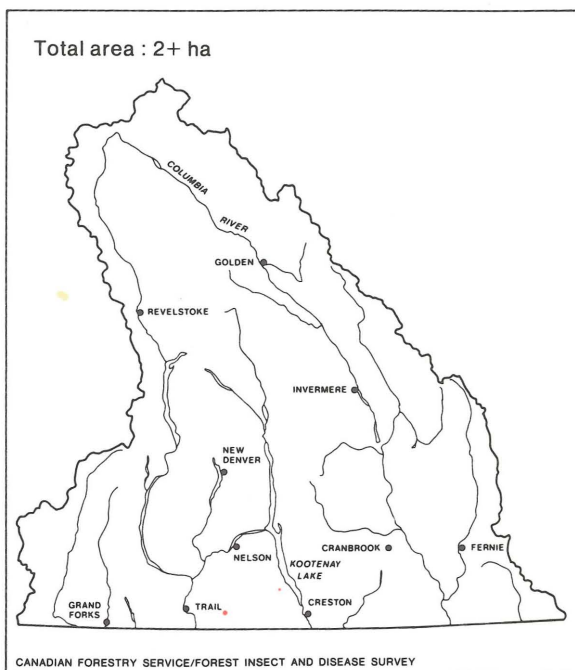
Spruce beetle, 1962



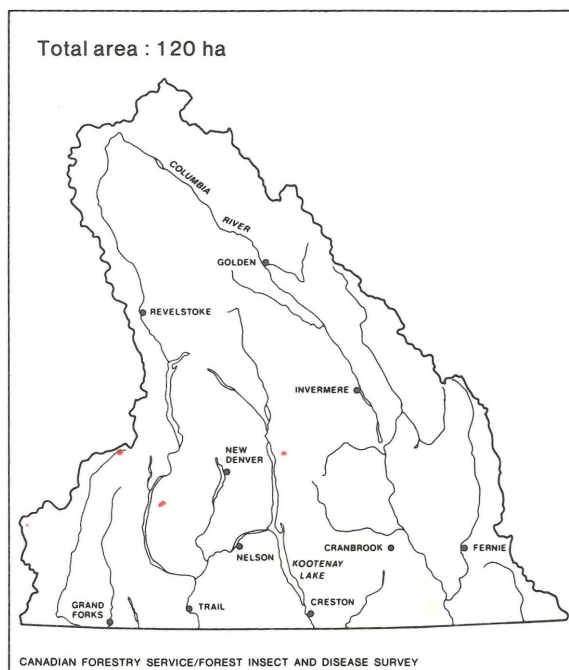
Spruce beetle, 1963



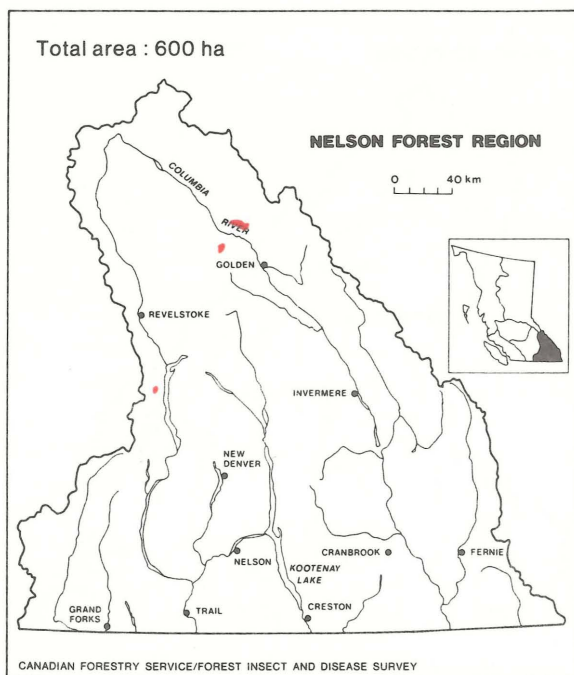
Spruce beetle, 1967-70



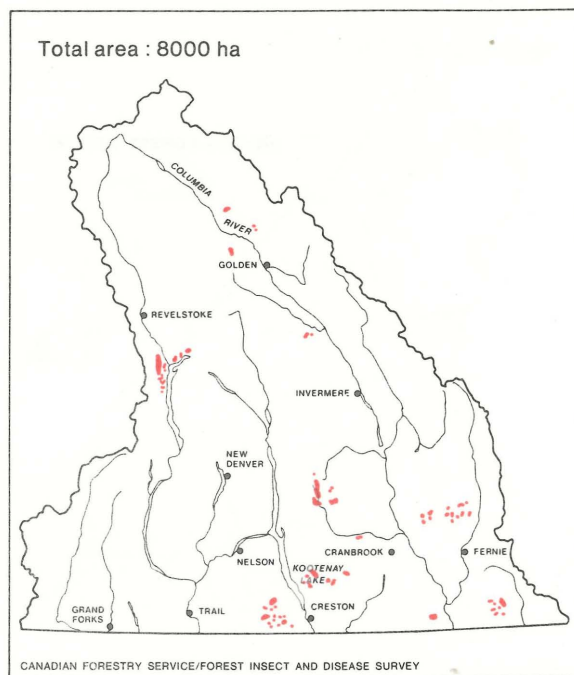
Spruce beetle, 1976-77



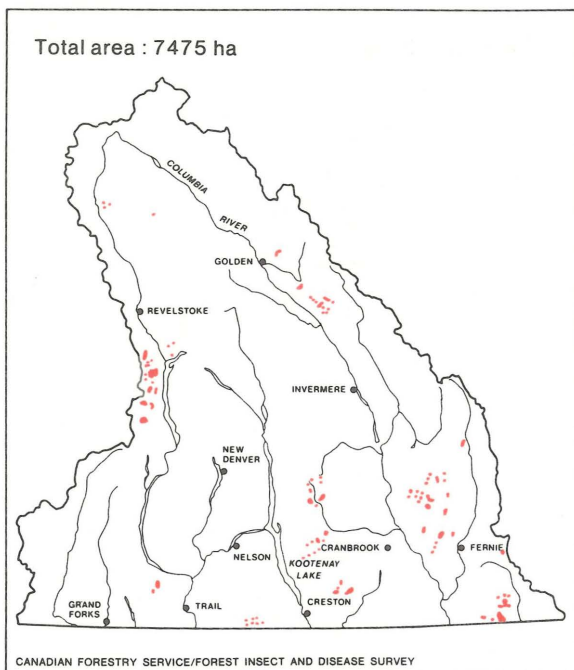
Spruce beetle, 1978



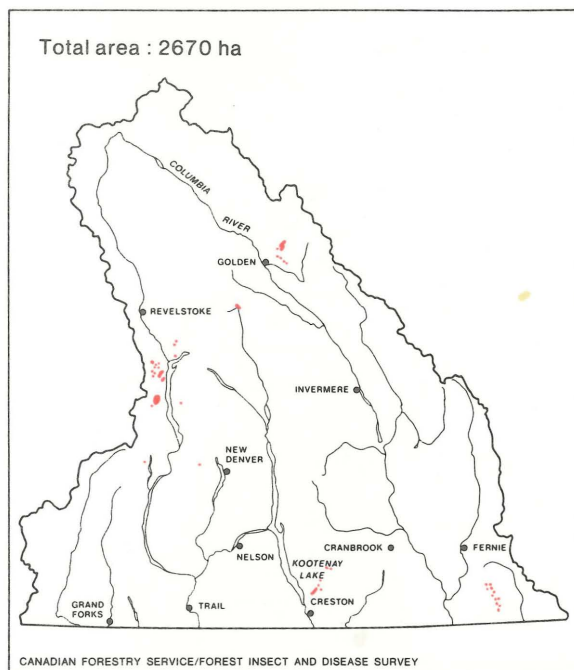
Spruce beetle, 1980



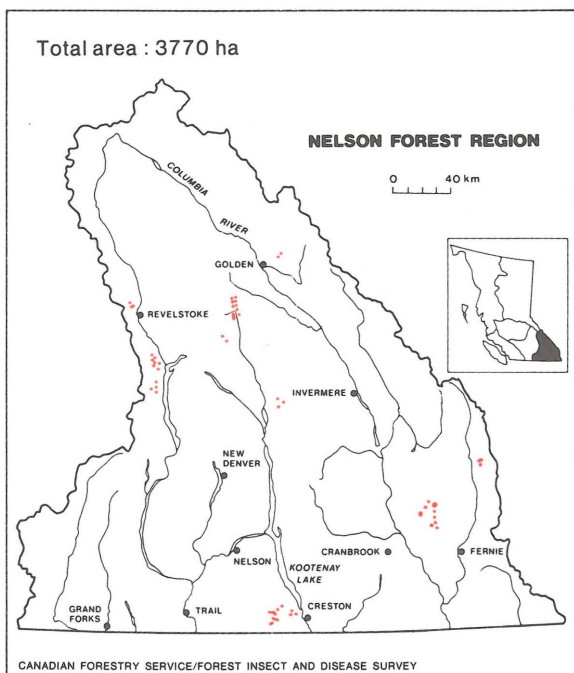
Spruce beetle, 1981



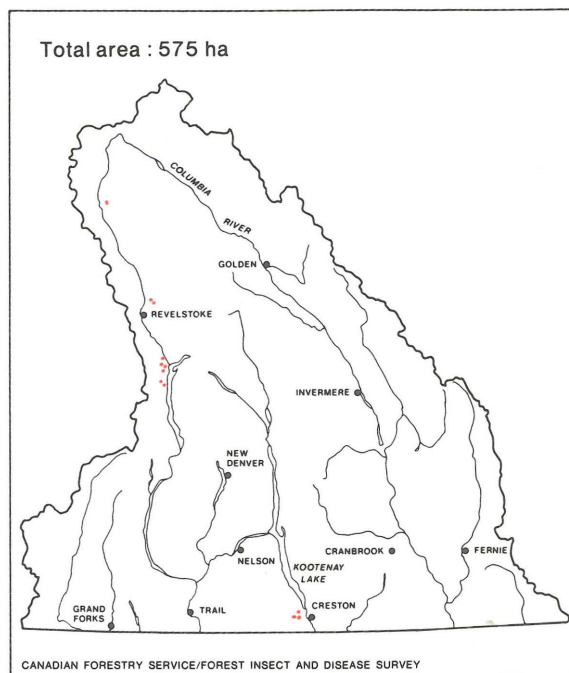
Spruce beetle, 1982



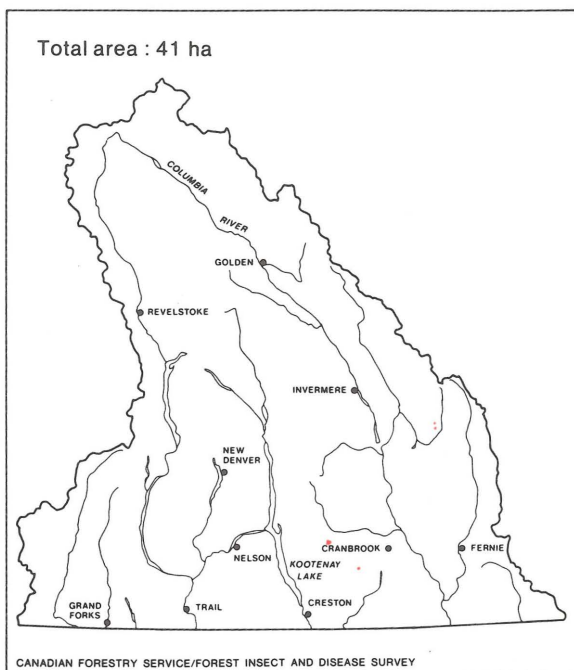
Spruce beetle, 1983



Spruce beetle, 1984

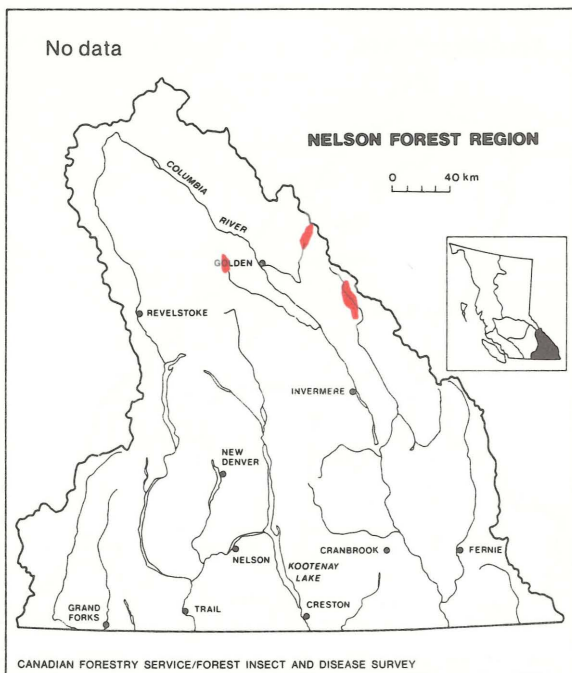


Spruce beetle, 1985

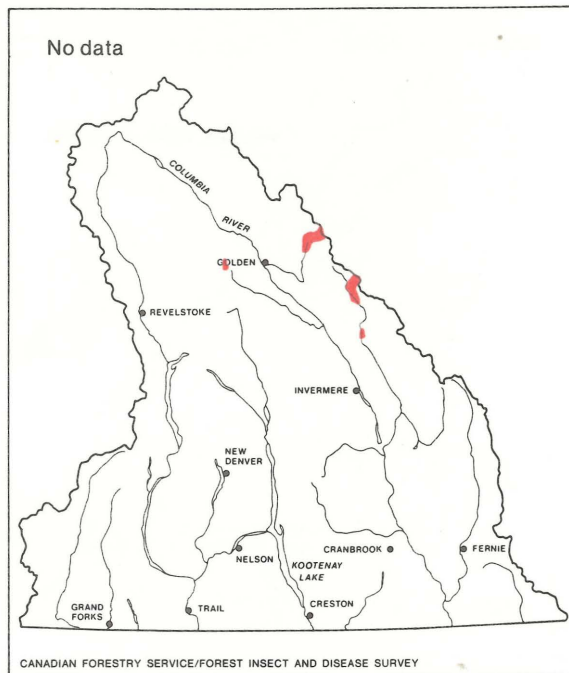


Spruce beetle, 1986

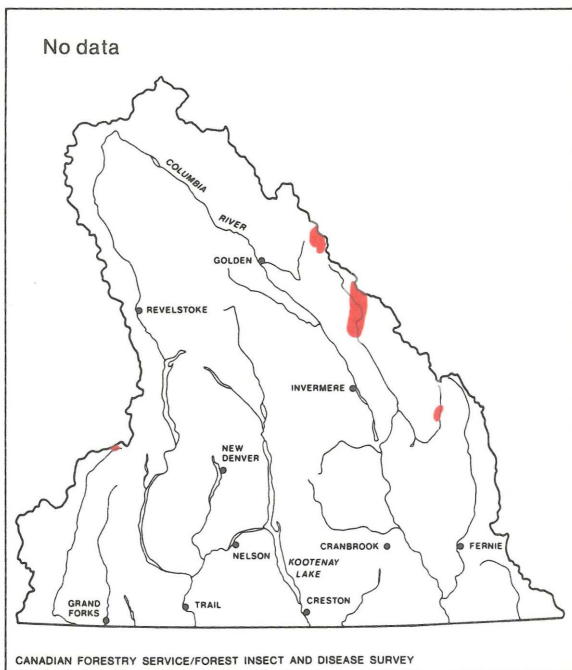
TWO-YEAR-CYCLE SPRUCE BUDWORM



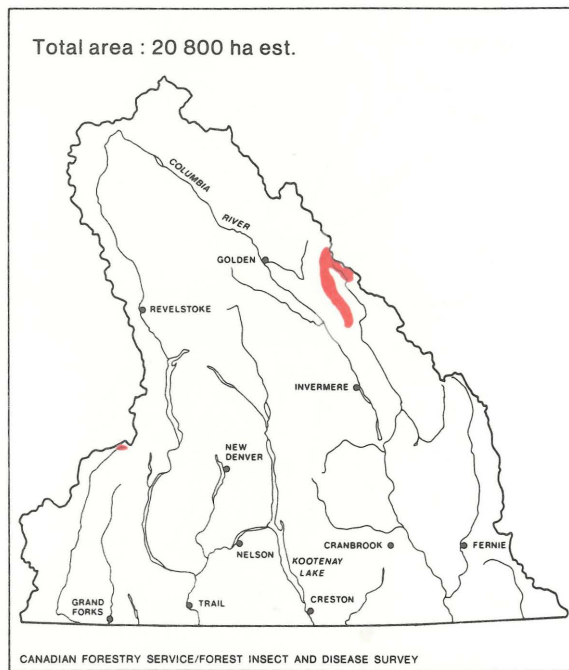
Two-year-cycle spruce budworm, 1941



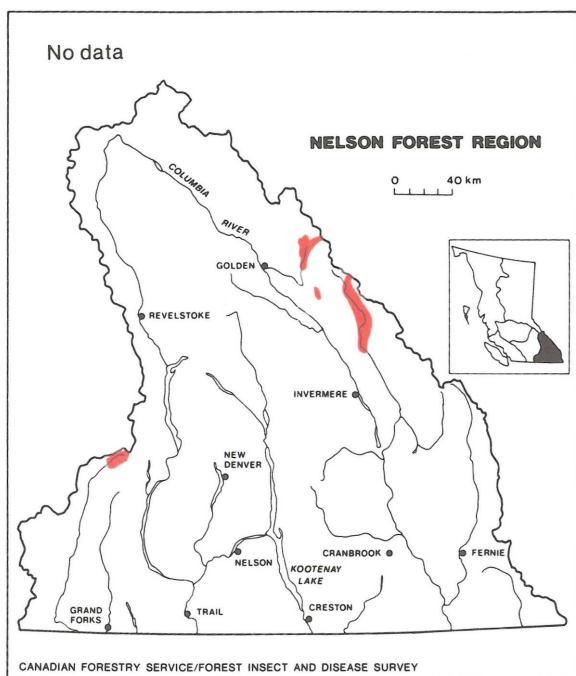
Two-year-cycle spruce budworm, 1942



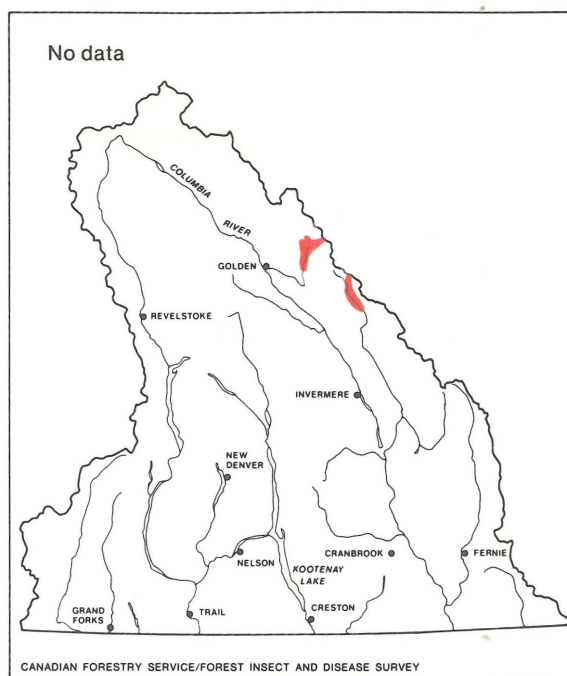
Two-year-cycle spruce budworm, 1944



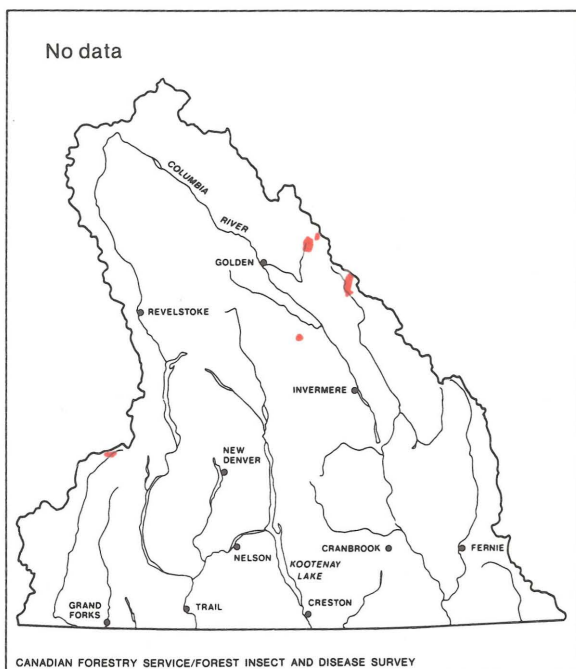
Two-year-cycle spruce budworm, 1946



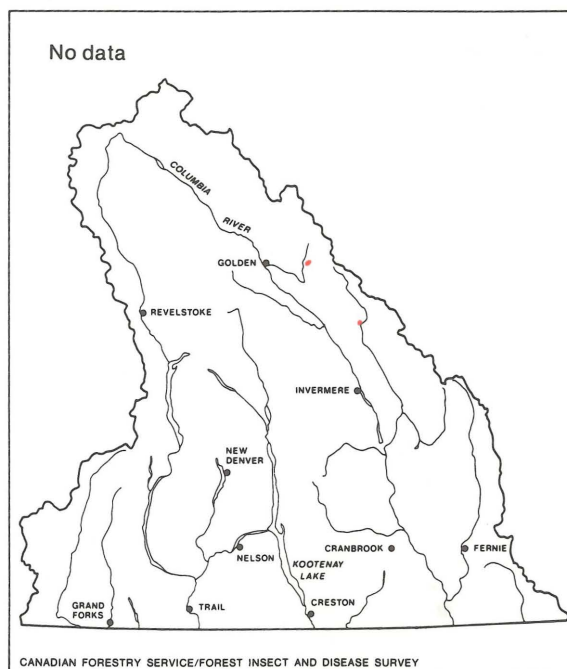
Two-year-cycle spruce budworm, 1948-50



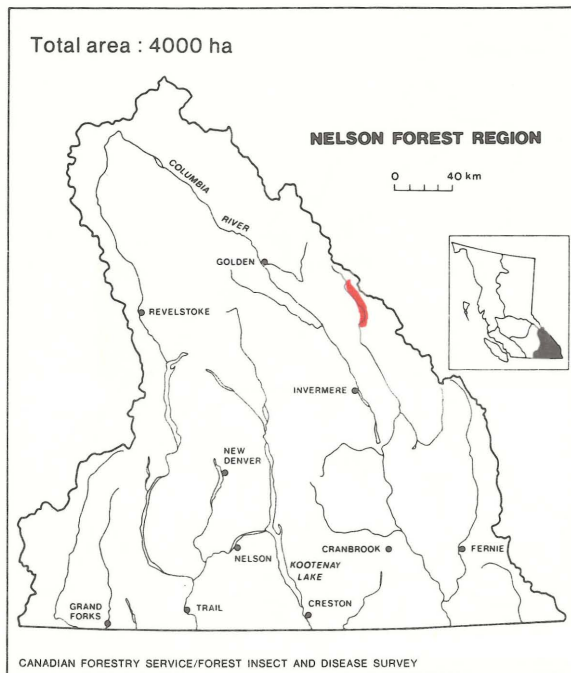
Two-year-cycle spruce budworm, 1951



