



Agriculture
Canada



Agriculture
Canada

Research
Branch

Direction générale
de la recherche

Technical Bulletin 1991-7E

91- 05- 10

Library / Bibliothèque, Ottawa K1A 0C5

Aphids of Manitoba



630.72
C759
C 91-7
C.3

Canada

Aphids of Manitoba

A.G. ROBINSON
University of Manitoba
Winnipeg, Manitoba

R.J. LAMB
Research Station
Winnipeg, Manitoba

Technical Bulletin 1991-7E

Research Branch
Agriculture Canada
1991

Copies of this publication are available from
Director
Research Station
Research Branch, Agriculture Canada
195 Dafoe Road
Winnipeg, Manitoba
R3T 2M9

Produced by Research Program Service

© Minister of Supply and Services Canada 1991
Cat. No. A54-8/1991-7E
ISBN 0-662-18570-6

Cover illustration
The dots on the map represent
Agriculture Canada research
establishments.

SUMMARY

This bulletin reports 324 species of aphids collected in Manitoba, and their host plant associations. Aphid and host plant catalogues are included.

RESUMÉ

Cette publication présente la liste de 324 espèces de pucerons collectés dans le Manitoba et leurs hôtes. On présente aussi catalogues de pucerons et des hôtes.

TABLE OF CONTENTS

TITLE	PAGE
SUMMARY	i
TABLE OF CONTENTS	ii
INTRODUCTION	1
LIST OF APHIDS	2
LIST OF HOST PLANTS	17
ACKNOWLEDGEMENTS	28
REFERENCES	29

INTRODUCTION

The aphids are a large group of insect species in the superfamily Aphidoidea in the suborder Homoptera (Blackman and Eastop 1984). About 4000 species are known worldwide (Dixon 1987). Aphids feed on plants by piercing plant tissue and withdrawing plant sap with their straw-like mouthparts. Most species exhibit close associations with a narrow range of related plants and show complex and specific adaptations to their hosts (Dixon 1987). These host plant associations assure that the diversity of aphids in any region depends in part on the diversity of the flora. Over 250 species attack cultivated plants and many have become important agricultural pests (Blackman and Eastop 1984).

This bulletin provides lists of the aphids that have been found in Manitoba, and their associated host plants. These lists are based on aphids in the collection of one of us (A.G.R.). The collecting has been undertaken largely by A.G. Robinson, but also by his students and associates over the past 30 years. Collecting trips have been undertaken to many areas of the province including the north as far as the tundra areas near Churchill, but the fauna of the southern part of the province has been collected more thoroughly. The aphids have been identified primarily by A. G. Robinson, but many other aphid taxonomists have assisted. These experts are listed in the Acknowledgements. Similarly, assistance has been obtained for identifying many of the plant species.

In Manitoba, 324 species of aphid have been identified on approximately 175 species of host plant. The aphid species are listed in alphabetical order followed by their associated hosts in the following List of the Aphids. The aphid names are in accordance with those of Smith and Parron (1978). The host plants on which aphids have been collected are listed in alphabetical order followed by their associated aphids in the following List of the Aphid Host Plants. The plant names are in accordance with Scoggan (1978). The information in these lists is also available from R.J. Lamb as a computerized data base in Lotus 123 accessible on an MS-DOS operating system.

The Province of Manitoba covers a large area with a diverse flora and a variety of vegetative regions. Scoggan (1957) lists about 1400 species of plants as occurring in the province, and describes the vegetative regions and affinities of the plants in the province. There are undoubtedly many as yet undiscovered aphid species in Manitoba, and many unidentified host plant associations. This bulletin provides an updated and much expanded list of the aphids collected in Manitoba as compared to an earlier list (Robinson and Bradley 1968). Similar lists have been prepared for other regions of Canada: the maritime provinces (Pelletier and Boiteau 1986), Quebec (Quednau 1966), Alberta (Harper and Bradley 1987), and British Columbia (Forbes and Chan 1989).

LIST OF THE APHIDS

The aphid species are printed in bold type and listed alphabetically by genus and species, followed by the author of the species. The host plants associated with an aphid are listed following each aphid name in regular type and indented, starting on the next line.

- Acyrtosiphon assiniboinensis** Robinson
Potentilla fruticosa
- Acyrtosiphon asterifoliae** (Strom)
Aster sp.
- Acyrtosiphon brachysiphon** Hille Ris Lambers
Vaccinium sp., by sweeping
- Acyrtosiphon brevicorne** Hille Ris Lambers
Dryas integrifolia
- Acyrtosiphon caraganae** (Cholodkovsky)
Caragana arborescens
- Acyrtosiphon churchillense** Robinson
Hedysarum mackenzii
Oxytropis campestris
Oxytropis leucantha var. *hudsonica*
- Acyrtosiphon lactucae** (Passerini)
Lactuca canadensis
Lactuca scariola
- Acyrtosiphon pisum** (Harris)
Lathyrus spp.
Pisum spp.
Vicia spp.
- Acyrtosiphon pseudodirhodum** (Patch)
Spiraea sp.
- Acyrtosiphon (Metopolophium) dirhodum** (Walker)
Hordeum vulgare
Rosa sp.
- Alloambria caudata** Richards
 fossil
- Alphitoaphis lonicericola** (Williams)
Lonicera dioica
- Amphorophora agathonica** Hottes
Rubus spp.
- Amphorophora ampullata laingi** Mason
Matteucia struthiopteris
- Amphorophora stolonis** Robinson
Rubus pubescens
- Anoecia cornicola** (Walsh)
Cornus stolonifera
- Anoecia graminis** Gillette and Palmer
Hordeum jubatum roots
- Anoecia oenotherae** Wilson
Oenothera biennis roots
- Anoecia setariae** Gillette and Palmer
Equisetum laevigatum roots?

