

Publication 976

May 1956

A Check List of Plant Rusts in Canada

by

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FOREWORD

This check list of the Plant Rusts in Canada has been prepared from records published up to 1952.


Many of the rusts have been recorded for the same area in more than one publication and for this reason some of the records have been omitted.

The rusts are arranged in alphabetical order and the epithets have been taken mostly from the *Manual of the Rusts in United States and Canada* by J. C. Arthur. The names of the hosts are followed by the names of the provinces or other regional areas in which the rusts were collected and these, in turn, are followed by reference numbers. These numbers refer to the publications from which the records were taken.

A list of hosts and the rusts that may be expected to occur on them has also been included. In this list the hosts are listed more completely than in the section devoted to the rusts. The names of the hosts were taken for the most part from *Gray's Manual of Botany*, 8th ed., but in some cases it was found advisable to follow Rydberg's *Flora of the Prairies and Plains of Central North America*. The names of the grass hosts were taken mostly from Hitchcock's *Manual of the Grasses of the United States*.

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SUPPLEMENTARY NOTE

Mr. Brown's "A Check List of Plant Rusts in Canada" is compiled for the most part from published records, but he has included some of his own observations as well. In some instances records of certain rusts and significant host and range extensions of other species given in the annual reports of the "Canadian Plant Disease Survey" or other publications have been overlooked. Also, since Mr. Brown compiled his list several comprehensive studies on the taxonomy of rusts occurring in Canada have appeared. To increase the usefulness of the list, the text covering certain species was revised and the pertinent publications have been added as an addendum to the references. Besides, in the interests of greater clarity, notes about a few rusts have been added in parentheses.

I. L. Connors
Senior Mycologist

THE PLANT RUSTS AND THEIR HOSTS

For each rust are shown the known stages, the hosts on which they have been collected, the province, territory or district in which the collections have been made and one or more references to the literature.

Aecidium columbiense Ell. & Ev.

O-I On *Hieracium albiflorum* Hook.; B.C. (1).

Aecidium graebnerianum P. Henn.

(See also *Puccinia praeegracilis*)

I On *Habenaria dilatata* (Pursh) Hook; Que. (29).

H. gracilis Wats.; B.C. (1).

H. psychodes (L.) Sw.; Que. (29).

Habenaria sp.; N. S. (29).

Aecidium ligustici Ell. & Ev.

O-I On *Ligusticum scoticum* L.; Que. (1).

Aecidium mitellae Ell. & Ev.

I On *Mitella nuda* L.; Nfld. (1).

Chrysomyxa arctostaphyli Diet.

III On *Arctostaphylos urva-ursi* (L.) Spreng.; B.C., Alta., Yukon,
Sask. (1), Man. (2), Mack., Ont., Que. (27).

Chrysomyxa cassandrae (Peck & Clint.) Tranz.

(See *C. ledi* var. *cassandrae*)

Chrysomyxa chiogenis Diet.

O-I On *Picea glauca* (Moench) Voss; Ont. (culture) (32).

P. mariana (Mill.) B.S.P.; Ont. (culture) (32, 35).

II-III On *Chiogenes hispidula* (L.) T. & G.; B.C. (35), Ont., Que., N.S.
(27), Nfld. (1, 35).

Chrysomyxa empetri (Pers.) Schroet.

O-I On *Picea engelmanni* (Parry) Engelm.; B.C. (27).

P. glauca (Moench) Voss; Que. (33), N.S. (27), Nfld. (35).

P. rubens Sarg.; Que. (culture) (33).

II-III On *Empetrum nigrum* L.; B.C., Que. (1), Alta., N.S., Nfld. (33),
Yukon, Mack., Frank., Man. (27), Keew., Labr. (35).

E. atropurpureum Fern. & Wieg.; Que. (33).

E. eamesii Fern. & Wieg.; Nfld. (33).

Chrysomyxa ledi (Alb. & Schw.) de Bary

O-I On *Picea mariana* (Mill.) B.S.P.; Sask., Ont., N.S. (1)

P. pungens Engelm.; Ont. (1)

P. rubens Sarg.; Ont., N.S. (1)

C. ledi var. *cassandrae* (Peck & Clint.) Savile

O-I On *Picea glauca* (Moench) Voss; N.S. (27).

P. rubens Sarg.; N.S. (27).

II-III On *Chamaedaphne calyculata* (L.) Moench; Man., Ont., N.S. (1),
Yukon, Mack., Que. (27).