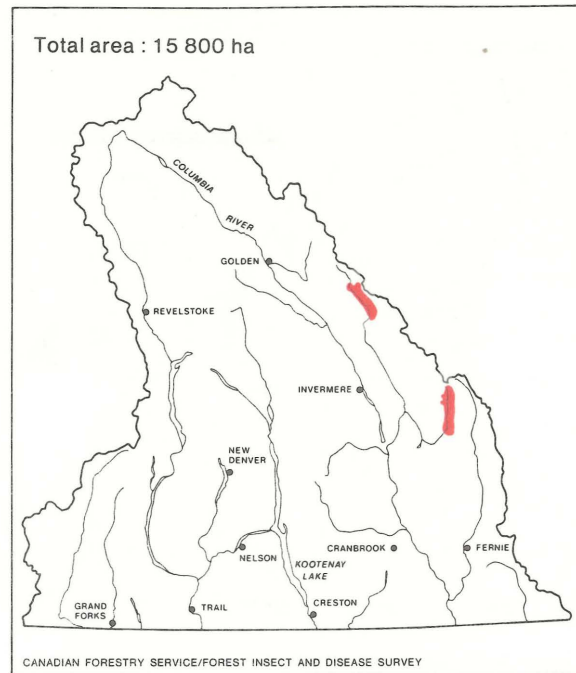
Two-year-cycle spruce budworm, 1952



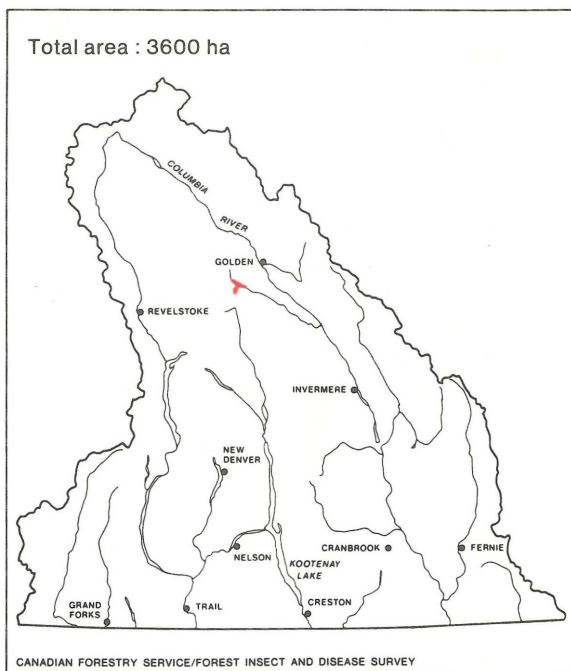
Two-year-cycle spruce budworm, 1953-56



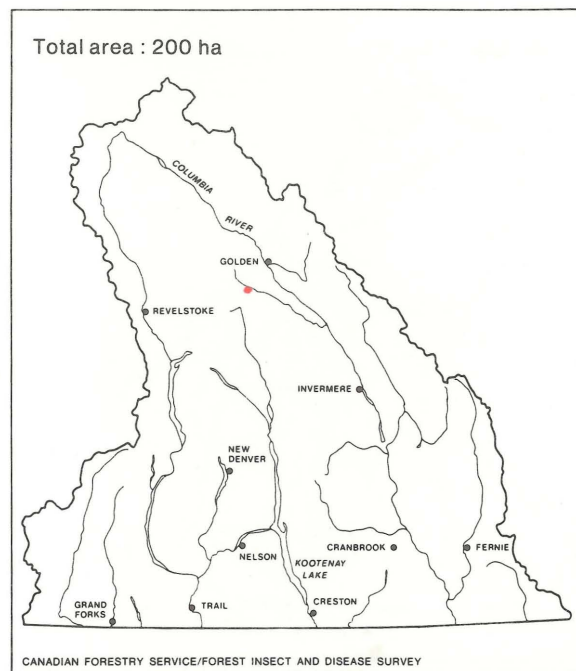
Two-year-cycle spruce budworm, 1964-69



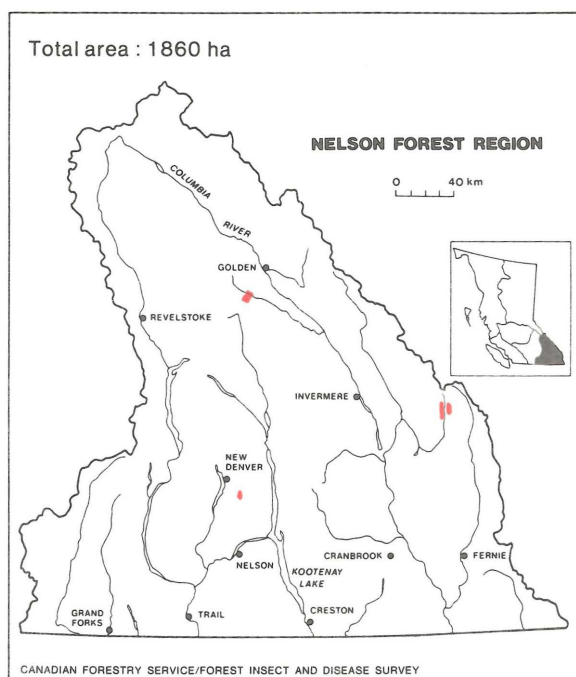
Two-year-cycle spruce budworm, 1972



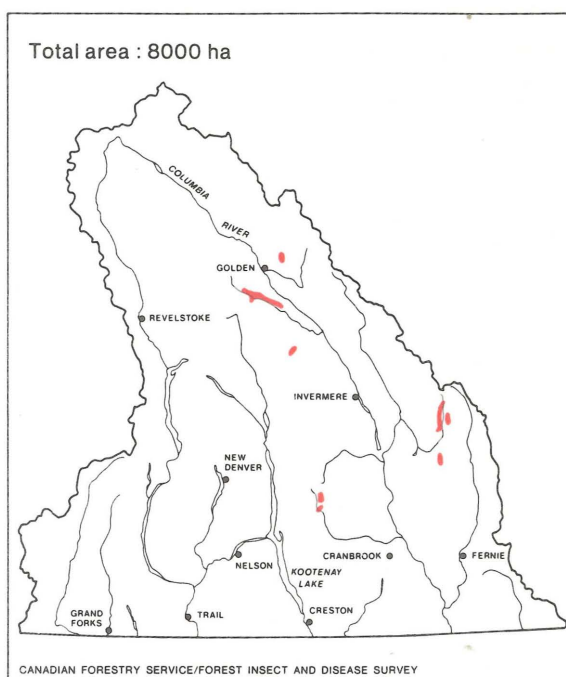
Two-year-cycle spruce budworm, 1975



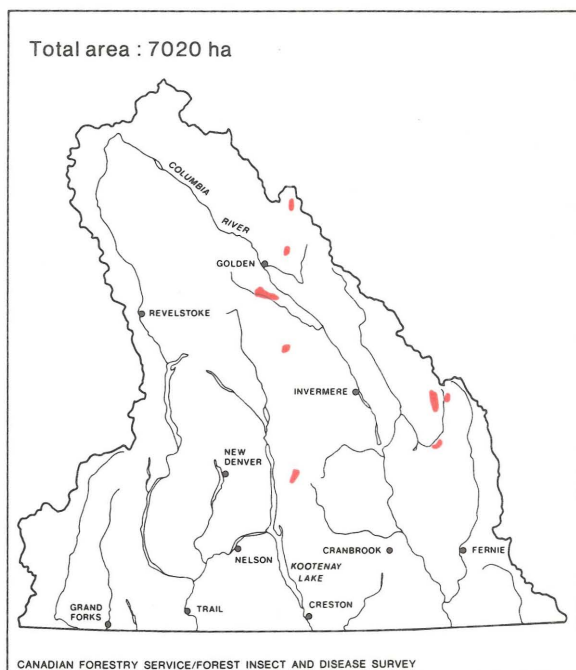
Two-year-cycle spruce budworm, 1976



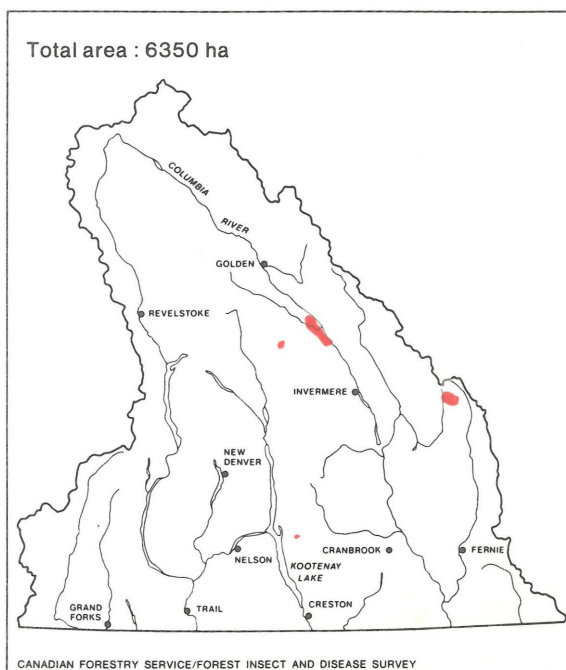
Two-year-cycle spruce budworm, 1977



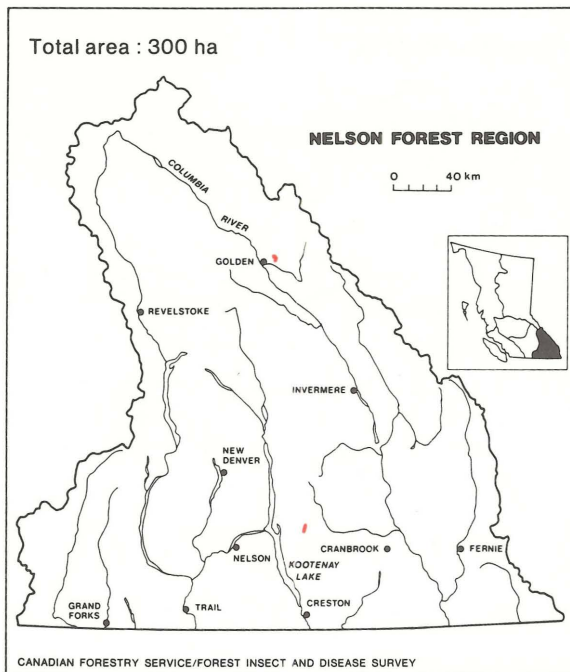
Two-year-cycle spruce budworm, 1978



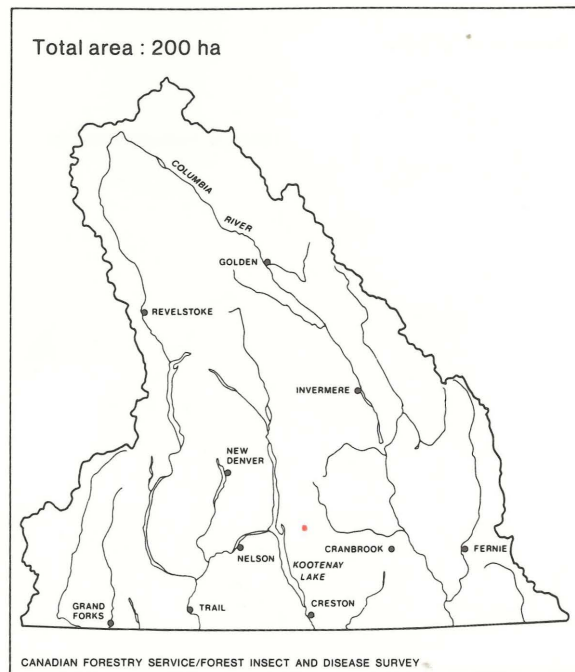
Two-year-cycle spruce budworm, 1979



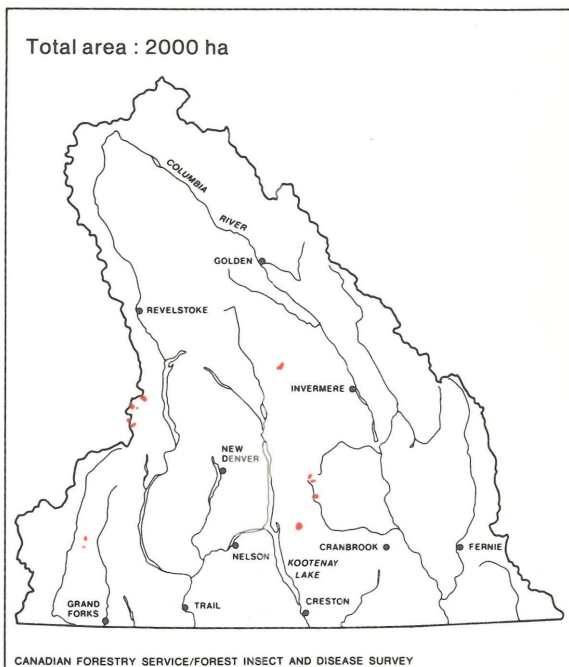
Two-year-cycle spruce budworm, 1980



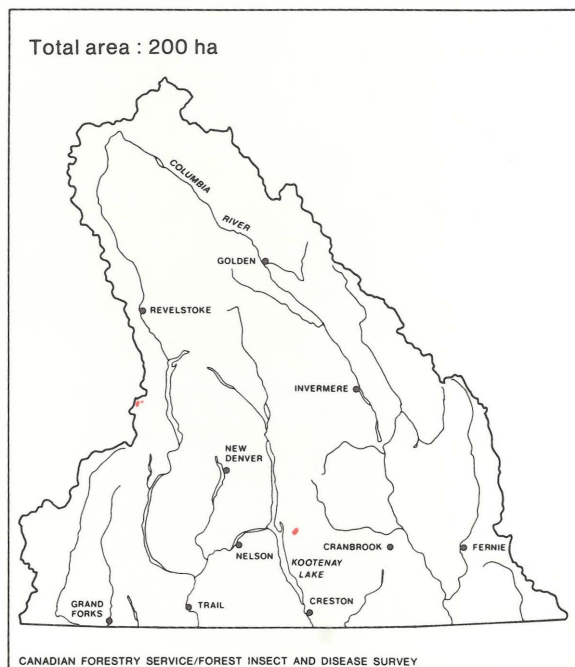
Two-year-cycle spruce budworm, 1981



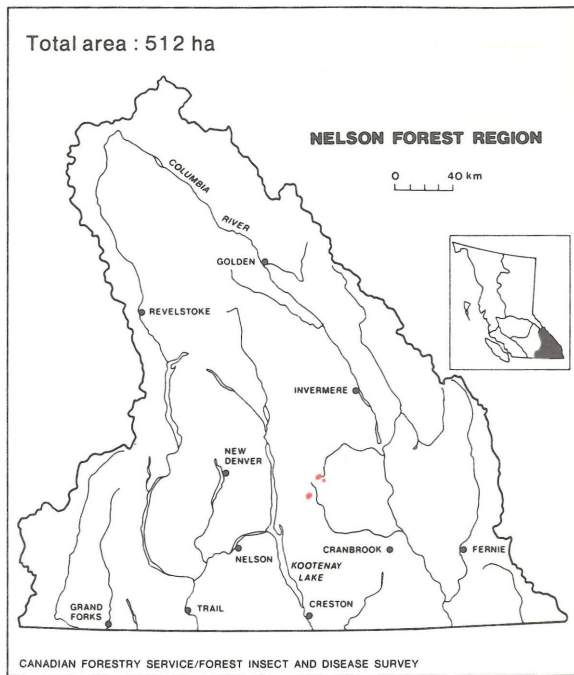
Two-year-cycle spruce budworm, 1982



Two-year-cycle spruce budworm, 1983

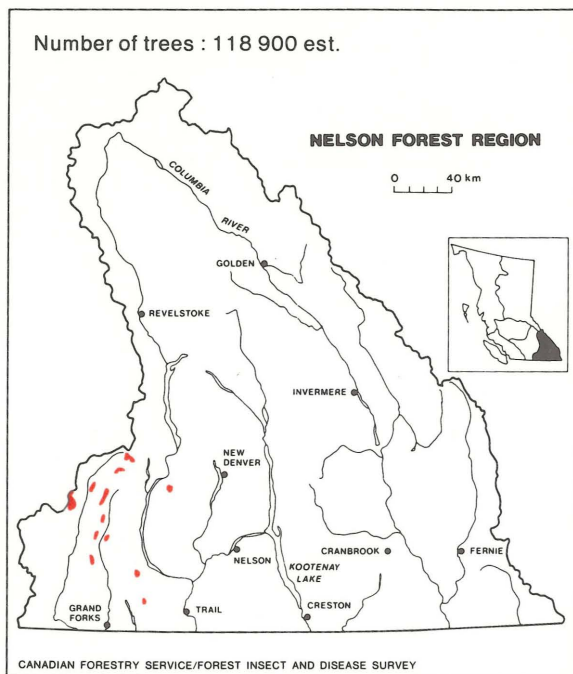


Two-year-cycle spruce budworm, 1984

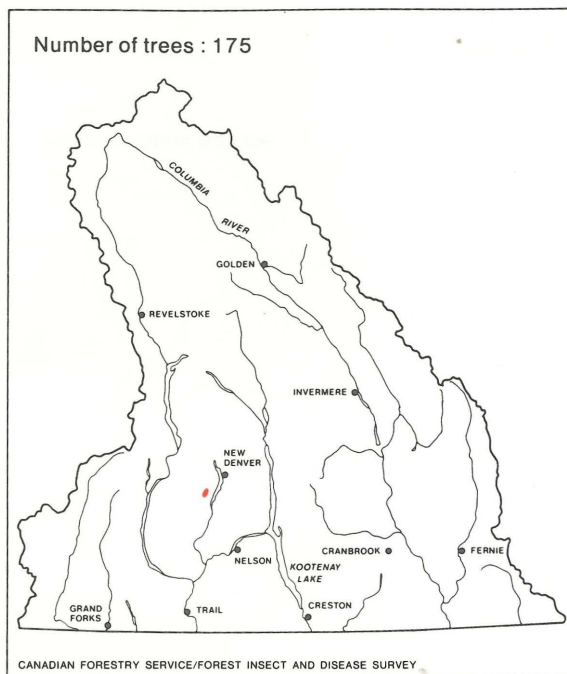


Two-year-cycle spruce budworm, 1986

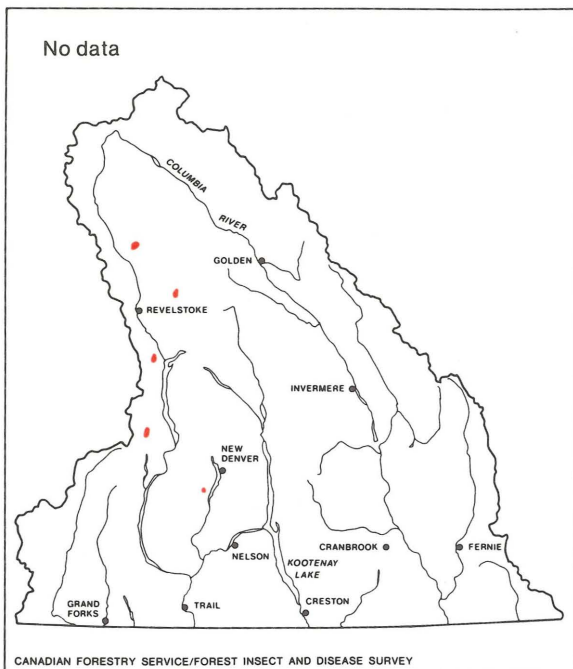
WESTERN BALSAM BARK BEETLE



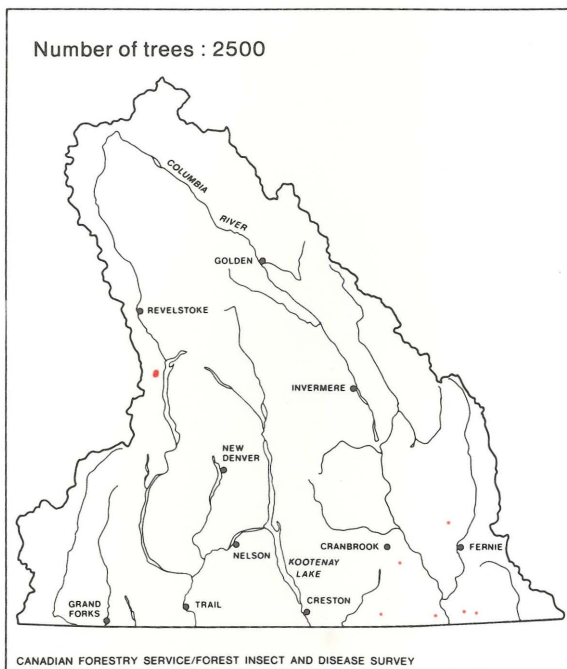