- Aphis armoraciae* Cowen
Artemisia sp.
Rudbeckia hirta roots
Rudbeckia serotina
- Aphis asclepiadis* Fitch
Apocynum cannabinum
Apocynum spp.
- Aphis barberae* Robinson
Arctium minus
Cirsium arvense
Viburnum trilobum
Xanthium strumarium
Rheum rhaponticum
- Aphis ceanothi* Clarke
Ceanothus ovatus
- Aphis cracca* Linnaeus
Vicia cracca
- Aphis decepta* Hottes and Frison
Heracleum lanatum
- Aphis duckmountainensis* Rojanavongse and Robinson
Senecio pauperculus
- Aphis fabae* Scopoli
Vicia faba
Euonymus europaeus
- Aphis farinosa* Gmelin
Salix spp.
- Aphis forbesi* Weed
Fragaria sp.
- Aphis gossypii* Glover
Diervilla lonicera
Galium boreale
Monarda fistulosa
Oenothera biennis
- Aphis helianthi* Monell
Cornus stolonifera
Epilobium angustifolium
Helianthus annuus
Impatiens capensis
Humulus lupulus
Mirabilis hirsuta
- Aphis heraclella* Davis
Cicuta maculata
Heracleum lanatum
Pastinaca sativa
Sium suave
- Aphis knowltoni* Hottes and Frison
Taraxacum officinale
- Aphis maculatae* Oestlund
Cornus stolonifera
Populus tremuloides
- Aphis madderæ* Robinson
Taraxacum lacerum

- Aphis manitobensis* Robinson and Rojanavongse
Ribes spp.
- Aphis masoni* Richards
Oxytropis campestris
Oxytropis leucantha var. *hudsonica*
- Aphis mimuli* Oestlund
Bidens sp.
Ribes aureum
- Aphis nasturtii* Kaltenbach
Bidens sp.
Rhamnus sp.
- Aphis neogillettei* Palmer
Cornus stolonifera
Epilobium angustifolium
- Aphis neomexicana* (Cockerell)
Ribes spp.
- Aphis neomonardae* Rojanavongse and Robinson
Agastache foeniculum
Mondarda fistulosa
- Aphis nerii* Boyer de Fonscolombe
in greenhouse
- Aphis nivalis* Hille Ris Lambers
Epilobium angustifolium
- Aphis oenotherae* Oestlund
Oenothera biennis
Oenothera parviflora
- Aphis oestlundii* Gillette
Oenothera biennis
Oenothera parviflora
- Aphis pomi* DeGeer
Cotoneaster acutifolia
Malus spp.
Sorbus aucuparia
- Aphis rubicola* Oestlund
Rubus idaeus var. *strigosus*
Rubus spp.
- Aphis rumicis* Linnaeus
Rumex spp.
- Aphis salicariae* Koch
Cornus stolonifera
Epilobium angustifolium
- Aphis saniculae* Williams
Sanicula marilandica
Zizia aptera
- Aphis sedi* Kaltenbach
Sedum sp.
- Aphis spiraecola* Patch
Apocynum androsaemifolium
Spiraea spp.
- Aphis thaspis* Oestlund
Cicuta maculata
Zizia aurea

- Aphis varians* Patch
Epilobium angustifolium
Ribes spp.
- Aphis viburniphila* Patch
Viburnum rafinesquianum
Viburnum trilobum
- Aphis whiteshellensis* Rojanavongse and Robinson
Amelanchier alnifolia
- Aphthargelia symphoricarpi* (Thomas)
Symphoricarpos occidentalis
- Asiphonaphis pruni* Wilson and Davis
Prunus virginiana
- Aspidaphis adjuvans* (Walker)
Polygonum aviculare
- Aspidaphium utahensis* Smith and Knowlton
moss in Berlese funnel
- Atarsos grindeliae* Gillette
Grindelia squarrosa
- Aulacorthum solani* (Kaltenbach)
Pelargonium sp.
- Betulaphis quadrituberculata* (Kaltenbach)
Betula papyrifera
- Boernerina variabilis* Richards
Alnus sp.
- Brachycaudus rociadae* (Cockerell)
garden delphinium
- Brevicoryne brassicae* (Linnaeus)
Brassica oleracea brussels sprouts and cabbage in storage
- Calaphis betulaecolens* (Fitch)
Betula papyrifera
- Calaphis manitobensis* Richards
Betula glandulosa
- Calaphis viridipallida* Palmer
Betula papyrifera
- Callipterinella callipterus* (Hartig)
Betula sp.
- Capitophorus elaeagni* (Del Guercio)
Cirsium spp.
Sonchus spp.
- Capitophorus hippophaes* (Walker)
Polygonum persicaria
- Capitophorus hudsonicus* Robinson
Shepherdia canadensis (probably)
- Capitophorus xanthii* (Oestlund)
Xanthium strumarium
- Catamergus kickapoo* (Hottes and Frison)
Polygonatum canaliculatum
- Cavariella aegopodii* (Scopoli)
cultivated dill
Salix sp.
- Cavariella aquatica* (Gillette and Bragg)
Salix planifolia

- Cavariella konoi* Takahashi
Cicuta maculata
Cicuta mackenzieana
Salix planifolia
Salix sp.
- Cavariella pastinacae* (Linnaeus)
Heracleum lanatum
- Cavariella salicis* (Monell)
Sium suave
- Cepigilletea betulaefoliae* Granovsky
Betula papyrifera
- Ceruraphis viburnicola* (Gillette)
Viburnum opulus
- Chaetosiphon scalaris* Richards
Potentilla fruticosa
- Chaetosiphon* (*Pentatrichopus*) *fragaefolii* (Cockerell)
Rosa spp.
- Chaetosiphon* (*Pentatrichopus*) *minor* (Forbes)
Fragaria spp.
- Chaitophorus essigi* Gillette and Palmer
Populus spp.
- Chaitophorus essigi* subsp. *neglectus* Hottes and Frison
Populus spp.
- Chaitophorus macrostachyae* (Essig)
Salix sp.
- Chaitophorus nigrae* Oestlund
Salix spp.
- Chaitophorus nigricentrus* Richards
Salix sp.
- Chaitophorus nudus* Richards
Populus tremuloides
- Chaitophorus populialbae* (Boyer de Fonscolombe)
Populus sp.
- Chaitophorus populicola* Thomas
Populus spp.
- Chaitophorus pusillus* Hottes and Frison
Salix planifolia
- Chaitophorus saliciniger* (Knowlton)
Salix sp.
- Chaitophorus stevensis* Sanborn
Populus sp.
- Chaitophorus viminalis* Monell
Salix planifolia
- Cinara banksiana* Pepper and Tissot
Pinus banksiana
- Cinara braggii* (Gillette)
Picea glauca
- Cinara canatra* Hottes and Bradley
Pinus banksiana
- Cinara coloradensis* (Gillette)
Picea glauca
- Cinara fornacula* Hottes

