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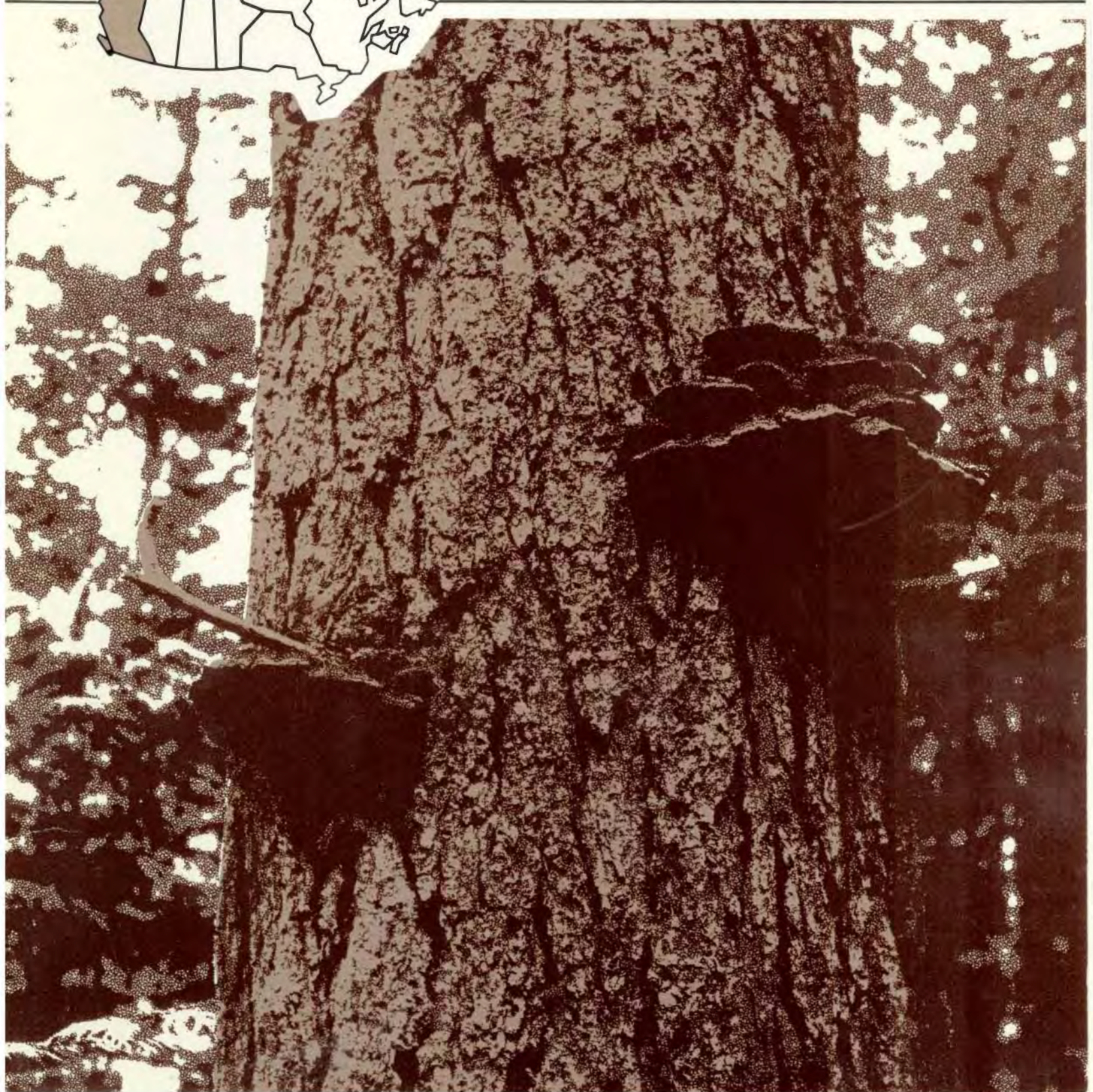
Canadian  
Forestry  
Service

Service  
canadien des  
forêts

# Distribution maps of common tree diseases in British Columbia

C. Wood

Information Report BC-X-281  
Pacific Forestry Centre





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in British Columbia**

C. Wood

Canadian Forestry Service  
Pacific Forestry Centre

BC-X-281

1986

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

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ISSN 0830-0453  
ISBN 0-662-14735-9  
Cat. No. Fo46-17/281E

## **Abstract**

The distributions of common tree diseases in British Columbia are summarized. These are based on collections held in the herbarium (DAVFP) at the Pacific Forestry Centre of the Canadian Forestry Service, Victoria, B.C. Based on Forest Insect and Disease Survey data, the report is intended to provide background information for forest managers, forest agency personnel and educational institutions.

This publication supersedes BC-X-71 (1972).

## **Résumé**

Le document donne un résumé de la répartition des maladies des arbres en Colombie-Britannique. Ce travail a pu être compilé grâce aux collections de l'herbarium (DAVFP) situé au Centre de foresterie du Pacifique, organe du Service canadien des forêts, à Victoria. Fondé sur les données du Relevé des insectes et des maladies des arbres, le rapport a pour objectif de fournir des informations de base à l'intention des aménagistes forestiers, du personnel des organismes forestiers et des maisons d'enseignement.

Cette publication remplace le rapport BC-X-71 (1972).

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## Introduction

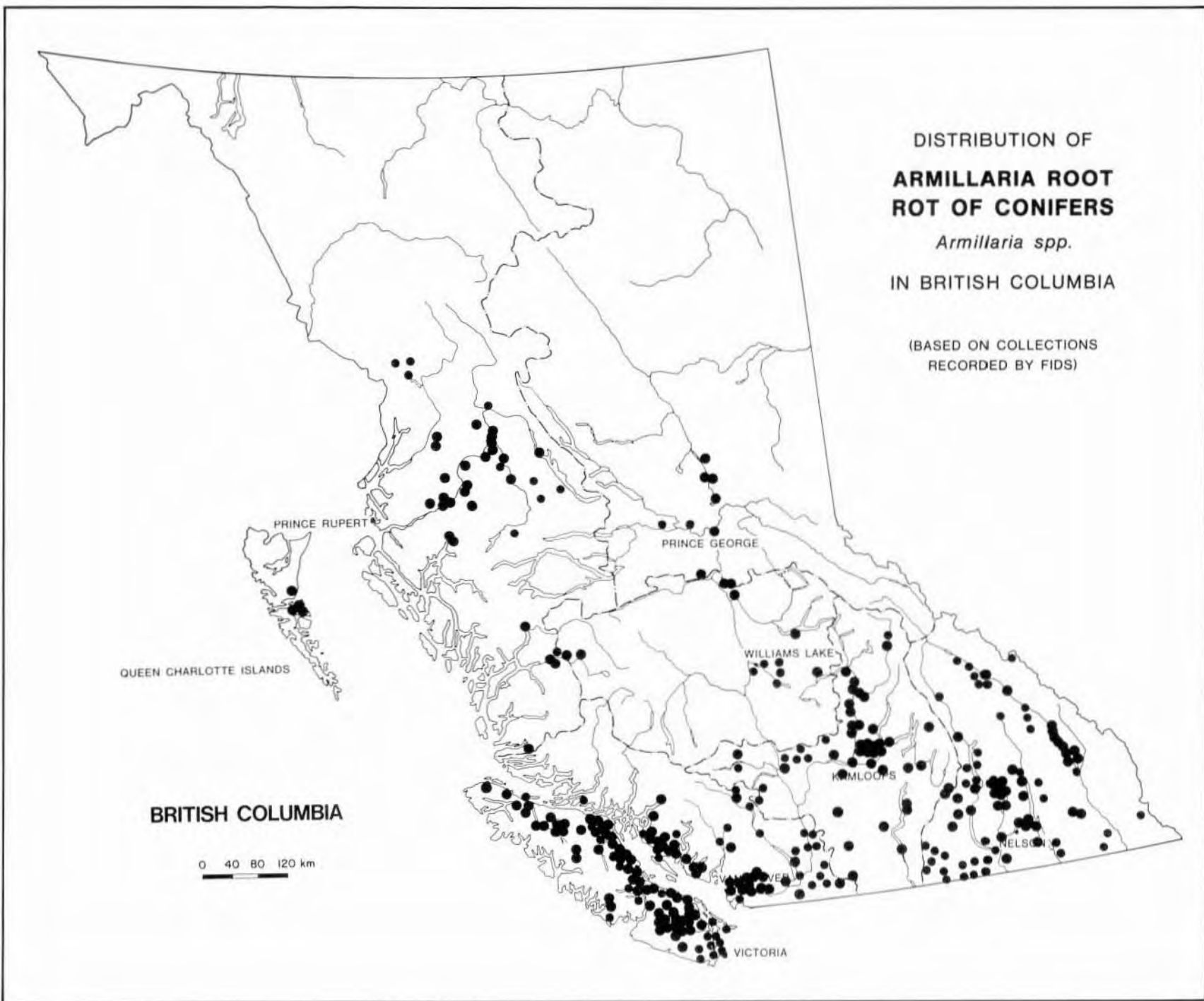
This report summarizes the distribution of common tree diseases in British Columbia based on collections held in the herbarium at the Pacific Forestry Centre of the Canadian Forestry Service, Victoria, B.C. The report is one in a series based on Forest Insect and Disease Survey data intended to provide background information for forest managers, forest agency personnel and educational institutions.

Disease collections from primary hosts are indicated on the maps by a dot; collections from alternate hosts by a triangle. Host trees and plants affected by the diseases are listed.

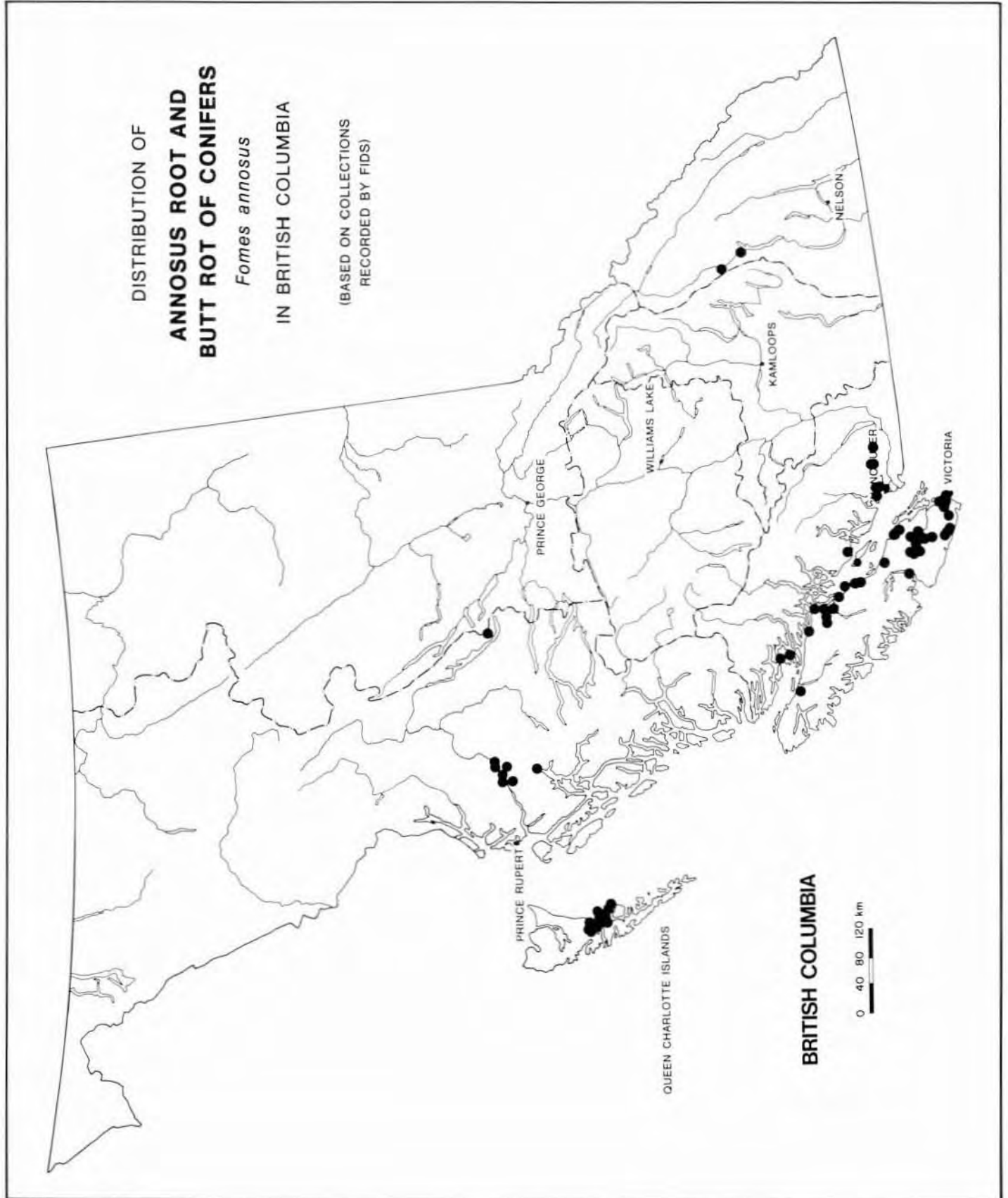
The herbarium, an internationally recognized repository (DAVFP) of specimens, contains the largest collection of fungi in British Columbia. More than 25 000 disease and 5 000 plant specimens are curated and the computer data bank contains more than 40 000 records. About 3 700 species of fungi from 1 250 host species or sub-

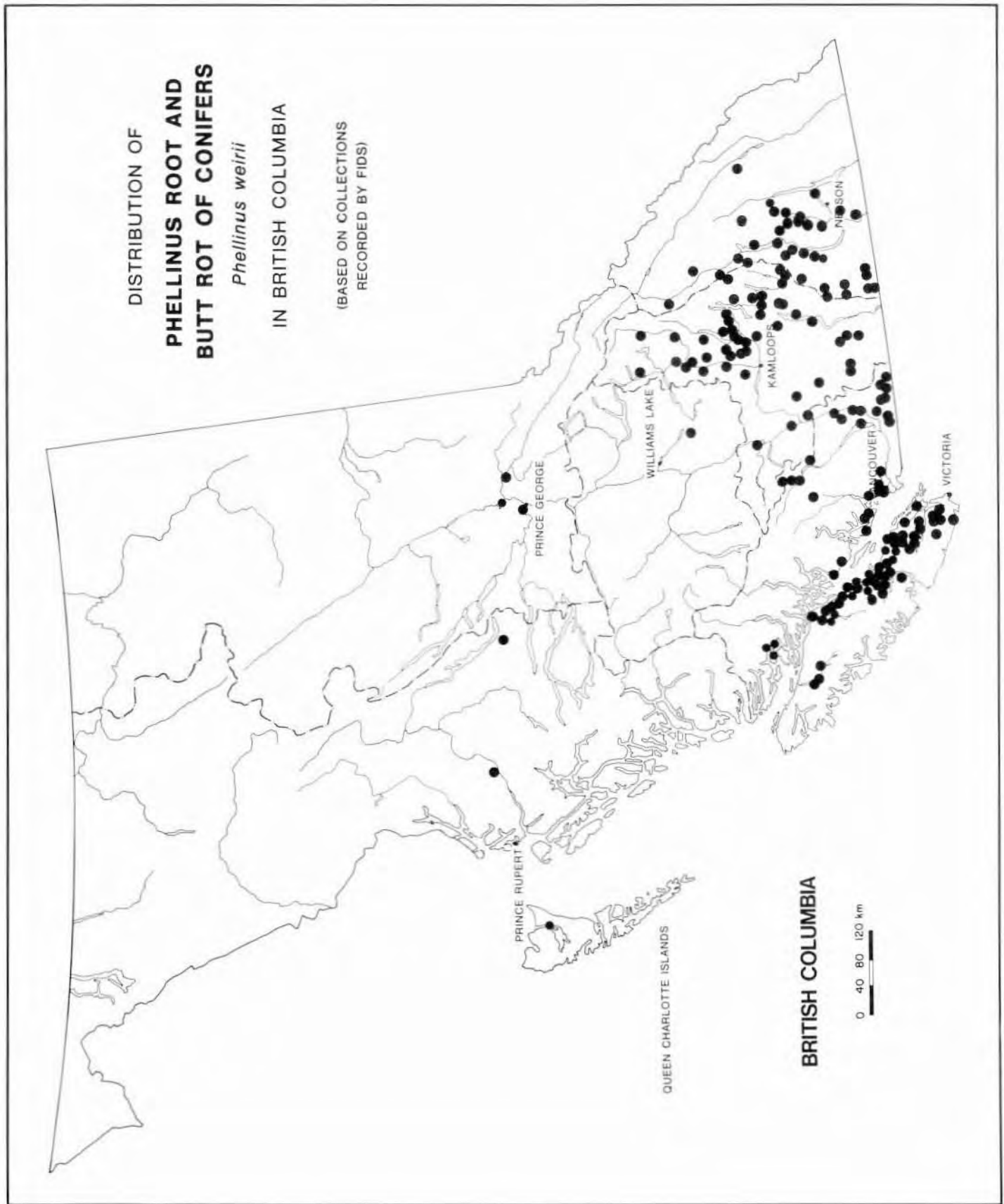
strates represent 18 major disease families including wood decay fungi, rusts, cankers and die-backs, needle rusts and blights and dwarf mistletoes. Most collection records date from 1940, some since 1921 when investigations in forest pathology in British Columbia were initiated, and some from 1887.

Foresters, mycologists, educators and researchers are welcome to visit the herbarium collection. Specialists at PFC will provide confirmation or identification of material collected by cooperators and suitable specimens will be curated in the permanent collection. Reporting and collecting of forest fungi, particularly those which would extend the known range, is encouraged. Information accompanying collections should include: date; location; host tree affected; tree condition; name, address and telephone number of collector or contact and additional observations and comments.



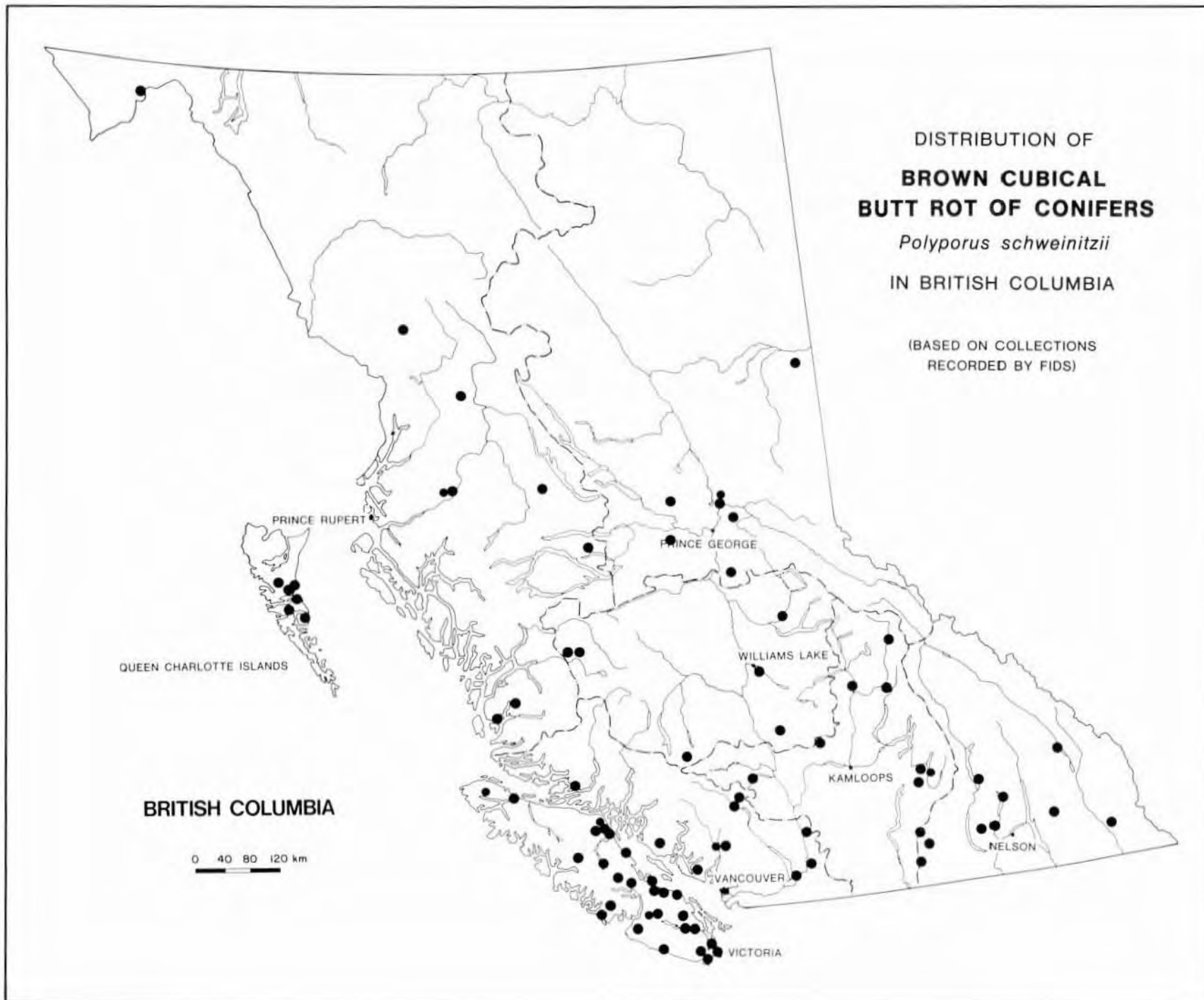


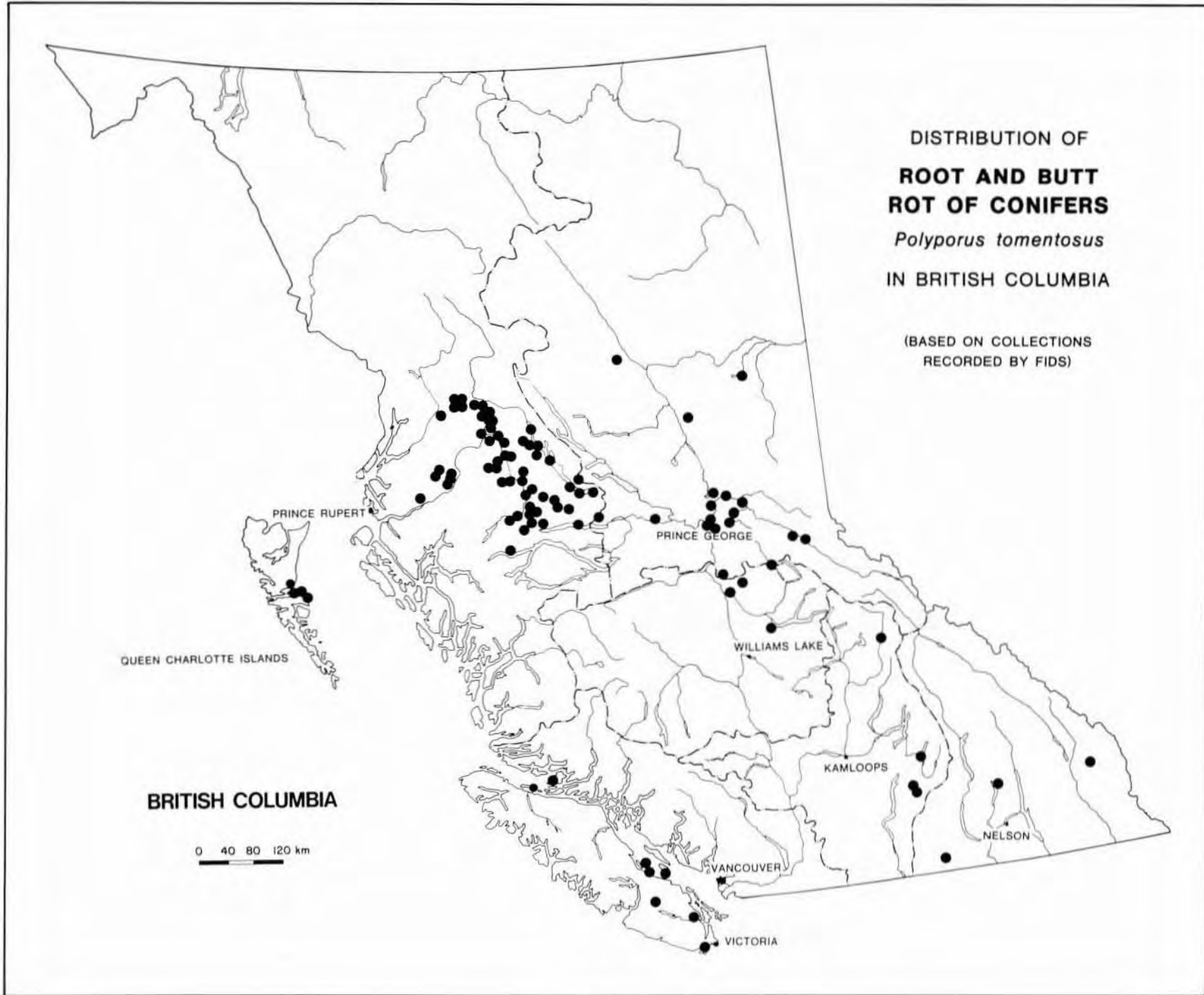




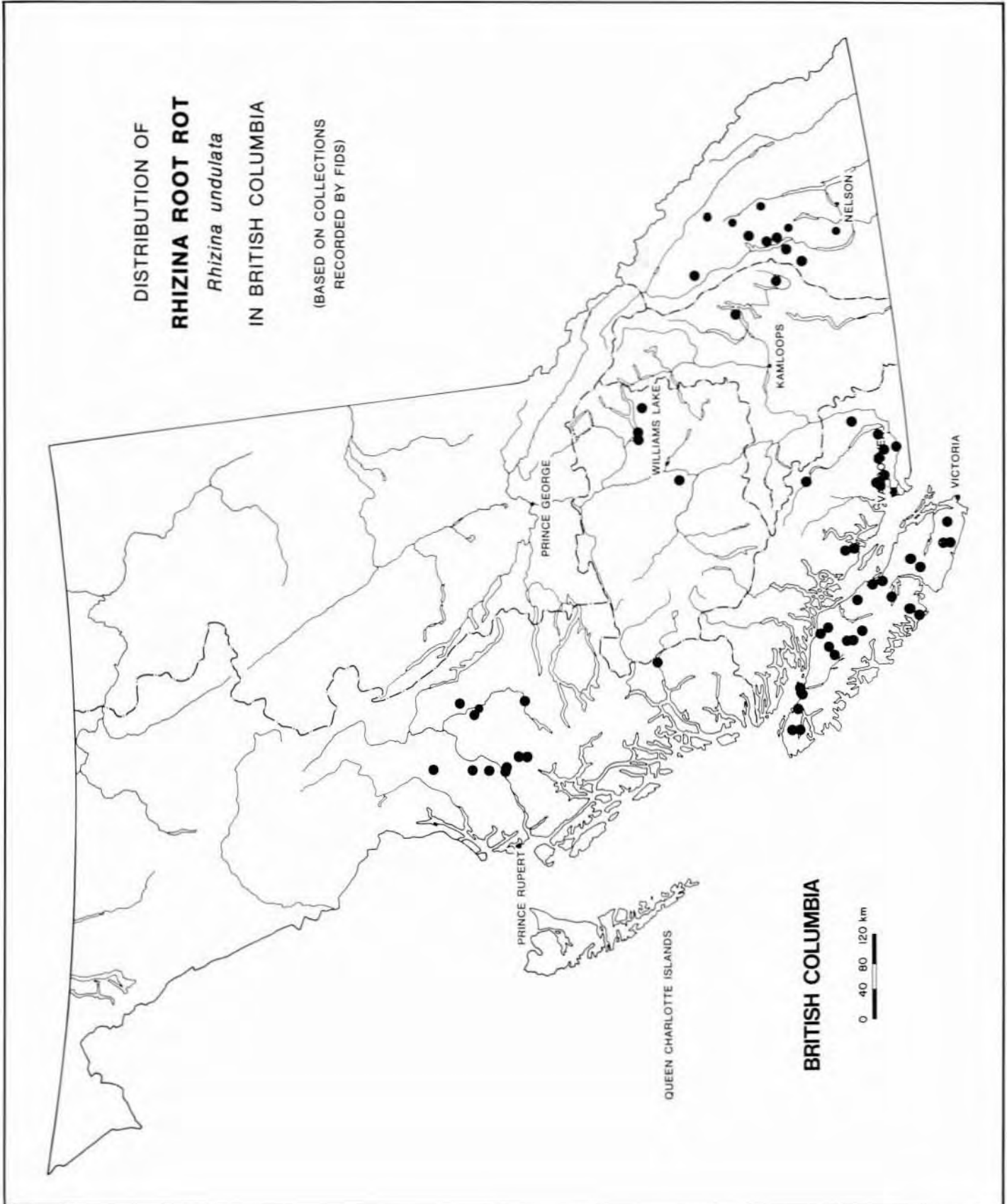
DISTRIBUTION OF  
**BROWN CUBICAL  
BUTT ROT OF CONIFERS**  
*Polyporus schweinitzii*  
IN BRITISH COLUMBIA