Western balsam bark beetle, 1949-59



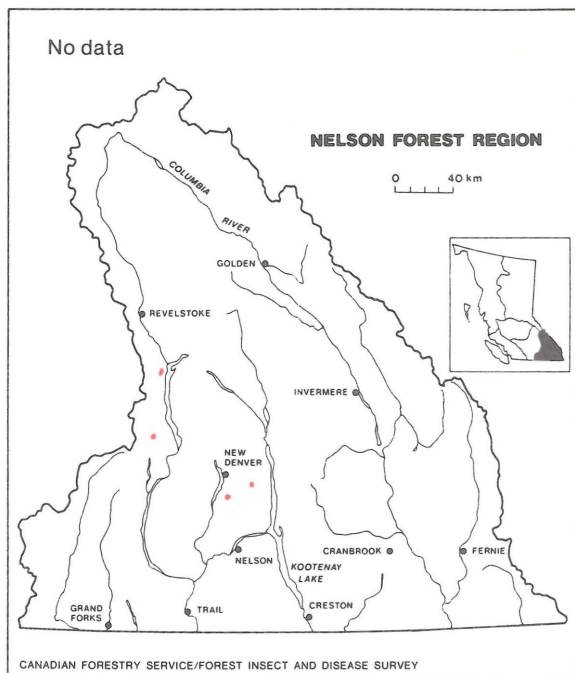
Western balsam bark beetle, 1962



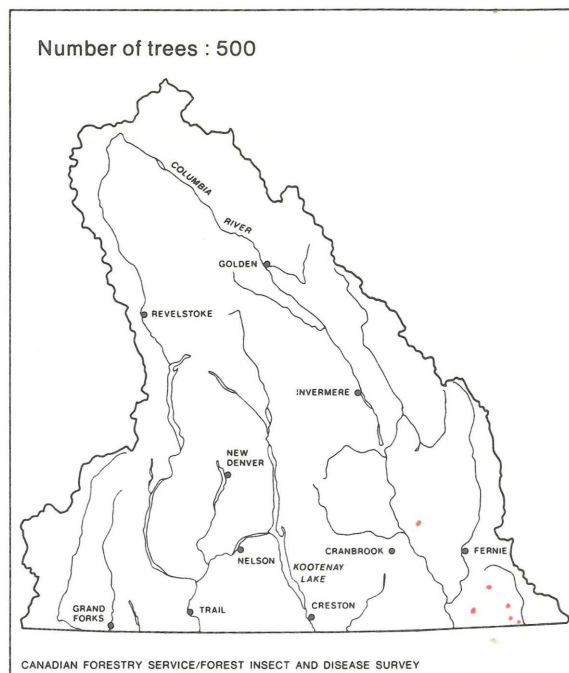
Western balsam bark beetle, 1964



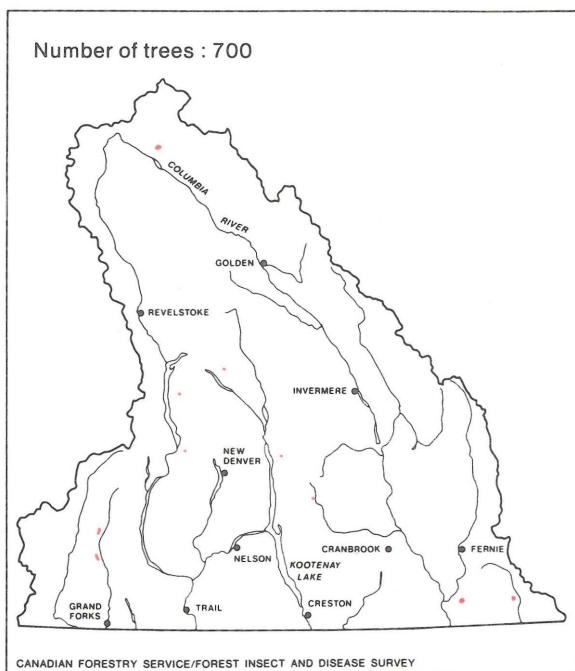
Western balsam bark beetle, 1965



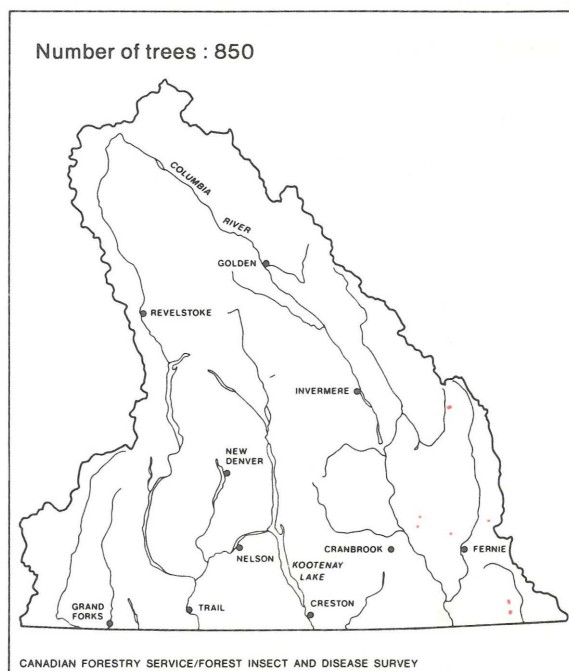
Western balsam bark beetle, 1966



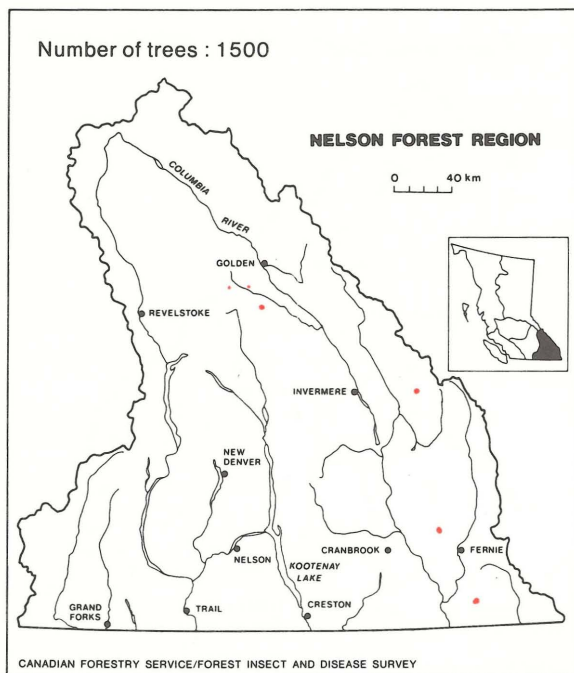
Western balsam bark beetle, 1968



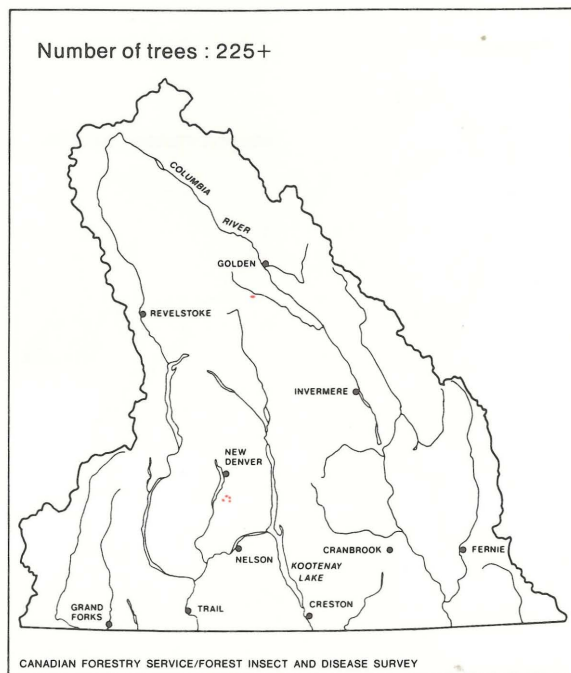
Western balsam bark beetle, 1970



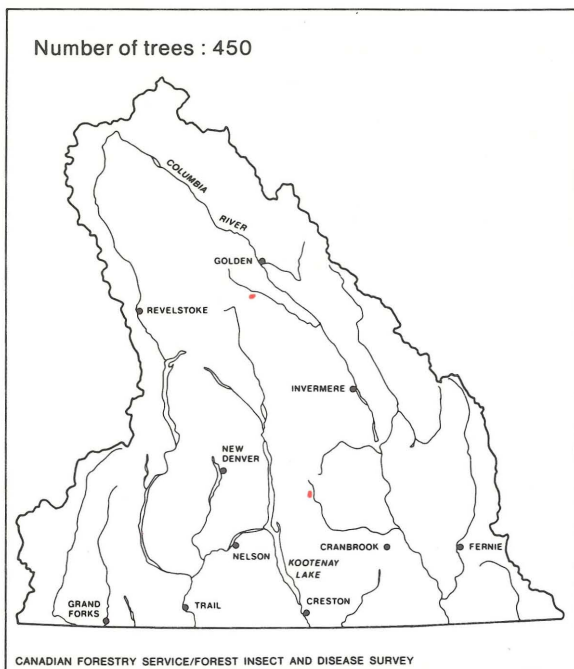
Western balsam bark beetle, 1971



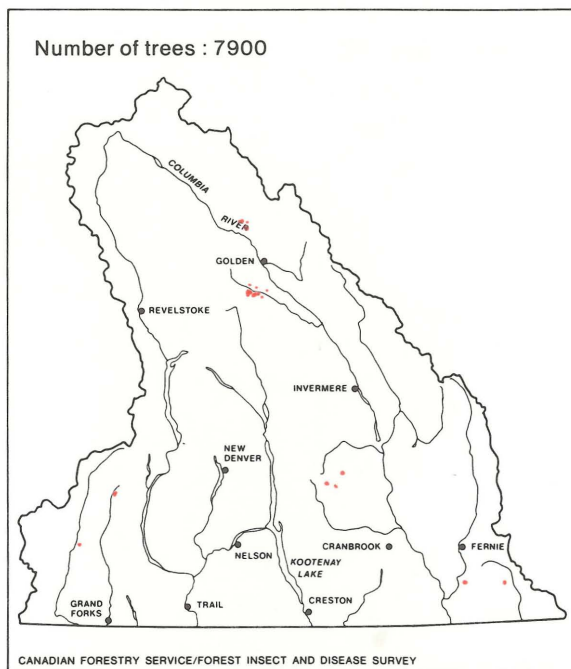
Western balsam bark beetle, 1972



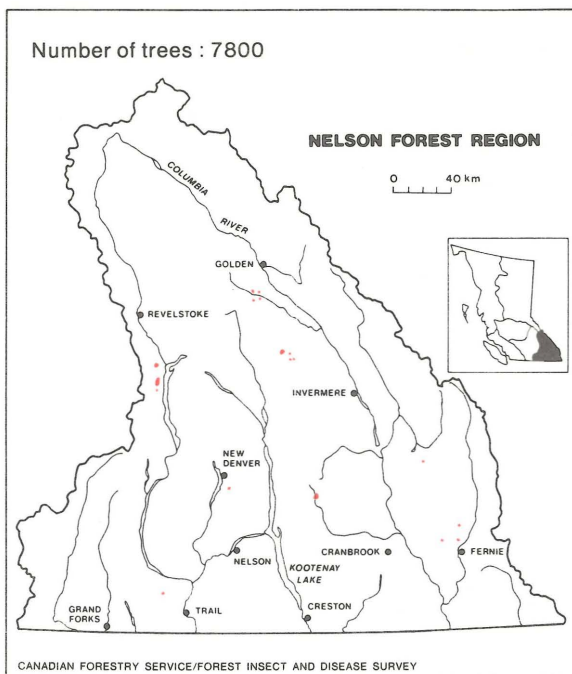
Western balsam bark beetle, 1974



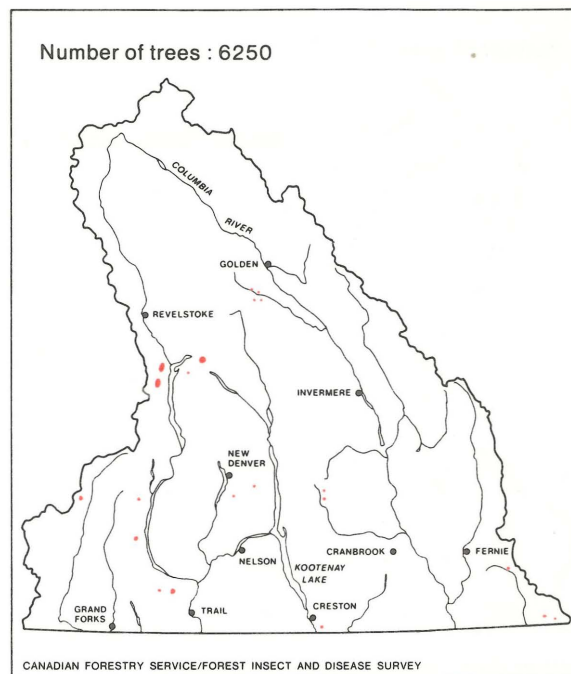
Western balsam bark beetle, 1975



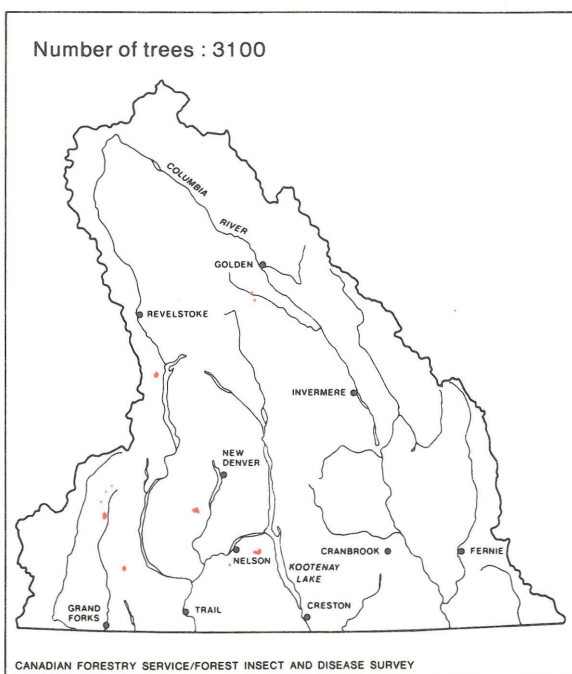
Western balsam bark beetle, 1976



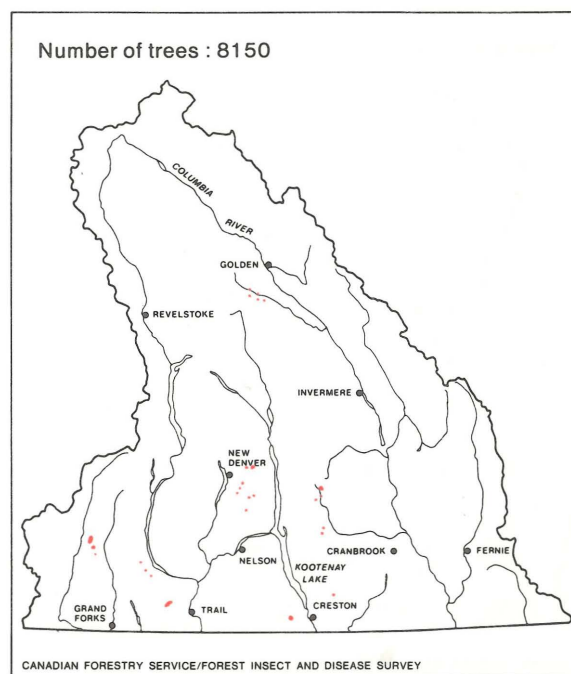
Western balsam bark beetle, 1977



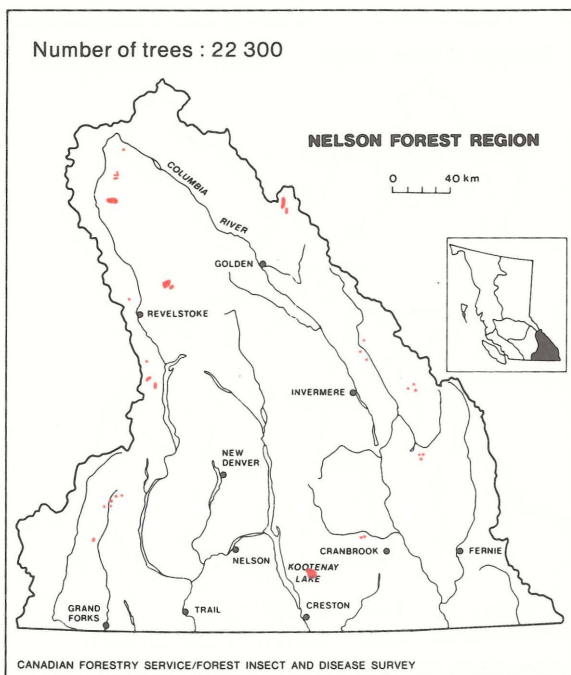
Western balsam bark beetle, 1978



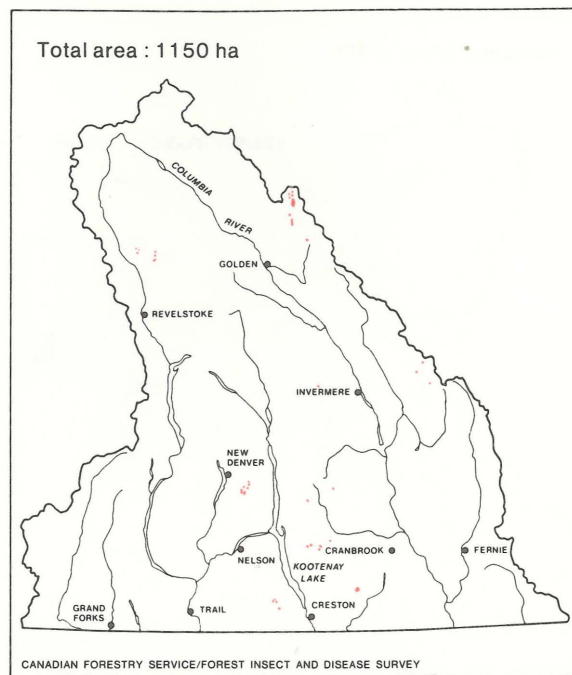
Western balsam bark beetle, 1979



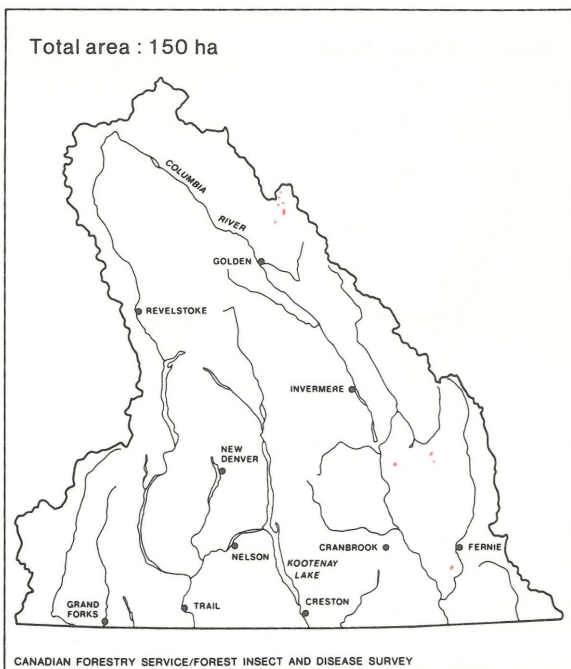
Western balsam bark beetle, 1980



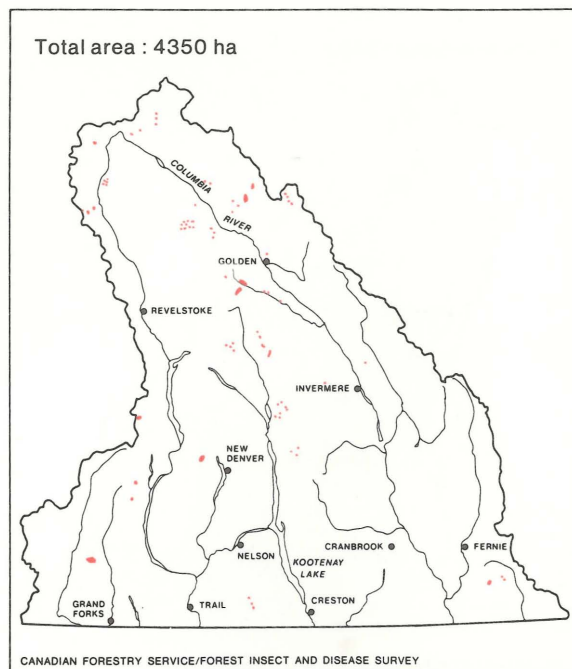
Western balsam bark beetle, 1981



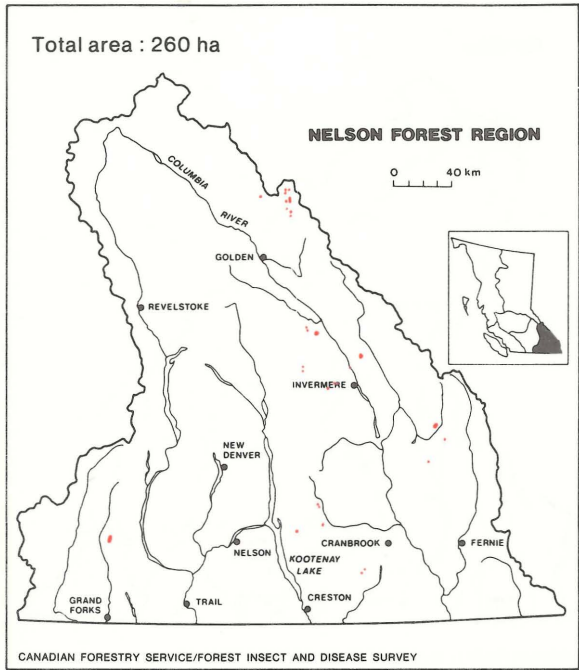