- Picea glauca*
Cinara harmonia Hottes
Pinus resinosa
Cinara hottesi (Gillette and Palmer)
Picea glauca
Cinara juniperi (DeGeer)
Juniperus communis
Cinara laricifex (Fitch)
Larix laricina
Cinara obscura Bradley
Picea glauca
Cinara ontarioensis Bradley
Pinus banksiana
Cinara pergandei (Wilson)
Pinus banksiana
Cinara petersoni Bradley
Juniperus horizontalis
Cinara pinea (Mordvilko)
Pinus sp.
Cinara spiculosa Bradley
Larix laricina
Cinara strobi (Fitch)
Pinus strobus (reared in greenhouse)
Cinara subterranea Bradley
Larix laricina
Colopha ulmicola (Fitch)
Ulmus americana
Coloradoa absinthii (Lichtenstein)
Artemisia sp.
Coloradoa artemisiae (Del Guercio)
Artemisia sp.
Cryptaphis bromi Robinson
Bromus inermis
Cryptomyzus ribis (Linnaeus)
Stachys palustris
Teucrium occidentale
Diuraphis (Holcaphis) frequens (Walker)
Agropyron repens
Diuraphis (Holcaphis) tritici (Gillette)
Triticum aestivum
Drepanaphis acerifoliae (Thomas)
Acer saccharinum
Drepanaphis spicata Smith
Acer spicatum
Dysaphis tulipae (Boyer de Fonscolombe)
 tulip bulbs
Epameibaphis frigidae (Oestlund)
Artemisia frigida
Eriosoma americanum (Riley)
Ulmus americana
Amelanchier alnifolia
Eriosoma crataegi (Oestlund)

- Crataegus* sp.
Eriosoma lanigerum (Hausmann)
Malus sp.
Ulmus sp.
Eucallipterus tiliae (Linnaeus)
Tilia americana
Euceraphis betulae (Koch)
Betula spp.
Euceraphis gillettei Davidson
Alnus spp.
Betula sp.
Fimbriaphis wakibae (Hottes)
Rubus pubescens
Forda formicaria Heyden
Poa pratensis
Forda marginata Koch
Agropyron repens
Poa pratensis
Glabromyzus crataegi (Monell)
Crataegus sp.
Glabromyzus howardi (Wilson)
Agrostis sp.
Glabromyzus rhois (Monell)
Rhus glabra
Glyphina setosa MacGillivray
 yellow trap
Gypsoaphis oestlundii (Hottes)
Lonicera dioica
Hamamelistes spinosus Shimer
Betula spp.
Hayhurstia atriplicis (Linnaeus)
Chenopodium album
Hoplochaitophorus quercicola (Monell)
Quercus macrocarpa
Hyadaphis foeniculi (Passerini)
Sium suave
Zizia aurea
Hyadaphis tataricae (Aizenberg)
Lonicera tatarica
Hyalomyzus monardae (Davis)
Monarda fistulosa
Hyalopterus pruni (Geoffroy)
Phragmites communis
Prunus spp.
Hyperomyzus lactucae (Linnaeus)
Ribes spp.
Sonchus arvensis
Hyperomyzus pallidus Hille Ris Lambers
Ribes spp.
Sonchus arvensis
Hyperomyzus (Neonasonovia) inflata (Richards)
 suction trap

- Hyperomyzus* (*Neonasonovia*) *nabali* (Oestlund)
Prenanthes alba
Ribes sp.
- Hyperomyzus* (*Neonasonovia*) *ribiellus* (Davis)
Ribes spp.
- Hyperomyzus* (*Neonasonovia*) *sandilandica* (Robinson)
Crepis tectorum
- Hysteroneura* *setariae* (Thomas)
Prunus spp.
- Illinoia* *alni* (Mason)
Alnus sp.
- Illinoia* *azaleae* (Mason)
Ledum sp.
- Illinoia* *canadensis* (MacGillivray)
Myrica gale
- Illinoia* *goldamaryae* (Knowlton)
Erigeron sp.
Solidago sp.
- Illinoia* *grindeliae* subsp. *palmerae* (MacGillivray)
Grindelia squarrosa
- Illinoia* *richardsi* (MacGillivray)
Anaphalis margaritacea
- Illinoia* *simpsoni* (MacGillivray)
Linnaea borealis
- Illinoia* *spiraecola* (Patch)
Spiraea sp.
- Illinoia* *wahnaga* (Hottes)
Convallaria majalis
Smilacina sp.
- Illinoia* (*Masonaphis*) *paqueti* (MacGillivray)
Ledum groenlandicum
- Illinoia* (*Masonaphis*) *pinawae* (Robinson)
Ledum groenlandicum
- Illinoia* (*Oestlundia*) *rubicola* (Oestlund)
Rubus sp.
- Iziphya* *spenceri* Richards
sweeping
- Iziphya* *vittata* Richards
sweeping
- Lachnus* *allegheniensis* McCook
Quercus macrocarpa
- Lipaphis* *erysimi* (Kaltenbach)
rapeseed
buckwheat
- Longistigma* *caryae* (Harris)
Tilia americana
- Macrosiphoniella* *absinthii* (Linnaeus)
Artemisia absinthium
- Macrosiphoniella* *frigidicola* Gillette and Palmer
Artemisia frigida
- Macrosiphoniella* *ludoviciana* (Oestlund)
Artemisia ludoviciana