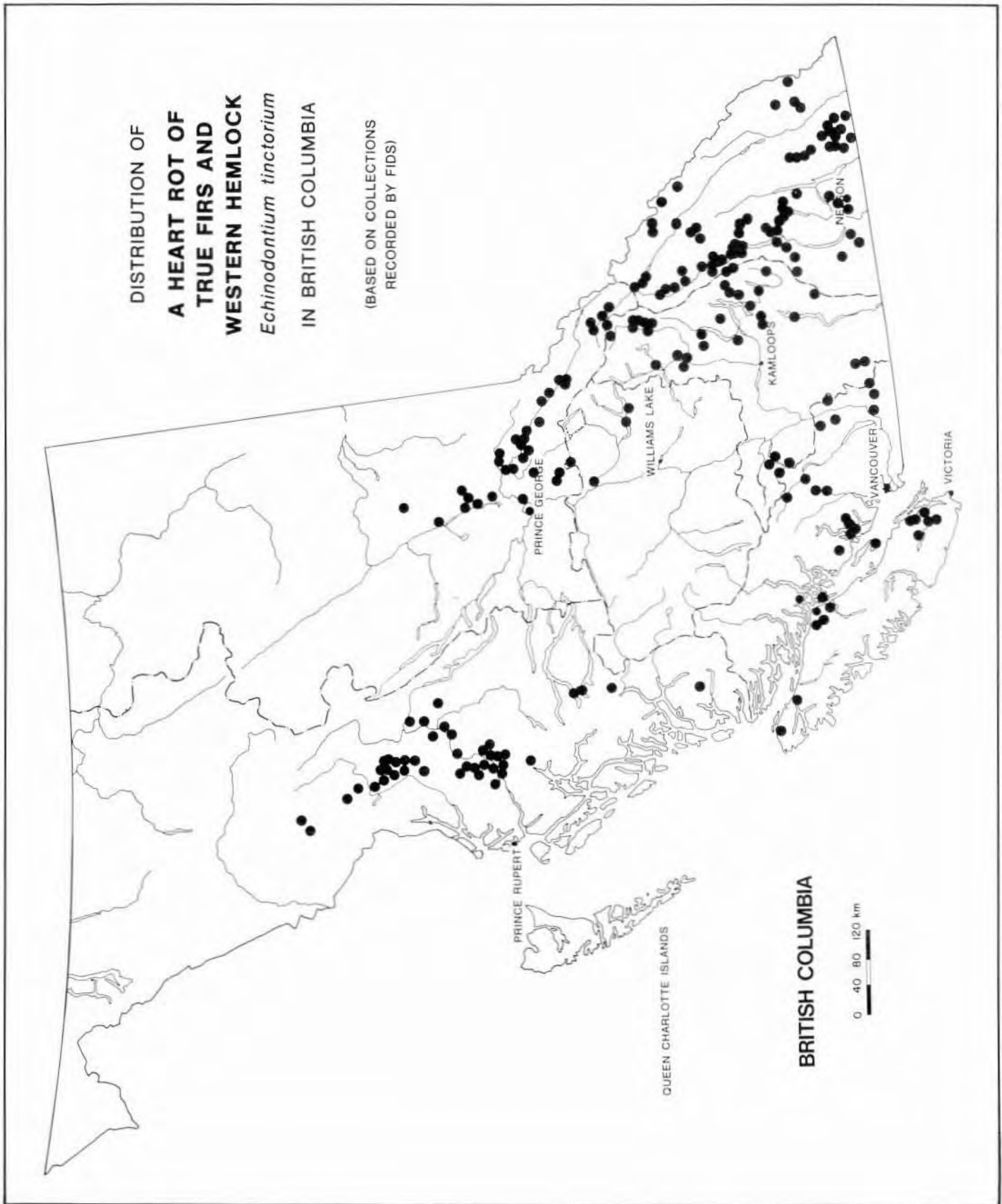
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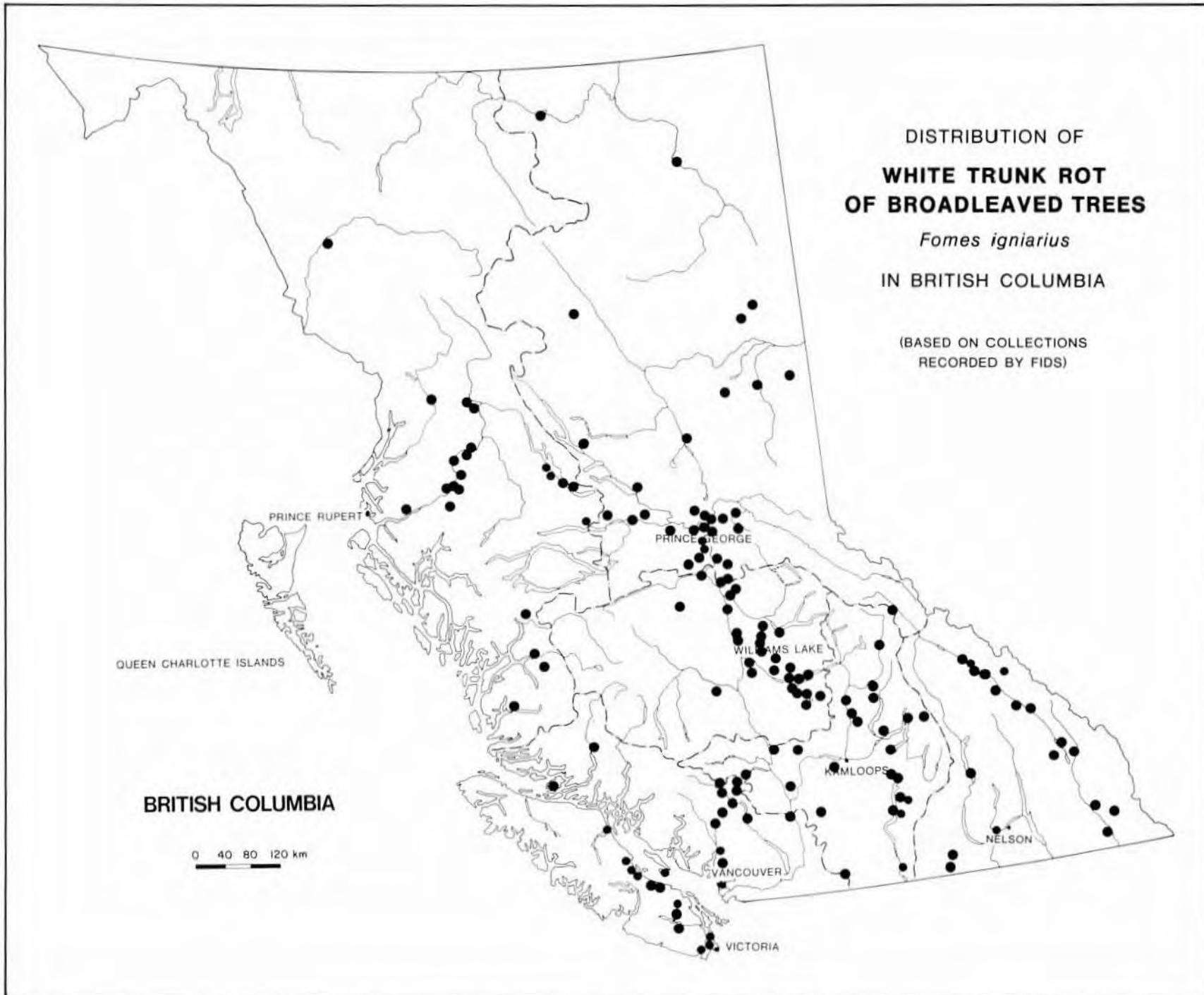


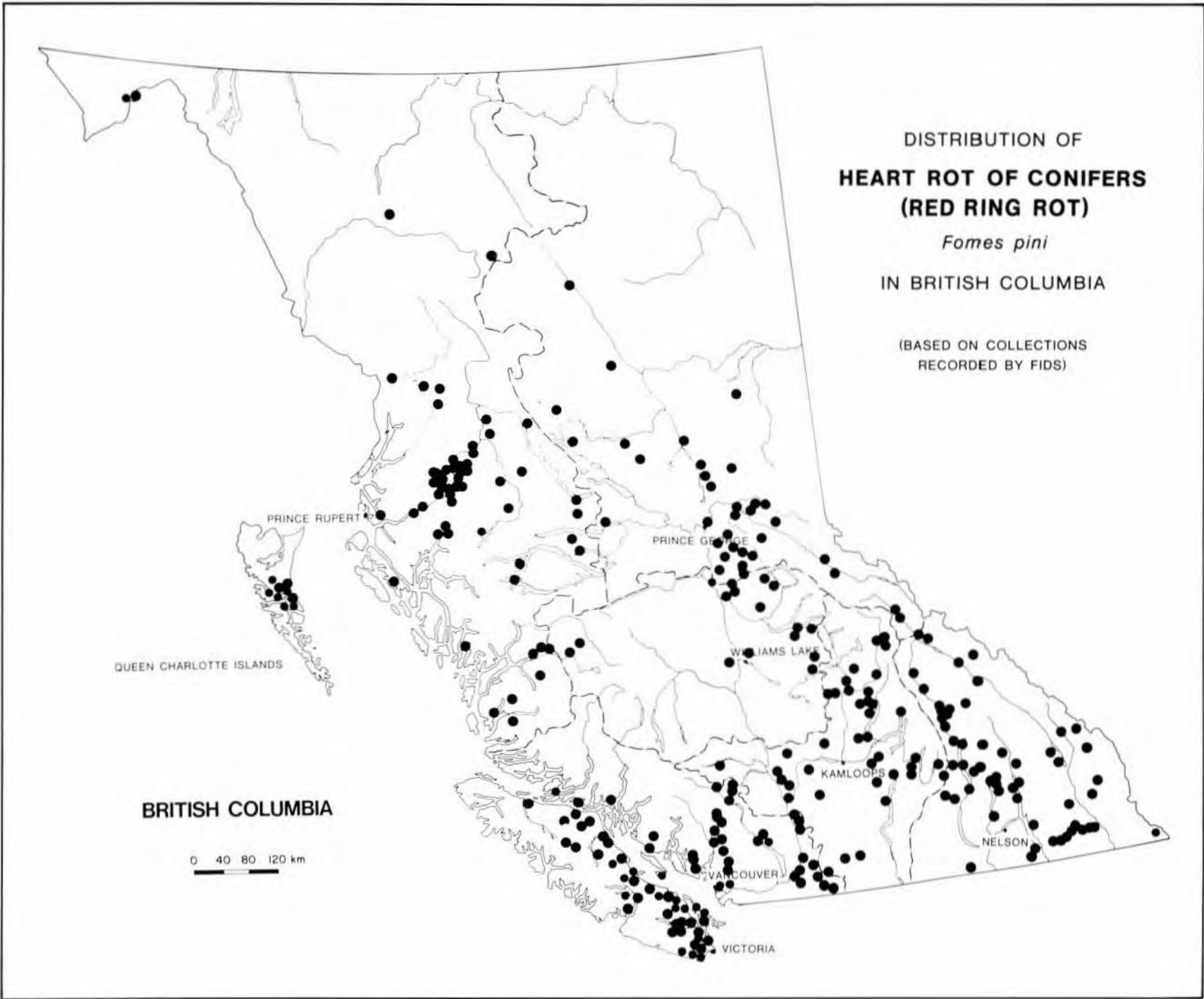




DISTRIBUTION OF  
**WHITE TRUNK ROT  
OF BROADLEAVED TREES**  
*Fomes ignarius*  
IN BRITISH COLUMBIA

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RECORDED BY FIDS)







DISTRIBUTION OF  
**RED HEARTROT OF  
CONIFERS**

*Haematostereum sanguinolentum*

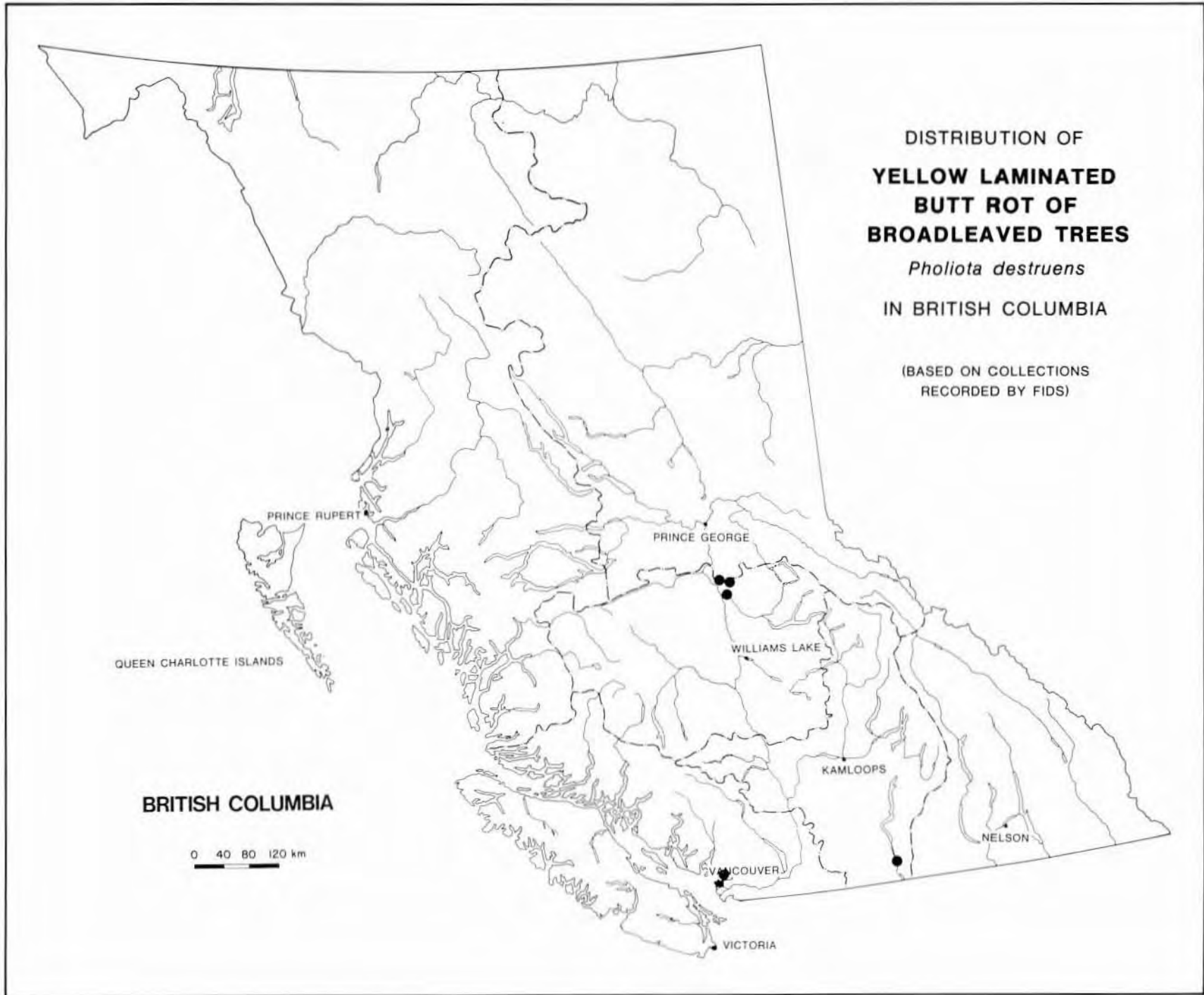
IN BRITISH COLUMBIA

(BASED ON COLLECTIONS  
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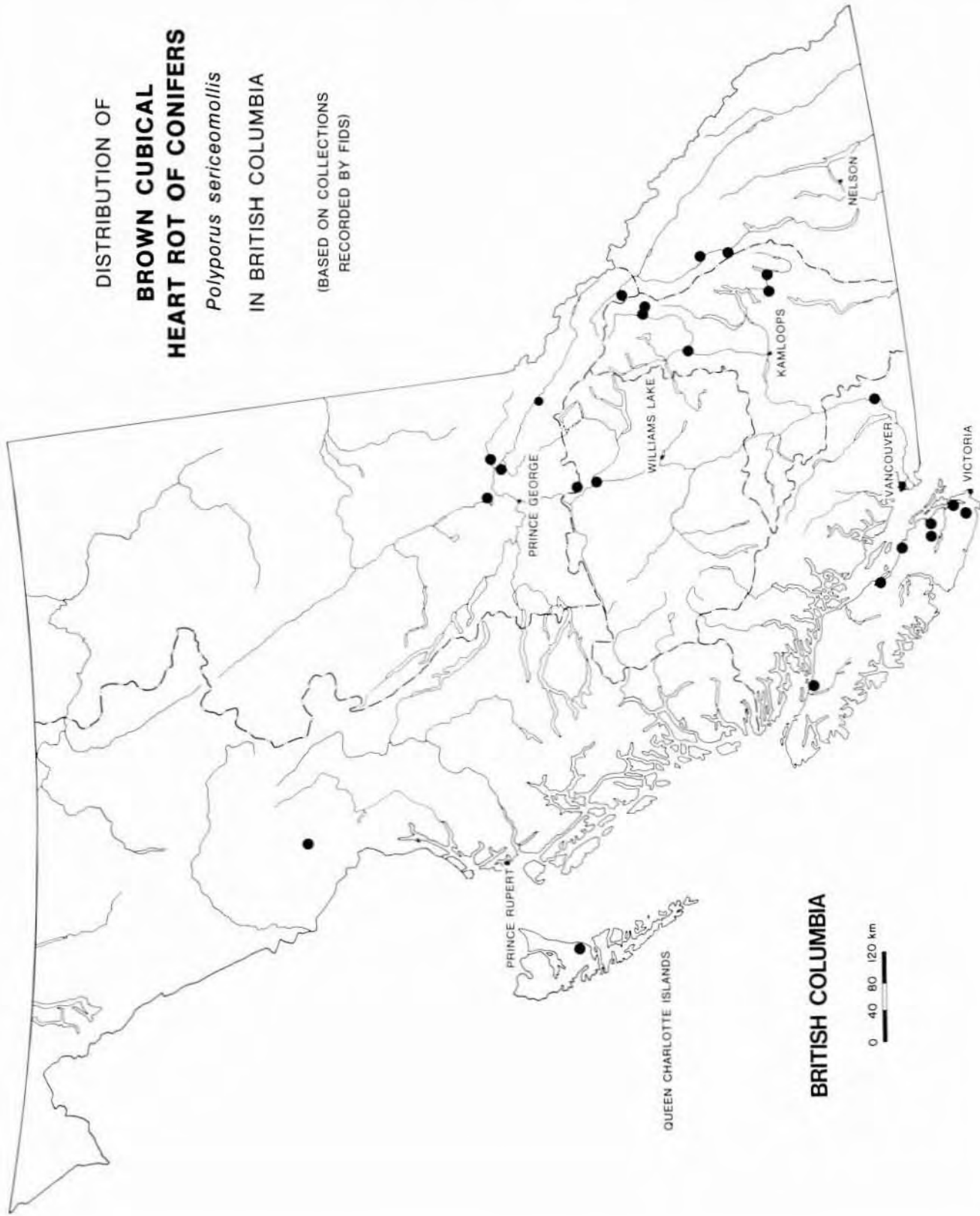
DISTRIBUTION OF  
**YELLOW LAMINATED  
BUTT ROT OF  
BROADLEAVED TREES**  
*Pholiota destruens*  
IN BRITISH COLUMBIA

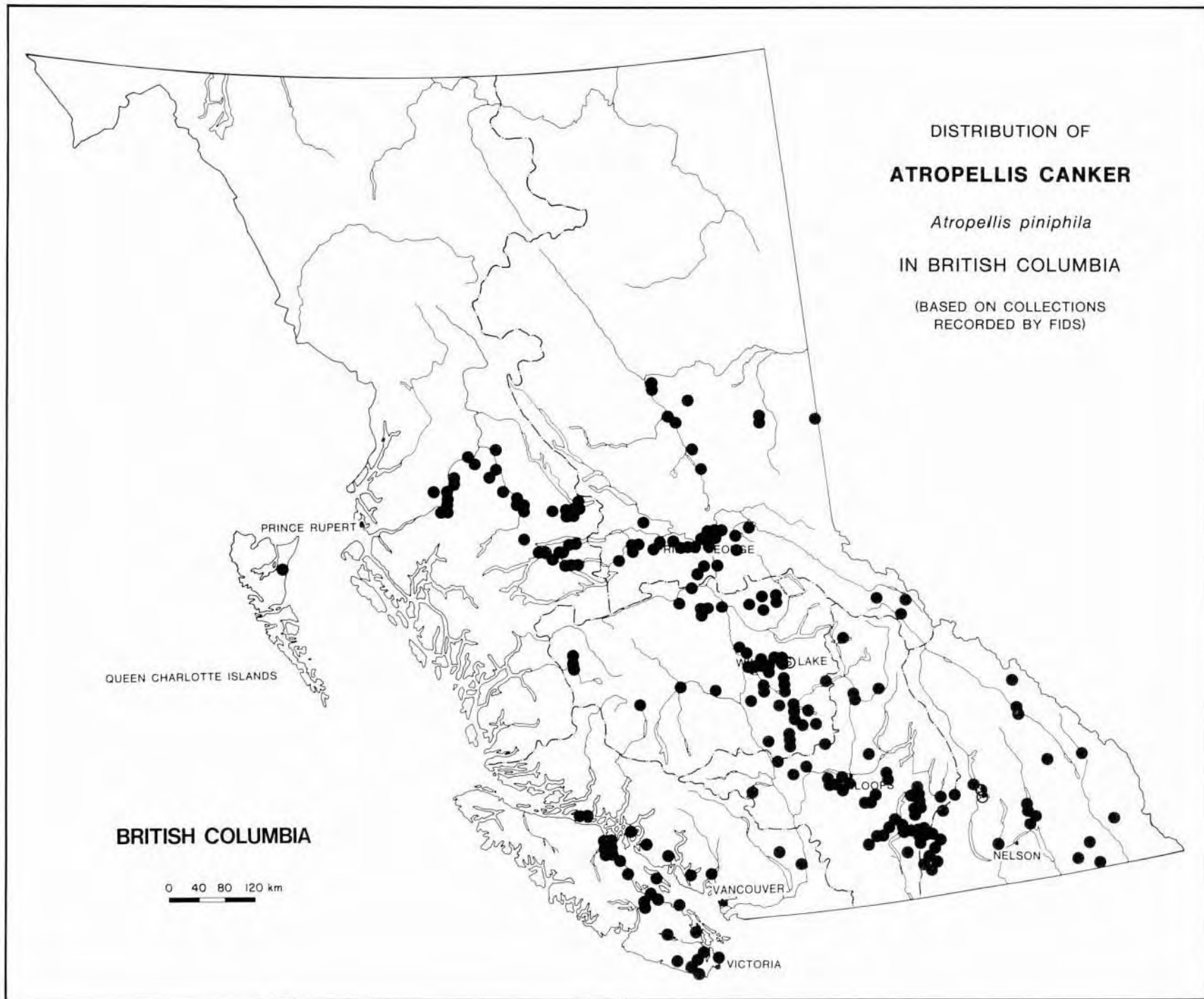
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DISTRIBUTION OF  
**BROWN CUBICAL  
HEART ROT OF CONIFERS**  
*Polyporus sericeomollis*  
IN BRITISH COLUMBIA

(BASED ON COLLECTIONS  
RECORDED BY FIDS)