C. ledi var. *glandulosi* Savile

O-I On *Picea engelmanni* (Parry) Engelm.; B.C. (35)

II-III On *Ledum glandulosum* Nutt.; B.C. (35)

C. ledi var. *groenlandici* Savile

O-I On *Picea mariana* (Mill.) B.S.P.; N.S. (27).
P. rubens Sarg.; N.S. (27).

II-III On *Ledum groenlandicum* Oeder; B.C., Sask., Ont., N.S. (1),
 Mack., Que. (27), Alta., Nfld. (35).

C. ledi var. *ledi*

II-III On *Ledum palustre* L. var. *decumbens* Ait.; Mack. (35).

C. ledi var. *rhododendri* (de Bary) Savile

II-III On *Rhododendron lapponicum* L.; Mack. (27), B.C., Man., Nfld.
 (35).

C. ledi var. *vaccinii* Ziller

II-III On *Vaccinium parvifolium* Smith; B.C. (35).

Chrysomyxa ledicola (Peck) Lagerh.

O-I On *Picea engelmanni* (Parry) Engelm.; Alta (1)
P. glauca (Moench) Voss (*P. canadensis* (Mill.) B.S.P.); Alta.,
 Sask., Que., N.B., N.S. (1), Man. (2), Mack., Ont. (27),
 B.C., Nfld. (35).

P. glauca var. *albertiana* (S. Brown) Sarg.; Yukon (27), B.C.
 (35).

P. mariana (Mill.) B.S.P.; Alta., Man., Que., N.S., Nfld. (1),
 Sask., Ont. (2).

P. pungens Engelm.; Ont. (1), Alta., Man., Que., P.E.I. (27).

P. rubens Sarg.; N.S., P.E.I. (1), Que. (27).

P. sitchensis (Bong.) Carr.; B.C. (35).

II-III On *Ledum groenlandicum* Oeder; B.C., Alta., Yukon, Sask., Man.,
 Nfld. (1) Mack., Que. (27).

L. palustre L. var. *decumbens* Ait.; Labr. (1), Yukon, Mack.,
 Frank., Keew. (27).

Chrysomyxa monesis Ziller

O-I On *Picea sitchensis* (Bong.) Carr.; B.C. (36).

II-III On *Moneses uniflora* (L.) Gray; B.C. (35, 36).

Chrysomyxa pirolata (Koern.) Wint. (*C. pyrolae* (DC.) Rostr. nom. nud.)

O-I On *Picea glauca* (Moench) Voss (*P. canadensis* (Mill.) B.S.P.);
 Man. (1), Ont., Que., N.S. (27), Mack. (35).

P. glauca var. *albertiana* (S. Brown) Sarg.; B.C. (27).

P. mariana (Mill.) B.S.P.; B.C., N.S. (27).

II-III On *Moneses uniflora* (L.) Gray; Alta., Que. (1), Man. (27).

Pyrola americana Sweet; N.S. (1), Man. (2), B.C., Sask.,
 Ont., Que. (27).

P. asarifolia Michx.; B.C., Sask. (1), Man. (27).

P. bracteata Hook.; B.C. (1).

P. chlorantha Sw.; (*P. virens* Schweigg.), Alta. (1), Mack.,
 Que. (27), B.C. (35).

P. elliptica Nutt.; Alta. (1), Man., Que., N.S. (27).

P. grandiflora Radius; Yukon, Keew., Frank. (27).

P. minor L.; Que. (27).

P. picta Smith; B.C. (35).

P. secunda L.; Que., Nfld. (1), B.C., Mack., Alta., Man. (27).

P. uliginosa T. & G.; N.S. (1).

Chrysomyxa weirii Jacks.

- III On *Picea engelmanni* (Parry) Engelm.; B.C. (1).
P. rubens Sarg.; N.B. (9).
P. sitchensis (Bong.) Carr.; B.C. (27).
Picea sp.; N.S. (27).

Chrysomyxa woronini Tranz.

- O-I On *Picea glauca* (Moench) Voss; Que. (27), B.C., Nfld. (35).
P. mariana (Mill.) B.S.P.; Nfld. (35).
 III On *Ledum groenlandicum* Oeder; Nfld. (35).
L. palustre var. *decumbens* Ait.; Yukon (27).

Coleosporium campanulae (Pers.) Lév.

- II-III On *Campanula rapunculoides* L.; Que. (15), Ont. (14)
C. persicifolia L.; B.C. (7).
Campanula spp.; B.C. (7), N.S. (23), Ont. (13).