- Macrosiphoniella paucisetosa* Robinson
Artemisia ?abrotanum
- Macrosiphoniella pennsylvanicum* (Pepper)
Achillea millefolium
- Macrosiphoniella tanacetaria* (Kaltenbach)
Tanacetum vulgare
- Macrosiphoniella tapuskae* (Hottes and Frison)
Achillea millefolium
- Macrosiphum californicum* (Clarke)
Salix sp.
- Macrosiphum diervillae* Patch
Diervilla lonicera
- Macrosiphum euphorbiae* (Thomas)
Rosa sp.
- Macrosiphum geranii* (Oestlund)
Geranium pratense
- Macrosiphum hamiltoni* Robinson
Humulus lupulus
- Macrosiphum jeanae* Robinson
Sarracenia purpurea
- Macrosiphum pseudocoryli* Patch
Corylus sp.
- Macrosiphum pseudorosae* Patch
Eupatorium maculatum
Ranunculus sp.
Rosa sp.
- Macrosiphum rosae* (Linnaeus)
Rosa sp.
- Macrosiphum subarcticum* Robinson
Epilobium angustifolium
- Macrosiphum tiliae* (Monell)
Tilia americana
- Macrosiphum (Neocorylobium) coryli* Davis
Corylus cornuta
- Maculolachnus sijpkensis* Hille Ris Lambers
Rosa sp.
- Mastopoda pteridis* Oestlund
Pteridium aquilinum
- Meliarhizophagus fraxinifolii* (Riley)
Fraxinus pennsylvanica
- Microlophium carnosum* (Buckton)
Urtica dioica
- Microsiphoniella artemisiae* (Gillette)
Artemisia sp.
- Mindarus abietinus* Koch
Abies balsamea
- Mindarus obliquus* (Cholodkovsky)
Picea glauca
- Misturaphis shiloensis* Robinson
Artemisia caudata
- Mordvilkoja vagabunda* (Walsh)
Populus sp.

- Myzaphis rosarum* (Kaltenbach)
Potentilla fruticosa
- Myzocallis discolor* (Monell)
Quercus macrocarpa
- Myzocallis punctatus* (Monell)
Quercus macrocarpa
- Myzocallis asclepiadis* (Monell)
Asclepias sp.
- Myzodium modestum* (Hottes)
 moss
- Myzus cerasi* (Fabricius)
Prunus pensylvanica
Prunus virginiana
- Myzus certus* (Walker)
Arenaria peploides
- Myzus persicae* (Sulzer)
 greenhouse plants
- Nasonovia (Eokakimia) wahinkae robinsoni* (Richards)
 cultivated delphinium
- Nasonovia (Kakimia) aquilegiae* (Essig)
Aquilegia sp.
- Nasonovia (Kakimia) borealis* Heie
Heuchera spp.
- Nasonovia (Kakimia) castelleiae* (Sampson)
Castilleja spp.
- Nasonovia (Kakimia) cynosbati* (Oestlund)
Ribes spp.
- Nasonovia (Kakimia) houghtonensis similis* Heie
Ribes spp.
- Nasonovia (Kakimia) vockerothi* (Richards)
Saxifraga tricuspidata
- Nasonovia (Kakimia) williamsi* Heie
Potentilla arguta
- Nasonovia (Ranakimia) purpurascens* (Oestlund)
Thalictrum sp.
- Nearctaphis bakeri* (Cowen)
 clover
- Nearctaphis clydesmithi* Hille Ris Lambers
Crataegus sp.
- Nearctaphis crataegifoliae* (Fitch)
Crataegus sp.
- Nearctaphis sensoriata* (Gillette and Bragg)
Amelanchier alnifolia
Cotoneaster acutifolia
- Neoprociphilus aceris* (Monell)
Smilax herbacea
- Neosymydobius mimicus* Hottes
Quercus macrocarpa
- Obtusicauda frigidae* (Oestlund)
Artemisia sp.
- Oestlundiiella flava* (Davidson)
Alnus sp.

- Ovatus valuliae* (Robinson)
Fragaria sp.
- Pemphigus betae* Doane
Populus sp.
 roots of sugar beets
- Pemphigus junctisensoriatus* Maxson
Populus deltoides
- Pemphigus monophagus* Maxson
Populus balsamifera
- Pemphigus nortonii* Maxson
Populus deltoides
- Pemphigus populicaulis* Fitch
Populus deltoides
- Pemphigus populiglobuli* Fitch
Populus balsamifera
- Pemphigus populiramulorum* Riley
Populus balsamifera
- Pemphigus populitransversus* Riley
Populus balsamifera
- Pemphigus populivenae* Fitch
Populus sp.
- Periphyllus negundinis* (Thomas)
Acer negundo
- Phorodon humuli* (Shrank)
Humulus lupulus
- Pleotrichophorus gnaphalodes* (Palmer)
Artemisia sp.
- Pleotrichophorus hottesi* Hille Ris Lambers
Achillea millefolium
- Pleotrichophorus patonkus* (Hottes and Frison)
Achillea millefolium
- Pleotrichophorus pseudoglandulosus* (Palmer)
Artemisia tridentata
- Pleotrichophorus pseudopatonkus* Corpuz-Raros and Cook
Achillea millefolium
- Pleotrichophorus villosae* Robinson
Chrysopsis villosa
- Prociphilus erigeronensis* (Thomas)
 roots of grass
- Prociphilus* (*Paraprociophilus*) *tessellatus* (Fitch)
Acer saccharinum
Alnus rugosa
Alnus crispa
- Pseudacaudella rubida* (Borner)
 moss
- Pseudocercidis rosae* Richards
Rosa spp.
- Pseudoepameibaphis glauca* Gillette and Palmer
Artemisia sp.
- Pseudopterocomma canadensis* Richards
Populus tremuloides
- Pterocallis alnifoliae* (Fitch)

- Alnus* sp.
Pterocomma bicolor (Oestlund)
 Populus balsamifera
Pterocomma populifoliae (Fitch)
 Populus tremuloides
Pterocomma smithiae (Monell)
 Salix sp.
Rhodobium porosum (Sanderson)
 Rosa sp.
Rhopalomyzus grabhami (Cockerell)
 Lonicera involucrata
Rhopalomyzus poae (Gillette)
 Lonicera sp.
Rhopalomyzus (Judenkoa) lonicerae (Siebold)
 Lonicera sp.
Rhopalosiphoninus (Myzosiphon) solani (Thomas)
 sweeping
Rhopalosiphoninus (Myzosiphon) staphyleae subsp. *tulipaella*
 (Theobald)
 yellow pan trap
Rhopalosiphum cerasifoliae (Fitch)
 Prunus virginiana
Rhopalosiphum enigmae Hottes and Frison
 Typha latifolia
Rhopalosiphum insertum (Walker)
 Crataegus sp.
 Malus sp.
 grains and grasses
Rhopalosiphum maidis (Fitch)
 Zea mays
Rhopalosiphum nigrum Richards
 Crataegus sp.
 Zizania aquatica
Rhopalosiphum nymphaeae (Linnaeus)
 Potamogeton sp.
Rhopalosiphum padi (Linnaeus)
 Prunus virginiana
 grains and grasses
Rhopalosiphum rufulum Richards
 Crataegus sp.
Schizaphis graminum (Rondani)
 grains and grasses
Schizaphis viridirubra (Gillette and Palmer)
 Scirpus atrovirens
Sipha flava (Forbes)
 sweeping
Sipha glyceriae (Kaltenbach)
 Glyceria sp.
Sipha (Rungisia) elegans Del Guercio
 Agropyron repens
Sitobion avenae (Fabricius)
 grains and grasses