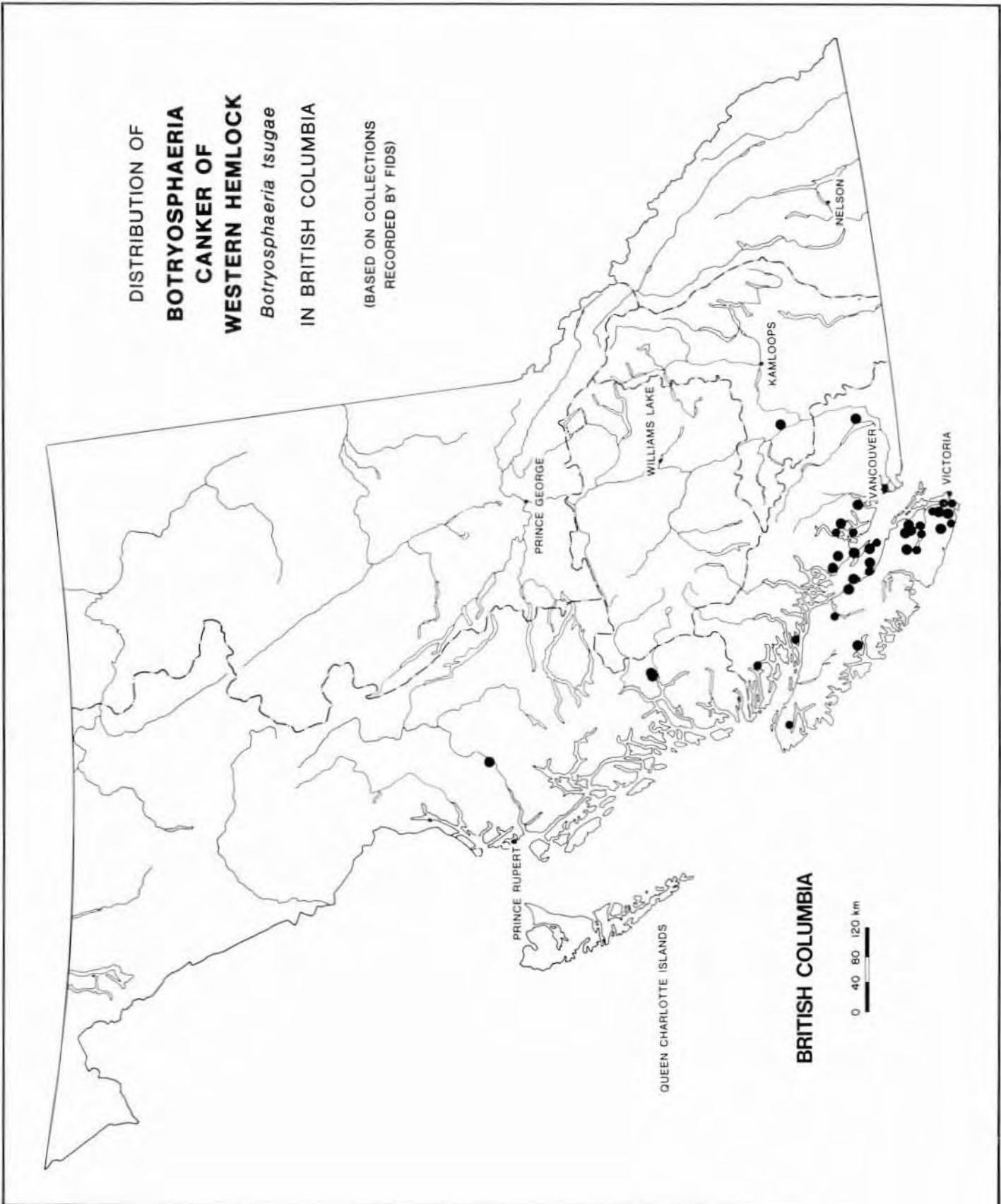


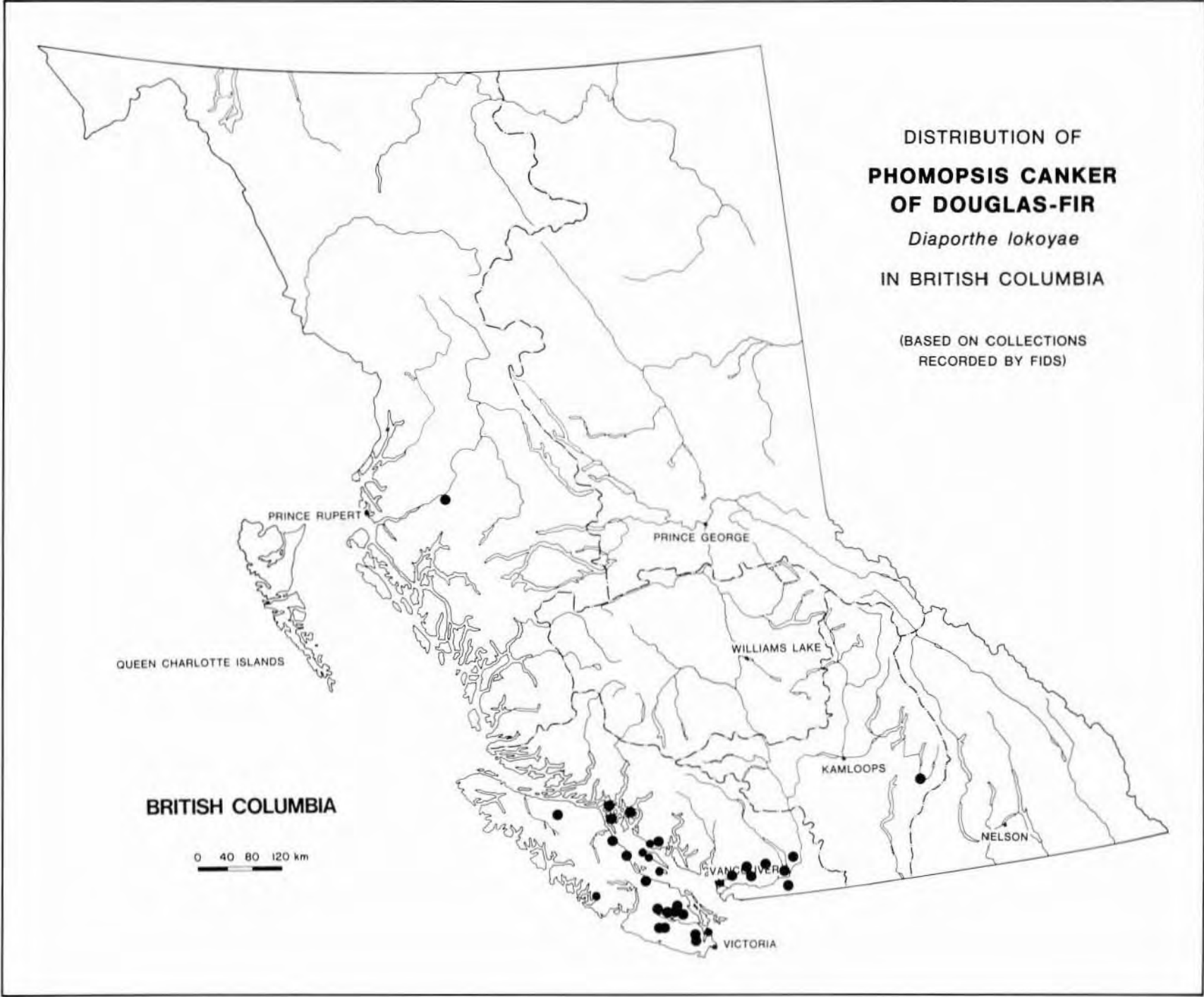




DISTRIBUTION OF  
**BOTRYOSPHAERIA  
CANKER OF  
WESTERN HEMLOCK**  
*Botryosphaeria tsugae*  
IN BRITISH COLUMBIA

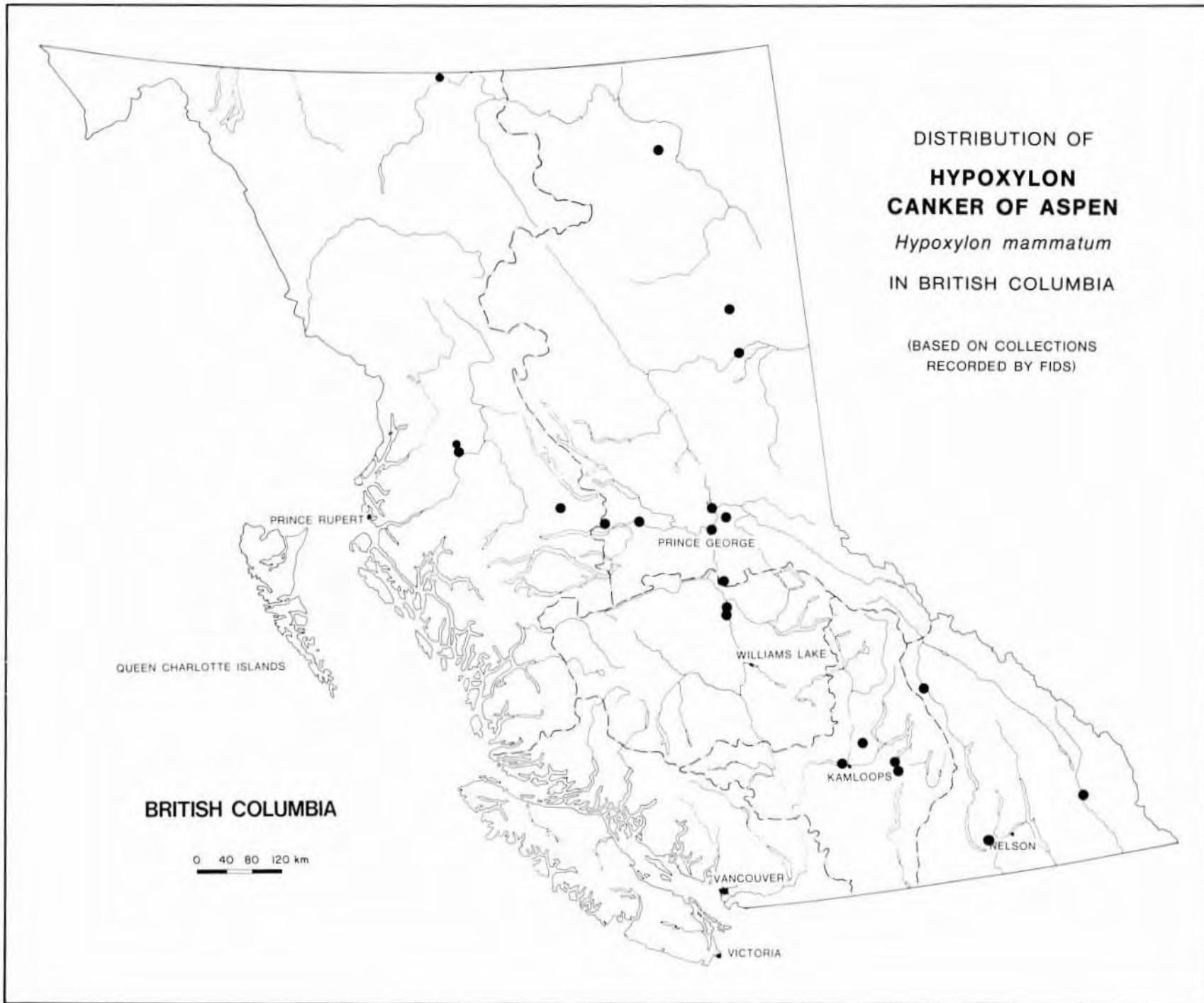
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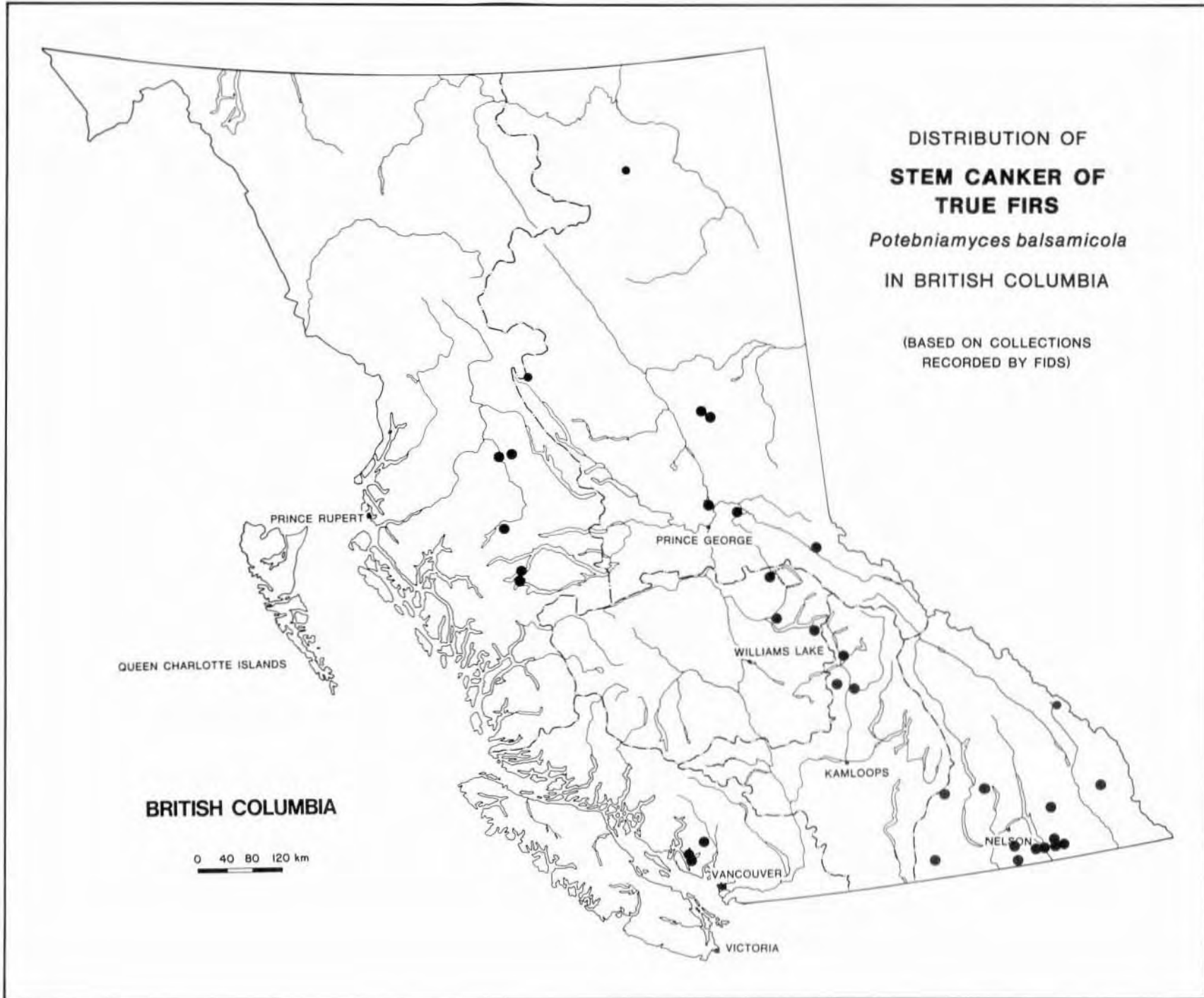




DISTRIBUTION OF  
**HYPOXYLON  
CANKER OF ASPEN**  
*Hypoxylon mammatum*  
IN BRITISH COLUMBIA

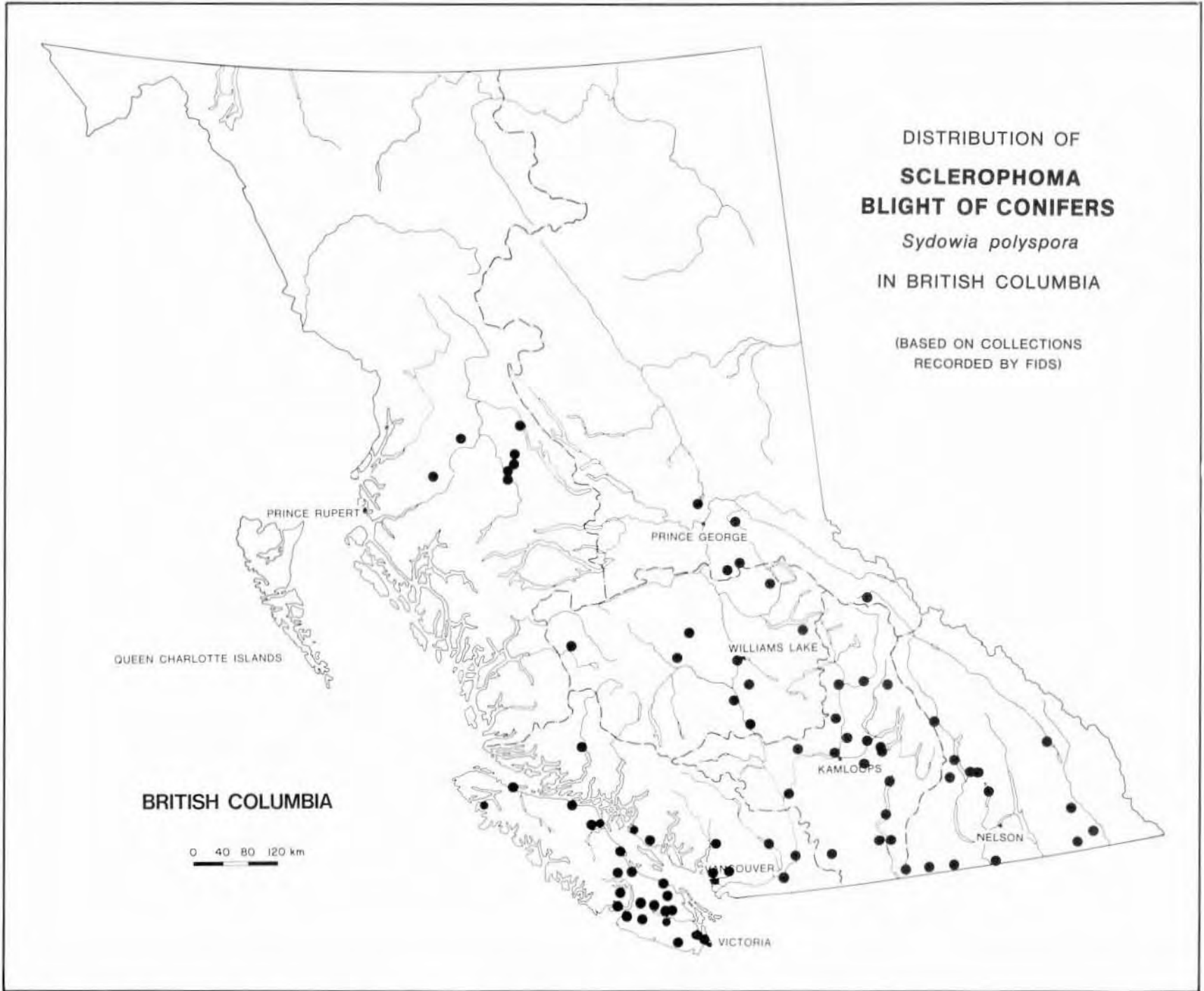
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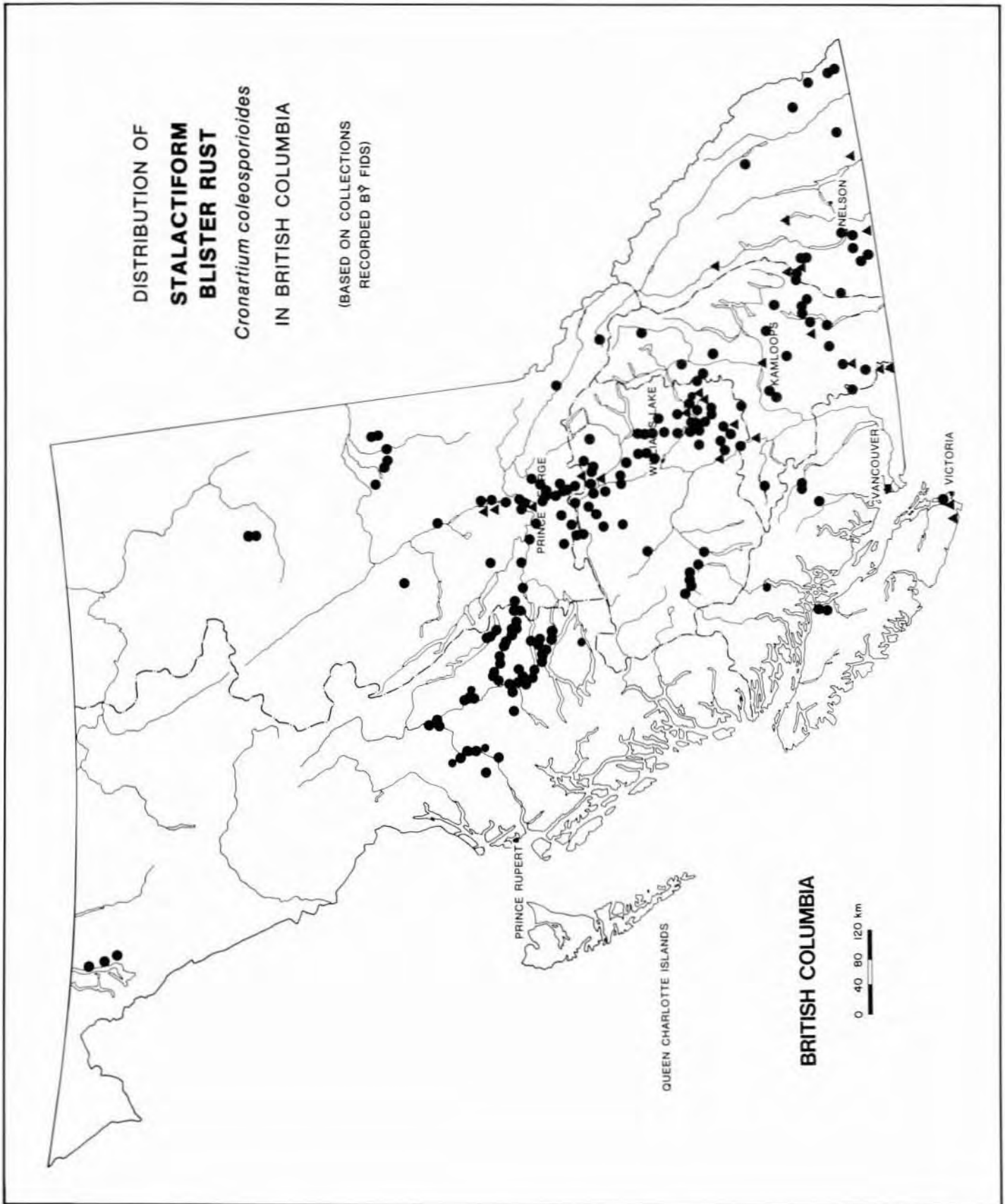


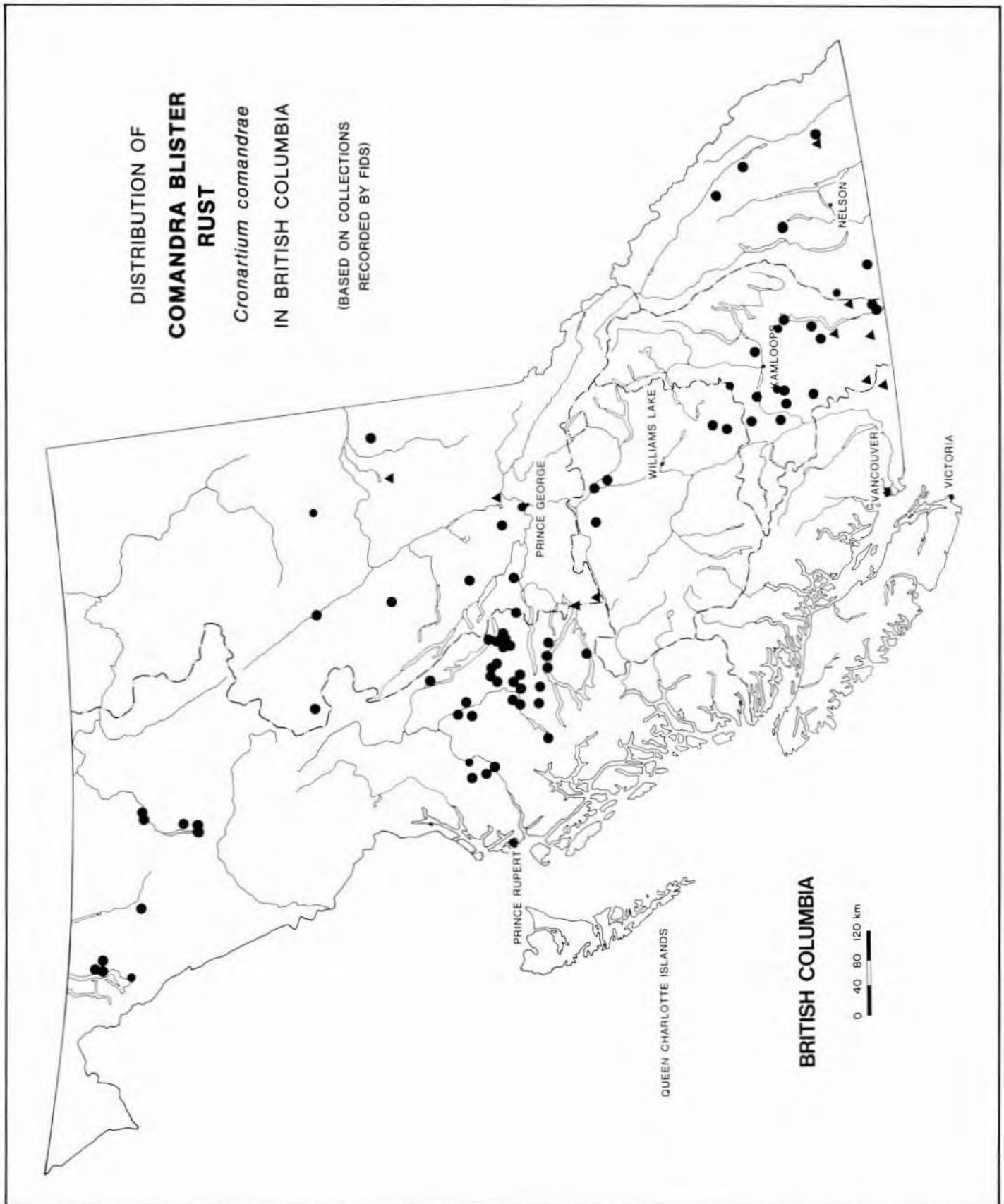
DISTRIBUTION OF  
**SCLEROPHOMA**  
**BLIGHT OF CONIFERS**  
*Sydowia polyspora*  
IN BRITISH COLUMBIA

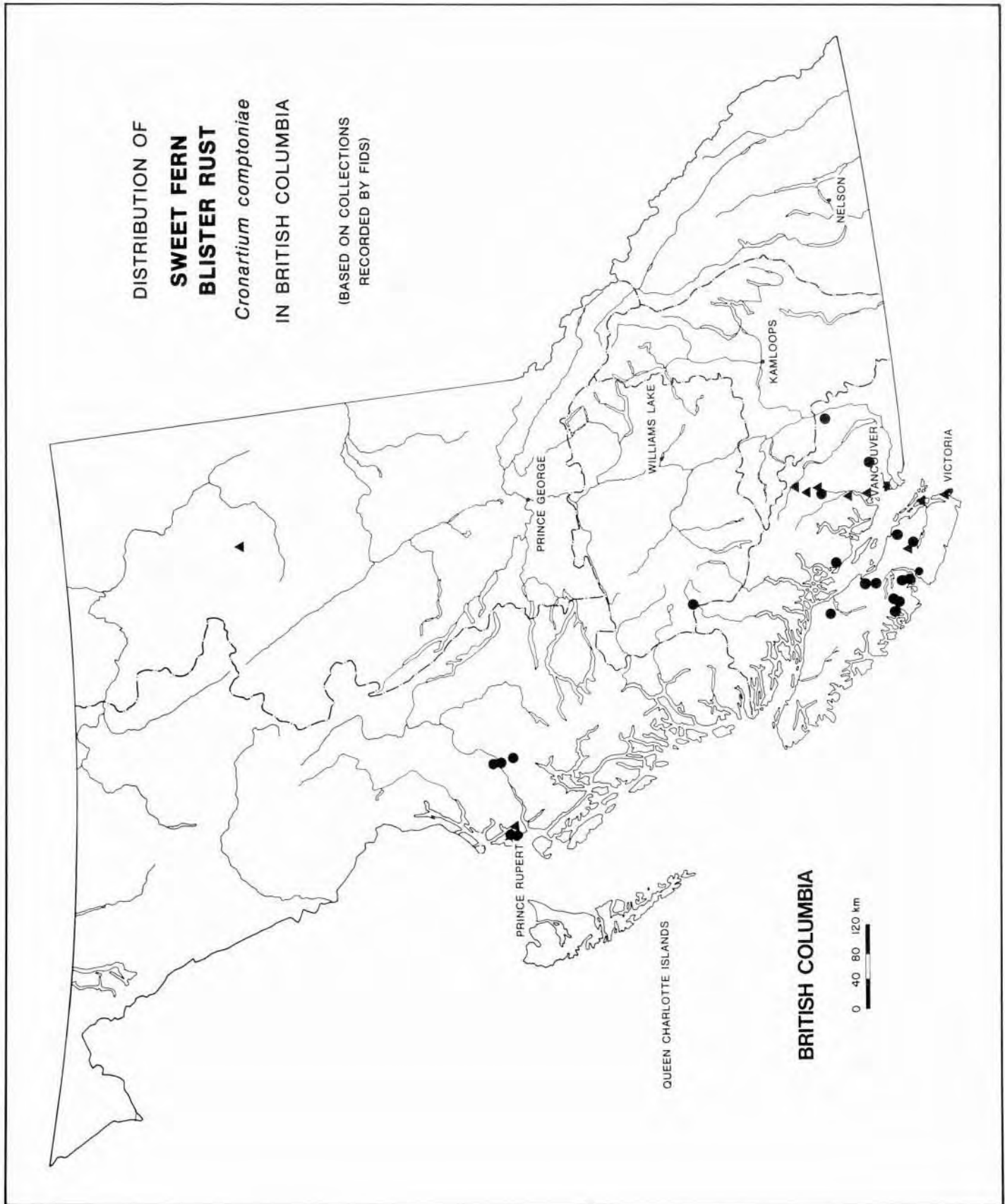
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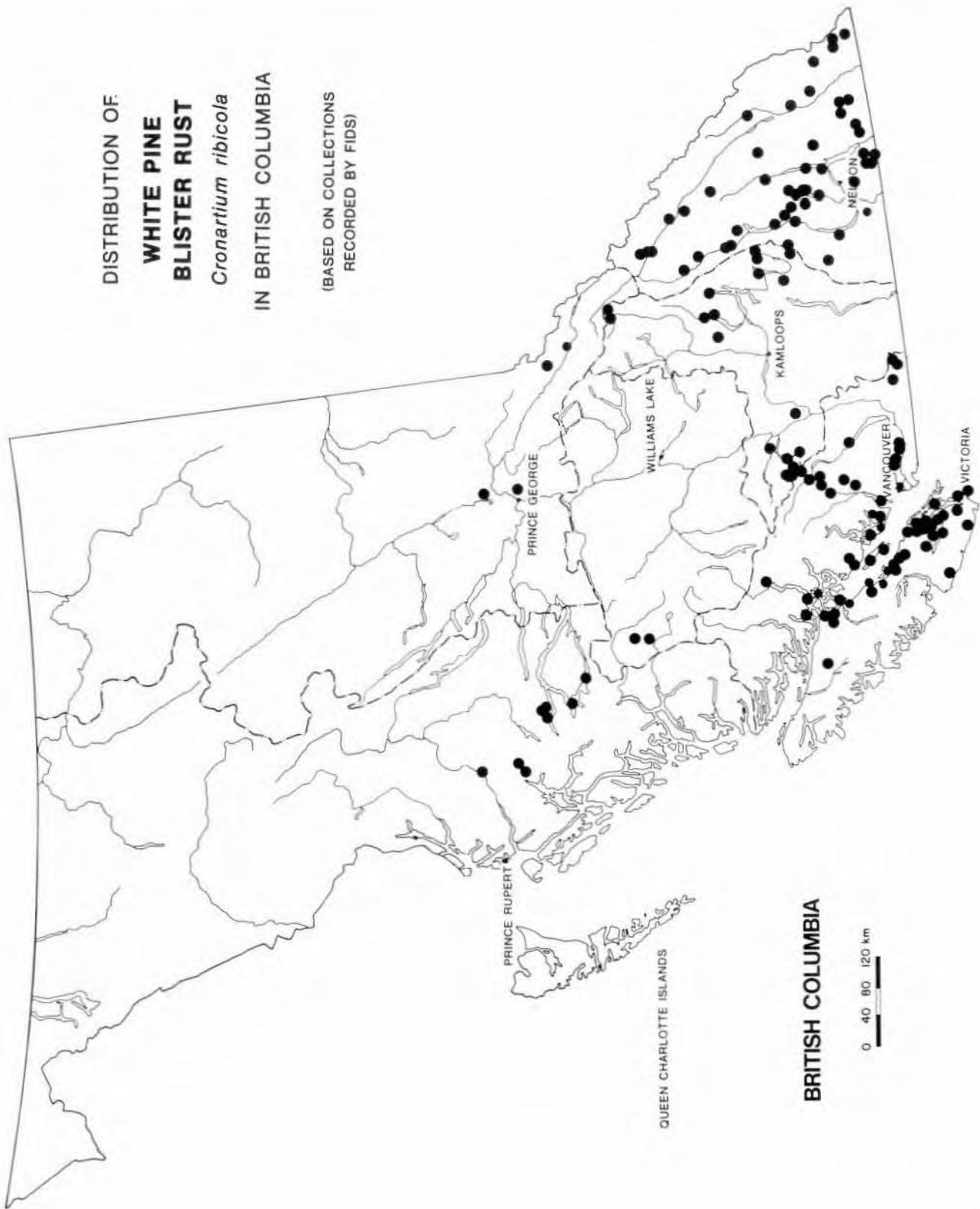