Coleosporium madae Cooke

- II-III On *Madia sativa* Molina; B.C. (1).

Coleosporium solidaginis (Schw.) Thuem.

- O-I On *Pinus banksiana* Lamb.; Alta., Man., Sask. (25), Que. (6).
P. contorta Dougl.; Alta. (1).
 II-III Common on *Aster* spp. and *Solidago* spp. in most provinces.

Coleosporium viburni Arth.

- II-III On *Viburnum cassinoides* L.; Ont. (1), N.S. (14), N.B. (13).
V. lentago L.; Man., (3), Ont. (14).

Cronartium coleosporioides (Diet. & Holw.) Arth.

- O-I On *Pinus contorta* Dougl.; Que., N.B. (21), B.C. (1).
P. ponderosa Dougl.; B.C. (1).

Cronartium comandrae Peck

- O-I On *Pinus banksiana* Lamb.; Alta. (1), Sask. (2), Ont. (5).
P. contorta Dougl.; Alta. (1).
P. ponderosa Dougl.; B.C. (1).
Pinus spp.; Man. (21).
 II-III On *Comandra livida* Richards.; Man. (2), Que. (1).
C. pallida A. DC.; Alta., Sask. (25), B.C., N.W.T. (1), Man.,
 Sask. (2).
C. umbellata (L.) Nutt.; Ont., Que. (1).

Cronartium comptoniae Arth.

- O-I On *Pinus banksiana* Lamb.; Man., Ont. (2).
 II-III On *Myrica gale* L.; B.C., N.S., Ont. (1).

Cronartium flaccidum (Alb. & Schw.) Wint.

- III On *Impatiens balsamina* L.; P.E.I. (1).

Cronartium ribicola J. C. Fisch.

- O-I On *Pinus* spp.; B.C., Que., N.S., P.E.I. (12).
 II-III On *Grossularia* spp.; Man. (15), N.S. (22), P.E.I. (20), B.C. (18).
Ribes spp.; B.C., Que., N.B., P.E.I. (12), Man., Ont. (15).

Cumminsella sanguinea (Peck) Arth.

- O-I-II-III On *Mahonia* sp.; B.C. (18), Que., Ont. (21).

Endophyllum sempervivi (Alb. & Schw.) de Bary.

- O-III On *Sempervivum tectorum* L.; Ont., B.C. (6).

Frommea obtusa (Strauss) Arth.

O-I-II-III On *Potentilla canadensis* L.; N.S., Ont. (1).

Gymnoconia peckiana (Howe) Trott.

O-I-III On *Rubus acaulis* Michx.; Sask. (2).

R. articus L.; Sask. (25), Alta. (1).

R. nigrobaccus Bailey; Ont. (1).

R. randii (Bailey) Rydb.; N.S. (1).

R. triflorus Richards.; Man. (2).

Rubus spp.; B.C., Ont., Que., N.B., N.S. (23).

Gymnosporangium aurantiacum Chev. (legitimate name *G. cornutum* Arth.)

O-I On *Sorbus americana* Marsh.; Ont., N.B., Nfld. (1), Man. (2).

S. scopulina Greene; Man., Ont., Que. (1).

Gymnosporangium betheli Kern

O-I On *Crataegus chrysoarpa* Ashe.; Sask. (25), Man. (2).

C. douglasii Lindl.; B.C. (1).

Crataegus spp.; Morden, Man. Dr. W. L. Gordon.

III On *Juniperus scopulorum* Sarg.; Man. (16).

Gymnosporangium clavariaeforme (Jacq.) DC.

O-I On *Amelanchier alnifolia* Nutt.; Man. (1).

A. canadensis (L.) Medic.; N.S. (1), Ont. (6).

A. spicata (*A. ?stolonifera* Wieg.); N.S. (17).

Crataegus chrysoarpa Ashe.; Sask. (25).

Crataegus spp.; P.E.I., B.C. (12), Ont., Que. (23).

Cydonia oblonga Mill.; N.S. (23).

Pyrus communis L.; N.S. (23).

III On *Juniperus communis* L. var. *depressa* Pursh; Ont., Que. (5),
N.S. (4).

J. communis L. var. *hibernica* Gord.; P.E.I. (10).

J. communis L.; N.S. (16).

Gymnosporangium clavipes Cooke & Peck

O-I On *Amelanchier* spp.; B.C., Man., Sask., Que., N.B., N.S., Ont.,
common.

Aronia arbutifolia (L.) Ell.; N.B. (1).