- Sitobion manitobensis* Robinson
Cornus stolonifera
Sitobion ptericolens (Patch)
Pteridium aquilinum
Sitobion woodsiae Robinson
Woodsia ilvensis
Stagona xylostei (De Geer)
Lonicera sp.
Stegophylla querci (Fitch)
Quercus macrocarpa
Symydobius americanus Baker
Betula papyrifera
Tamalia coweni (Cockerell)
Arctostaphylos uva-ursi
Tetraneura ulmi (Linnaeus)
Hordeum jubatum roots
Thecabius affinis (Kaltenbach)
Populus balsamifera
Thecabius (*Parathecabius*) *gravicornis* (Patch)
Populus balsamifera
Thecabius (*Parathecabius*) *populimonilis* (Riley)
Populus balsamifera
Therioaphis trifolii (Monell)
 clover
Thripsaphis (*Trichocallis*) *cyperi* (Walker)
 sweeping
Tinocallis ulmifolii (Monell)
Ulmus americana
Trama rara Mordvilko
Taraxacum officinale
Tuberolachnus salignus (Gmelin)
Salix sp.
Uroleucon (*Lambersius*) *brevitarsus* (Robinson)
Solidago sp.
Uroleucon (*Lambersius*) *caligatus* (Richards)
Solidago sp.
Uroleucon (*Lambersius*) *carberriensis* Robinson
Chrysopsis villosa
Uroleucon (*Lambersius*) *erigeronensis* (Thomas)
Erigeron canadensis
Uroleucon (*Lambersius*) *escalantii* (Knowlton)
Aster laevis
Uroleucon (*Lambersius*) *gravicorne* (Patch)
Solidago sp.
Uroleucon (*Lambersius*) *macgillivrayae* (Olive)
Aster sp.
Solidago sp.
Uroleucon (*Lambersius*) *manitobensis* Robinson
Aster puniceus
Uroleucon (*Lambersius*) *richardsi* (Robinson)
Grindelia squarrosa
Uroleucon (*Lambersius*) *tenuitarsum* (Gillette and Palmer)

- Aster* sp.
Uroleucon (*Uroleucon*) *ambrosiae* (Thomas)
Ambrosia sp.
Iva sp.
Uroleucon (*Uroleucon*) *arnesense* Robinson
Solidago sp.
Uroleucon (*Uroleucon*) *astronomus* (Hille Ris Lambers)
purple aster
Uroleucon (*Uroleucon*) *chrysanthemi* (Oestlund)
Bidens sp.
Uroleucon (*Uroleucon*) *cirsii* (Linnaeus)
Cirsium arvense
Uroleucon (*Uroleucon*) *deltense* Robinson
Lactuca pulchella
Uroleucon (*Uroleucon*) *eupatoricolens* (Patch)
Eupatorium maculatum
Uroleucon (*Uroleucon*) *gigantiphagum* Moran
Solidago sp.
Uroleucon (*Uroleucon*) *hieracicola* Hille Ris Lambers
Hieracium sp.
Uroleucon (*Uroleucon*) *ivae* Robinson
Iva xanthifolia
Uroleucon (*Uroleucon*) *maximilianicola* Robinson
Helianthus maximiliani
Uroleucon (*Uroleucon*) *nigrotibium* (Olive)
Solidago sp.
Uroleucon (*Uroleucon*) *nigrotuberculatum* (Olive)
Solidago sp.
Uroleucon (*Uroleucon*) *obscuricaudatum* (Olive)
Helianthus sp.
Heliopsis helianthoides var. *scabra*
Uroleucon (*Uroleucon*) *olivei* Moran
Aster sp.
Uroleucon (*Uroleucon*) *paucosensoriatum* (Hille Ris Lambers)
Aster sp.
Uroleucon (*Uroleucon*) *pepperi* (Olive)
Cirsium sp.
Uroleucon (*Uroleucon*) *pieloui* (Richards)
Solidago sp.
Uroleucon (*Uroleucon*) *rudbeckiae* (Fitch)
Rudbeckia laciniata
Uroleucon (*Uroleucon*) *russellae* (Hille Ris Lambers)
Anaphalis margaritacea
Uroleucon (*Uroleucon*) *solirostratum* (Richards)
Solidago sp.
Uroleucon (*Uromelan*) *helianthicola* (Olive)
Helianthus maximiliani
Uroleucon (*Uromelan*) *taraxaci* (Kaltenbach)
Taraxacum officinale
Utamphorophora humboldti (Essig)
Physocarpus opulifolius
Wahlgreniella nervata (Gillette)

Rosa sp.
Wahlgreniella vaccinii (Theobald)
Vaccinium sp.

LIST OF THE APHID HOST PLANTS

The aphid host plants are printed in bold type and listed alphabetically by genus and species. The aphids associated with a host are listed following each host plant name in regular type and indented, starting on the next line.

Abies balsamea

Mindarus abietinus

Acer negundo

Periphyllus negundinis

Acer saccharinum

Prociphilus (Paraprociphilus) tessellatus

Drepanaphis acerifoliae

Acer spicatum

Drepanaphis spicata

Macrosiphoniella pennsylvanicum

Pleotrichophorus pseudopatonkus

Pleotrichophorus hottesi

Pleotrichophorus patonkus

Macrosiphoniella tapuskae

Agastache foeniculum

Aphis neomonardae

Agropyron repens

Diuraphis (Holcaphis) frequens

Forda marginata

Sipha (Rungisia) elegans

Agrostis sp.

Glabromyzus howardi

Alnus rugosa

Prociphilus (Paraprociphilus) tessellatus

Alnus spp.