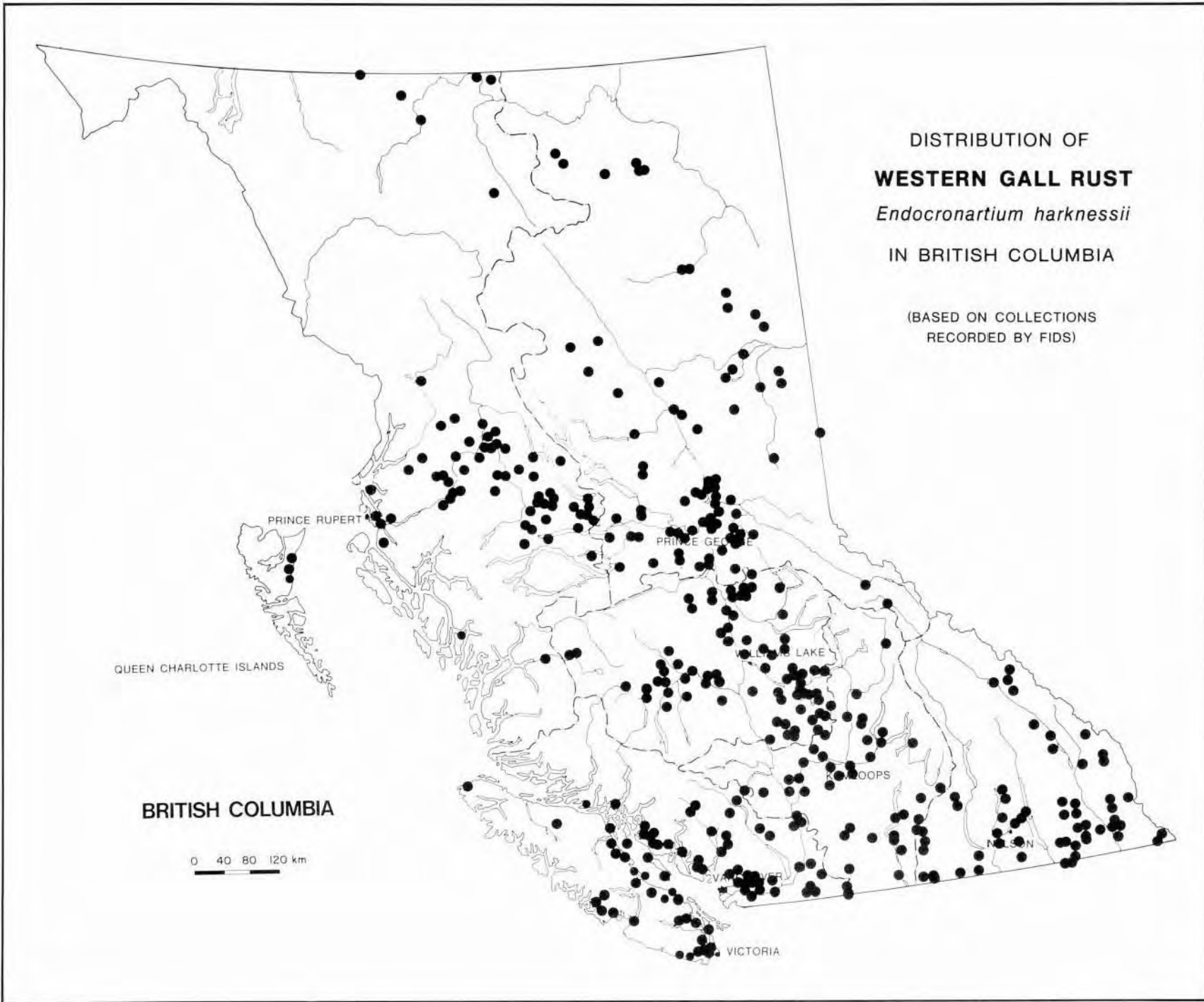
DISTRIBUTION OF  
**WHITE PINE  
BLISTER RUST**  
*Cronartium ribicola*  
IN BRITISH COLUMBIA

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RECORDED BY FIDS)

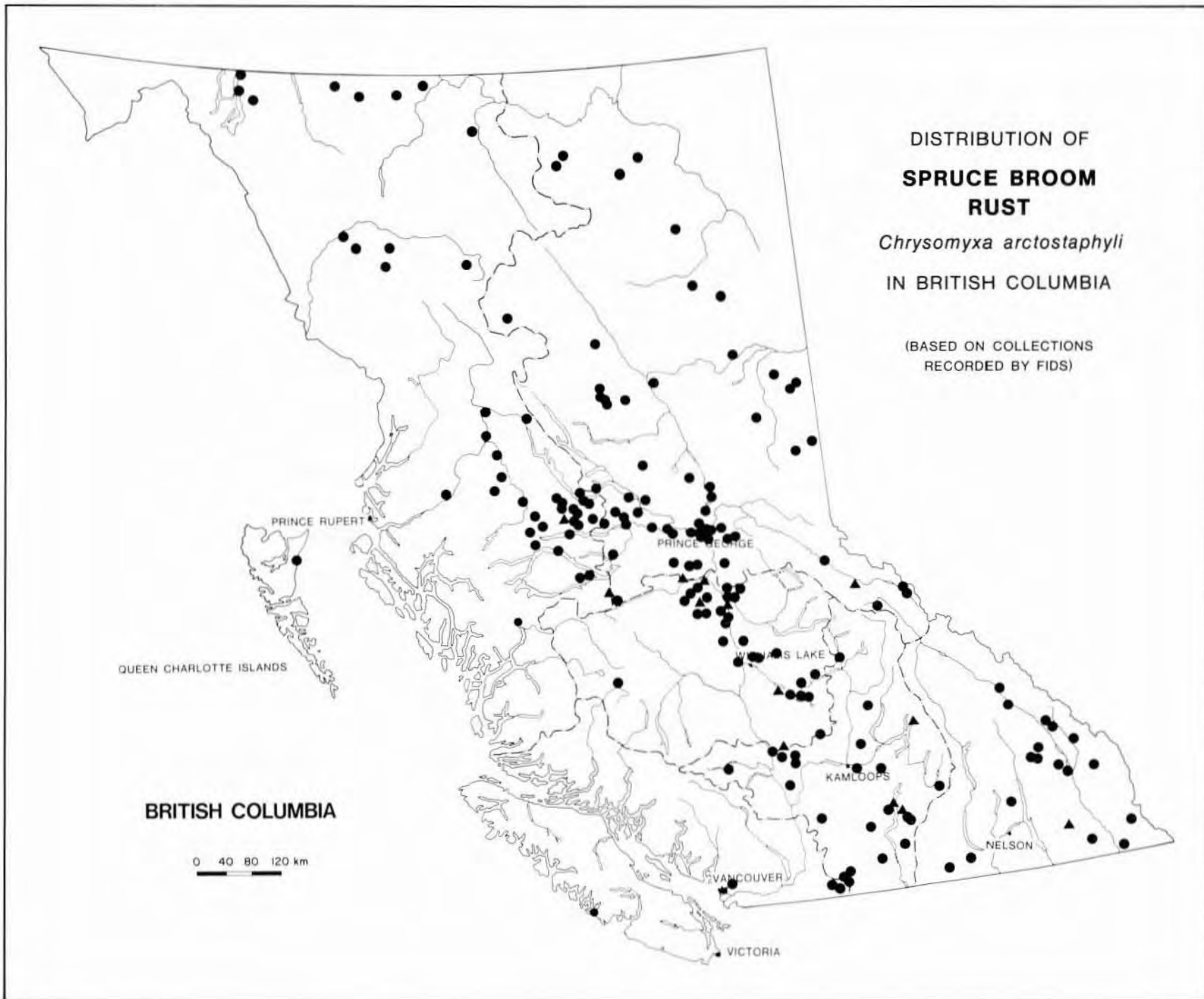


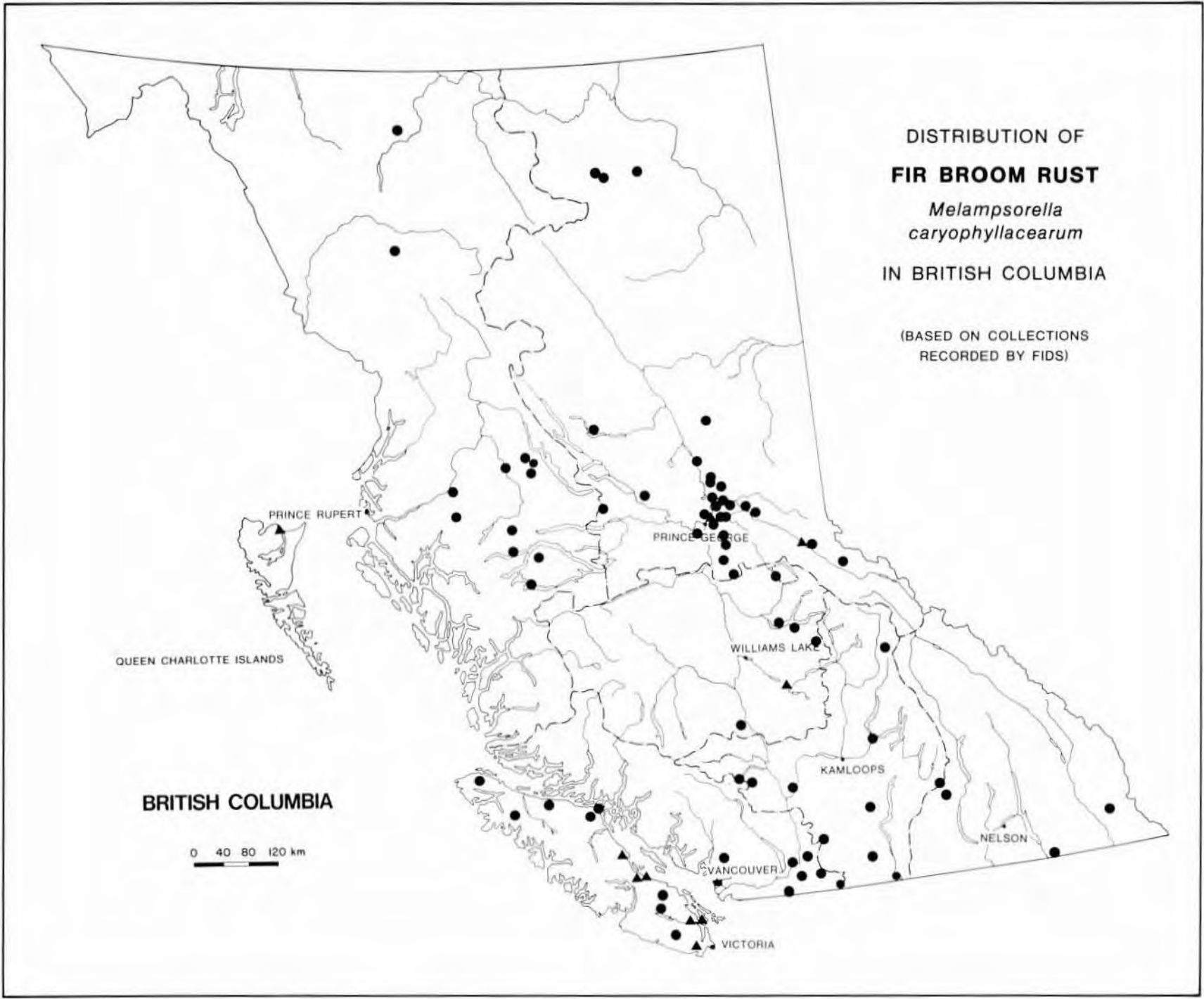
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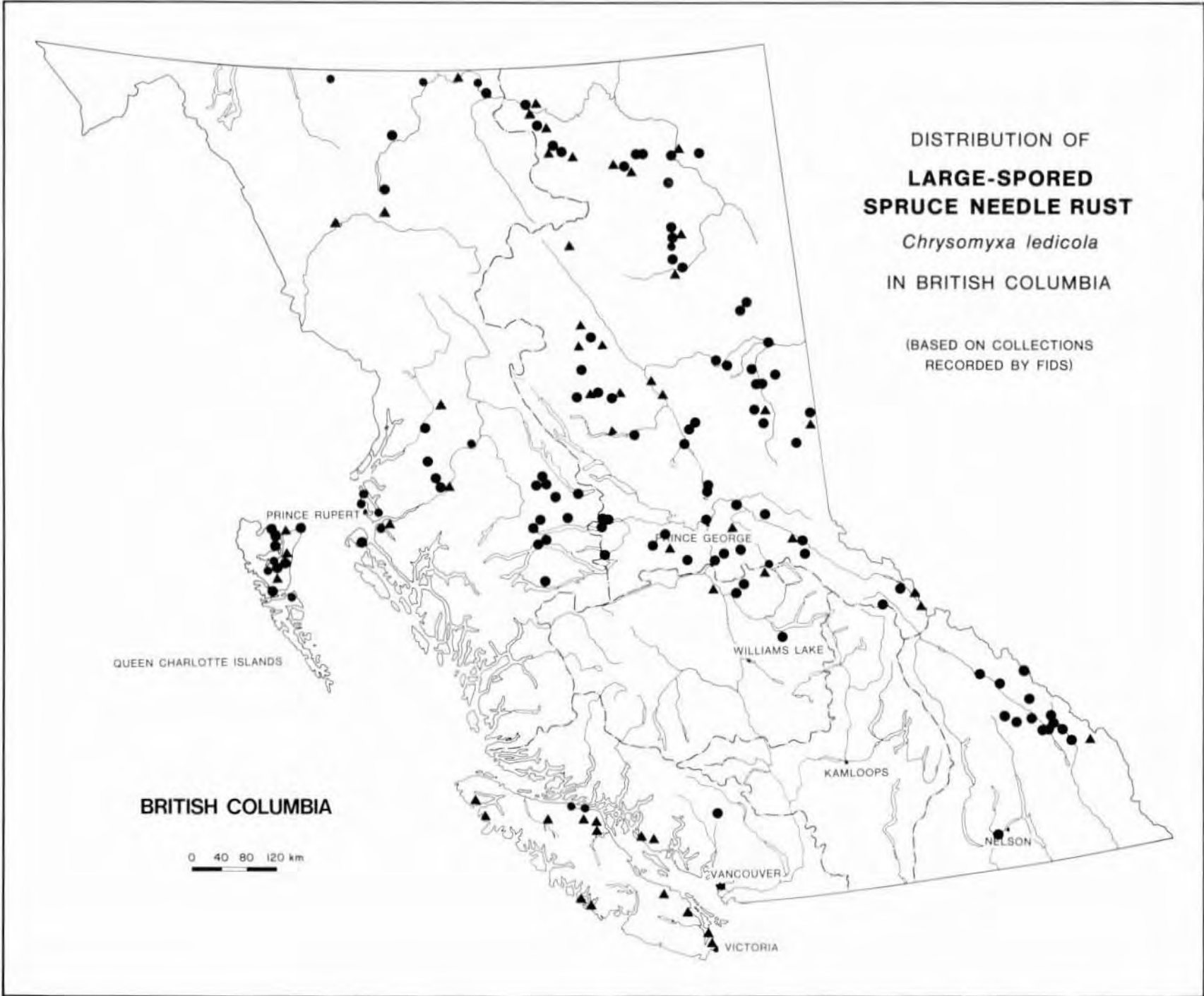
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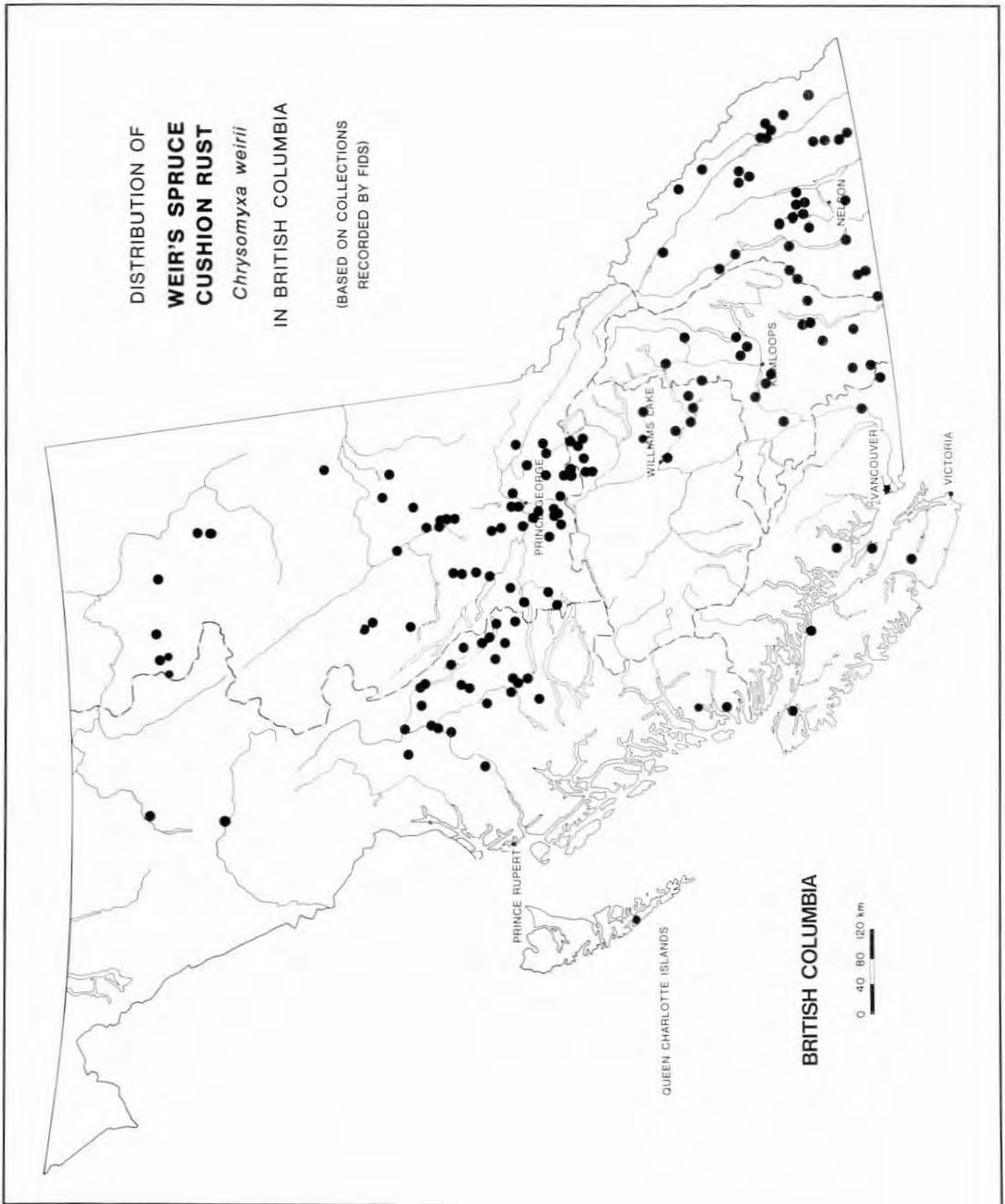






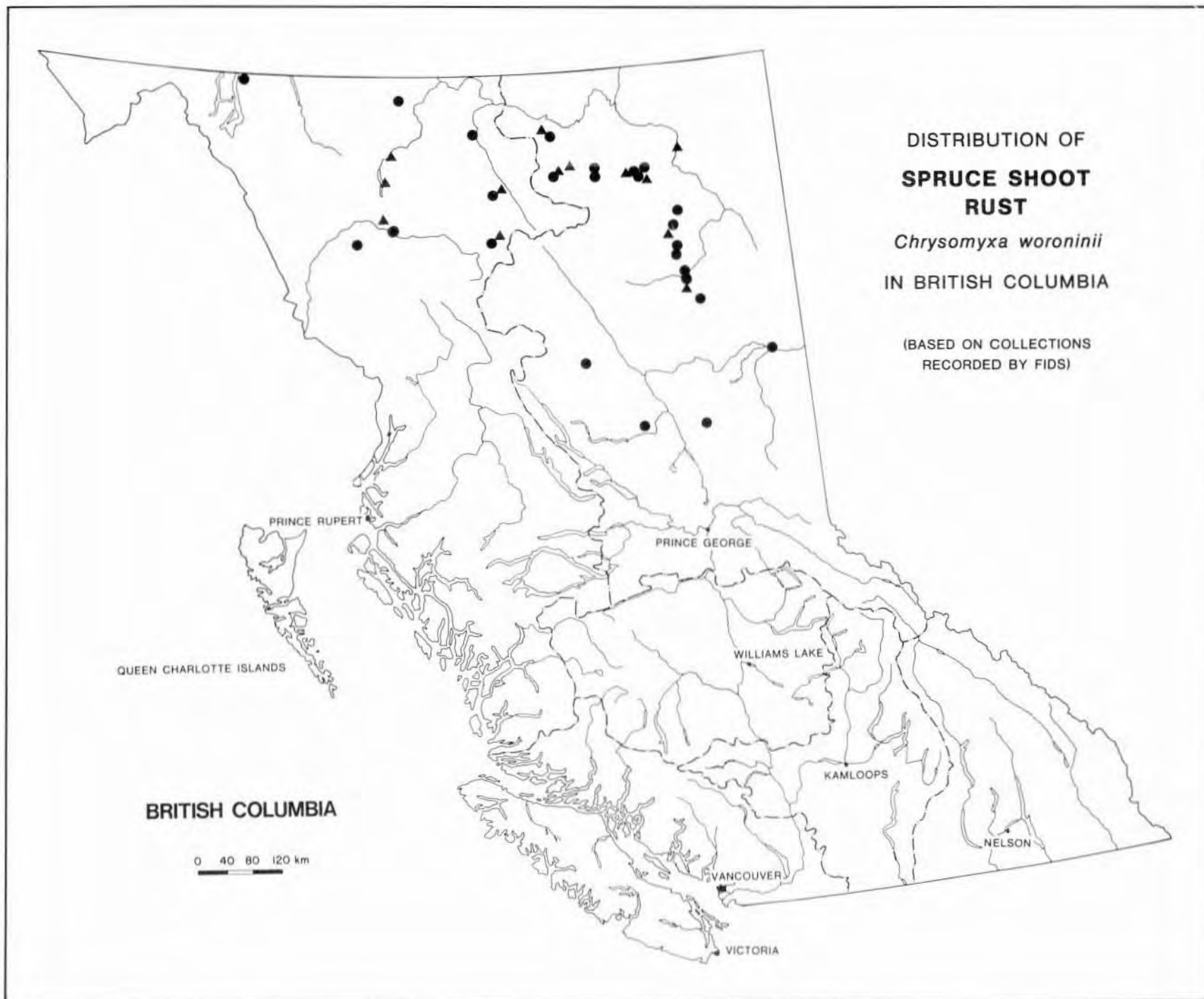




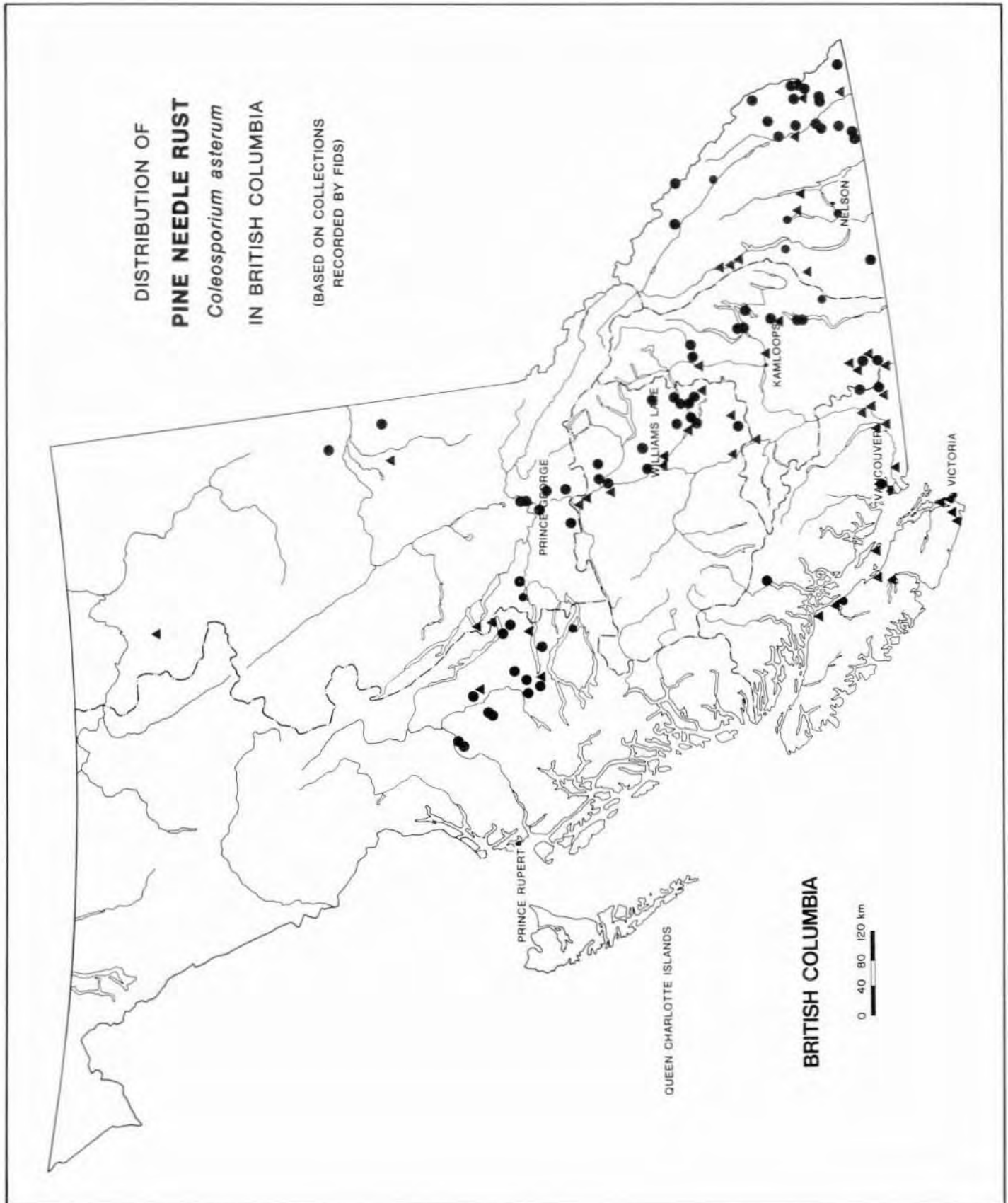


DISTRIBUTION OF  
**SPRUCE SHOOT  
RUST**  
*Chrysomyxa woroninii*  
IN BRITISH COLUMBIA