Western balsam bark beetle, 1982



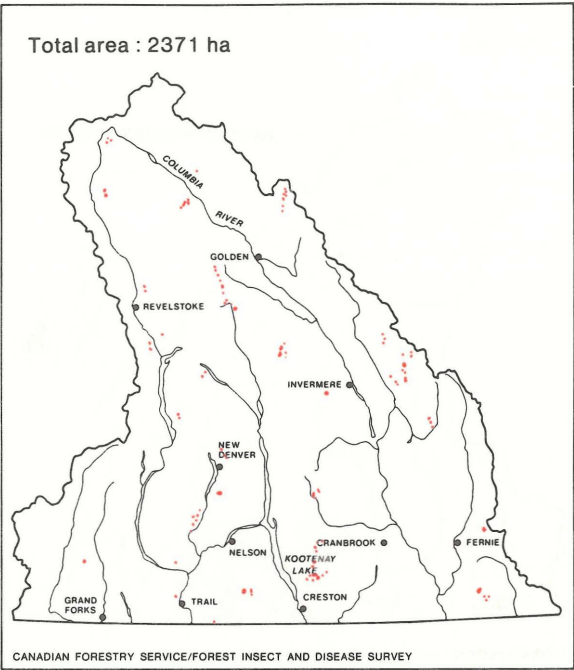
Western balsam bark beetle, 1983



Western balsam bark beetle, 1984

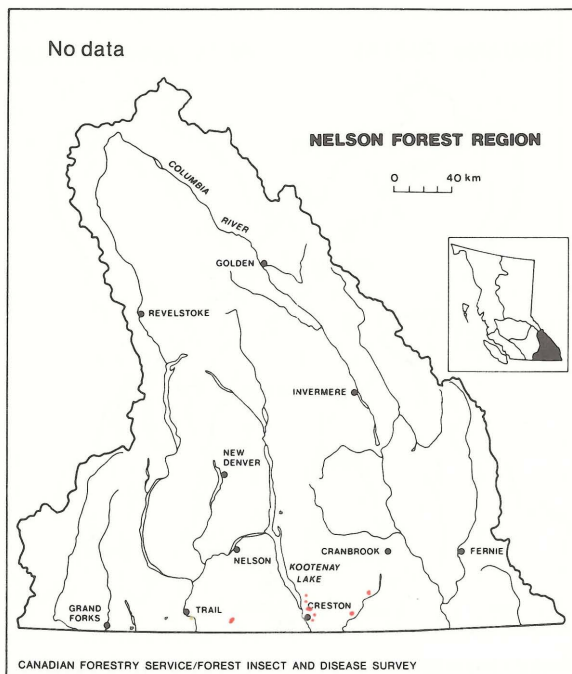


Western balsam bark beetle, 1985

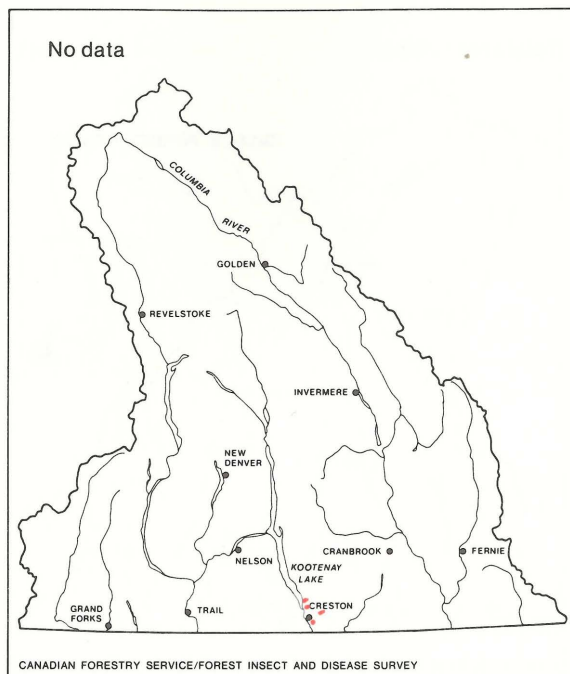


Western balsam bark beetle, 1986

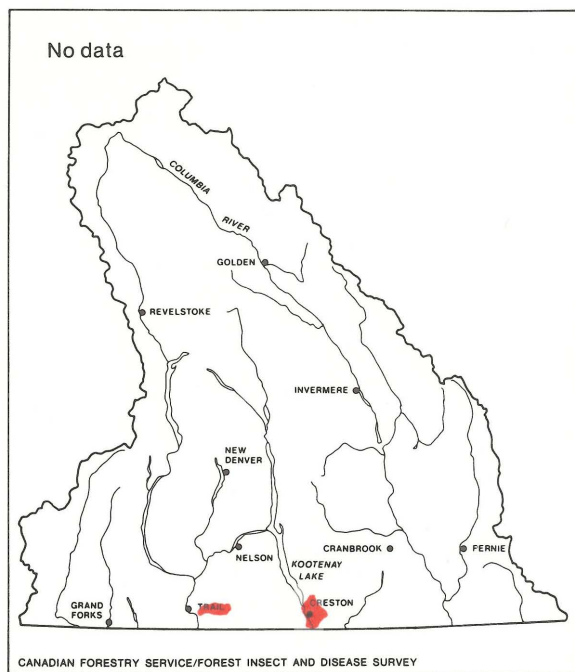
LARCH CASEBEARER



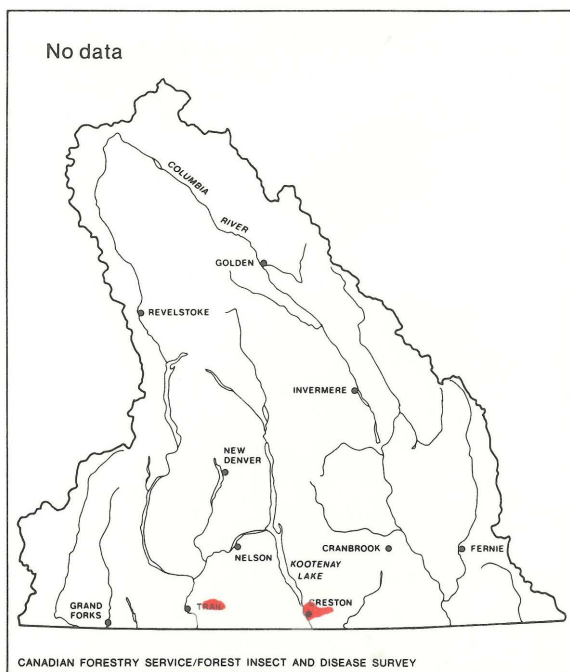
Larch casebearer, 1966



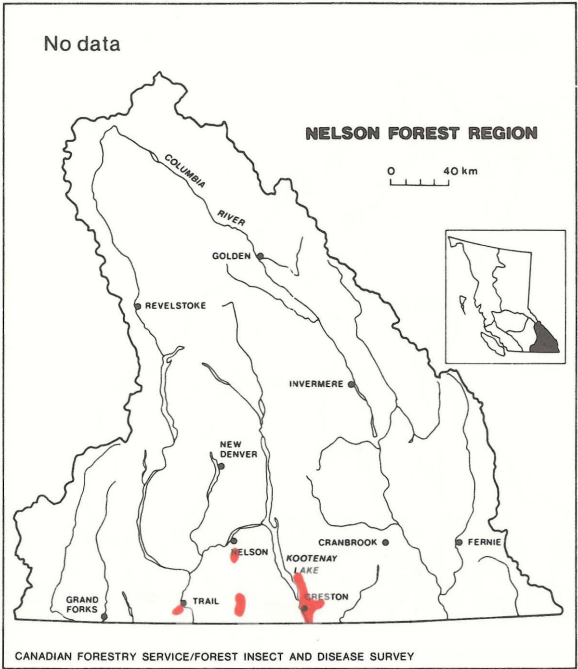
Larch casebearer, 1967



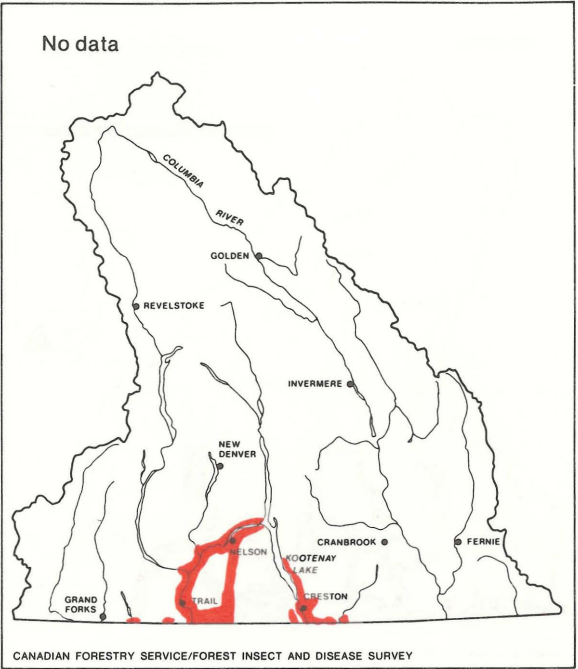
Larch casebearer, 1968



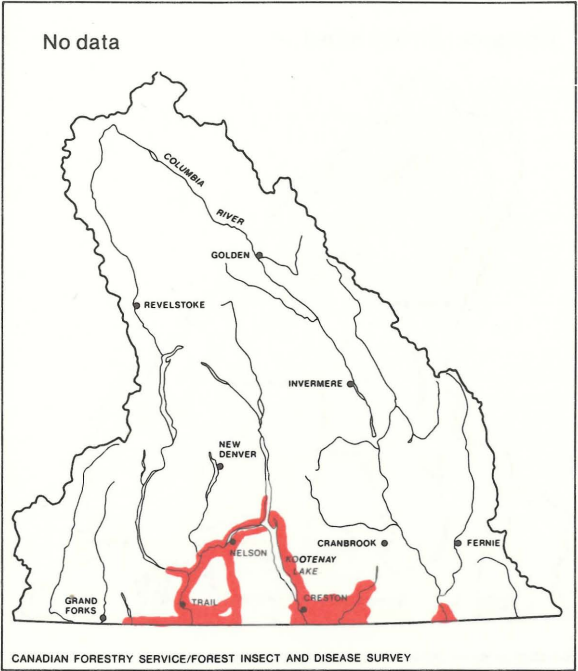
Larch casebearer, 1969



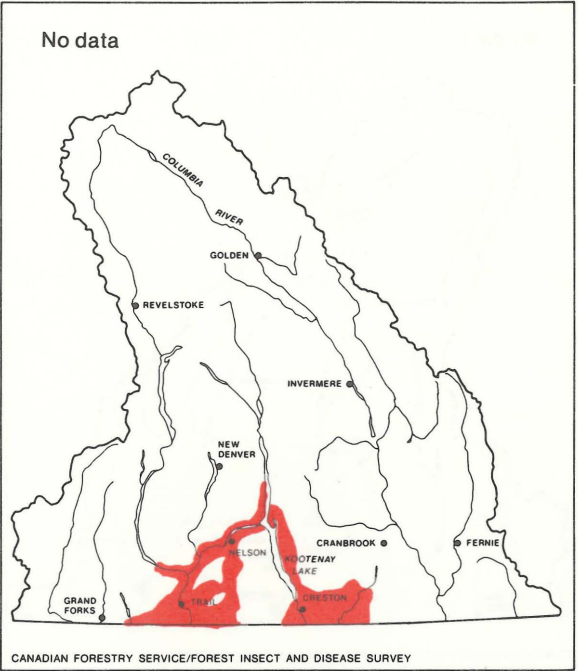
Larch casebearer, 1970



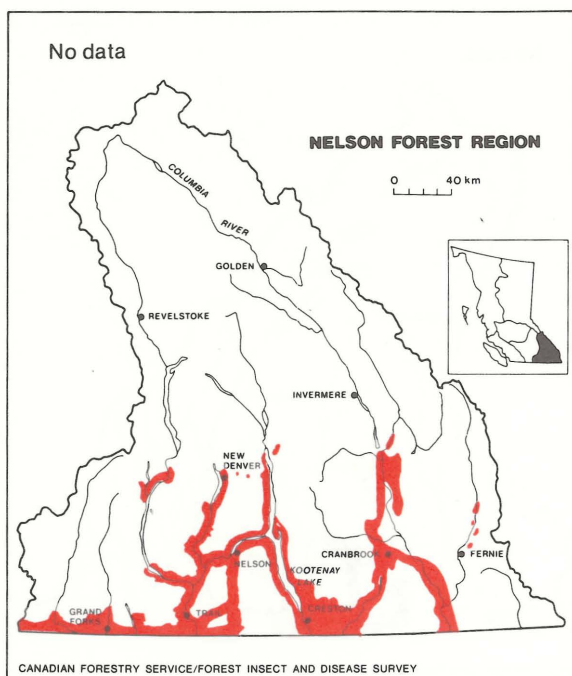
Larch casebearer, 1971



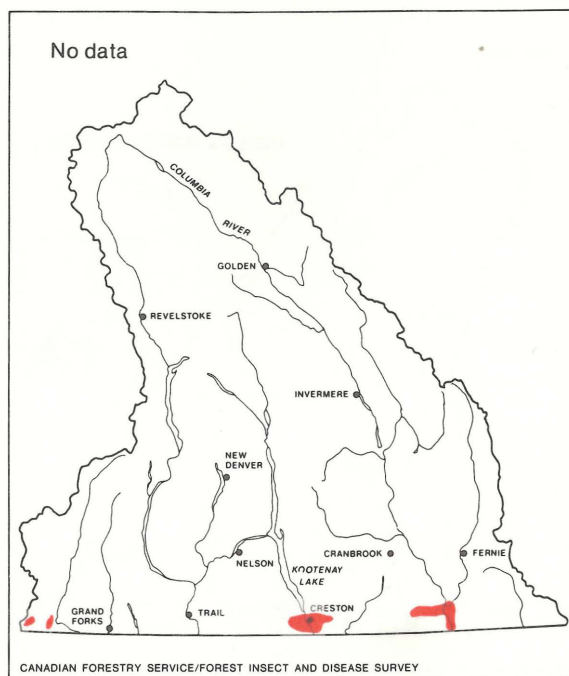
Larch casebearer, 1972



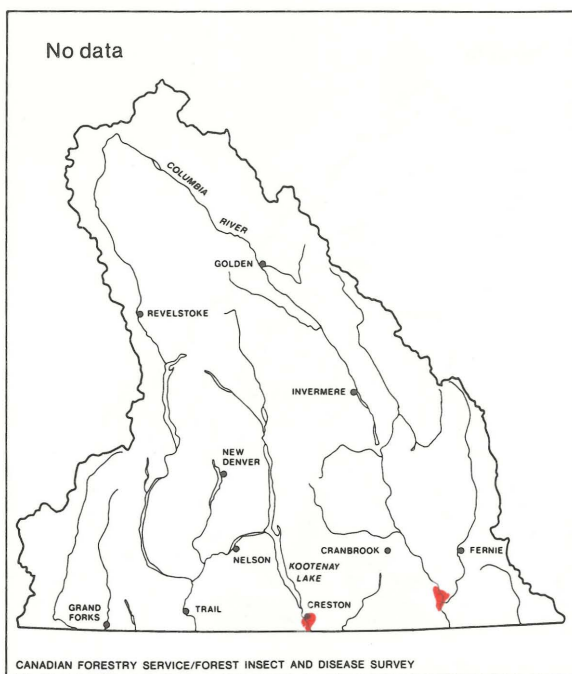
Larch casebearer, 1973-75



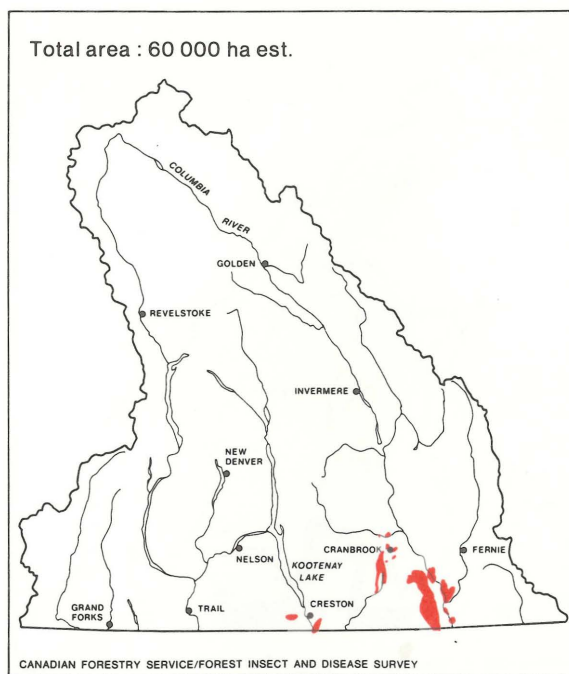
Larch casebearer, 1976-80



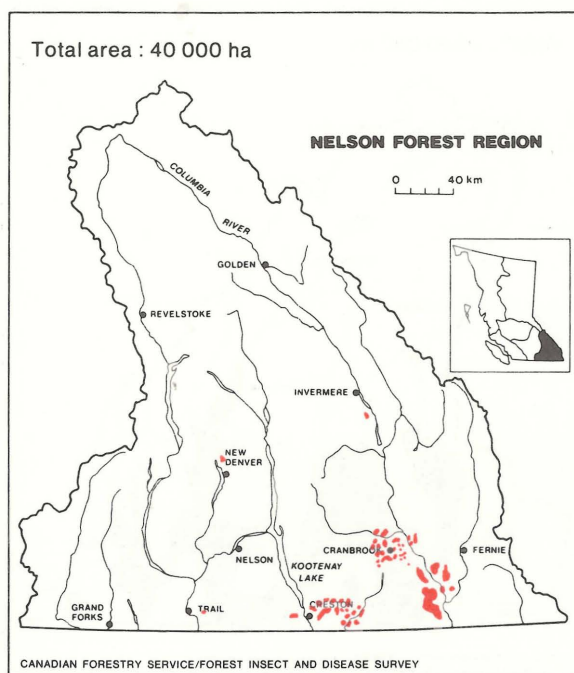
Larch casebearer, 1981



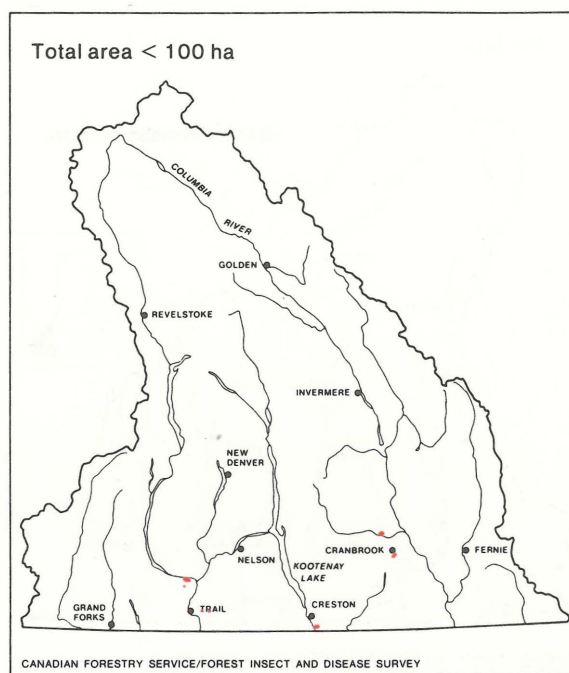
Larch casebearer, 1982



Larch casebearer, 1983

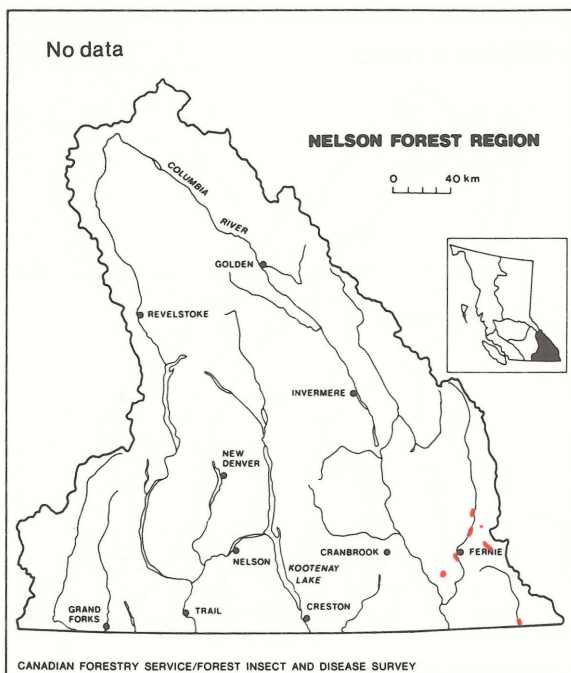


Larch casebearer, 1984-85

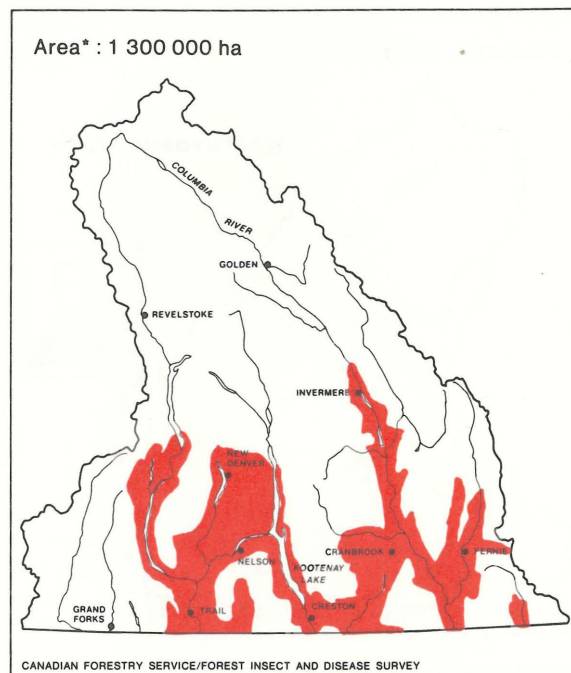


Larch casebearer, 1986