Euceraphis gillettei

Pterocallis alnifoliae

Illinoia alni

Boernerina variabilis

Oestlundia flava

Alnus crispa

Prociphilus (Paraprociphilus) tessellatus

Ambrosia sp.

Uroleucon (Uroleucon) ambrosiae

Amelanchier alnifolia

Eriosoma americanum

Aphis whiteshellensis

Nearctaphis sensoriata

Anaphalis margaritacea

Uroleucon (Uroleucon) russellae

Illinoia richardsi

Apocynum androsaemifolium

Aphis spiraecola

Apocynum cannabinum

Aphis asclepiadis

- Apocynum* spp.
Aphis asclepiadis
- Aquilegia* sp.
Nasonovia (Kakimia) aquilegiae
- Arctium minus*
Aphis barberae
- Arctostaphylos uva-ursi*
Tamalia coweni
- Arenaria peploides*
Myzus certus
- Artemisia absinthium*
Macrosiphoniella absinthii
- Artemisia caudata*
Misturaphis shiloensis
- Artemisia frigida*
Macrosiphoniella frigidicola
Epameibaphis frigidae
- Artemisia ludoviciana*
Macrosiphoniella ludoviciana
- Artemisia* sp.
Microsiphoniella artemisiae
Pleotrichophorus gnaphalodes
Aphis armoraciae
Coloradoa absinthii
Obtusicauda frigidae
Coloradoa artemisiae
Pseudoepameibaphis glauca
- Artemisia tridentata*
Pleotrichophorus pseudoglandulosus
- Artemisia ?abrotanum*
Macrosiphoniella paucisetosa
- Asclepias* sp.
Myzocallis asclepiadis
- Aster laevis*
Uroleucon (Lambersius) escalantii
- Aster puniceus*
Uroleucon (Lambersius) manitobensis
- Aster* sp.
Acyrthosiphon asterifoliae
Uroleucon (Uroleucon) olivei
Uroleucon (Lambersius) macgillivrayae
Uroleucon (Uroleucon) paucosensoriatum
Uroleucon (Lambersius) tenuitarsum
- Betula glandulosa*
Calaphis manitobensis
- Betula papyrifera*
Calaphis betulaecolens
Symydobius americanus
Calaphis viridipallida
Cepegilletea betulaefoliae
Betulaphis quadrituberculata
- Betula* spp.

Hamamelistes spinosus
 Euceraphis betulae
 Euceraphis gillettei
 Callipterinella callipterus

Bidens sp.

Aphis nasturtii
 Uroleucon (Uroleucon) chrysanthemi
 Aphis mimuli

Brassica oleracea

Brevicoryne brassicae

Bromus inermis

Cryptaphis bromi

Caragana arborescens

Acyrtosiphon caraganae

Castilleja spp.

Nasonovia (Kakimia) castelleiae

Ceanothus ovatus

Aphis ceanothi

Chenopodium album

Hayhurstia atriplicis

Chrysopsis villosa

Pleotrichophorus villosae
 Uroleucon (Lambersius) carberriensis

Cicuta mackenzieana

Cavariella konoi

Cicuta maculata

Cavariella konoi
 Aphis heraclella
 Aphis thaspis

Cirsium arvense

Uroleucon (Uroleucon) cirsii
 Aphis barberae

Cirsium spp.

Capitophorus elaeagni
 Uroleucon (Uroleucon) pepperi

Convallaria majalis

Illinoia wahnaga

Cornus stolonifera

Aphis neogillettei
 Sitobion manitobensis
 Aphis helianthi
 Anoecia cornicola
 Aphis salicariae
 Aphis maculatae

Corylus cornuta

Macrosiphum (Neocorylobium) coryli

Corylus sp.

Macrosiphum pseudocoryli

Cotoneaster acutifolia

Nearctaphis sensoriata
 Aphis pomi

Crataegus sp.

- Rhopalosiphum nigrum*
Nearctaphis crataegifoliae
Glabromyzus crataegi
Eriosoma crataegi
Rhopalosiphum insertum
Nearctaphis clydesmithi
Rhopalosiphum rufulum
- Crepis tectorum***
Hyperomyzus (Neonasonovia) sandilandica
- Diervilla lonicera***
Macrosiphum diervillae
Aphis gossypii
- Dryas integrifolia***
Acyrthosiphon brevicorne
- Epilobium angustifolium***
Aphis salicariae
Aphis neogillettei
Aphis varians
Aphis nivalis
Macrosiphum subarcticum
Aphis helianthi
- Equisetum laevigatum***
Anoecia setariae
- Erigeron canadensis***
Uroleucon (Lambersius) erigeronensis
- Erigeron sp.***
Illinoia goldamaryae
- Euonymus europaeus***
Aphis fabae
- Eupatorium maculatum***
Uroleucon (Uroleucon) eupatoricolens
Macrosiphum pseudorosae
- Fragaria spp.***
Chaetosiphon (Pentatrachopus) minor
Aphis forbesi
Ovatus valuliae
- Fraxinus pennsylvanica***
Meliarhizophagus fraxinifolii
- Galium boreale***
Aphis gossypii
- Geranium pratense***
Macrosiphum geranii
- Glyceria sp.***
Sipha glyceriae
- Grindelia squarrosa***
Illinoia grindeliae subsp. palmerae
Uroleucon (Lambersius) richardsi
Atarsos grindeliae
- Hedysarum mackenzii***
Acyrthosiphon churchillense
- Helianthus annuus***
Aphis helianthi