(BASED ON COLLECTIONS  
RECORDED BY FIDS)



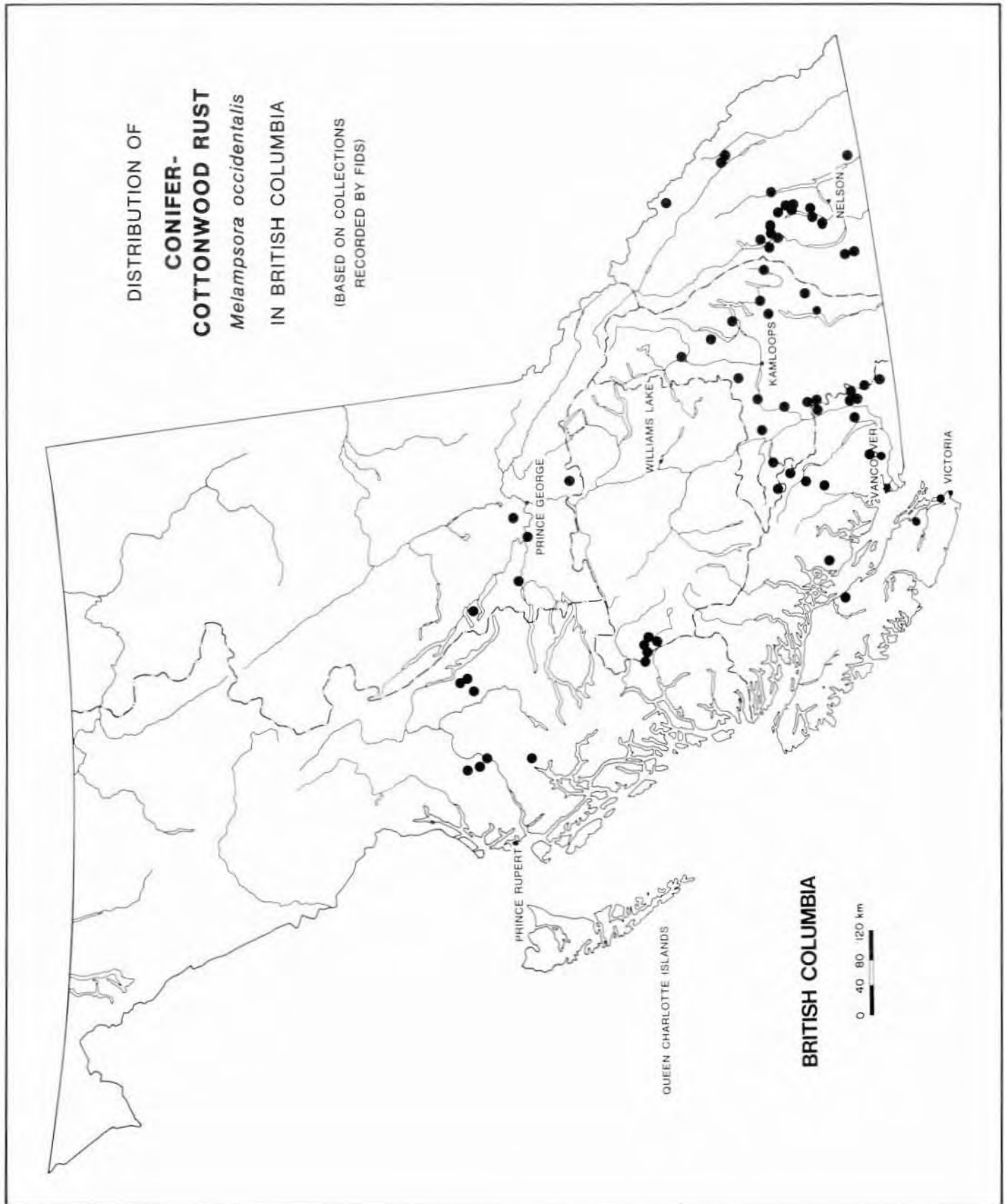




DISTRIBUTION OF  
**CONIFER-ASPEN  
RUST**  
*Melampsora medusae*  
IN BRITISH COLUMBIA

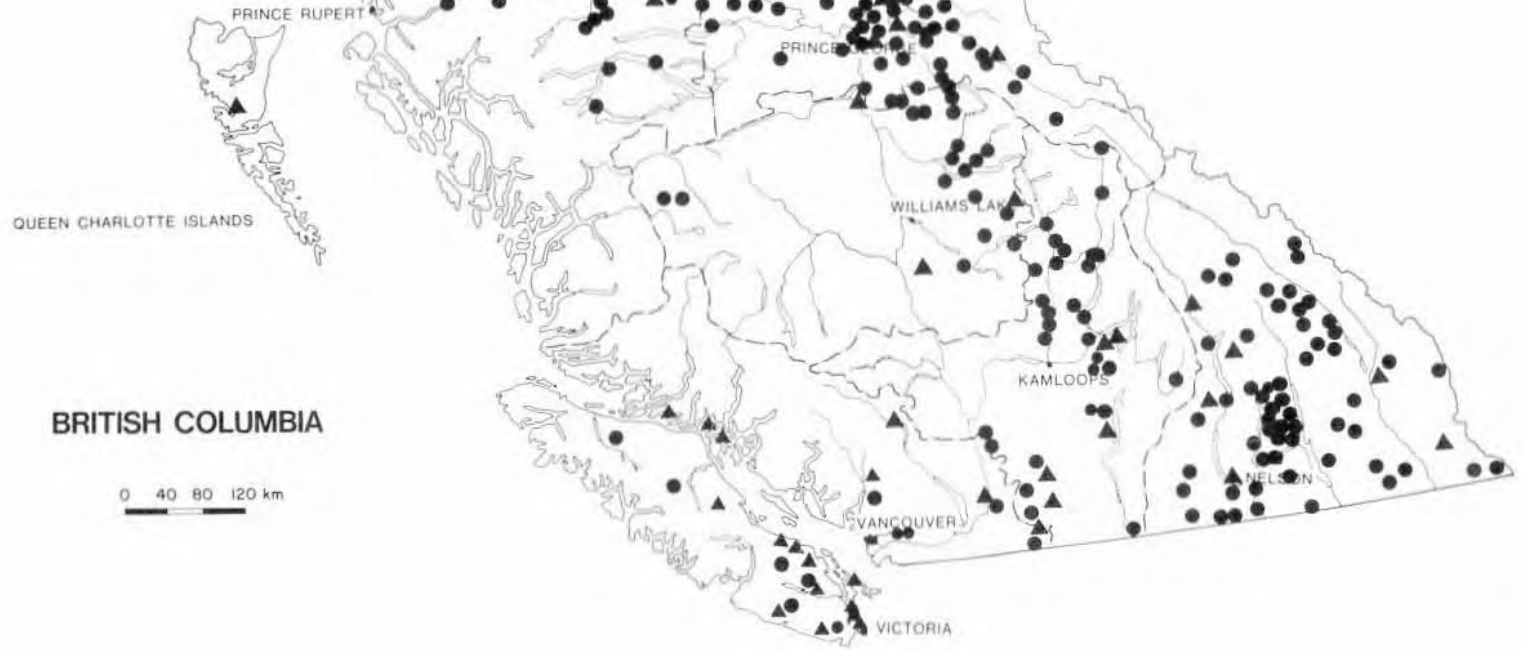
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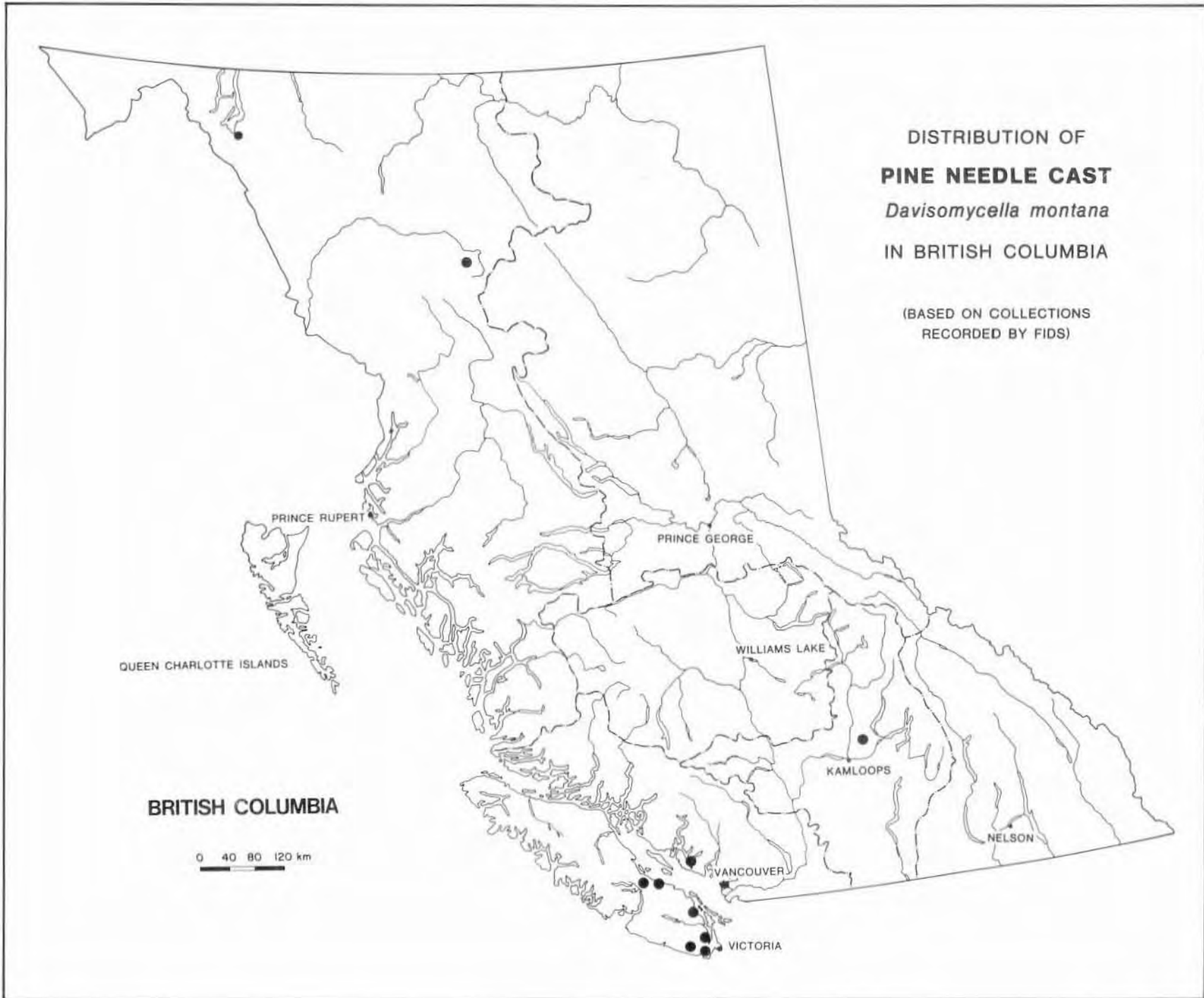
DISTRIBUTION OF  
**FIR-FIREWEED RUST**  
*Pucciniastrum epilobii*  
IN BRITISH COLUMBIA

(BASED ON COLLECTIONS  
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BRITISH COLUMBIA

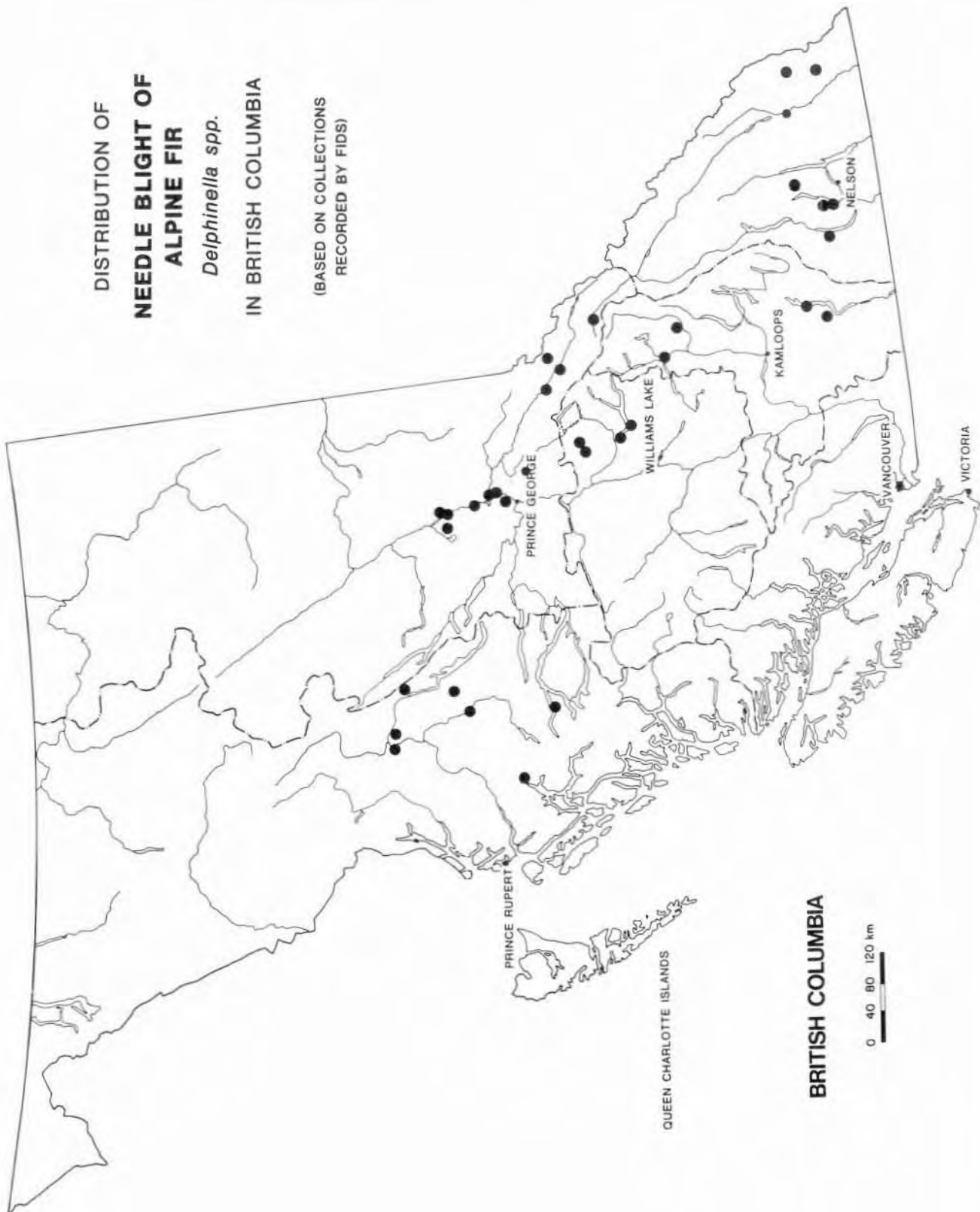
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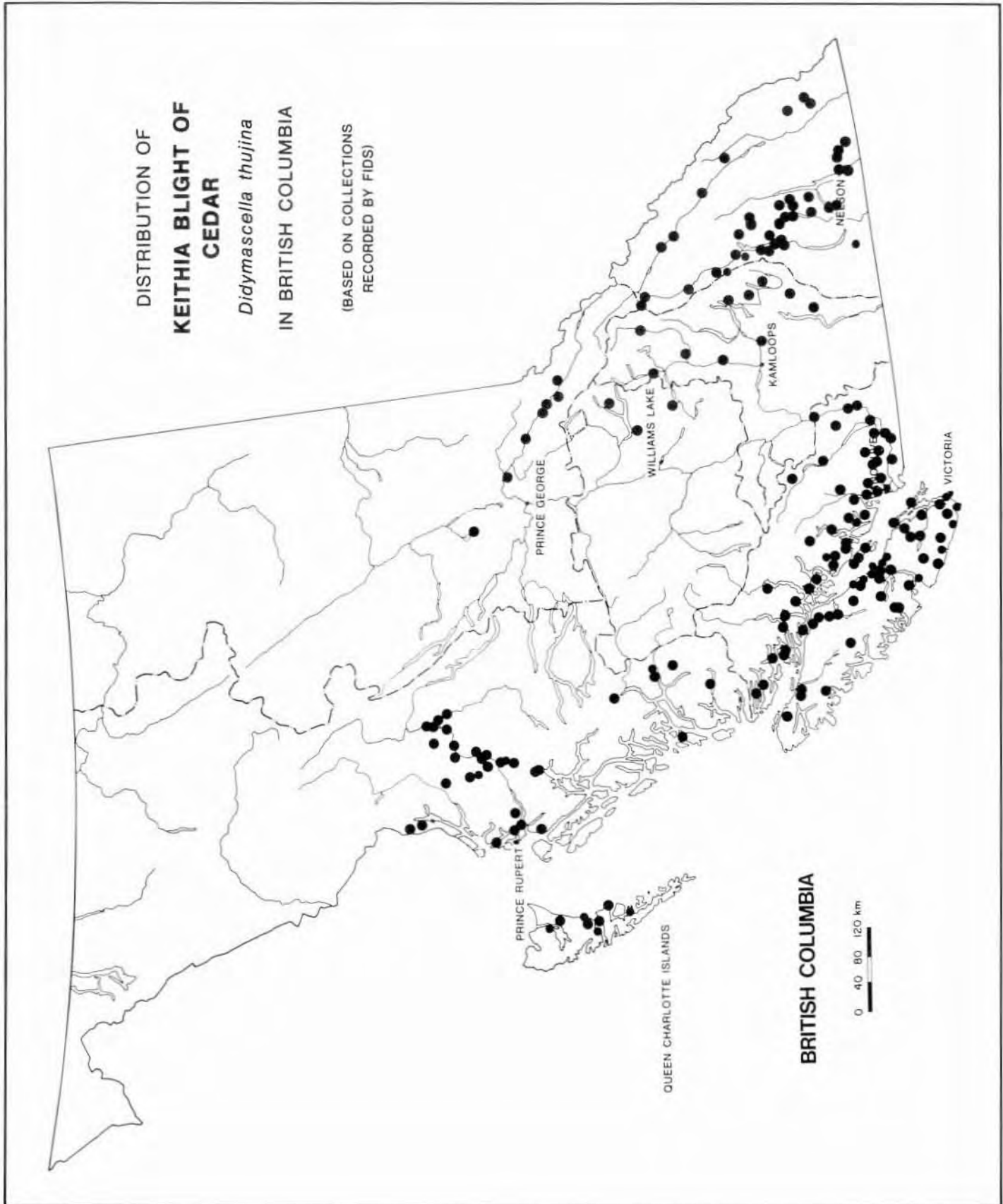




DISTRIBUTION OF  
**NEEDLE BLIGHT OF  
ALPINE FIR**  
*Delphinella* spp.  
IN BRITISH COLUMBIA

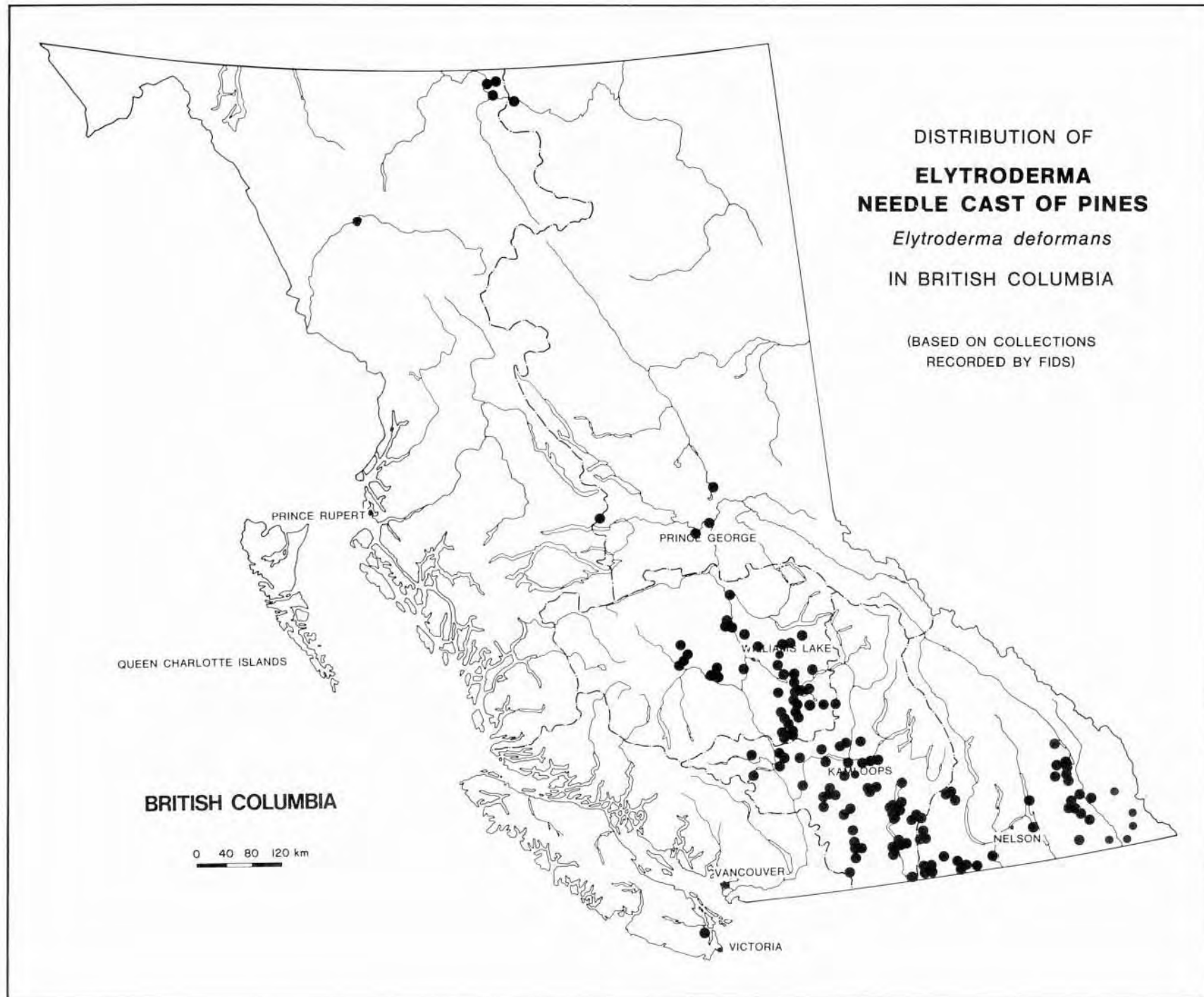
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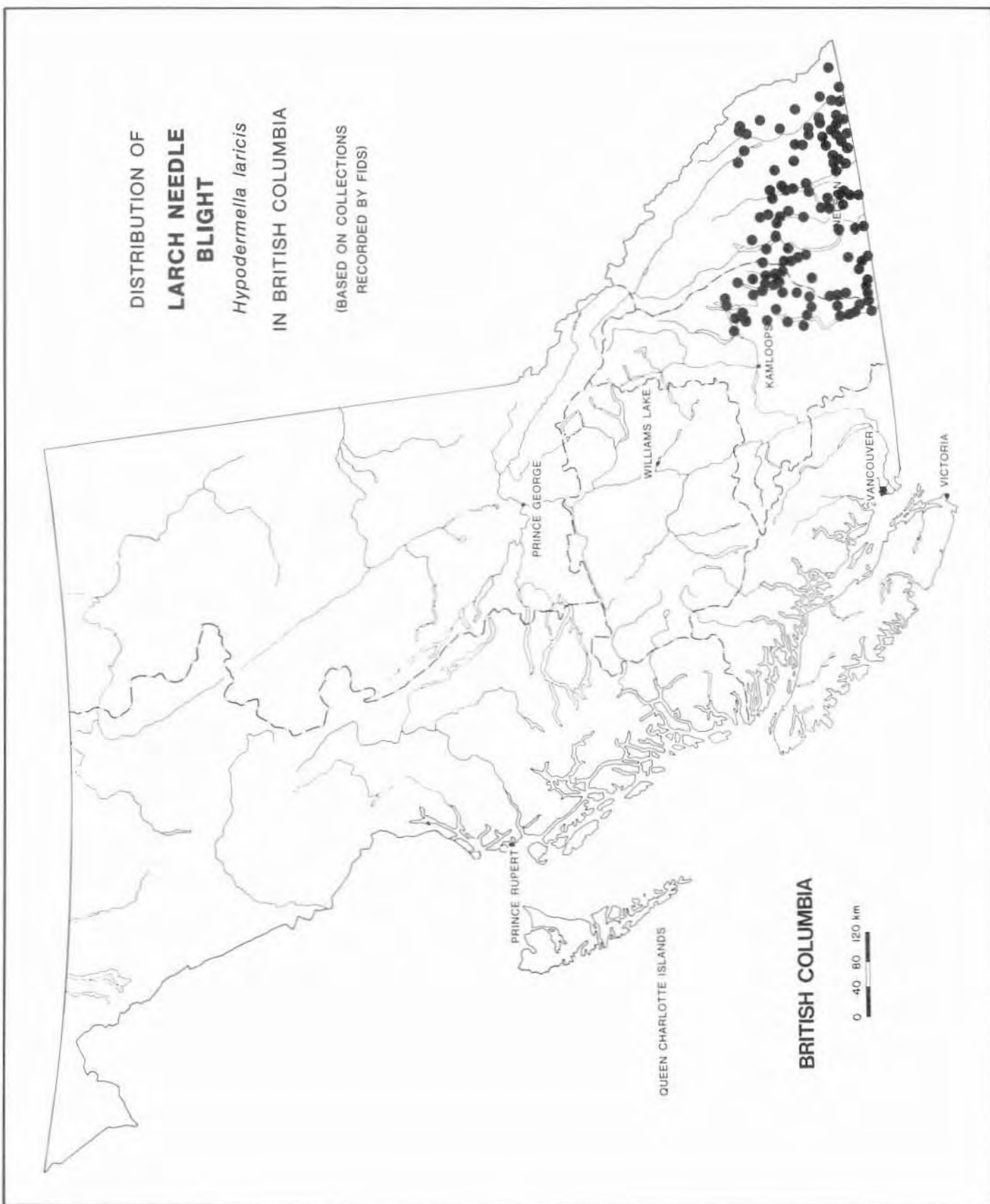
DISTRIBUTION OF  
**ELYTRODERMA**  
**NEEDLE CAST OF PINES**  
*Elytroderma deformans*  
IN BRITISH COLUMBIA

(BASED ON COLLECTIONS  
RECORDED BY FIDS)