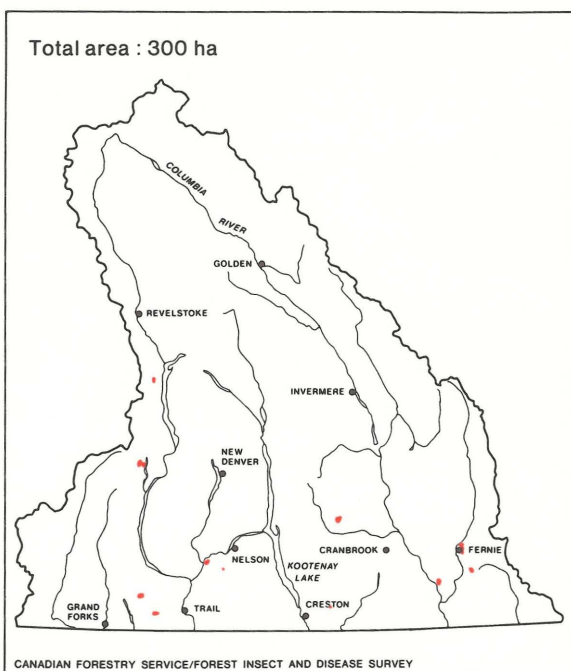
LARCH SAWFLY



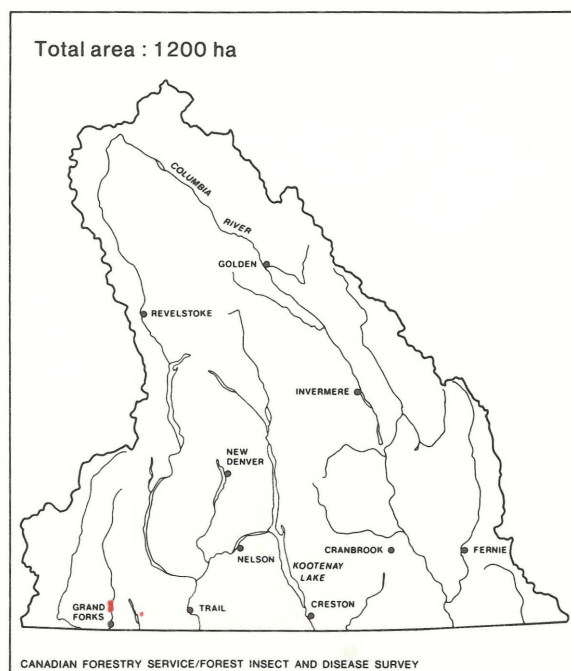
Larch sawfly, 1933-35



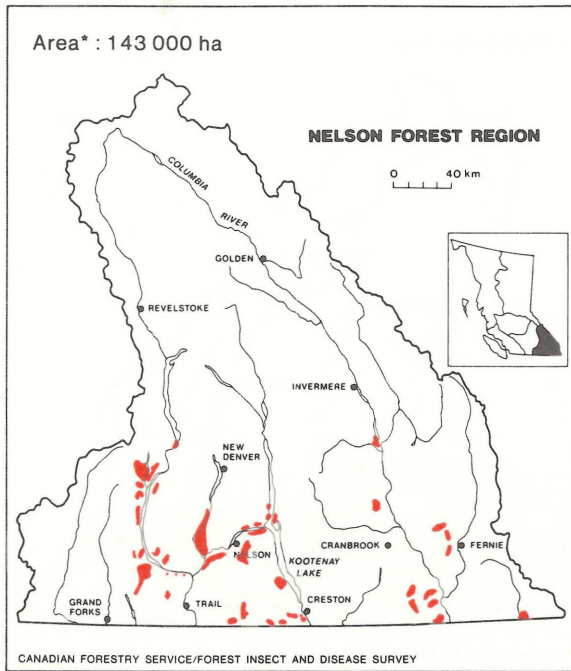
Larch sawfly, 1938-44



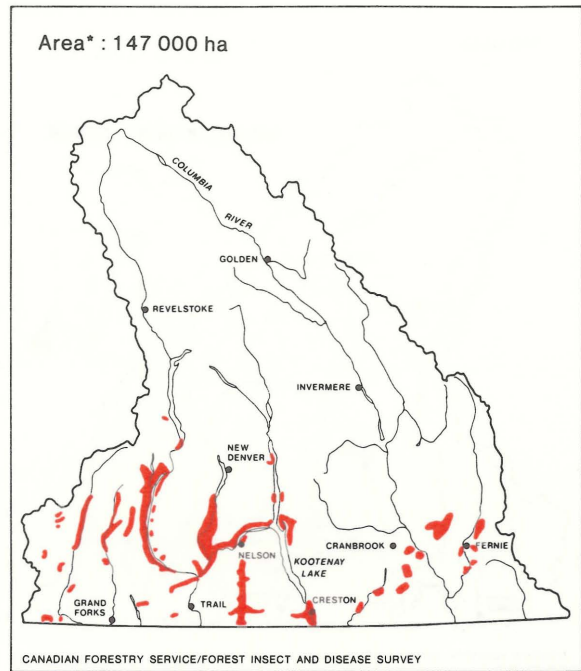
Larch sawfly, 1945-47



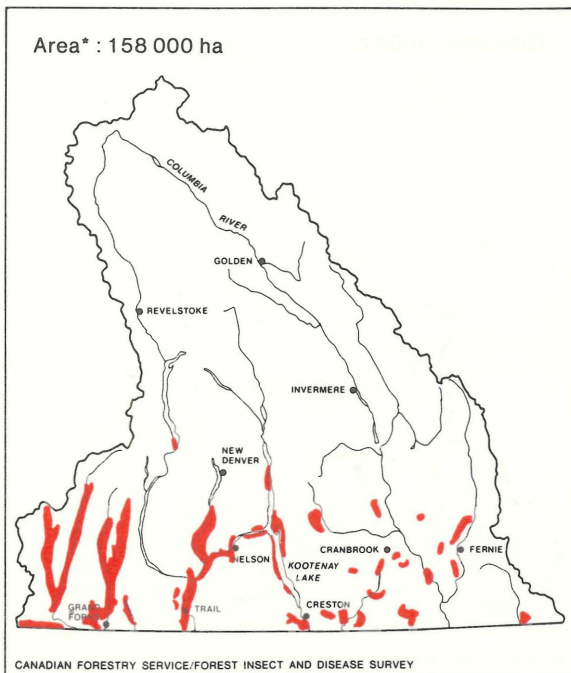
Larch sawfly, 1948-49



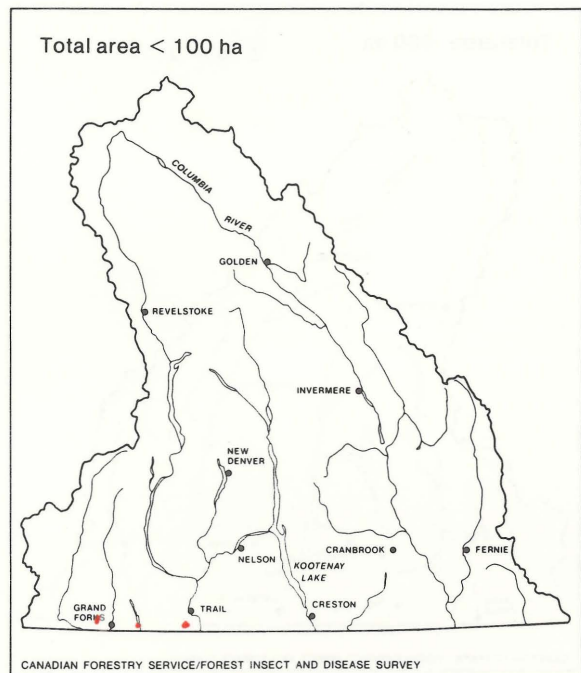
Larch sawfly, 1965



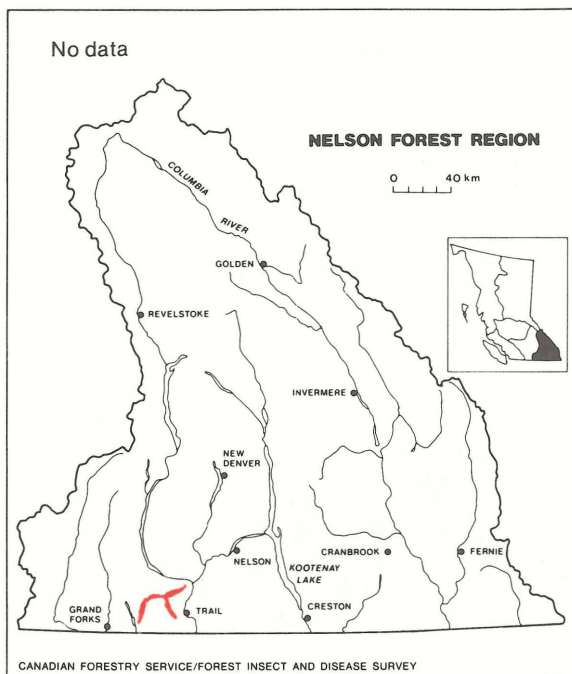
Larch sawfly, 1966



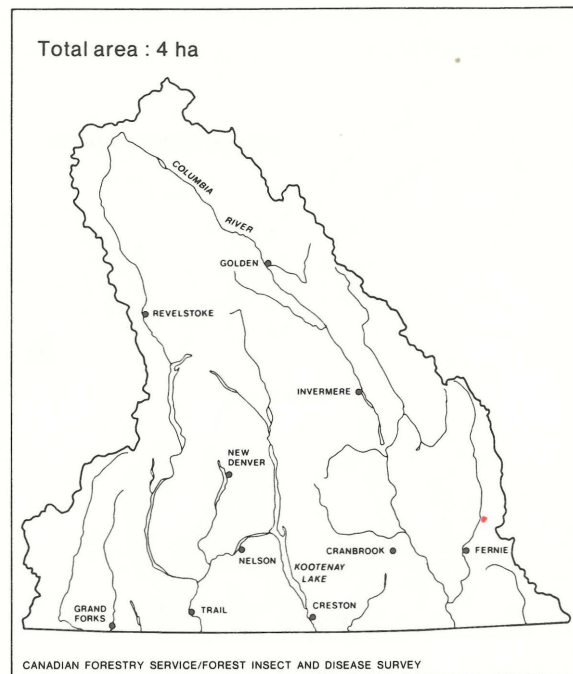
Larch sawfly, 1967



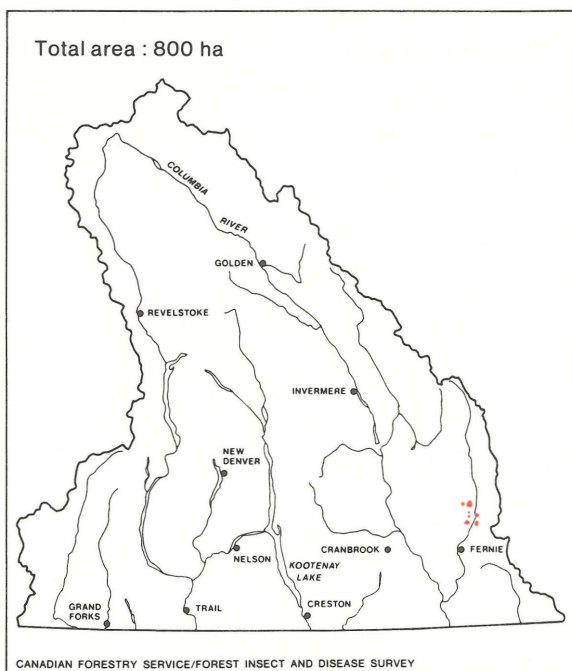
Larch sawfly, 1968-69



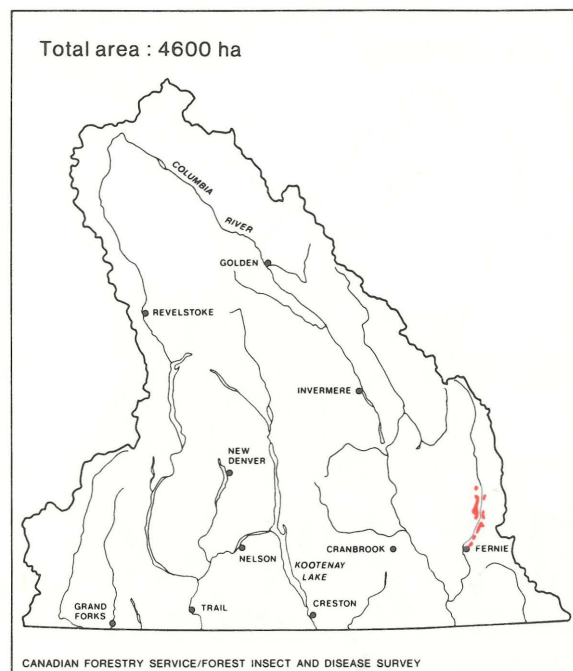
Larch sawfly, 1971-72



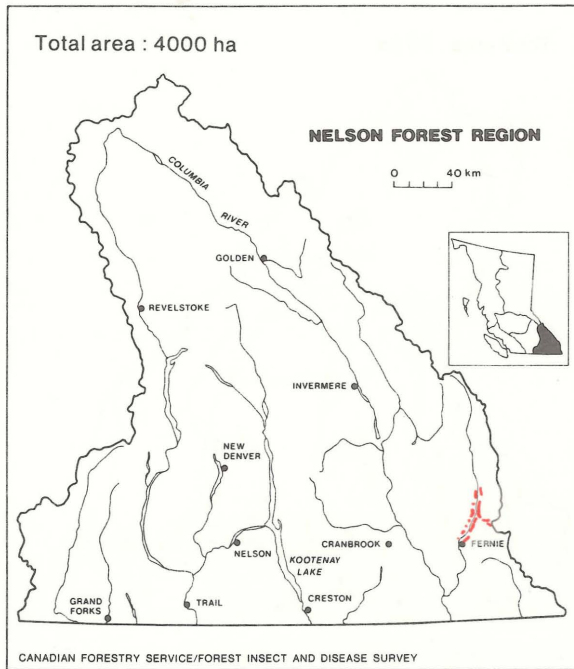
Larch sawfly, 1976



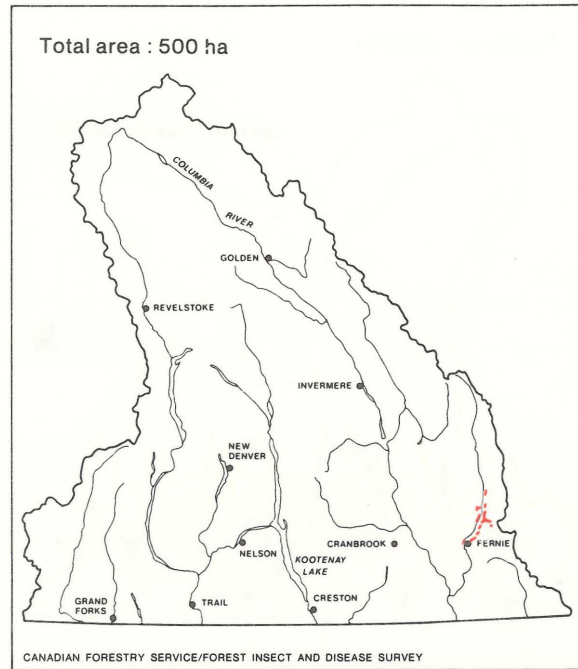
Larch sawfly, 1977



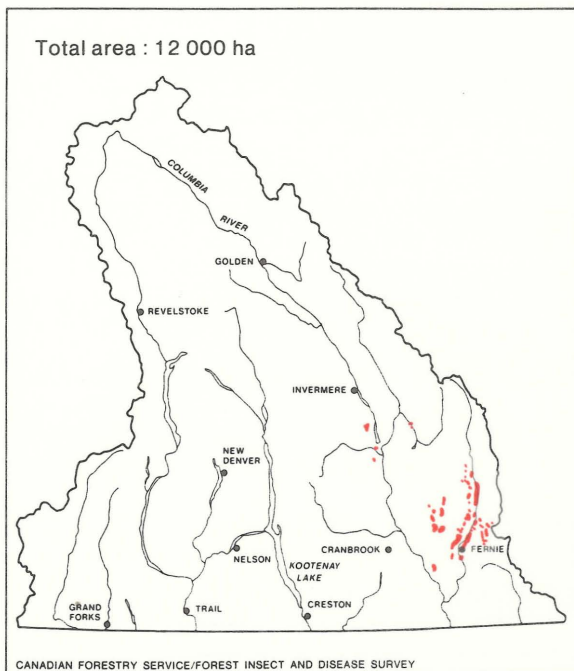
Larch sawfly, 1978



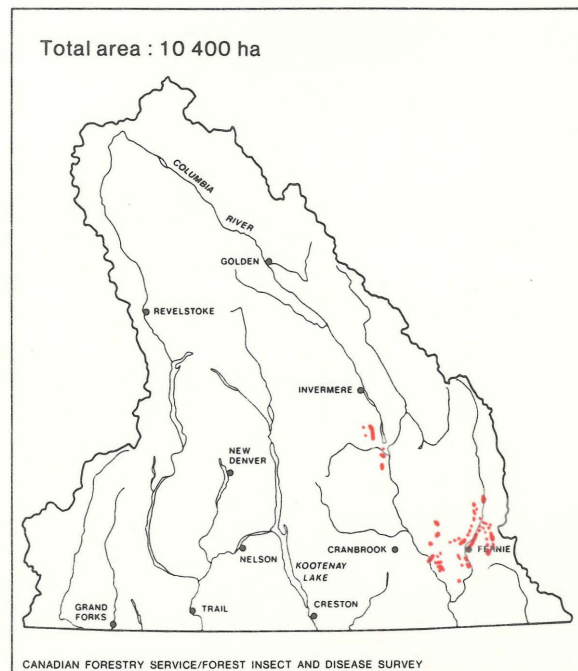
Larch sawfly, 1979



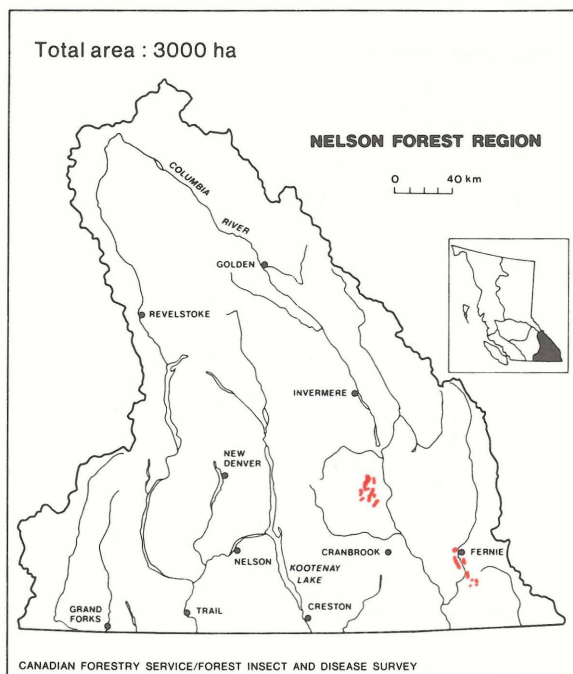
Larch sawfly, 1980



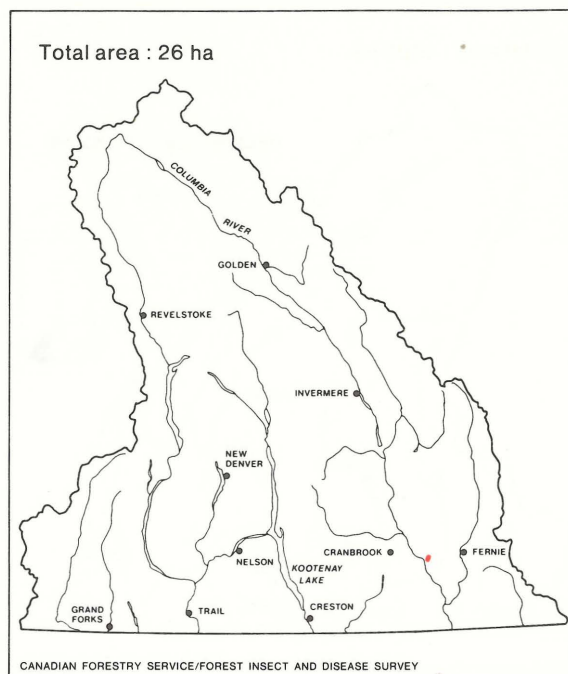
Larch sawfly, 1981-82



Larch sawfly, 1983

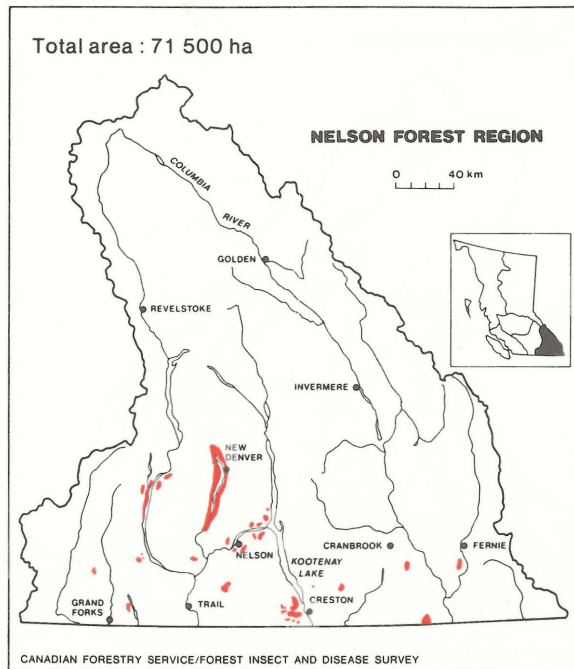


Larch sawfly, 1984

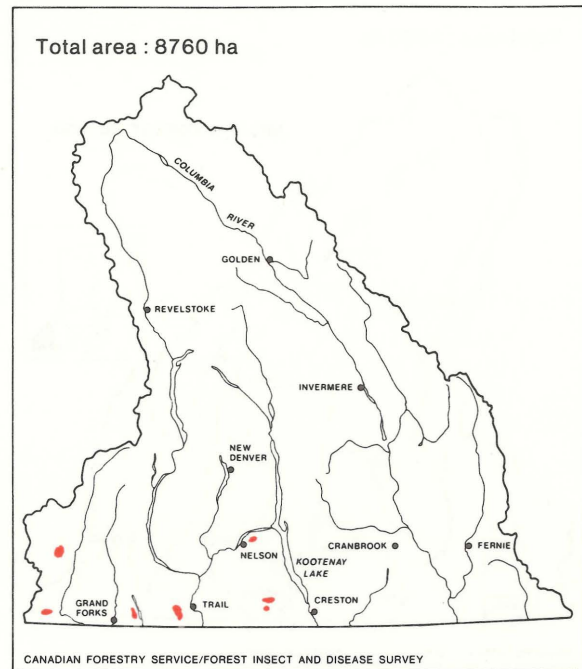


Larch sawfly, 1986

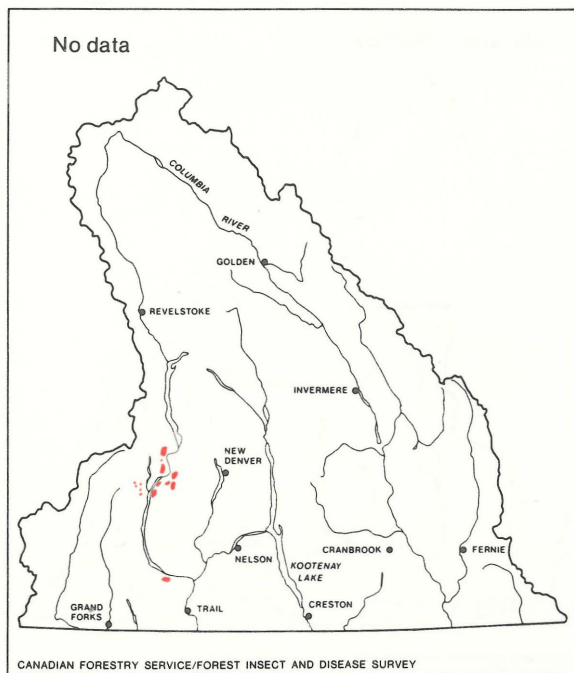
LARCH BUDMOTH



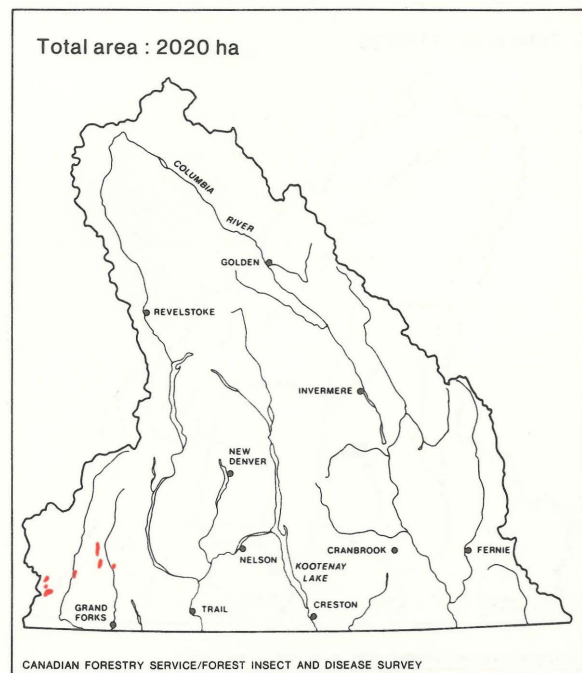
Larch budmoth, 1965