- Helianthus maximiliani*
 Uroleucon (Uroleucon) maximilianicola
 Uroleucon (Uromelan) helianthicola
- Helianthus sp.*
 Uroleucon (Uroleucon) obscuricaudatum
- Heliopsis helianthoides var. scabra*
 Uroleucon (Uroleucon) obscuricaudatum
- Heracleum lanatum*
 Cavariella pastinacae
 Aphis decepta
 Aphis heracleella
- Heuchera spp.*
 Nasonovia (Kakimia) borealis
- Hieracium sp.*
 Uroleucon (Uroleucon) hieracicola
- Hordeum jubatum*
 Tetraneura ulmi
 Anoecia graminis
- Hordeum vulgare*
 Acyrthosiphon (Metopolophium) dirhodum
- Humulus lupulus*
 Macrosiphum hamiltoni
 Aphis helianthi
 Phorodon humuli
- Impatiens capensis*
 Aphis helianthi
- Iva sp.*
 Uroleucon (Uroleucon) ambrosiae
- Iva xanthifolia*
 Uroleucon (Uroleucon) ivae
- Juniperus communis*
 Cinara juniperi
- Juniperus horizontalis*
 Cinara petersoni
- Lactuca canadensis*
 Acyrthosiphon lactucae
- Lactuca pulchella*
 Uroleucon (Uroleucon) deltense
- Lactuca scariola*
 Acyrthosiphon lactucae
- Larix laricina*
 Cinara laricifex
 Cinara spiculosa
 Cinara subterranea
- Lathyrus spp.*
 Acyrthosiphon pisum
- Ledum groenlandicum*
 Illinoia (Masonaphis) pinawae
 Illinoia (Masonaphis) paquetai
- Ledum sp.*
 Illinoia azaleae
- Linnaea borealis*

- Illinoia simpsoni
 Lonicera dioica
 Gypsoaphis oestlundii
 Alphitoaphis lonicericola
 Lonicera involucrata
 Rhopalomyzus grabhami
 Lonicera sp.
 Rhopalomyzus poae
 Rhopalomyzus (Judenkoa) loniceriae
 Stagona xylostei
 Lonicera tatarica
 Hyadaphis tataricae
 Malus spp.
 Aphis pomi
 Eriosoma lanigerum
 Rhopalosiphum insertum
 Matteucia struthiopteris
 Amphorophora ampullata laingi
 Mirabilis hirsuta
 Aphis helianthi
 Monarda fistulosa
 Hyalomyzus monardae
 Aphis gossypii
 Aphis neomonardae
 Myrica gale
 Illinoia canadensis
 Oenothera biennis
 Anoecia oenotherae
 Aphis oestlundii
 Aphis gossypii
 Aphis oenotherae
 Oenothera parviflora
 Aphis oenotherae
 Aphis oestlundii
 Oxytropis campestris
 Acyrtosiphon churchillense
 Aphis masoni
 Oxytropis leucantha var. hudsonica
 Acyrtosiphon churchillense
 Aphis masoni
 Pastinaca sativa
 Aphis heraclella
 Pelargonium sp.
 Aulacorthum solani
 Phragmites communis
 Hyalopterus pruni
 Physocarpus opulifolius
 Utamphorophora humboldti
 Picea glauca
 Mindarus obliquus
 Cinara braggii
 Cinara coloradensis

- Cinara* *fornacula*
Cinara *hottesi*
Cinara *obscura*
Pinus banksiana
Cinara *pergandei*
Cinara *ontarioensis*
Cinara *canatra*
Cinara *banksiana*
Pinus resinosa
Cinara *harmonia*
***Pinus* sp.**
Cinara *pinea*
Pinus strobus
Cinara *strobi*
***Pisum* spp.**
Acyrtosiphon *pisum*
Poa pratensis
Forda *formicaria*
Forda *marginata*
Polygonatum canaliculatum
Catamergus *kickapoo*
Polygonum aviculare
Aspidaphis *adjuvans*
Polygonum persicaria
Capitophorus *hippophaes*
Populus balsamifera
Thecabius (*Parathecabius*) *gravicornis*
Pemphigus *populiglobuli*
Pemphigus *populitransversus*
Thecabius (*Parathecabius*) *populimonilis*
Thecabius *affinis*
Pterocomma *bicolor*
Pemphigus *populiramulorum*
Pemphigus *monophagus*
Populus deltoides
Pemphigus *junctisensoriatus*
Pemphigus *nortonii*
Pemphigus *populicaulis*
***Populus* spp.**
Chaitophorus *essigi*
Chaitophorus *populicola*
Chaitophorus *essigi* subsp. *neglectus*
Mordvilkoja *vagabunda*
Chaitophorus *populialbae*
Pemphigus *betae*
Pemphigus *populivenae*
Chaitophorus *stevensis*
Populus tremuloides
Aphis *maculatae*
Pseudopterocomma *canadensis*
Pterocomma *populifoliae*
Chaitophorus *nudus*

- Potamogeton* sp.
Rhopalosiphum *nymphaeae*
- Potentilla arguta*
Nasonovia (*Kakimia*) *williamsi*
- Potentilla fruticosa*
Myzaphis *rosarum*
Acyrtosiphon *assiniboinensis*
Chaetosiphon *scalaris*
- Prenanthes alba*
Hyperomyzus (*Neonasonovia*) *nabali*
- Prunus pensylvanica*
Myzus *cerasi*
- Prunus* spp.
Hysteroneura *setariae*
Hyalopterus *pruni*
- Prunus virginiana*
Rhopalosiphum *padi*
Rhopalosiphum *cerasifoliae*
Asiphonaphis *pruni*
Myzus *cerasi*
- Pteridium aquilinum*
Mastopoda *pteridis*
Sitobion *ptericolens*
- Quercus macrocarpa*
Lachnus *allegheniensis*
Stegophylla *querci*
Myzocallis *discolor*
Myzocallis *punctatus*
Hoplochaitophorus *quercicola*
Neosymydobius *mimicus*
- Ranunculus* sp.
Macrosiphum *pseudorosae*
- Rhamnus* sp.
Aphis *nasturtii*
- Rheum rhaponticum*
Aphis *barberae*
- Rhus glabra*
Glabromyzus *rhois*
- Ribes aureum*
Aphis *mimuli*
- Ribes* spp.
Hyperomyzus *pallidus*
Nasonovia (*Kakimia*) *houghtonensis similis*
Hyperomyzus (*Neonasonovia*) *ribiellus*
Nasonovia (*Kakimia*) *cynosbati*
Aphis *neomexicana*
Aphis *manitobensis*
Aphis *varians*
Hyperomyzus *lactucae*
Hyperomyzus (*Neonasonovia*) *nabali*
- Rosa* spp.
Pseudocercidis *rosae*

Chaetosiphon (*Pentatrichopus*) *fragaefolii*
Wahlgreniella nervata
Maculolachnus sijpkensis
Acyrtosiphon (*Metopolophium*) *dirhodum*
Macrosiphum pseudorosae
Macrosiphum rosae
Rhodobium porosum
Macrosiphum euphorbiae

Rubus pubescens

Amphorophora stolonis
Fimbriaphis wakibae

Rubus spp.