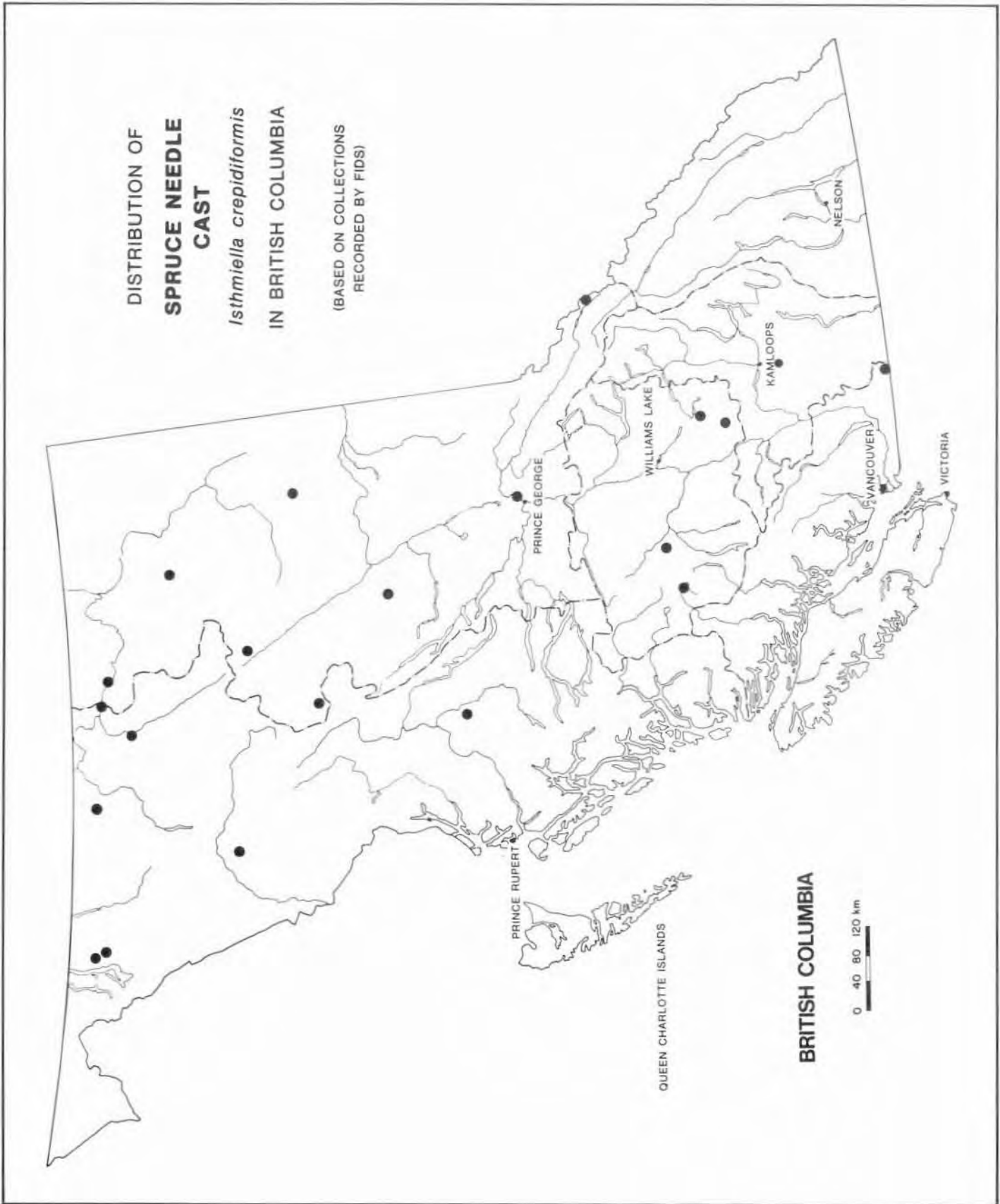
**DISTRIBUTION OF  
LARCH NEEDLE  
BLIGHT**  
*Hypodermella laricis*  
IN BRITISH COLUMBIA

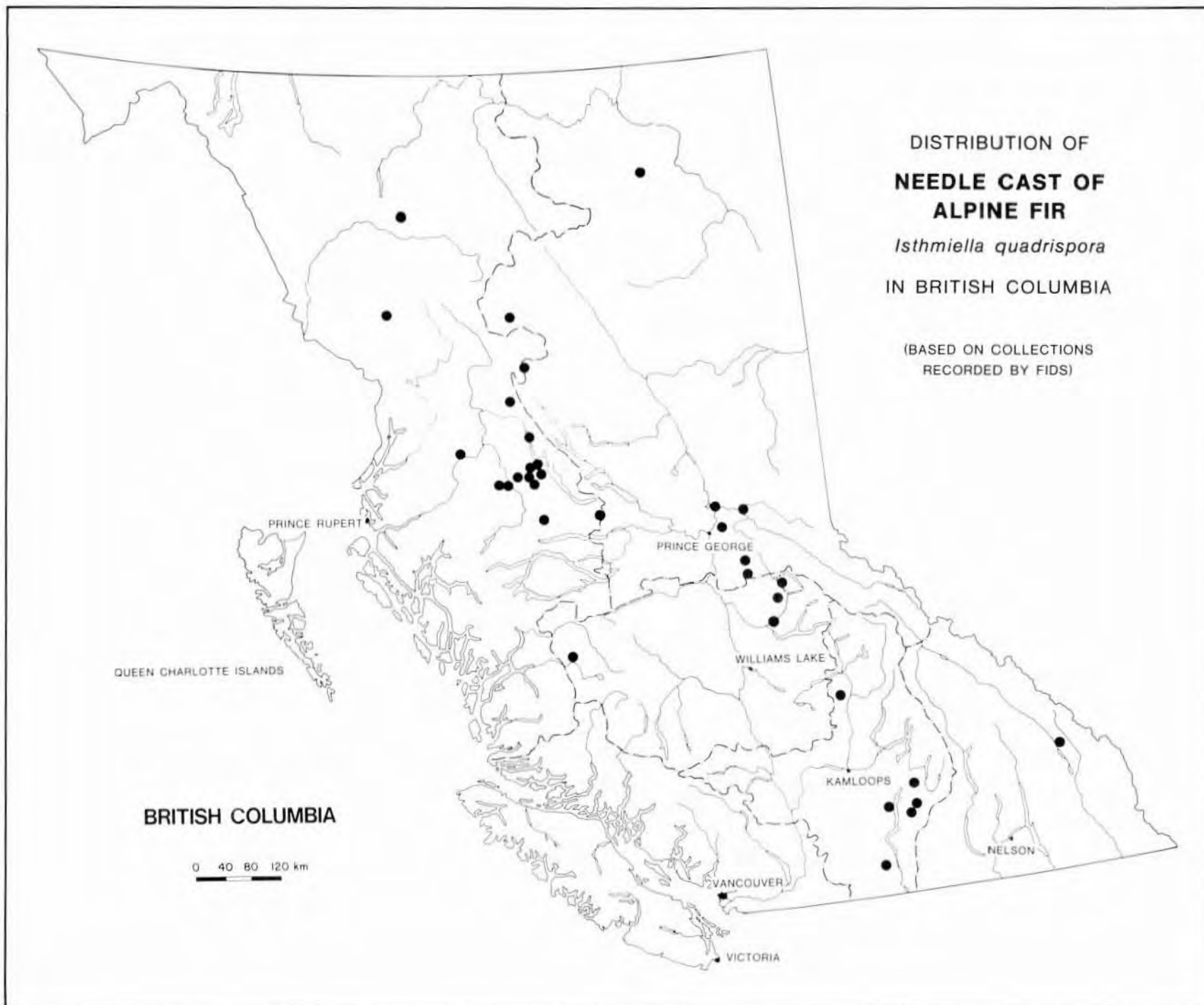
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**DISTRIBUTION OF  
SPRUCE NEEDLE  
CAST**  
*Isthmiella crepidiformis*  
IN BRITISH COLUMBIA

(BASED ON COLLECTIONS  
RECORDED BY FIDS)

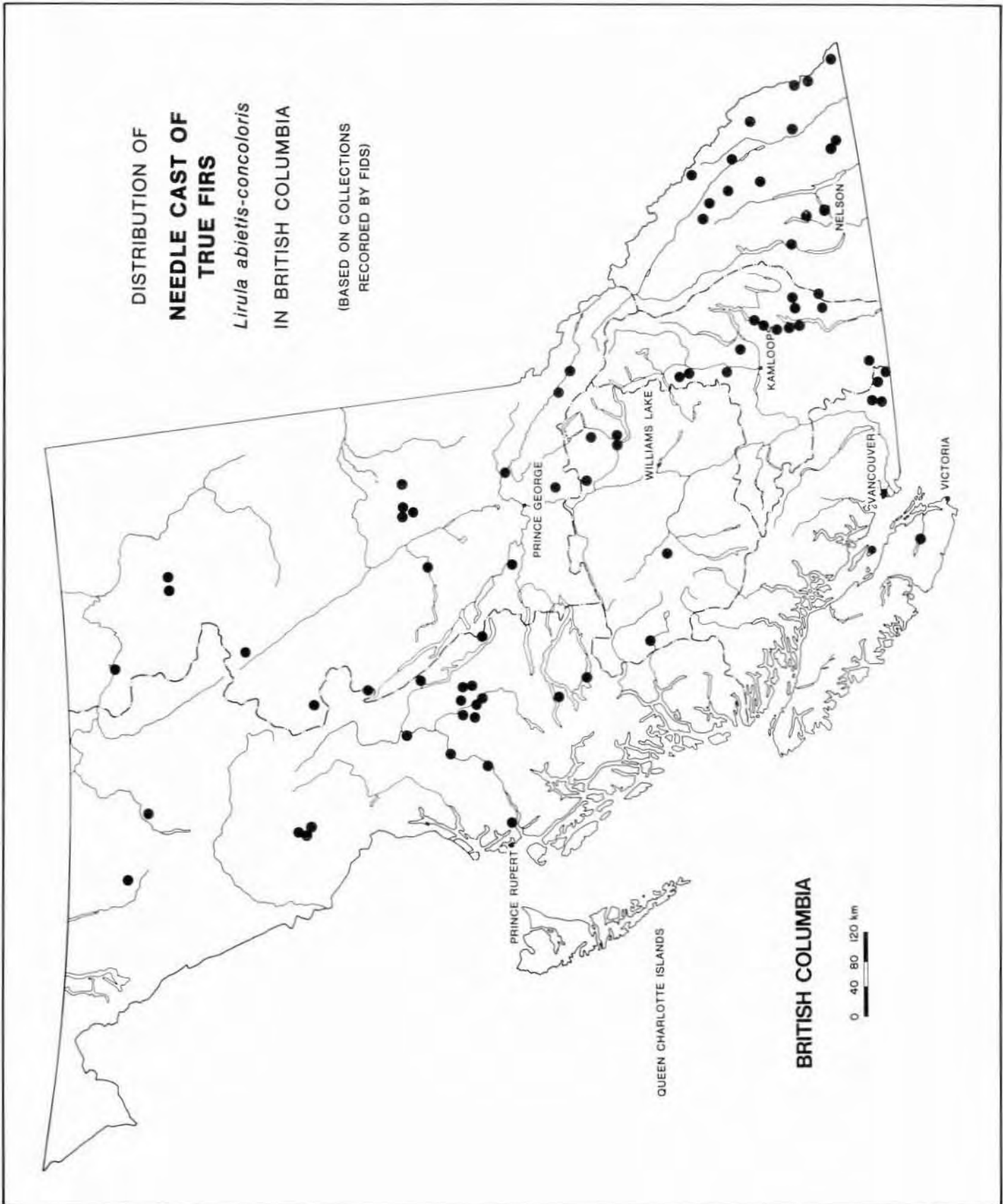


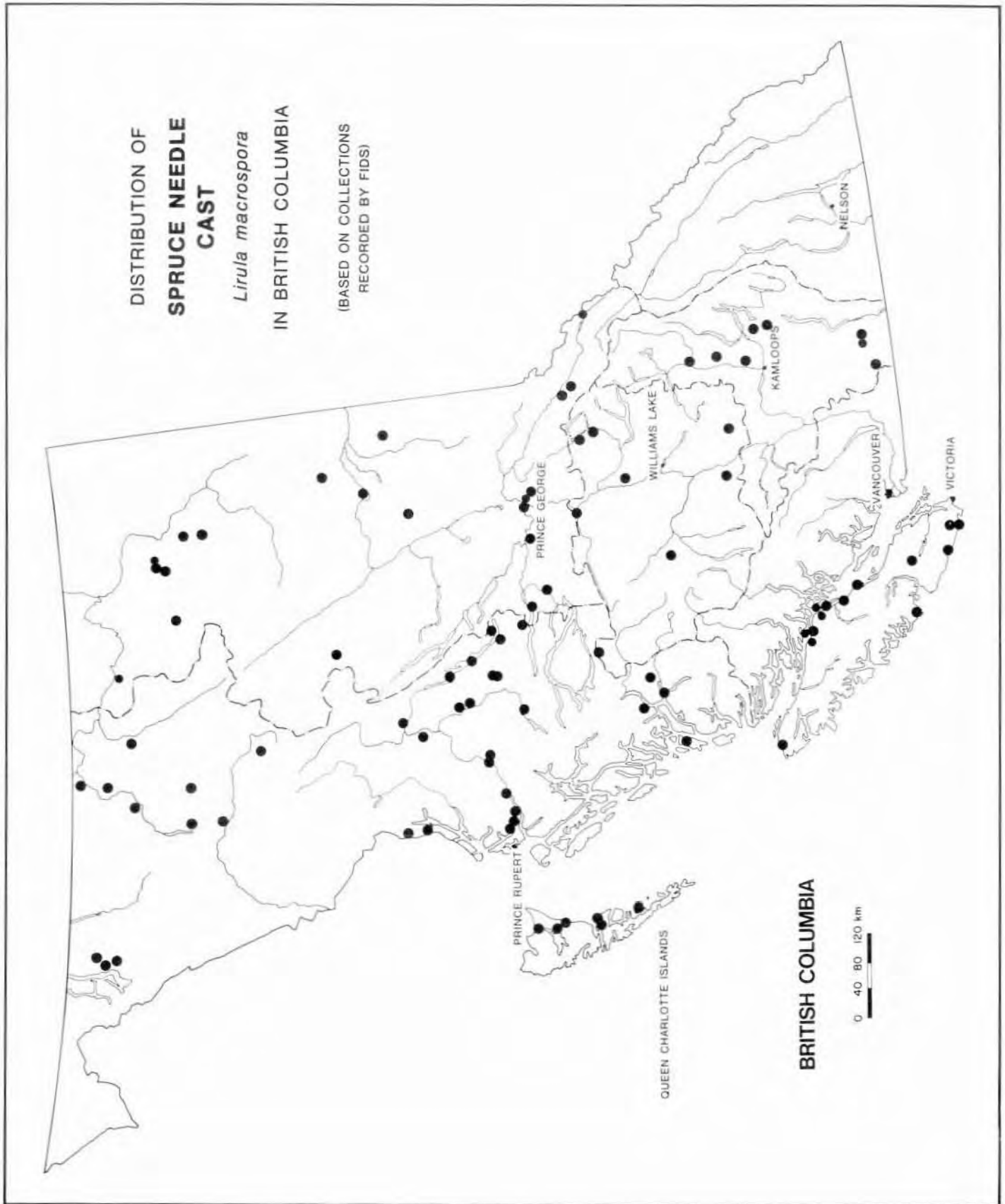


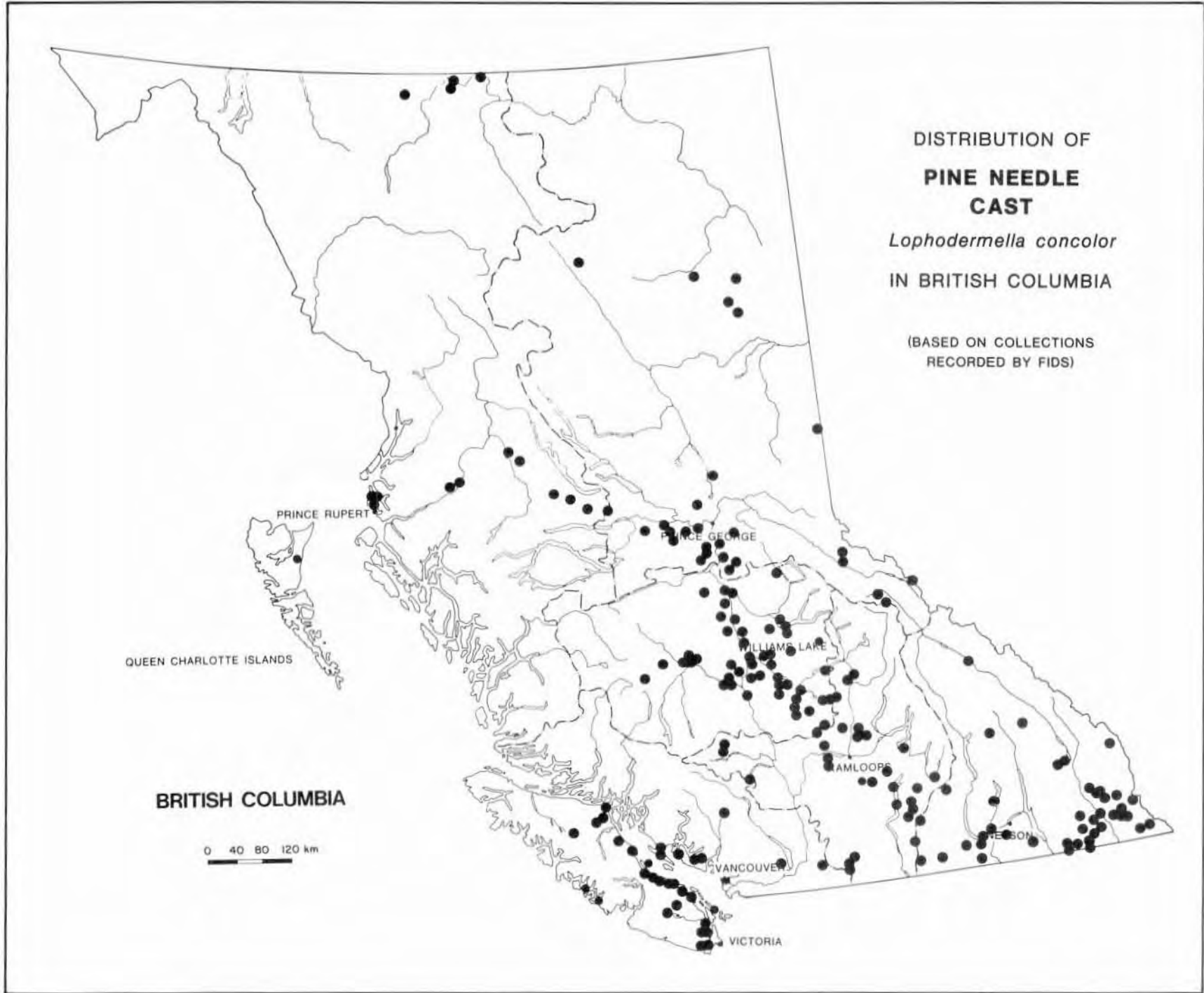


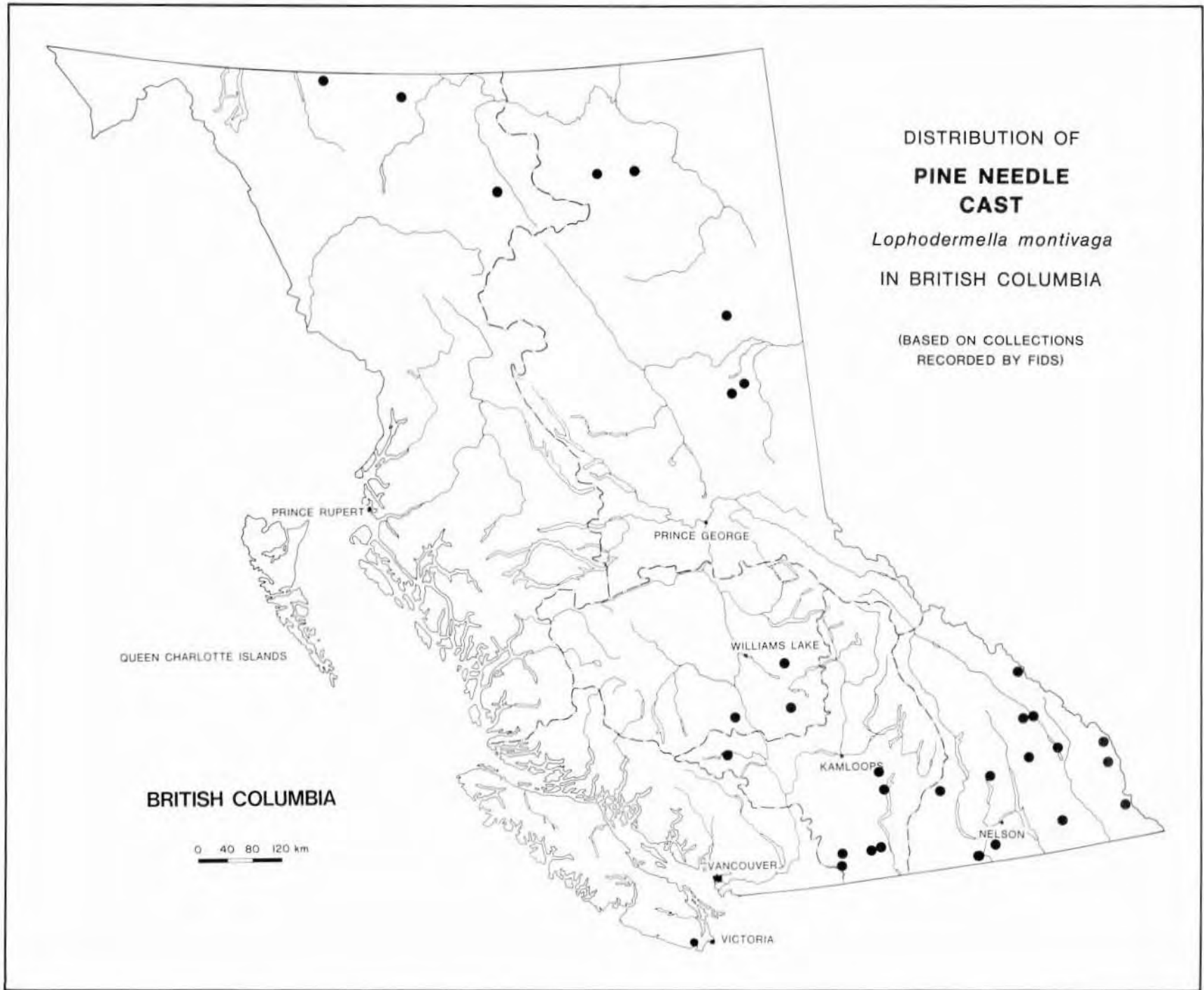
**DISTRIBUTION OF  
NEEDLE CAST OF  
TRUE FIRS**  
*Lirula abietis-concoloris*  
IN BRITISH COLUMBIA

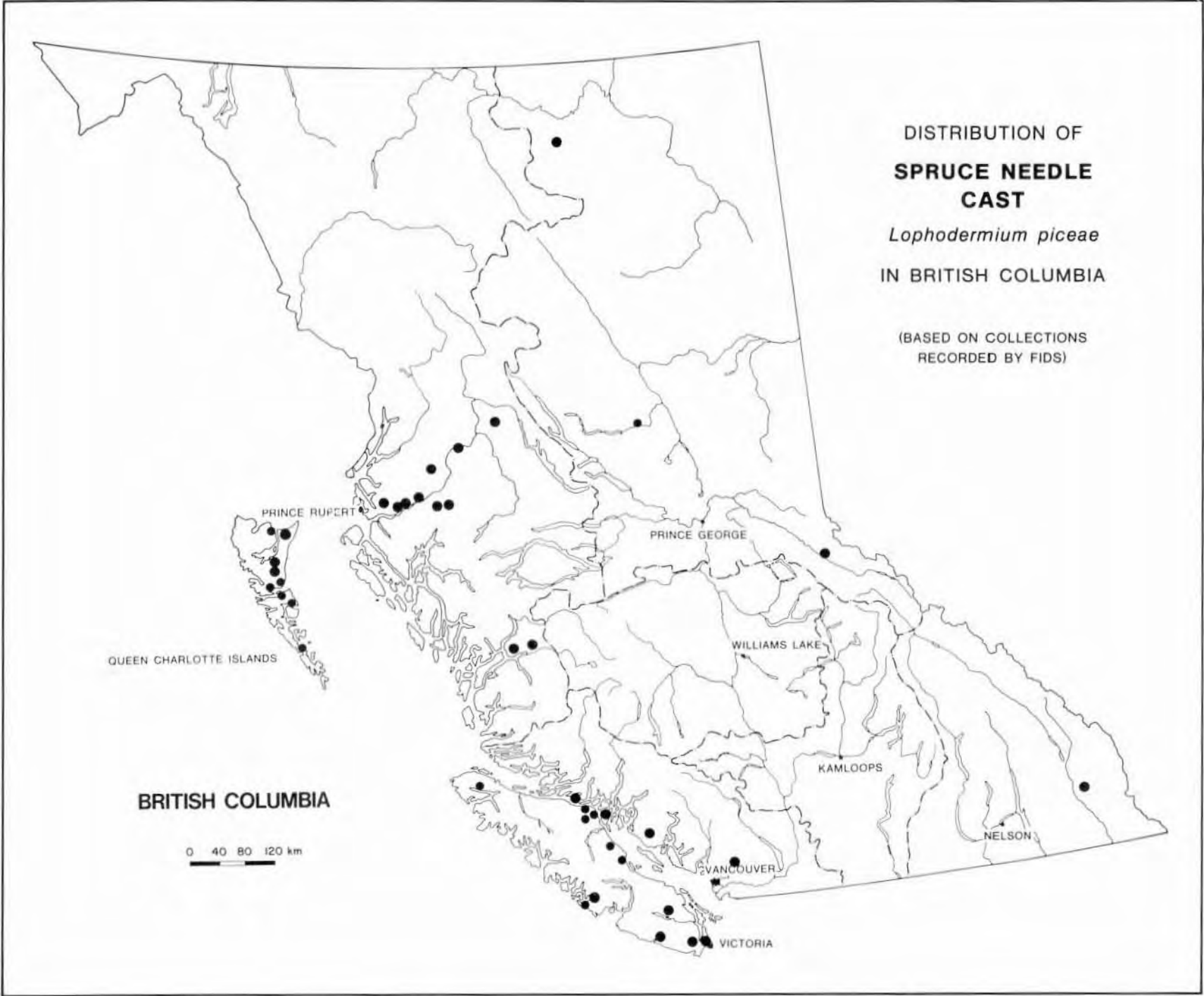
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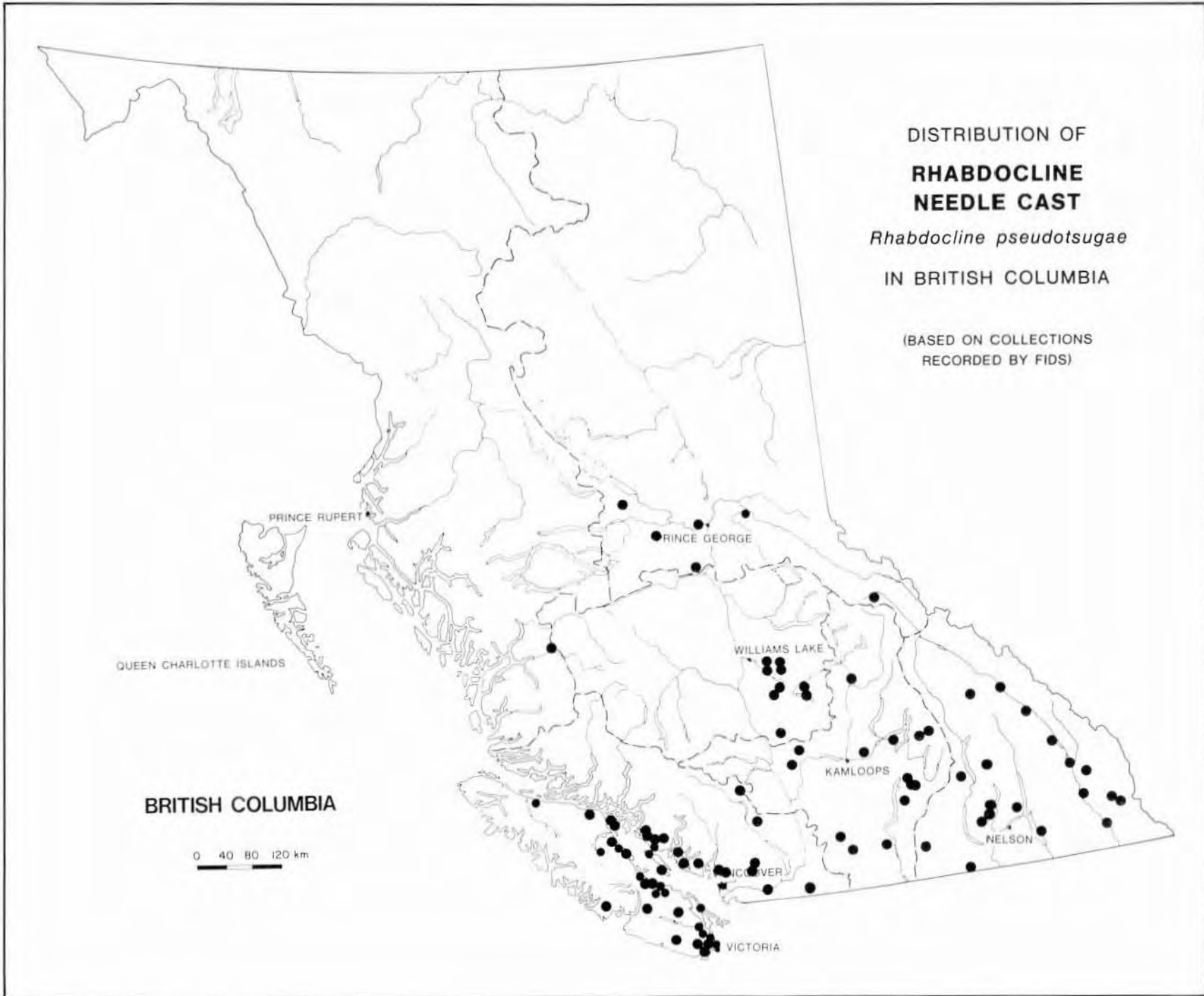