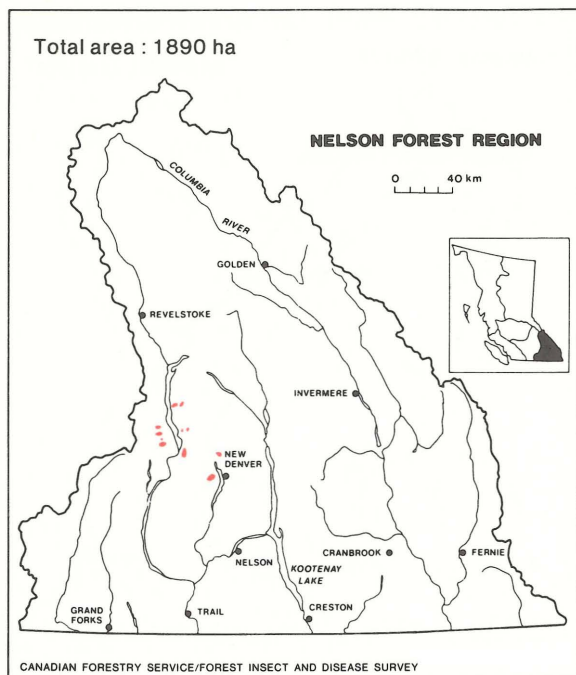
Larch budmoth, 1966



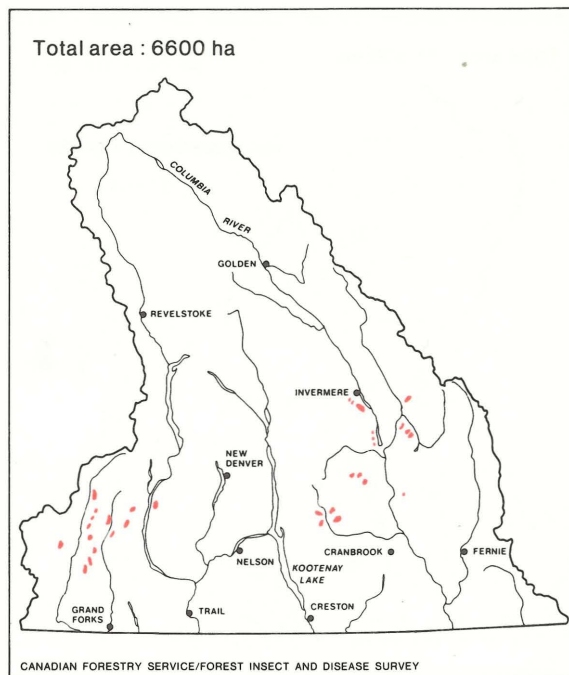
Larch budmoth, 1973



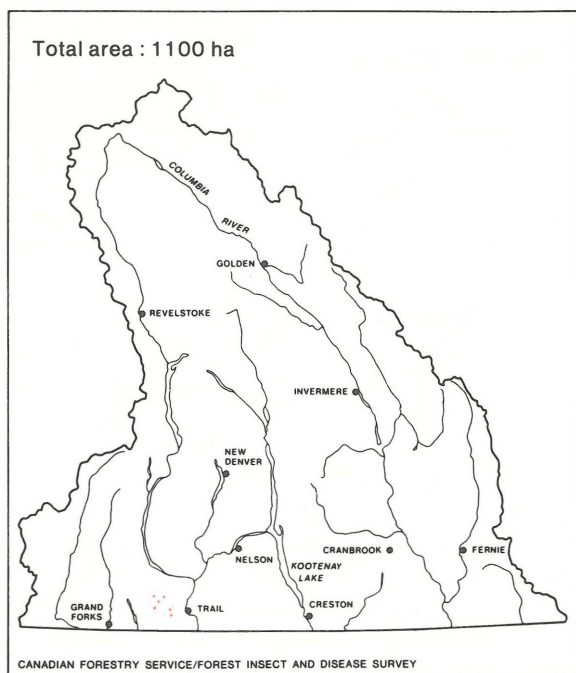
Larch budmoth, 1977



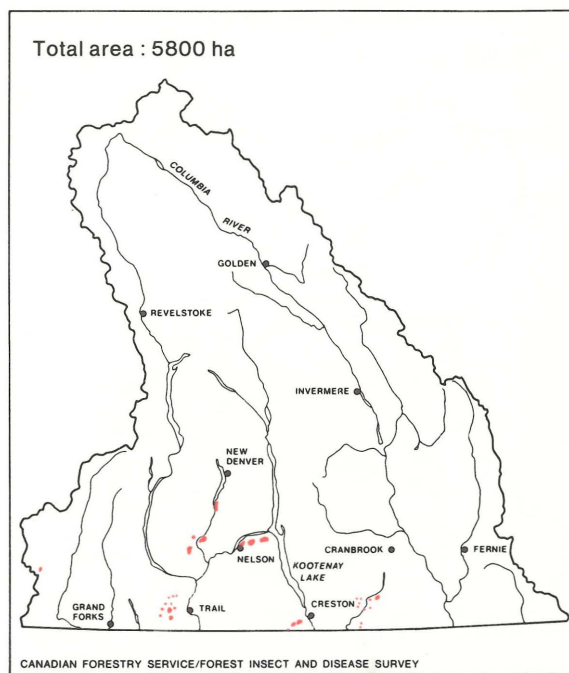
Larch budmoth, 1978



Larch budmoth, 1983

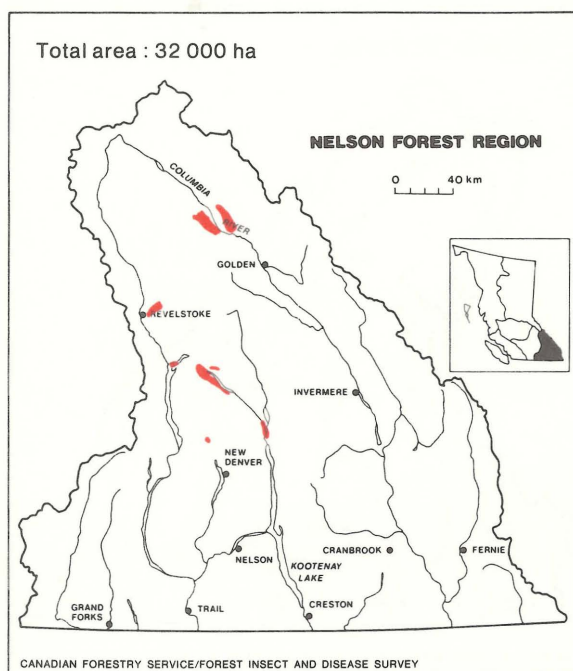


Larch budmoth, 1984

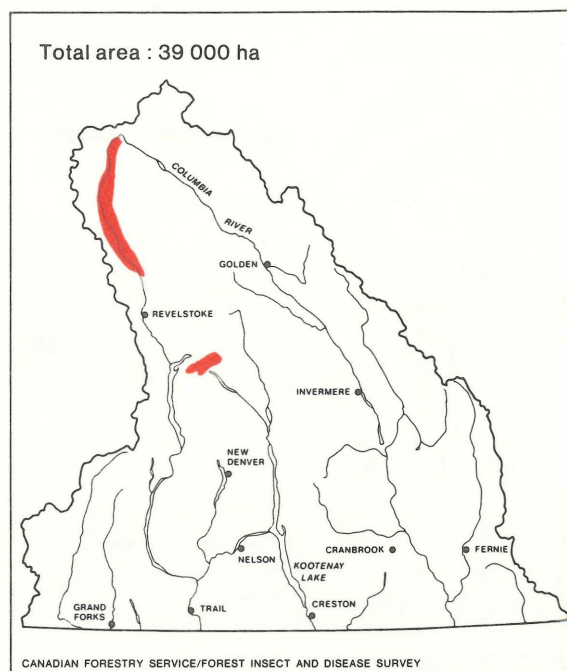


Larch budmoth, 1985

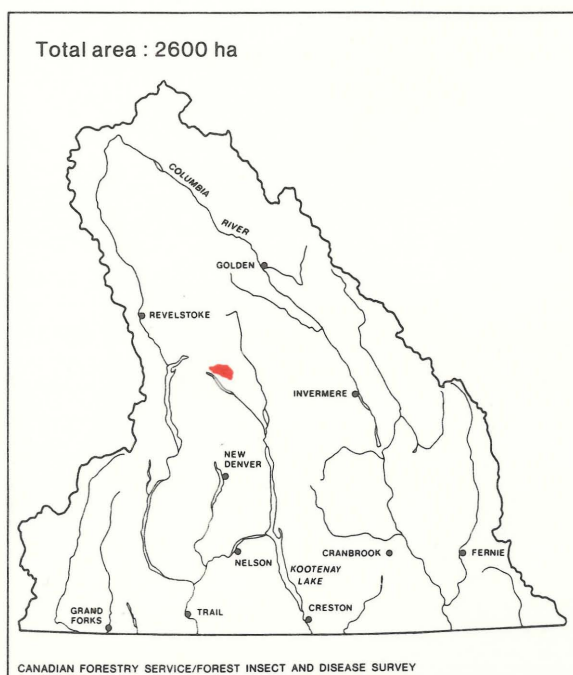
WESTERN HEMLOCK LOOPER



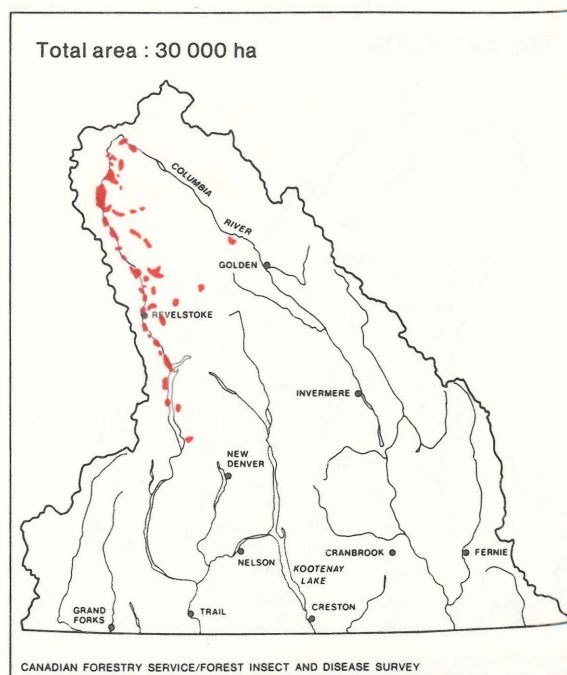
Western hemlock looper, 1937-38



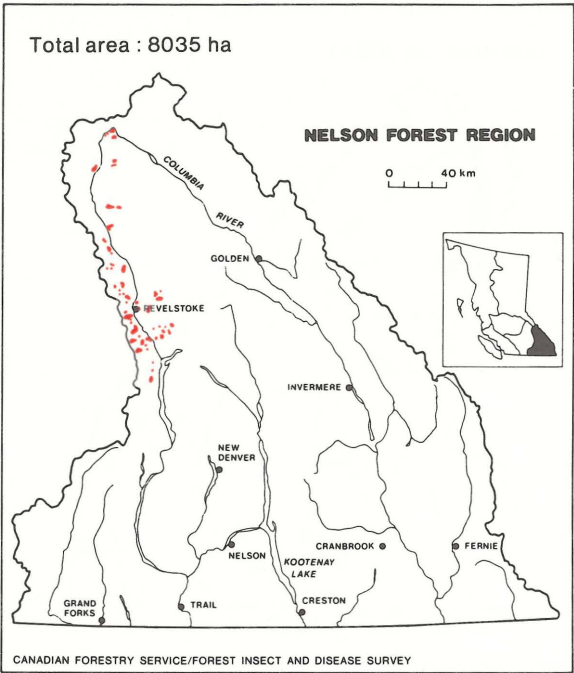
Western hemlock looper, 1945-46



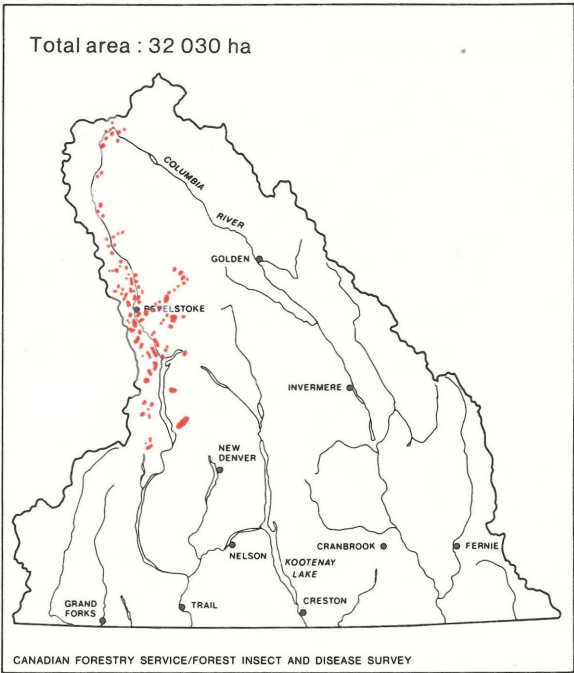
Western hemlock looper, 1947



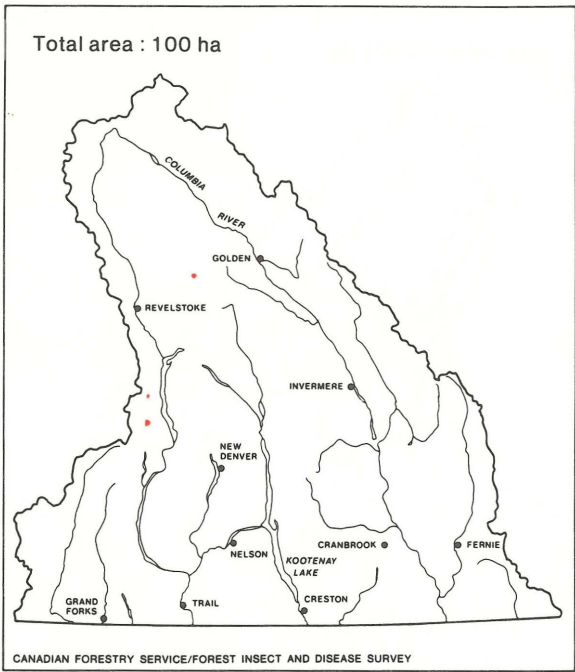
Western hemlock looper, 1972-73



Western hemlock looper, 1982

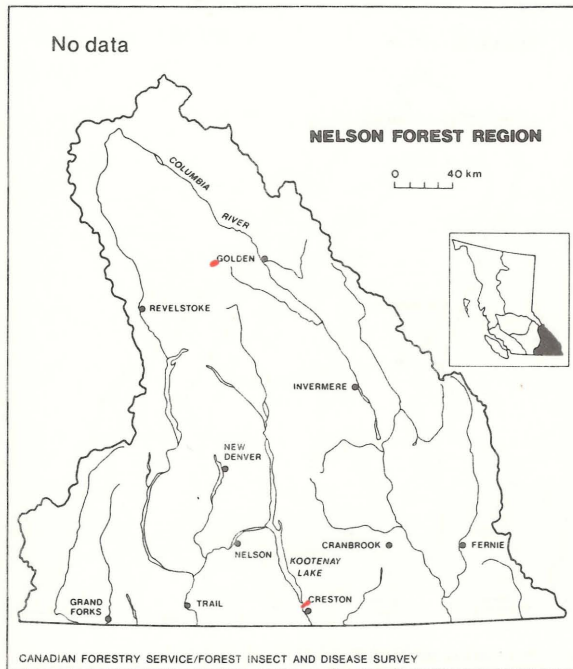


Western hemlock looper, 1983

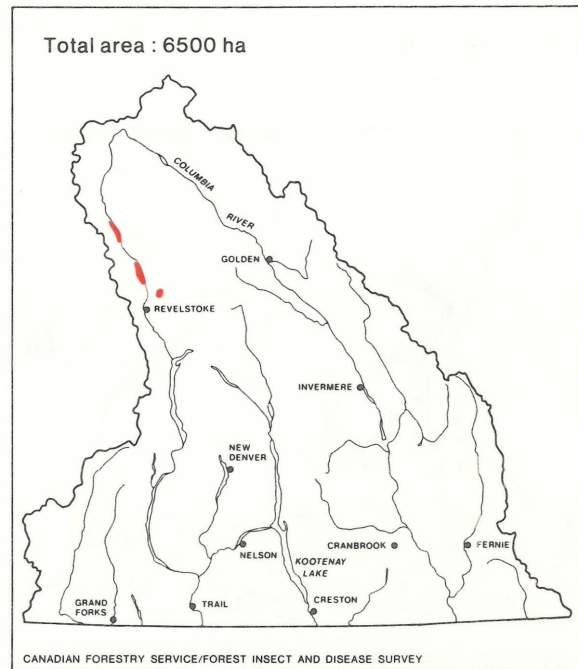


Western hemlock looper, 1984

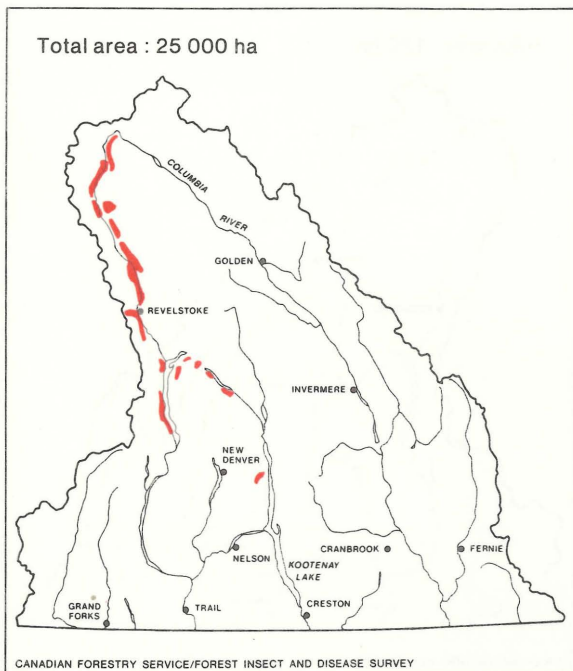
WESTERN BLACKHEADED BUDWORM



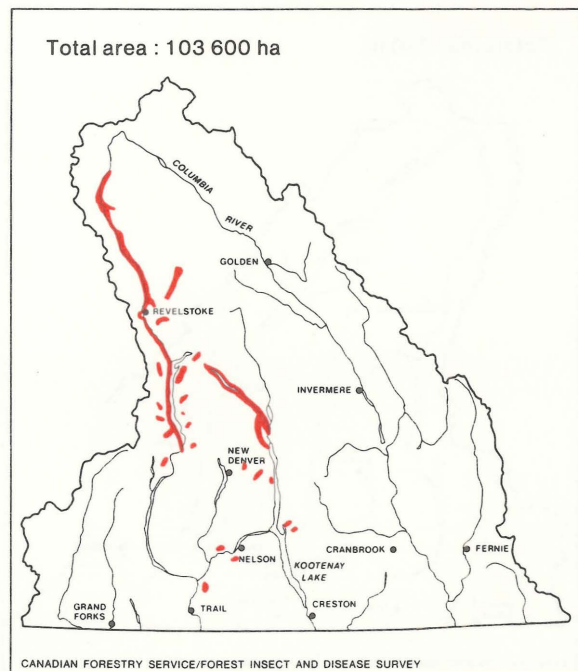
Western blackheaded budworm, 1939



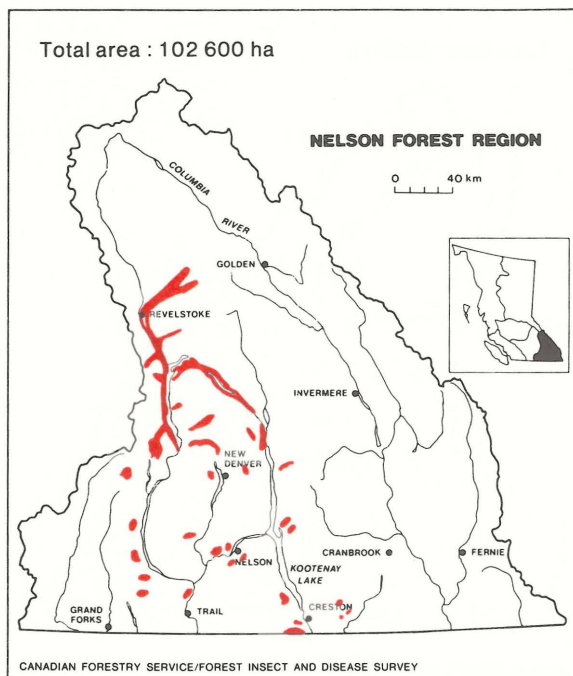
Western blackheaded budworm, 1955



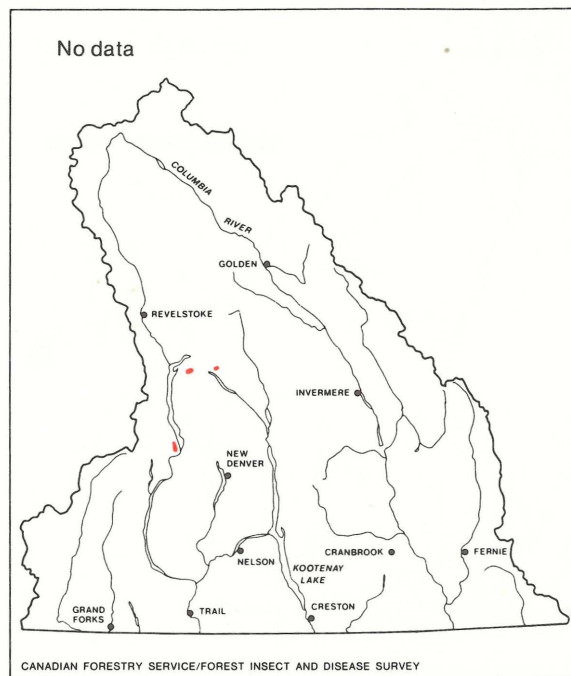
Western blackheaded budworm, 1965



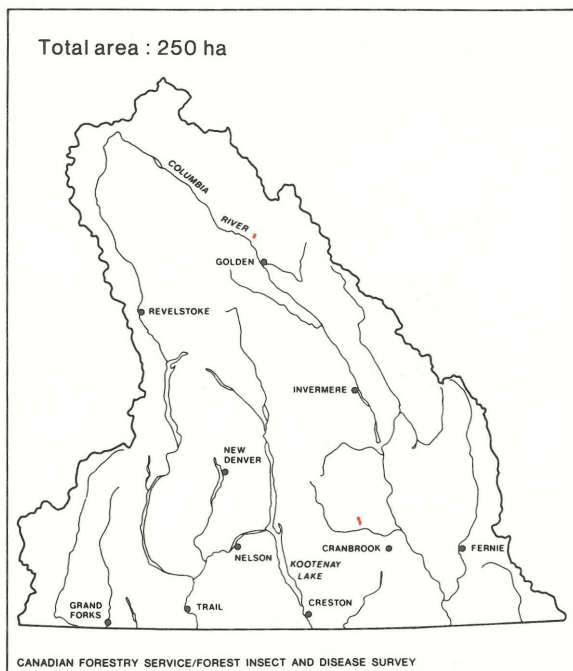