Aphis rubicola
Amphorophora agathonica
Illinoia (*Oestlundia*) *rubicola*

Rubus idaeus var. strigosus

Aphis rubicola

Rudbeckia hirta

Aphis armoraciae

Rudbeckia laciniata

Uroleucon (*Uroleucon*) *rudbeckiae*

Rudbeckia serotina

Aphis armoraciae

Rumex spp.

Aphis rumicis

Salix planifolia

Chaitophorus pusillus
Chaitophorus viminalis
Cavariella aquatica
Cavariella konoi

Salix spp.

Chaitophorus nigrae
Aphis farinosa
Chaitophorus saliciniger
Macrosiphum californicum
Chaitophorus nigricentrus
Pterocomma smithiae
Tuberolachnus salignus
Cavariella konoi
Cavariella aegopodii
Chaitophorus macrostachyae

Sanicula marilandica

Aphis saniculae

Sarracenia purpurea

Macrosiphum jeanae

Saxifraga tricuspidata

Nasonovia (*Kakimia*) *vockerothi*

Scirpus atrovirens

Schizaphis viridirubra

Sedum sp.

Aphis sedi

Senecio pauperculus

- Aphis duckmountainensis*
Shepherdia canadensis
Capitophorus hudsonicus
Sium suave
Aphis heraclella
Cavariella salicis
Hyadaphis foeniculi
Smilacina sp.
Illinoia wahnaga
Smilax herbacea
Neoprociophilus aceris
Solidago sp.
Uroleucon (Uroleucon) solirostratum
Uroleucon (Uroleucon) gigantiphagum
Uroleucon (Lambersius) macgillivrayae
Uroleucon (Uroleucon) pieloui
Uroleucon (Uroleucon) nigrotuberculatum
Uroleucon (Uroleucon) nigrotibium
Uroleucon (Lambersius) brevitarsus
Uroleucon (Lambersius) caligatus
Uroleucon (Uroleucon) arnesense
Uroleucon (Lambersius) gravicorne
Illinoia goldamaryae
Sonchus arvensis
Hyperomyzus pallidus
Hyperomyzus lactucae
Sonchus spp.
Capitophorus elaeagni
Sorbus aucuparia
Aphis pomi
Spiraea spp.
Aphis spiraephila
Aphis spiraecola
Illinoia spiraecola
Acyrtosiphon pseudodirhodum
Stachys palustris
Cryptomyzus ribis
Symphoricarpos occidentalis
Aphthargelia symphoricarpi
Tanacetum vulgare
Macrosiphoniella tanacetaria
Taraxacum lacerum
Aphis madderae
Taraxacum officinale
Trama rara
Aphis knowltoni
Uroleucon (Uromelan) taraxaci
Teucrium occidentale
Cryptomyzus ribis
Thalictrum sp.
Nasonovia (Ranakimia) purpurascens
Tilia americana

Macrosiphum tiliae
 Eucallipterus tiliae
 Longistigma caryae
Triticum aestivum
 Diuraphis (Holcaphis) tritici
Typha latifolia
 Rhopalosiphum enigmae
Ulmus americana
 Tinocallis ulmifolii
 Colopha ulmicola
 Eriosoma americanum
Ulmus sp.
 Eriosoma lanigerum
Urtica dioica
 Microlophium carnosum
Vaccinium sp.
 Wahlgreniella vaccinii
 Acyrthosiphon brachysiphon
Viburnum opulus
 Ceruraphis viburnicola
Viburnum rafinesquianum
 Aphis viburniphila
Viburnum trilobum
 Aphis viburniphila
 Aphis barberae
Vicia cracca
 Aphis craccae
Vicia faba
 Aphis fabae
Vicia spp.
 Acyrthosiphon pisum
Woodsia ilvensis
 Sitobion woodsiae
Xanthium strumarium
 Capitophorus xanthii
 Aphis barberae
Zea mays
 Rhopalosiphum maidis
Zizania aquatica
 Rhopalosiphum nigrum
Zizia aptera
 Aphis saniculae
Zizia aurea
 Aphis thaspis
 Hyadaphis foeniculi

ACKNOWLEDGEMENTS

Many people have helped in one way or another with identifications of the species of aphids, but special mention must be made of the following for their assistance:

C.K. Chan
R.L. Blackman
V.F. Eastop
S.E. Halbert
D. Hille Ris Lambers
G.F. Knowlton
N.A. Moran

A.T. Olive
J.O. Pepper
W.R. Richards
L.M. Russell
C.F. Smith
M.B. Stoetzel
D.J. Voegtlin

REFERENCES

- Blackman, R.L. and V.F. Eastop. 1984. Aphids on the world's crops. Chichester, John Wiley & Sons. 466 pp.
- Dixon, A.F.G. 1987. The way of life of aphids: host specificity, speciation and distribution. Page 197-207. in Minks, A.K. and P. Harrewijn (Eds.). Aphids: their biology, natural enemies and control. Vol. 2A. 450 pp. Amsterdam, Elsevier.
- Forbes, A.R. and C.K. Chan. 1989. Aphids of British Columbia. Technical Bulletin 1989-1E. 260 pp. Ottawa, Research Branch, Agriculture Canada.
- Harper, A.M. and G.A. Bradley. 1987. Aphids of Alberta. Technical Bulletin 1987-7E. 24 pp. Ottawa, Research Branch, Agriculture Canada.
- Quednau, F.W. 1966. A list of aphids from Quebec with descriptions of two new species (Homopt.: Aphididae). Can. Ent. 98:415-430.
- Robinson, A.G. and G.A. Bradley. 1968. A revised list of aphids of Manitoba. Man. Entomol. 2:60-65.
- Scoggan, H.J. 1957. Flora of Manitoba. Bull. 140. 619 pp. Ottawa, National Museum of Canada.
- Scoggan, H.J. 1978. The flora of Canada. Parts 1-4. Ottawa, National Museum of Canada.
- Smith, C.F. and C.S. Parron. 1978. An annotated list of Aphididae (Homoptera) of North America. Tech. Bull. No. 255. North Carolina Experimental Station. 428 pp.



LIBRARY/BIBLIOTHEQUE



AGRICULTURE CANADA OTTAWA K1A 0C5

3 9073 00080571 5