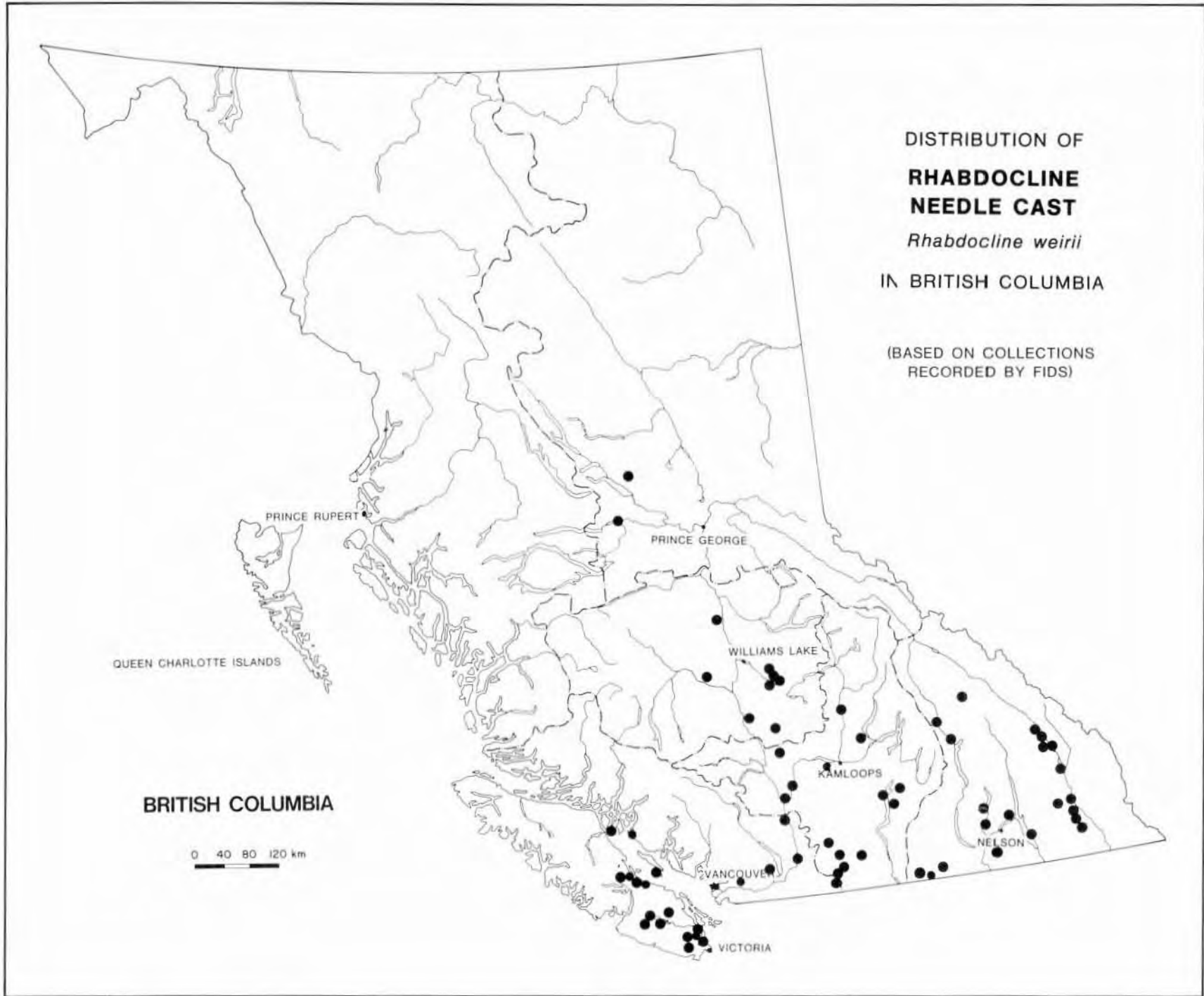


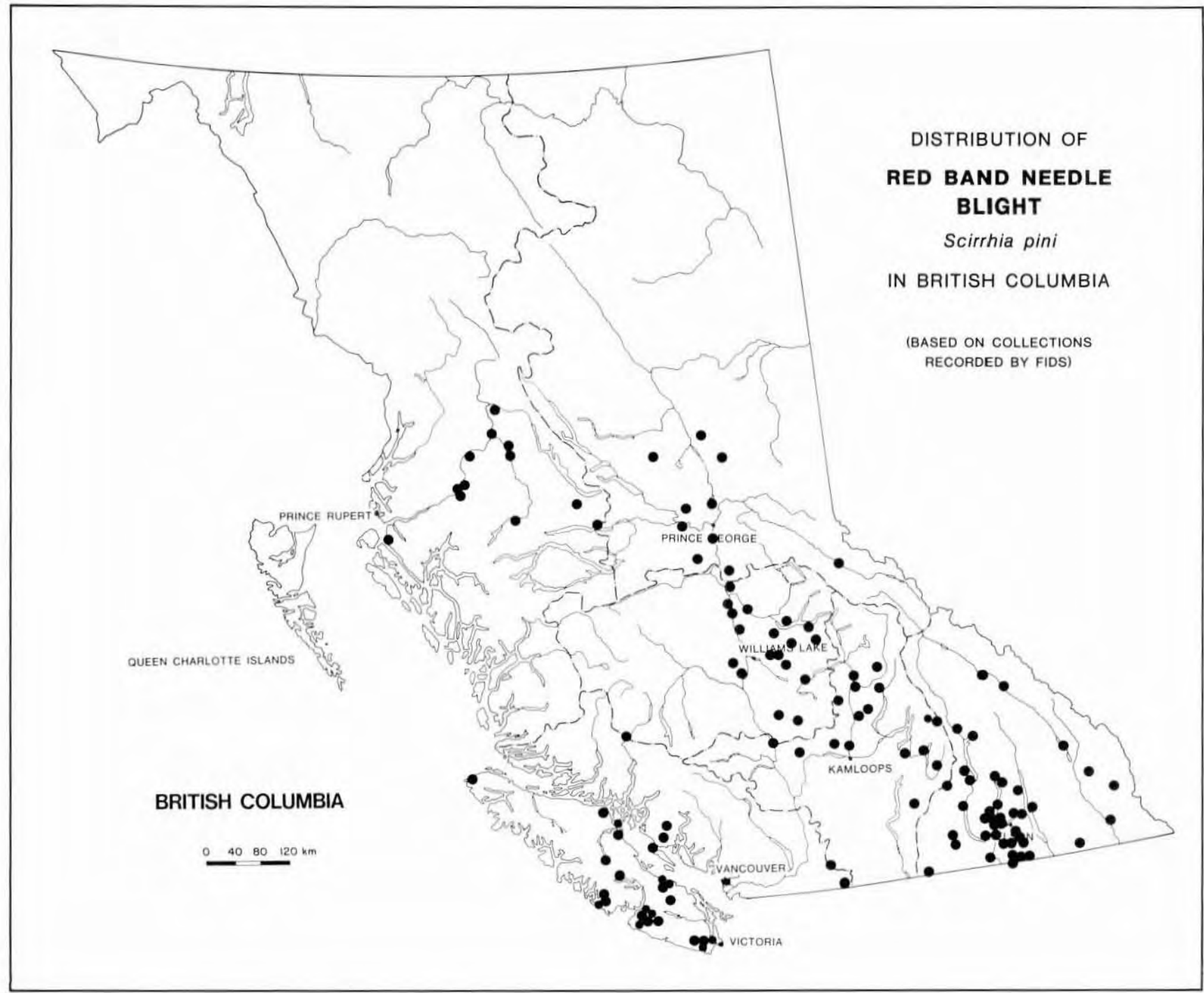


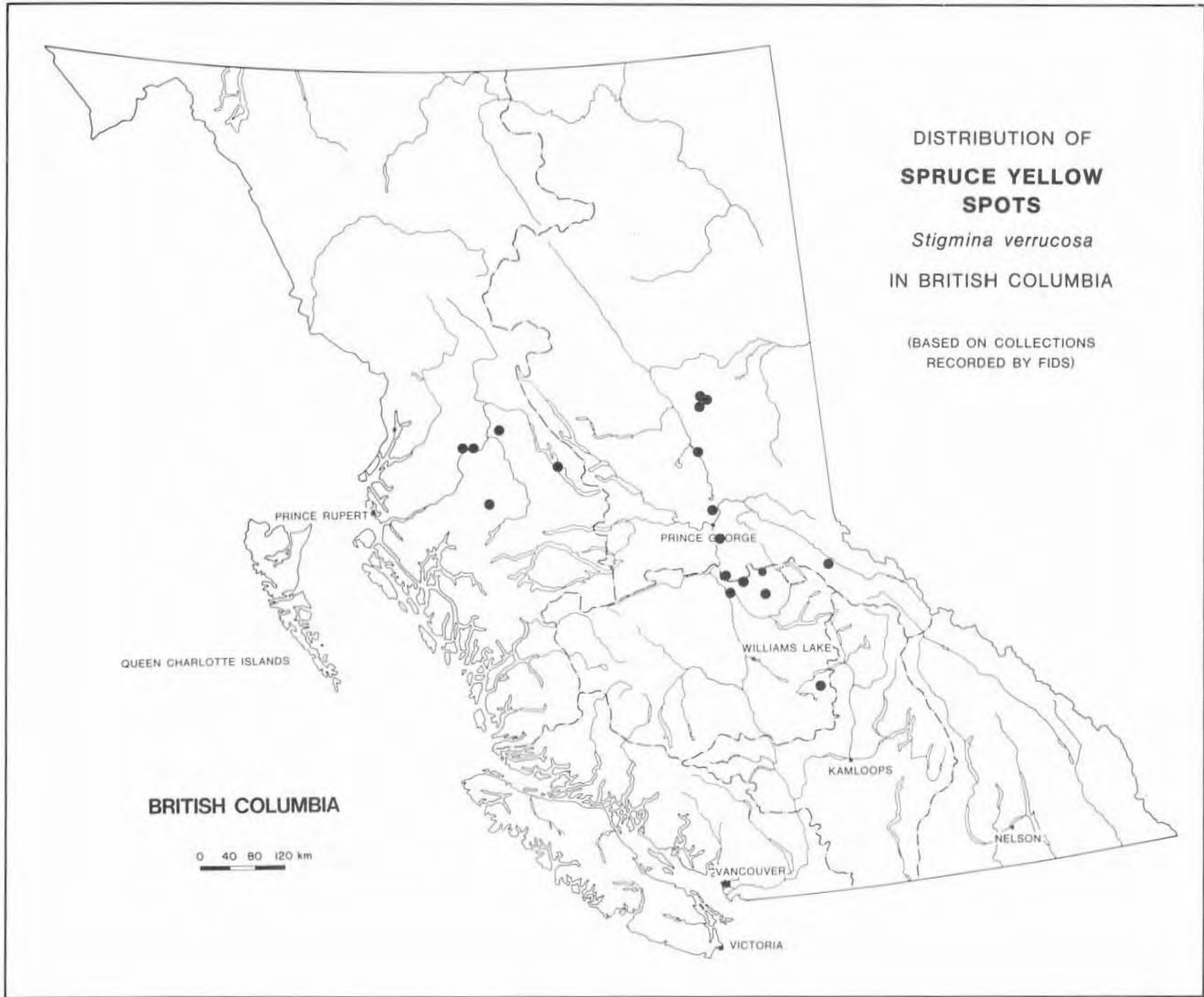


DISTRIBUTION OF  
**RHABDOCLINE  
NEEDLE CAST**  
*Rhabdocline weirii*  
IN BRITISH COLUMBIA

(BASED ON COLLECTIONS  
RECORDED BY FIDS)

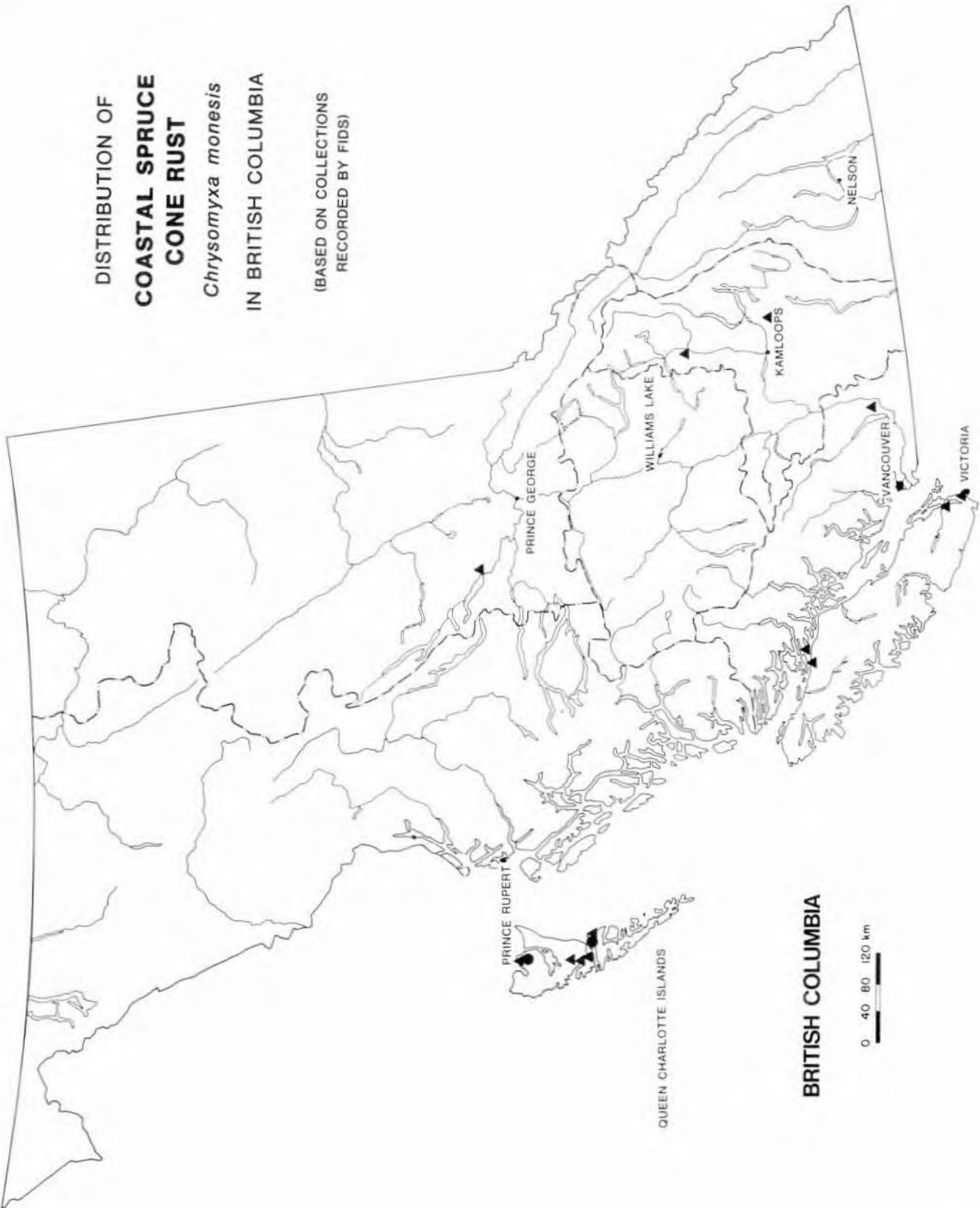






DISTRIBUTION OF  
**COASTAL SPRUCE  
CONE RUST**  
*Chrysomyxa monesis*  
IN BRITISH COLUMBIA

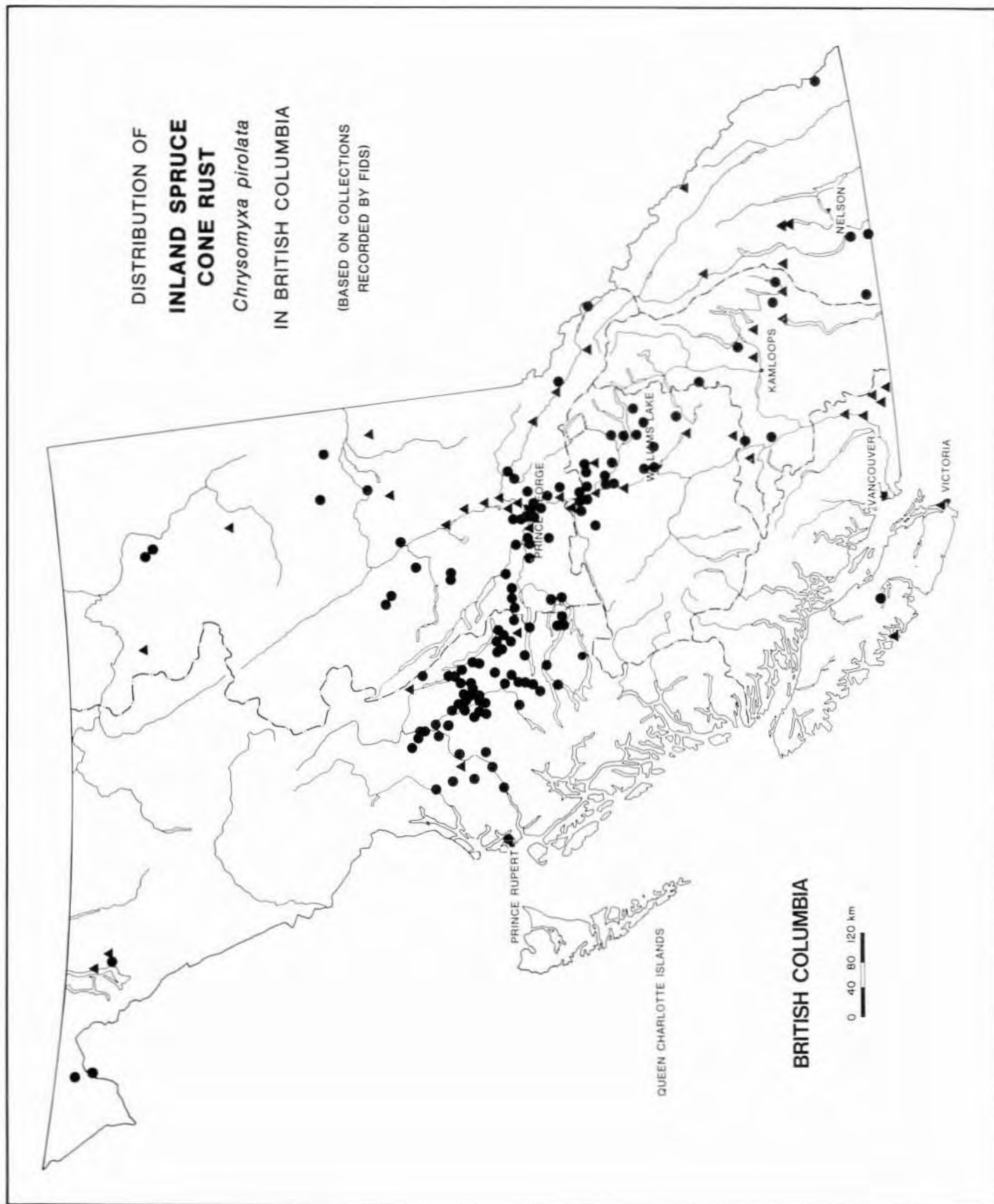
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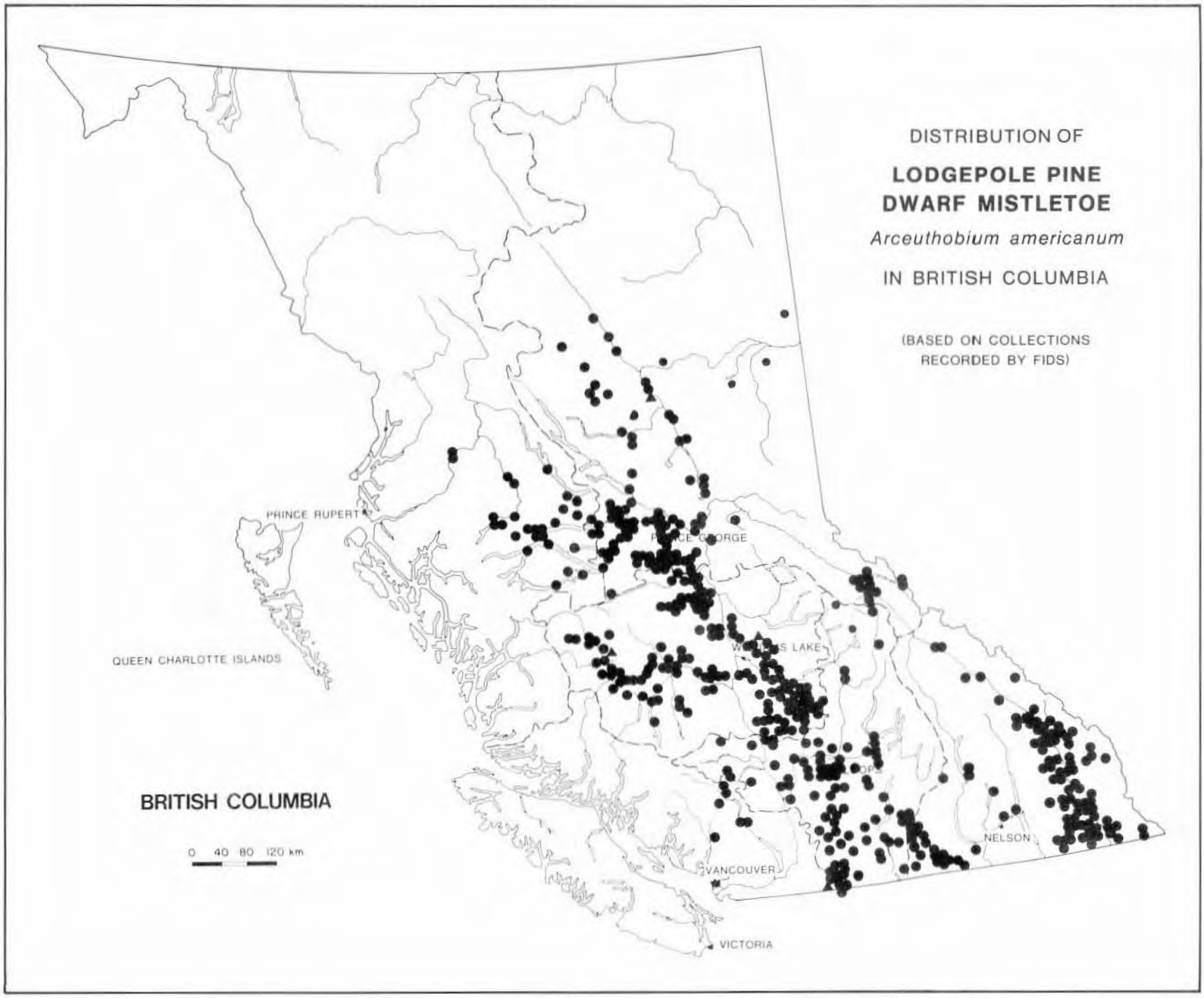


BRITISH COLUMBIA

DISTRIBUTION OF  
**INLAND SPRUCE  
CONE RUST**  
*Chrysomyxa pirolata*  
IN BRITISH COLUMBIA

(BASED ON COLLECTIONS  
RECORDED BY FIDS)



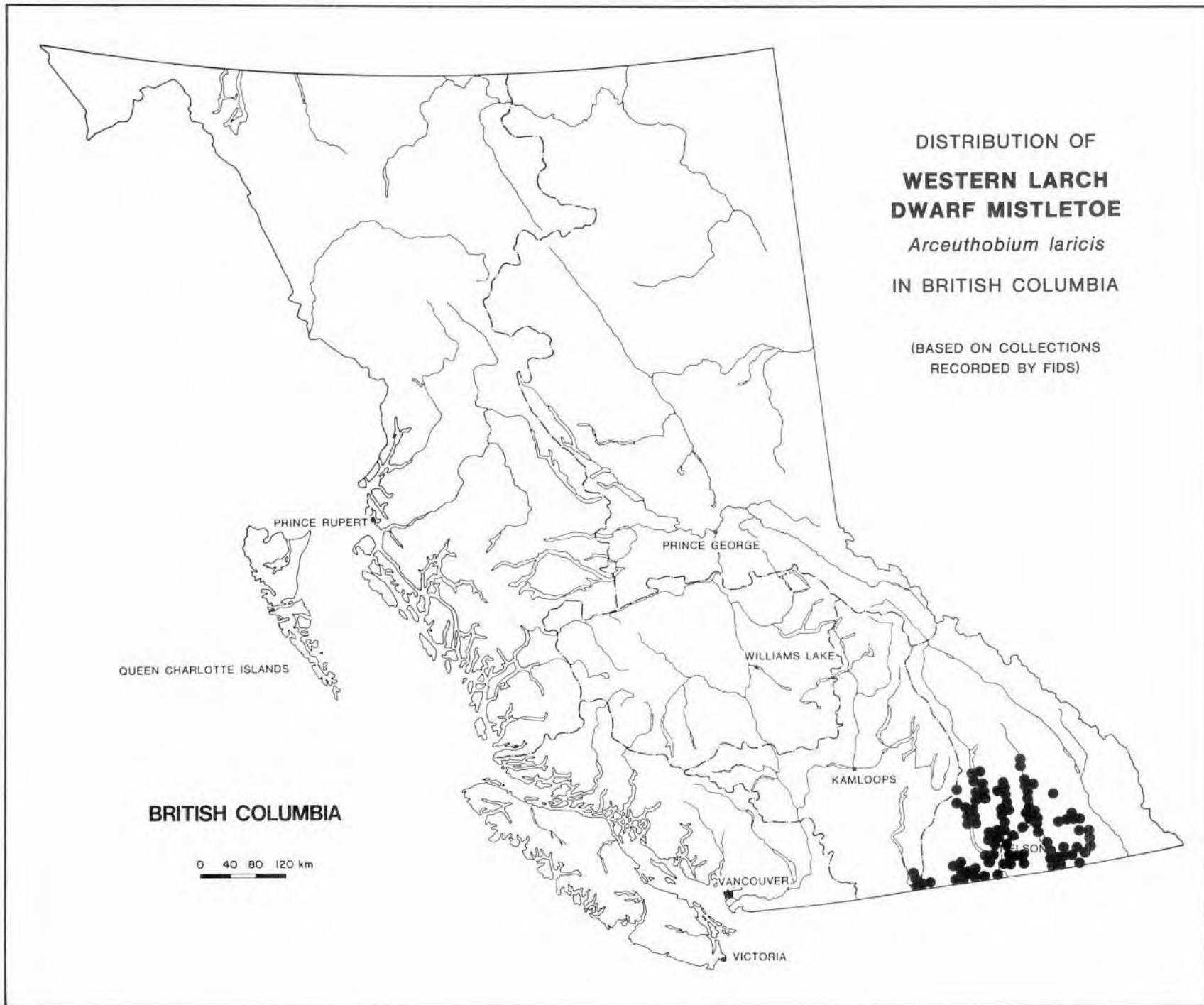




DISTRIBUTION OF  
**DOUGLAS-FIR  
DWARF MISTLETOE**  
*Arceuthobium douglasii*  
IN BRITISH COLUMBIA