Western blackheaded budworm, 1966



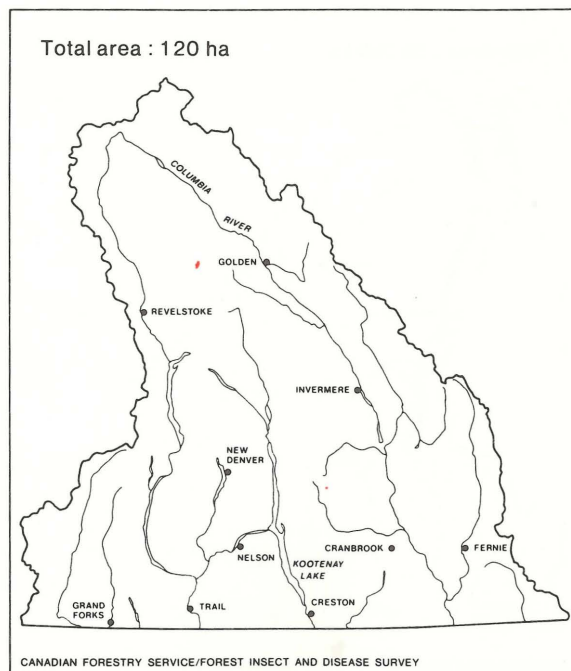
Western blackheaded budworm, 1967



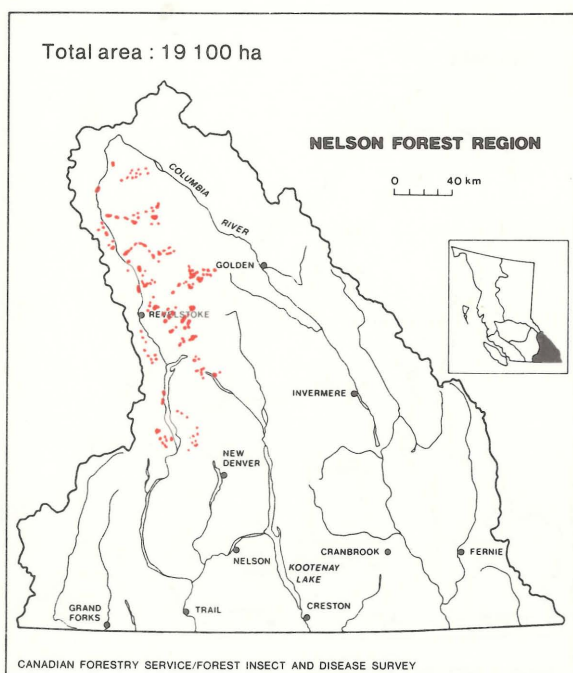
Western blackheaded budworm, 1973-75



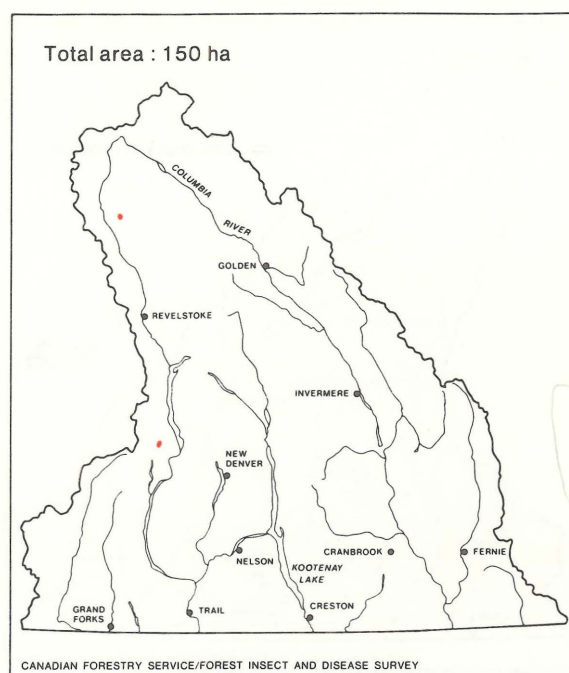
Western blackheaded budworm, 1977-78



Western blackheaded budworm, 1983

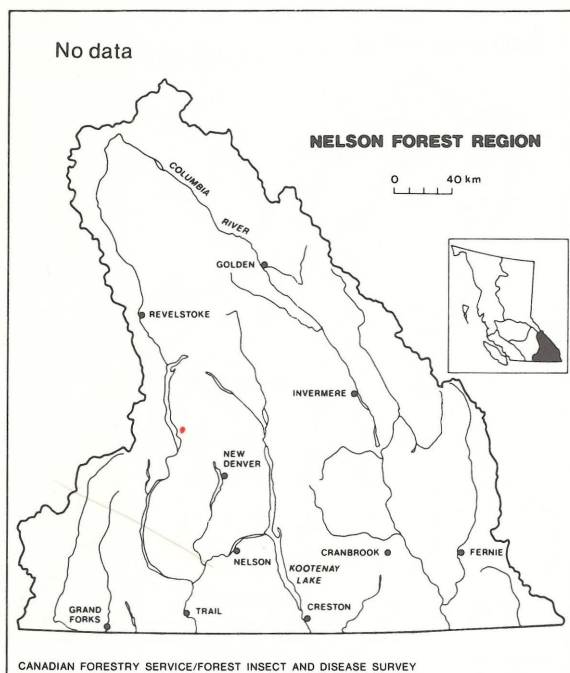


Western blackheaded budworm, 1984

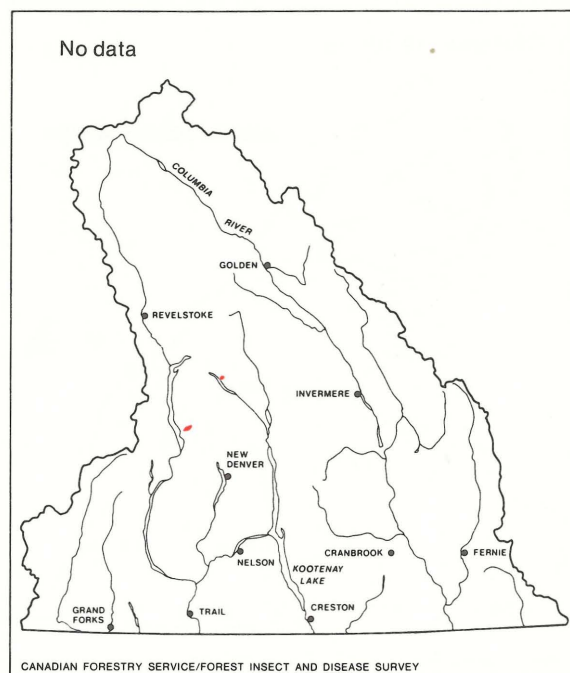


Western blackheaded budworm, 1985

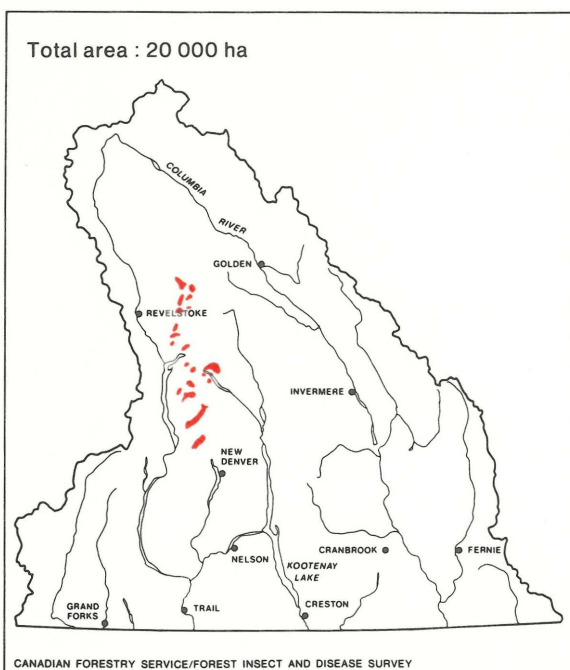
FILAMENT BEARER



Filament bearer, 1971

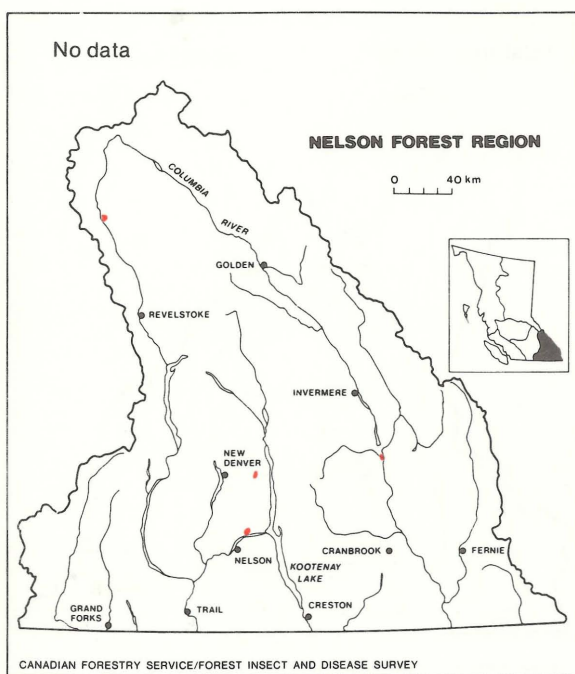


Filament bearer, 1972

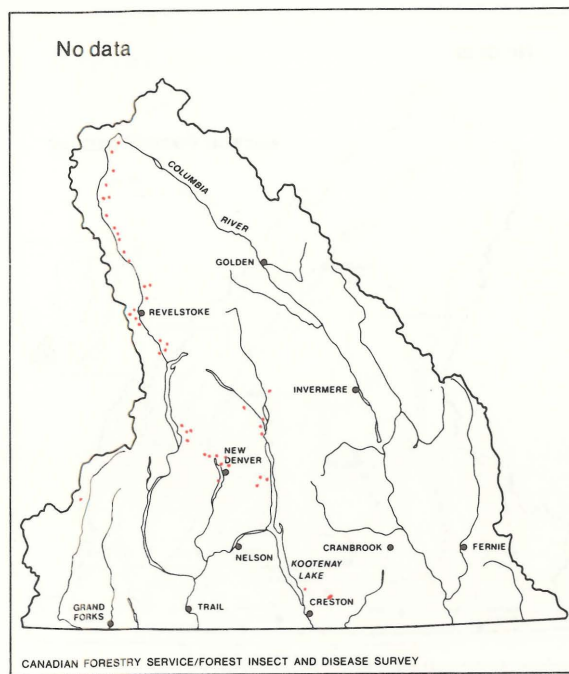


Filament bearer, 1973-74

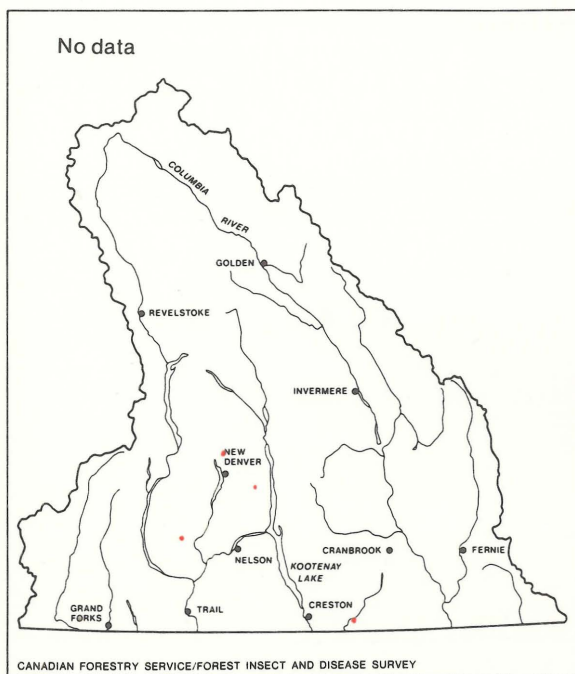
CONIFER SAWFLY



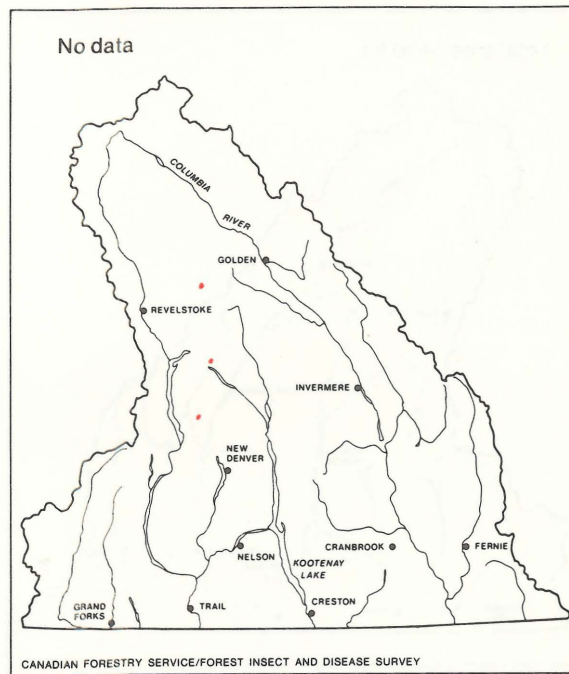
Conifer sawfly, 1946-50



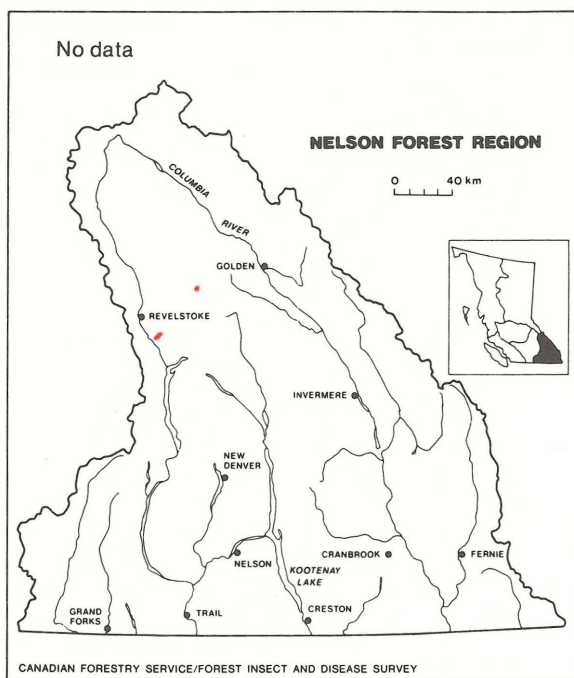
Conifer sawfly, 1957-58



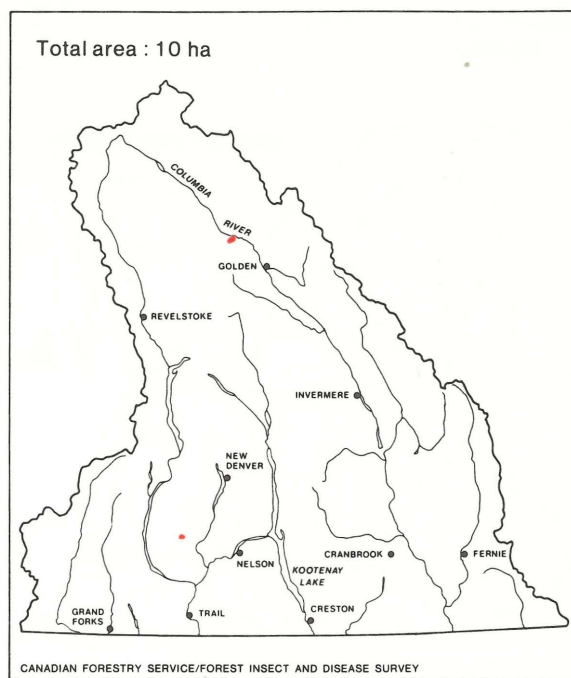
Conifer sawfly, 1963-66



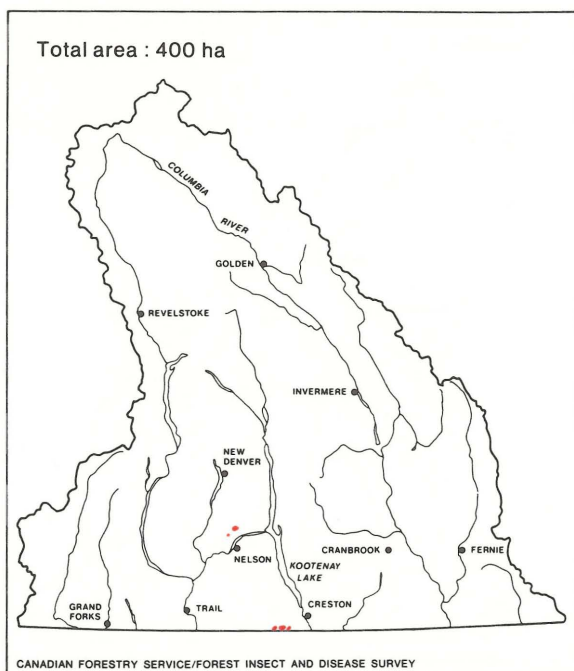
Conifer sawfly, 1973



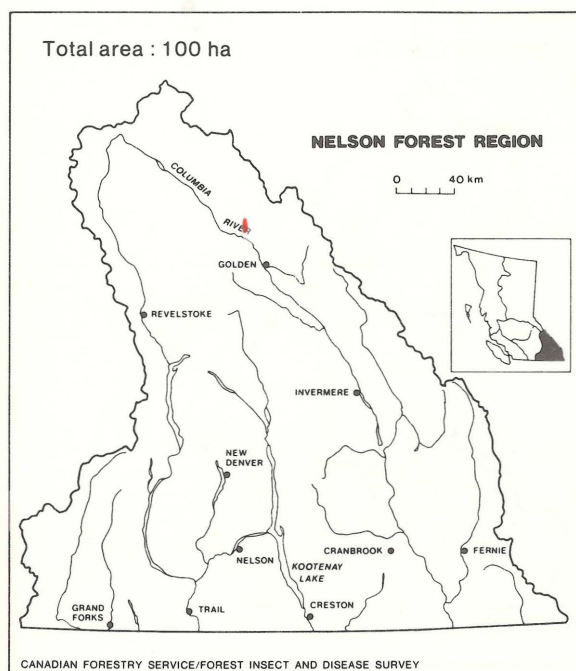
Conifer sawfly, 1980-81



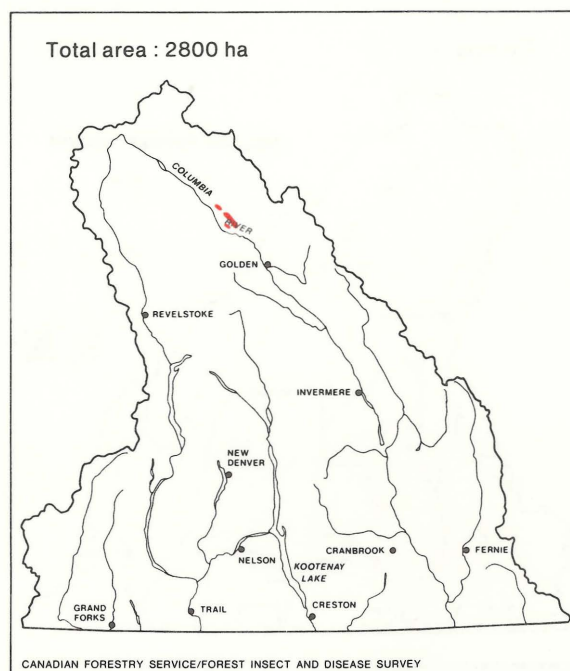
Conifer sawfly, 1982-83



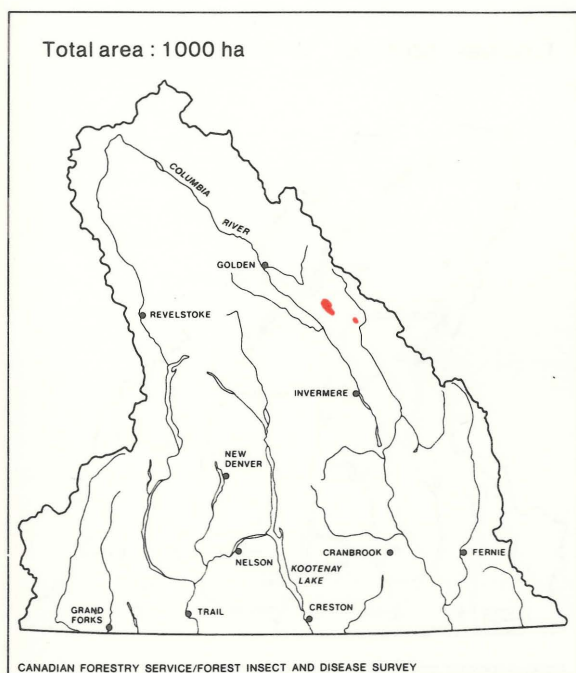
Conifer sawfly, 1985-86

BLACK ARMY CUTWORM

Black army cutworm, 1973