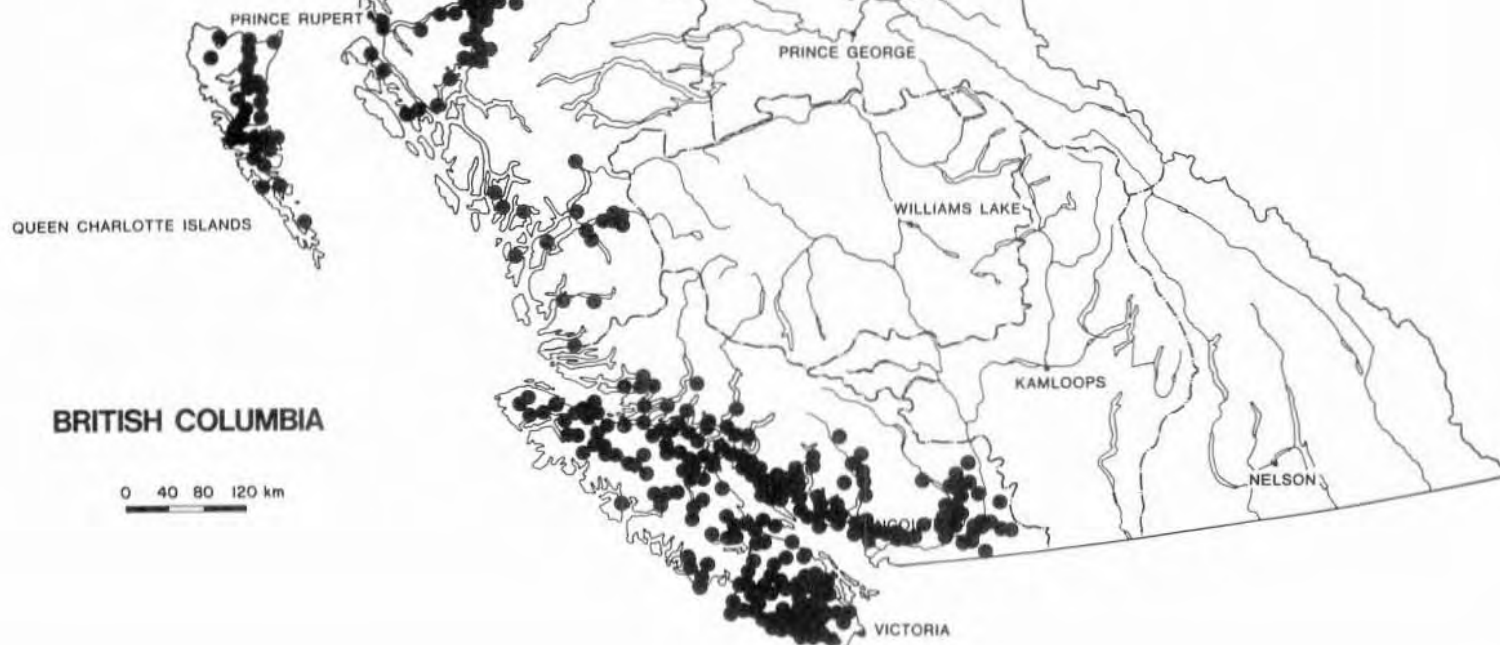
(BASED ON COLLECTIONS  
RECORDED BY FIDS)

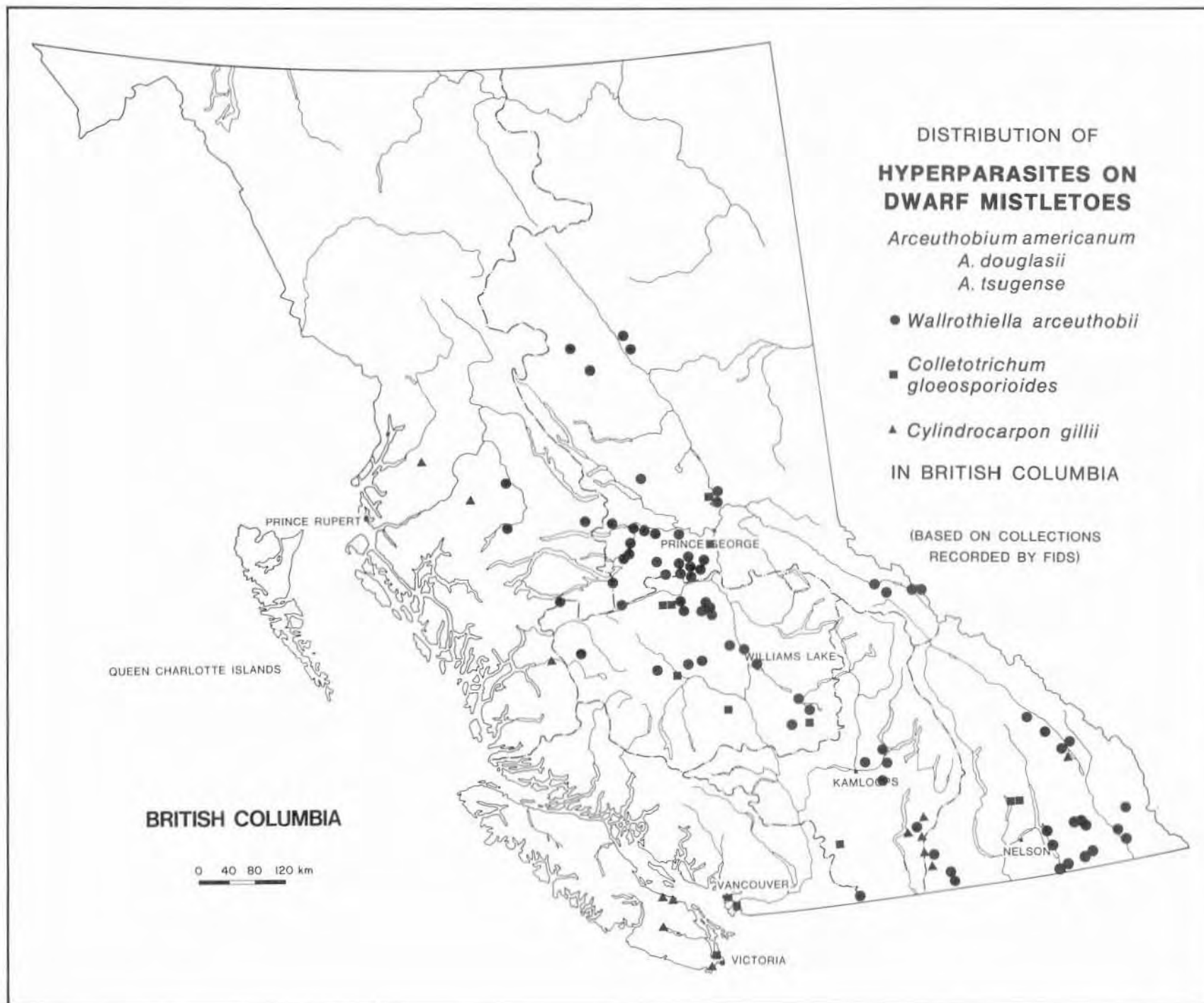




DISTRIBUTION OF  
**WESTERN HEMLOCK  
DWARF MISTLETOE**  
*Arceuthobium tsugense*  
IN BRITISH COLUMBIA

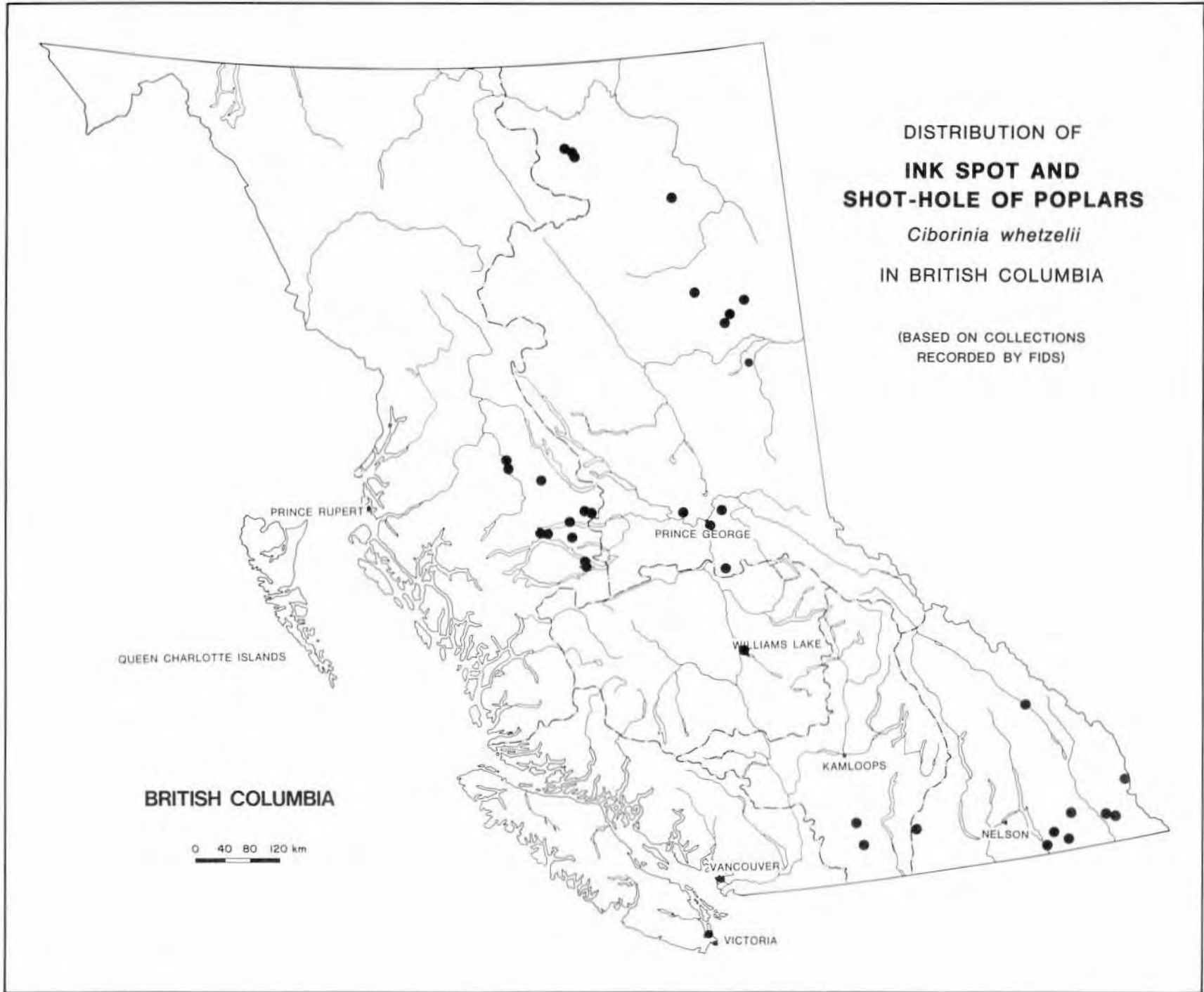
(BASED ON COLLECTIONS  
RECORDED BY FIDS)

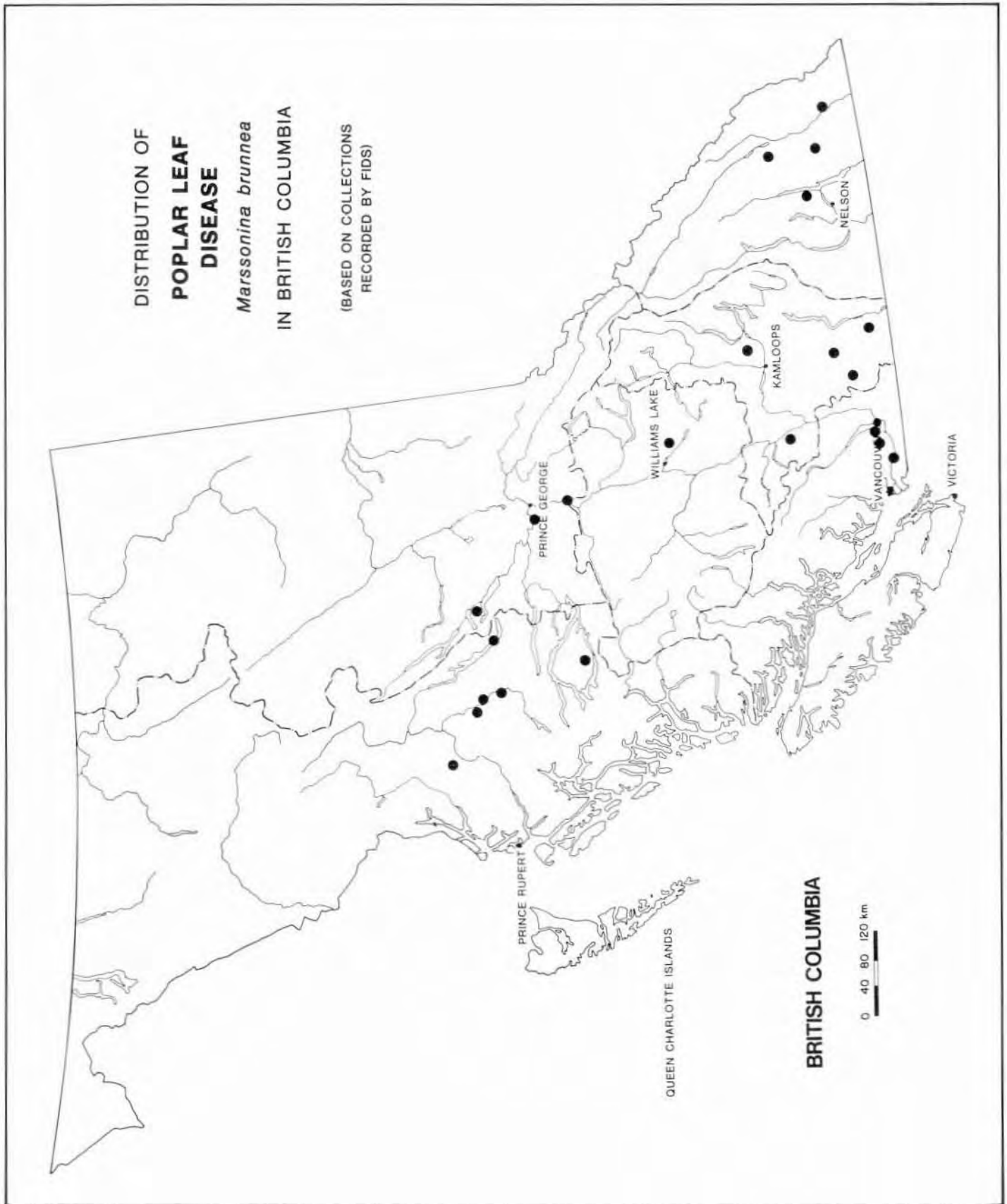




DISTRIBUTION OF  
**INK SPOT AND  
SHOT-HOLE OF POPLARS**  
*Ciborinia whetzellii*  
IN BRITISH COLUMBIA

(BASED ON COLLECTIONS  
RECORDED BY FIDS)





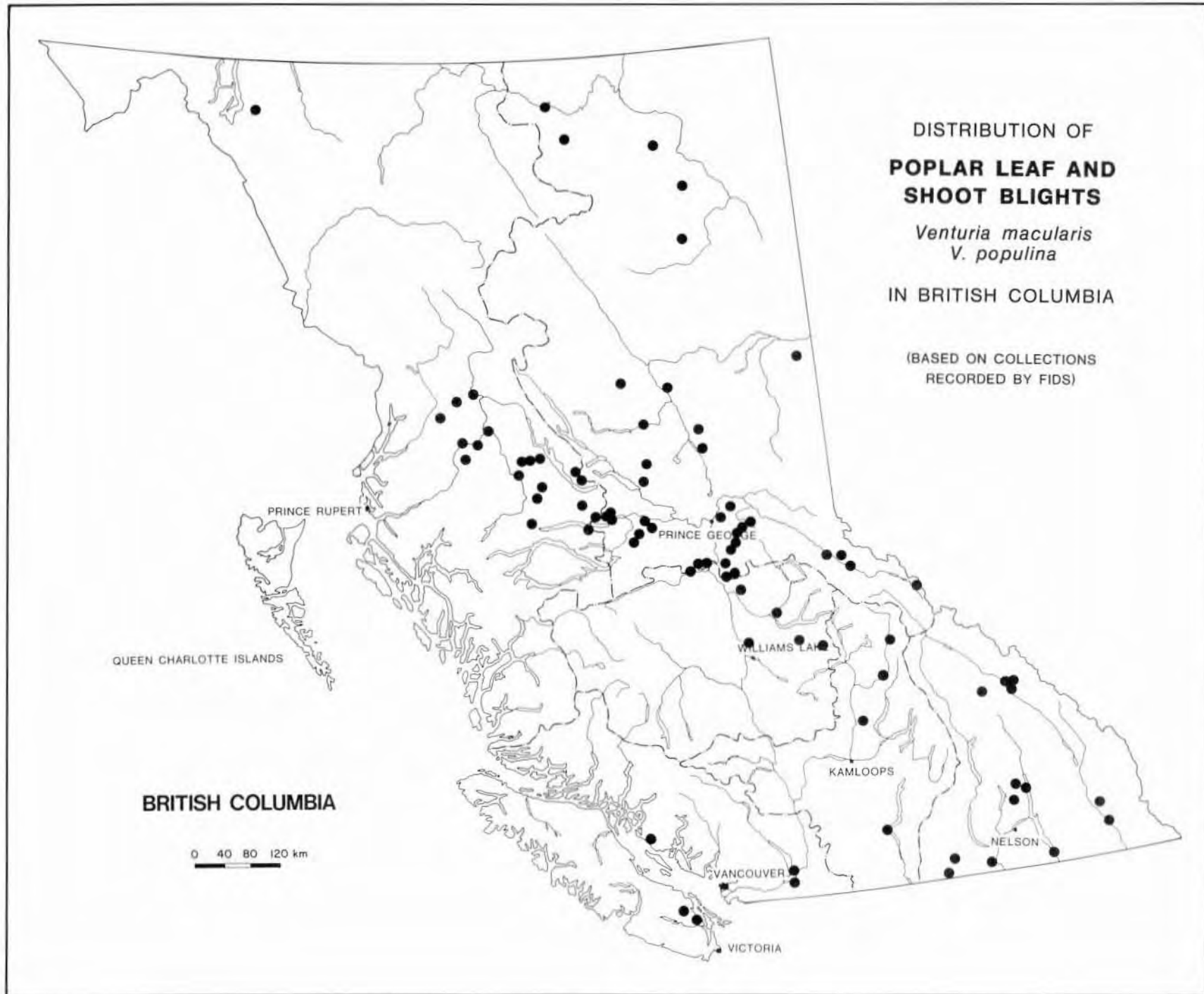


DISTRIBUTION OF  
**POPLAR LEAF AND  
SHOOT BLIGHTS**

*Venturia macularis*  
*V. populina*

IN BRITISH COLUMBIA

(BASED ON COLLECTIONS  
RECORDED BY FIDS)



## Host list

## Root and butt rots

*Armillaria* spp.

*Abies amabilis*  
*A. grandis*  
*A. lasiocarpa*  
*Chamaecyparis lawsoniana*  
*Larix decidua*  
*L. leptolepis*  
*L. occidentalis*  
*Picea abies*  
*P. engelmannii*  
*P. glauca*  
*P. sitchensis*  
*Pinus contorta*  
*P. monticola*  
*P. muricata*  
*P. nigra*  
*P. pinaster*  
*P. ponderosa*  
*P. radiata*  
*P. resinosa*  
*P. sylvestris*  
*Pseudotsuga menziesii*  
*Taxus brevifolia*  
*Thuja plicata*  
*Tsuga heterophylla*  
*Alnus rubra*  
*Betula papyrifera*  
*Populus X canadensis*  
*P. nigra*  
*P. tremuloides*  
*P. trichocarpa*  
*Quercus garryana*  
*Salix* sp.

*Fomes annosus*

*Abies amabilis*  
*A. grandis*  
*Picea glauca*  
*P. sitchensis*  
*Pseudotsuga menziesii*  
*Thuja plicata*  
*Tsuga heterophylla*  
*Acer macrophyllum*  
*Alnus rubra*

*Phellinus weirii*

*Abies amabilis*  
*A. grandis*  
*A. lasiocarpa*  
*Chamaecyparis nootkatensis*  
*Larix occidentalis*  
*Picea sitchensis*  
*Pinus contorta*  
*P. monticola*  
*P. ponderosa*  
*Pseudotsuga menziesii*  
*Thuja plicata*  
*Tsuga heterophylla*

*Polyporus schweinitzii*

*Larix* spp.  
*Picea* spp.  
*Pinus* spp.  
*Pseudotsuga menziesii*  
*Thuja plicata*  
*Tsuga heterophylla*

*P. tomentosus*

*Abies amabilis*  
*Picea engelmannii*  
*P. glauca*  
*P. sitchensis*  
*Pinus contorta*  
*P. monticola*  
*Tsuga heterophylla*

*Rhizina undulata*

*Larix occidentalis*  
*Picea engelmannii*  
*P. glauca*  
*P. sitchensis*  
*Pinus contorta*  
*Pseudotsuga menziesii*  
*Tsuga heterophylla*

## Heart rots

*Echinodontium tinctorium*

*Abies* spp.  
*Thuja plicata*  
*Tsuga heterophylla*  
*T. mertensiana*

*Fomes ignarius*

*Acer* spp.  
*Alnus* spp.  
*Arbutus menziesii*  
*Betula* spp.  
*Cornus nuttallii*  
*Malus* spp.  
*Populus* spp.  
*Salix lasiandra*

*F. pini*

*Abies* spp.  
*Larix occidentalis*  
*Picea* spp.  
*Pinus* spp.  
*Pseudotsuga menziesii*  
*Thuja plicata*  
*Tsuga heterophylla*  
*T. mertensiana*

*Haematostereum sanguinolentum*

*Abies amabilis*  
*A. grandis*  
*A. lasiocarpa*  
*Larix occidentalis*  
*Picea glauca*  
*P. sitchensis*  
*Pinus contorta*  
*P. monticola*  
*P. ponderosa*  
*Pseudotsuga menziesii*  
*Thuja plicata*  
*Tsuga heterophylla*  
*T. mertensiana*

*Pholiota destruens*

*Alnus* sp.  
*Populus* spp.

*Polyporus sericeomollis*

*Abies lasiocarpa*  
*Picea glauca*  
*P. sitchensis*  
*Pseudotsuga menziesii*  
*Thuja plicata*

**Stem cankers***Atropellis piniphila*

*Pinus contorta*  
*P. ponderosa*

*Botryosphaeria tsugae*

*Tsuga heterophylla*

*Diaporthe lokoyae*

*Pseudotsuga menziesii*  
*Tsuga heterophylla*

*Hypoxyylon mammatum*

*Alnus sinuata*  
*Populus tremuloides*  
*Salix* sp.

*Potebniamyces balsamicola*

*Abies* spp.

*Sydowia polyspora*

*Abies* spp.  
*Larix decidua*  
*Picea engelmannii*  
*Pinus* spp.  
*Pseudotsuga menziesii*  
*Tsuga heterophylla*

**Stem rusts***Cronartium coleosporioides*

*Pinus contorta*  
*Castilleja miniata*  
*Melampyrum lineare*  
*Rhinanthus crista-galli*

*C. comandrae*

*Pinus* spp.  
*Comandra* spp.

*C. comptoniae*

*Pinus* spp.  
*Myrica gale*

*C. ribicola*

*Pinus* spp.  
*Ribes* spp.

*Endocronartium harknessii*

*Pinus* spp.

**Broom rusts***Chrysomyxa arctostaphyli*

*Picea* spp.  
*Arctostaphylos uva-ursi*

*Melampsorella caryophyllacearum*

*Abies* spp.  
*Cerastium* spp.  
*Stellaria* spp.

**Needle rusts***Chrysomyxa ledicola*

*Picea* spp.  
*Ledum groenlandicum*

*C. weirii*

*Picea* spp.

*C. woroninii*

*Picea* spp.  
*Ledum groenlandicum*

*Coleosporium asterum*

*Pinus contorta*  
*Aster* spp.  
*Grindelia integrifolia*  
*Solidago* spp.

*Melampsora medusae*

*Larix* spp.  
*Pinus* spp.  
*Pseudotsuga menziesii*  
*Populus tremuloides*

*M. occidentalis*

*Pseudotsuga menziesii*  
*Populus trichocarpa*

*Pucciniastrum epilobii*

*Abies* spp.  
*Epilobium* spp.

**Needle blights and casts***Davisomycella montana*

*Pinus contorta*

*Delphinella* spp.

*Abies lasiocarpa*

*Didymascella thujina*

*Thuja plicata*

*Elytroderma deformans*

*Pinus contorta*  
*P. ponderosa*

*Hypodermella laricis*

*Larix occidentalis*

*Isthmiella crepidiformis*

*Picea* spp.

*I. quadrispora*

*Abies lasiocarpa*

*Lirula abietis-concoloris*

*Abies* spp.

*L. macrospora*

*Picea* spp.

*Lophodermella concolor*

*Pinus contorta*  
*P. sylvestris*

*L. montivaga*

*Pinus contorta*  
*P. sylvestris*

*Lophodermium piceae*

*Abies lasiocarpa*  
*Picea* spp.

*Rhabdocline pseudotsugae*

*Pseudotsuga menziesii*

*R. weirii*

*Pseudotsuga menziesii*

*Scirrhia pini*

*Pinus* spp.

*Stigmina verrucosa*

*Picea* spp.

**Cone rusts***Chrysomya monesis*

*Picea sitchensis*  
*Moneses uniflora*

*C. pirolata*

*Picea* spp.  
*Moneses uniflora*  
*Pyrola* spp.

**Dwarf mistletoes***Arceuthobium americanum*

*Picea* spp.  
*Pinus contorta*  
*P. ponderosa*

*A. douglasii*

*Abies grandis*  
*Pseudotsuga menziesii*

*A. laricis*

*Abies grandis*  
*A. lasiocarpa*  
*Larix occidentalis*  
*Picea engelmannii*  
*Pinus contorta*  
*P. monticola*  
*P. ponderosa*

*A. tsugense*

*Abies amabilis*  
*Picea sitchensis*  
*Pinus contorta*  
*P. monticola*  
*Tsuga heterophylla*

**Foliage diseases of broadleaved trees***Ciborinia whetzelii*

*Populus tremuloides*

*Marssonina brunnea*

*Populus alba*  
*P. tremuloides*  
Poplar hybrids

*Venturia macularis*

*Populus tremuloides*

*Venturia populina*

*Populus balsamifera*  
*P. trichocarpa*