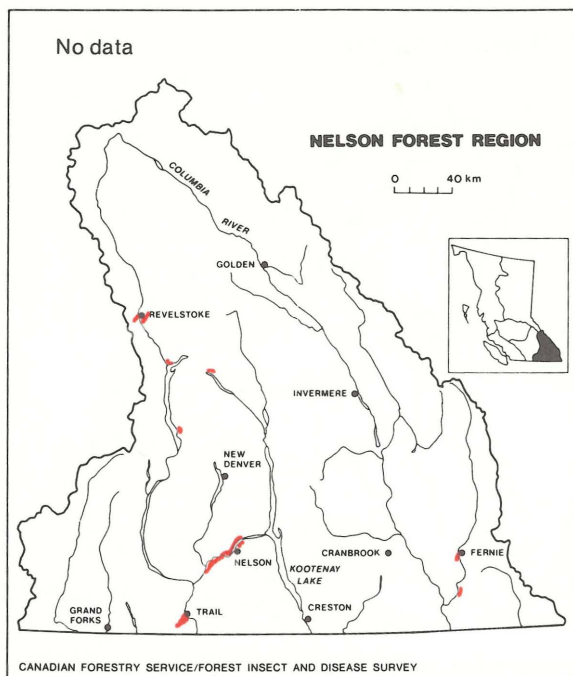


Black army cutworm, 1974

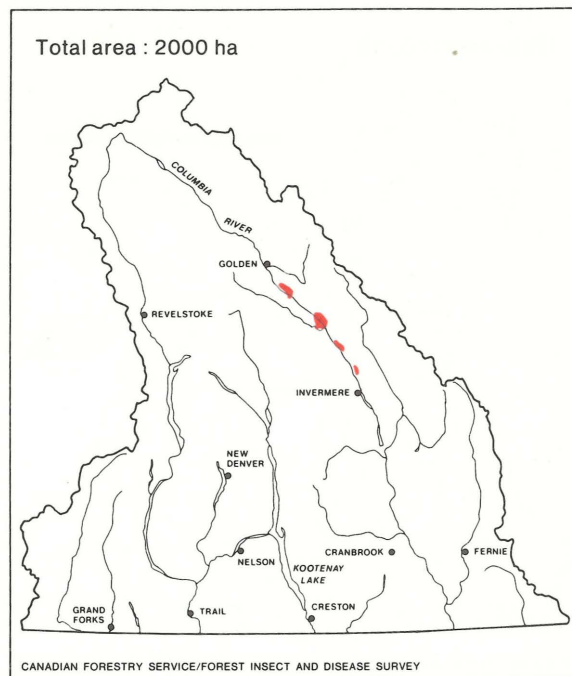


Black army cutworm, 1975

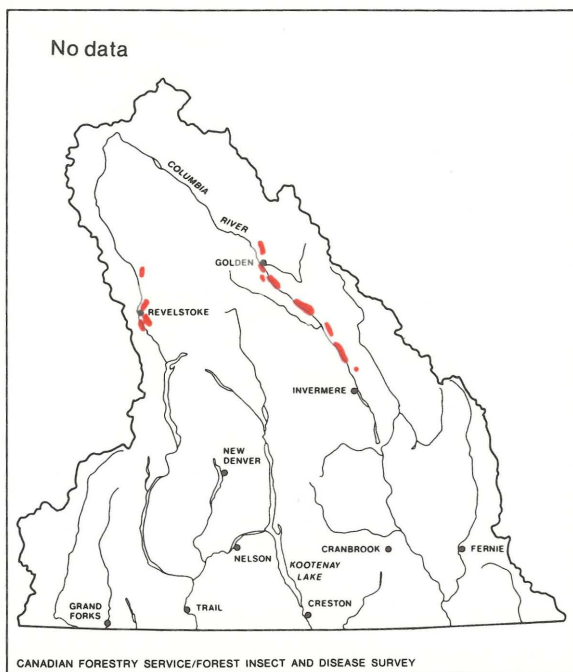
FOREST TENT CATERPILLAR



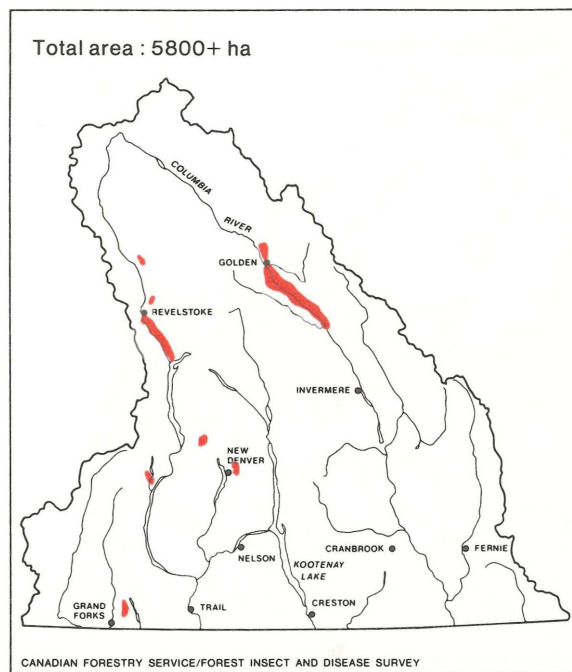
Forest tent caterpillar, 1944



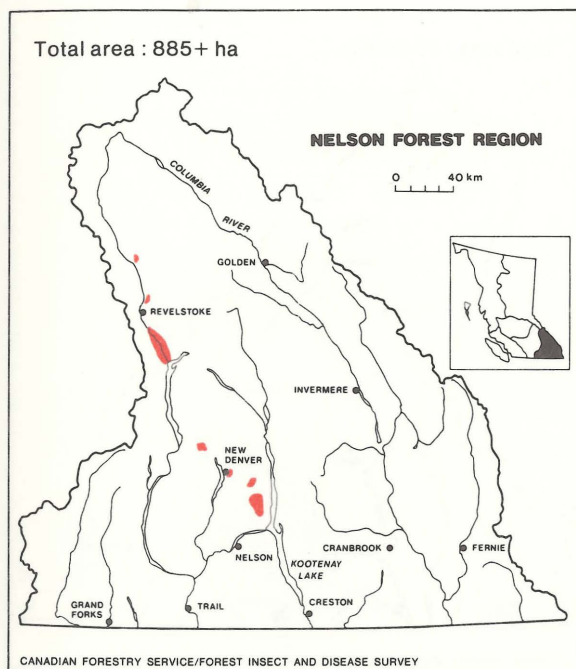
Forest tent caterpillar, 1951



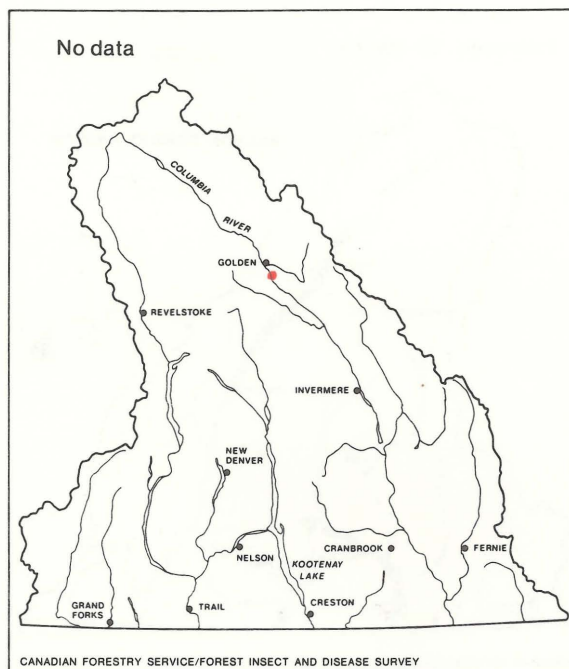
Forest tent caterpillar, 1952



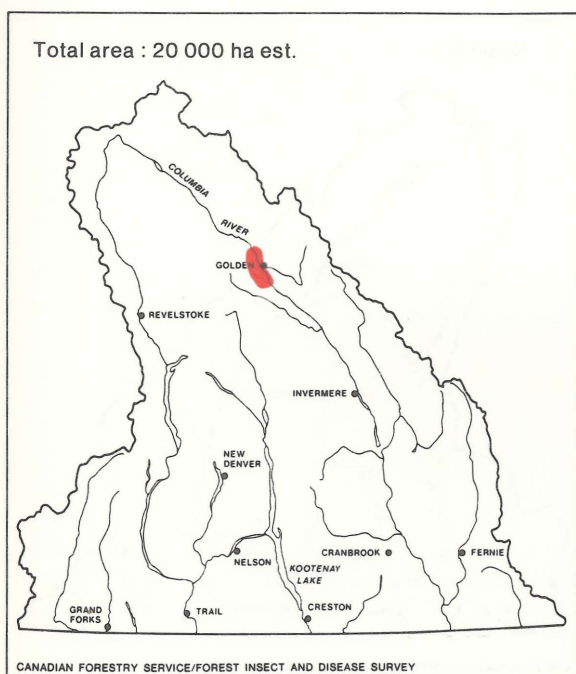
Forest tent caterpillar, 1953



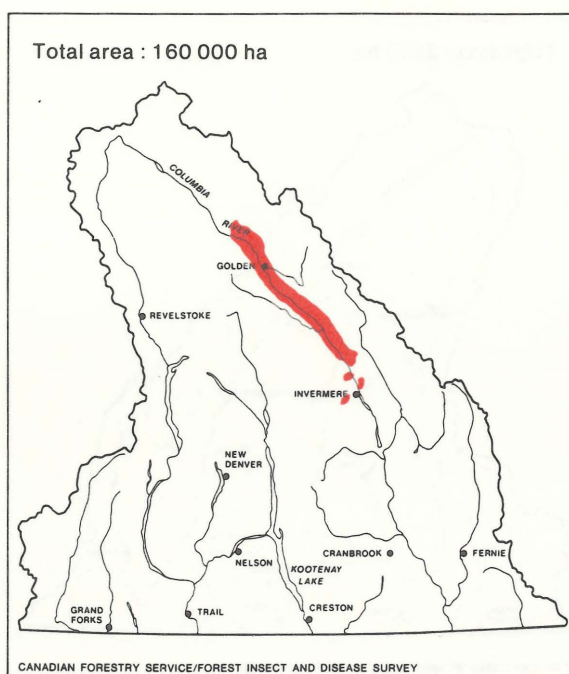
Forest tent caterpillar, 1954



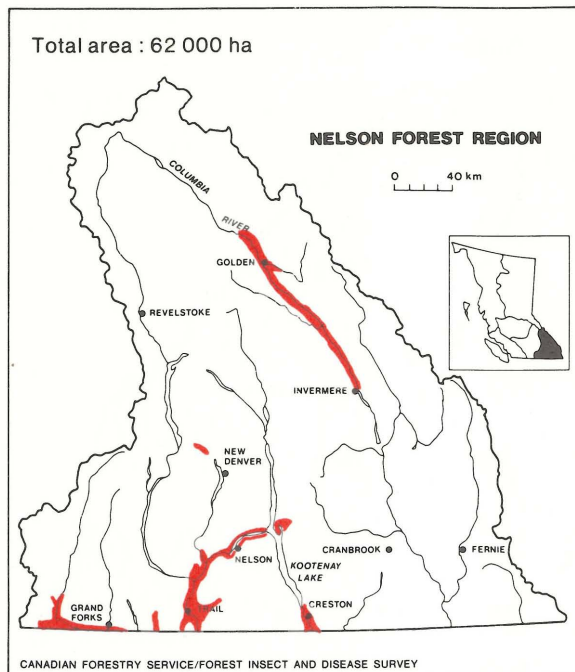
Forest tent caterpillar, 1959



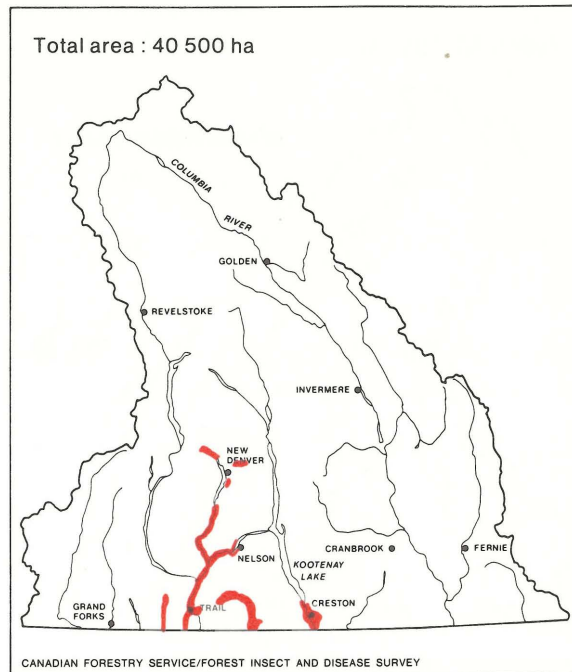
Forest tent caterpillar, 1960



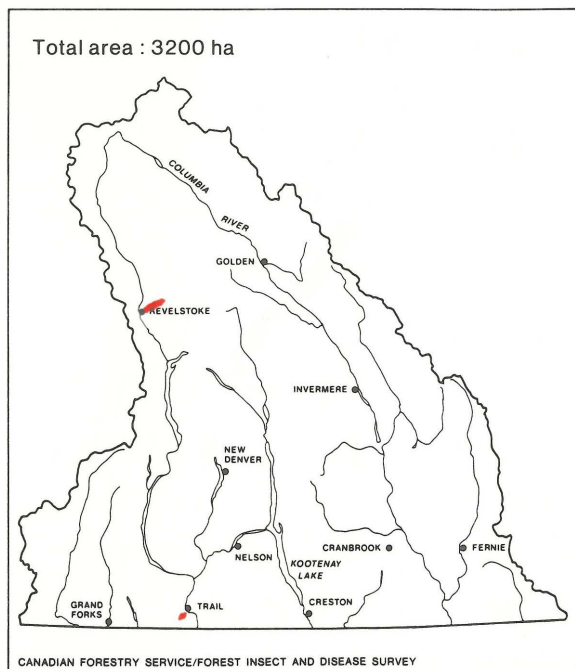
Forest tent caterpillar, 1961



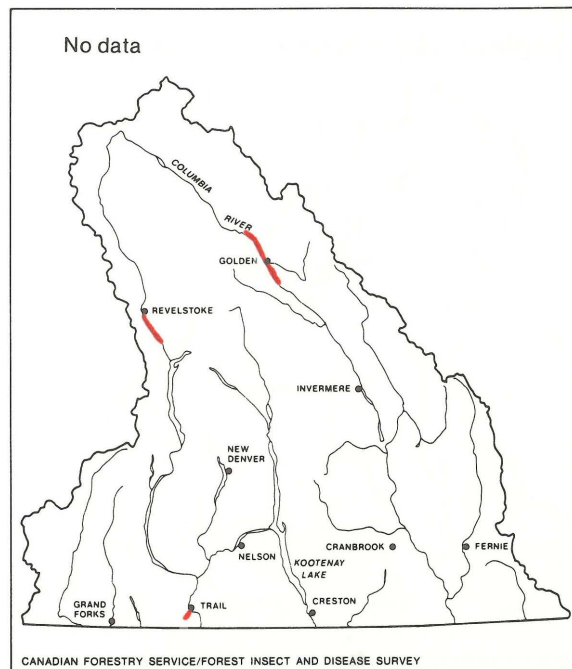
Forest tent caterpillar, 1962-63



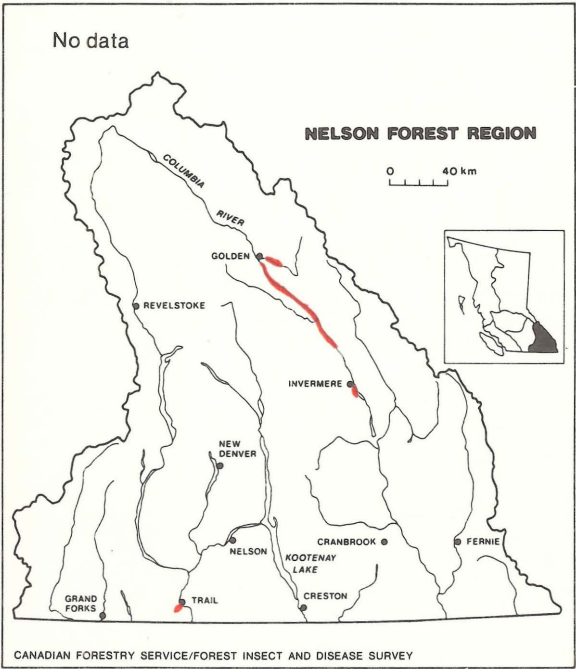
Forest tent caterpillar, 1964



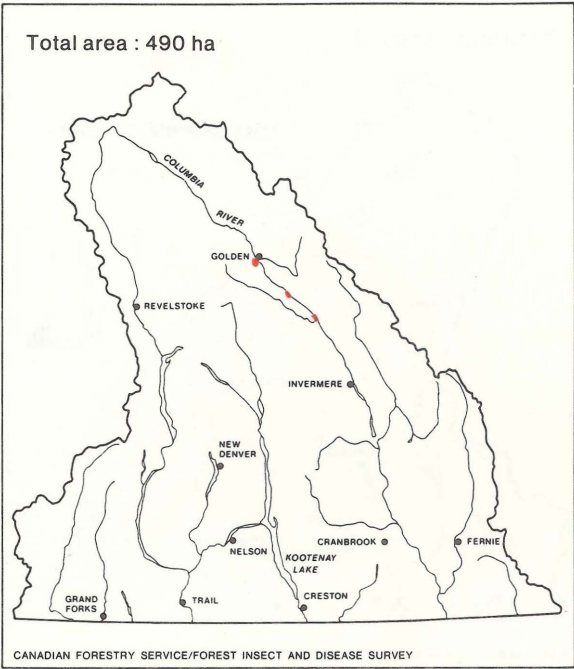
Forest tent caterpillar, 1971



Forest tent caterpillar, 1972



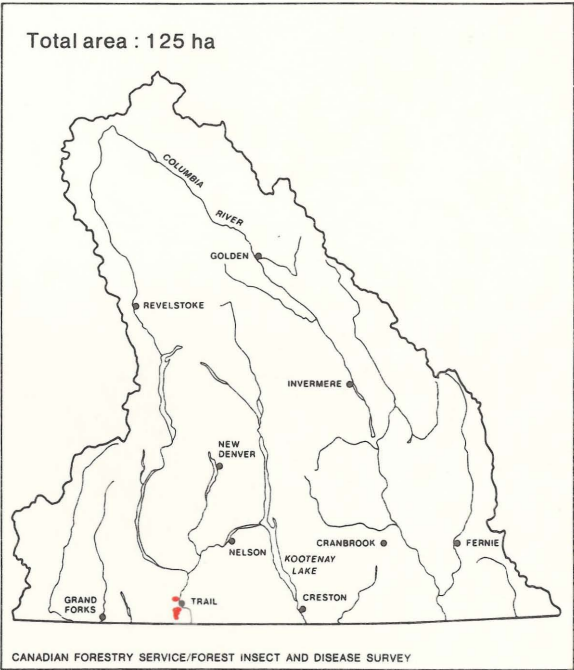
Forest tent caterpillar, 1973



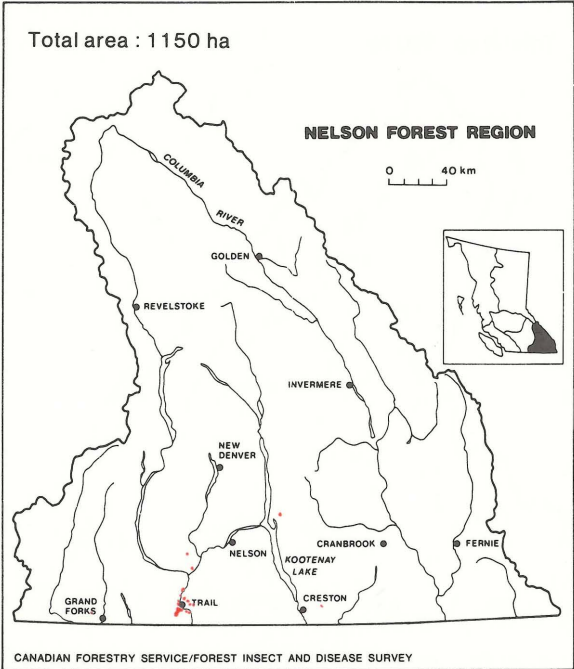
Forest tent caterpillar, 1974



Forest tent caterpillar, 1976



Forest tent caterpillar, 1984-85



Forest tent caterpillar, 1986