Crataegus punctata Jacq.; Ont. (1).

Crataegus spp.; Man. (2), Ont., Que., N.B., N.S. (23), Sask. (6).

Cydonia oblonga Mill.; Ont., N.S. (23).

Malus pumila Mill.; Ont., Que., N.B., N.S. (23).

Cotoneaster sp.; Man. (20).

Cydonia sp.; Ont. (16), N.S. (20).

III On *Juniperus communis* L. var. *depressa* Pursh; Ont., Que. (5).

J. horizontalis Moench; Que. (5).

J. communis L.; N.S. (17), Que. (12).

Juniperus spp.; Ont. (6).

Gymnosporangium corniculans Kern

O-I. On *Amelanchier alnifolia* Nutt.; Man. (1), Sask. (25).

A. sanguinea (Pursh) DC.; Ont. (1).

III On *Juniperus horizontalis* Moench f. *douglasii*; Rehd. Man. (16).

J. virginiana L.; Man. (16).

Gymnosporangium globosum Farl.

- O-I On *Crataegus coccinea* L.; Ont. (1).
C. punctata Jacq.; Ont. (1).
C. sanguinea (Pursh) DC.; Ont. (5).
C. tomentosa L.; Ont., Que. (1).
Crataegus sp.; Sask. (2).
Malus pumila Mill.; Ont., Que. (23).
 III On *Juniperus virginiana* L.; Ont. (1), Que. (10).
J. horizontalis Moench; Sask. (2).
J. fragrans (cult.); Ont. (5)
Juniperus spp.; Ont. (6).

Gymnosporangium juniperinum (L.) Mart.(legitimate name, *G. tremelloides* Hartig)

- O-I On *Sorbus occidentalis* (Wats.) Greene; Alta., B.C. (11).
S. scopulina Greene; B.C. (1).
S. sitchensis Roem.; B.C. (1).
 III On *Juniperus sibirica* Burgsd.; Alta. (1).

Gymnosporangium juniperi-virginianae Schw.

- O-I On *Malus coronaria* (L.) Mill.; Ont. (1).
M. pumila Mill.; Ont. (23).
M. sylvestris (L.) Mill.; Ont. (1).
 III On *Juniperus virginiana* L.; Ont. (10).

Gymnosporangium juvenescens Kern

- O-I On *Amelanchier alnifolia* Nutt.; Alta. (1), Sask., Man. (25).
A. florida Lindl.; B.C. (1).
A. pumila Nutt.; Alta. (1).
 III On *Juniperus horizontalis* Moench; Sask. (25), B.C. (24).

Gymnosporangium nelsoni Arth.

- O-I On *Amelanchier alnifolia* Nutt.; Alta., B.C. (1), Man. (2).
A. florida Lindl.; B.C. (19).
 III On *Juniperus scopulorum* Sarg.; Alta. (1), B.C. (19).

Gymnosporangium nidus-avis Thaxt.

- O-I On *Amelanchier intermedia* Spach; Ont. (1).
 III On *Juniperus virginiana* L.; Ont. (12).

Gymnosporangium nootkatense (Trel.) Arth.

- O-I On *Malus rivularis* (Dougl.) Roem.; B.C. (1).
Sorbus occidentalis (Wats.) Greene; B.C. (1).

Gymnosporangium tubulatum Kern

- O-I On *Crataegus* sp.; B.C. (15).

Hyalopsora aspidiotus (Peck) Magn.

- O-I On *Abies balsamea* (L.) Mill.; Ont., Que. (1).
 II-III On *Phegopteris dryopteris* (L.) Fée; B.C., Ont., Que. (1).

Hyalopsora polypodii (Pers.) Magn.

- II-III On *Filix fragilis* (L.) Gilib.; B.C., Ont. (1), Sask. (25).

Kuehneola uredinis (Link) Arth.

- O-I-II-III On *Rubus procumbens* Muhl; Ont. (1.)
R. pubescens Raf.; N.S. (1).

- Melampsora abietis-canadensis* (Farl.) C. A. Ludwig
 O-I On *Tsuga canadensis* (L.) Carr.; N.S., Que. (1).
 II-III On *Populus grandidentata* Michx. N.S., Ont., Que. (1), P.E.I. (14).
P. tremuloides Michx.; Ont., Que. (1).
- Melampsora abieti-capraearum* Tubeuf
 O-I On *Abies balsamea* (L.) Mill.; Sask. (2), N.S. (1).
 II-III On *Salix alba* L. var. *vitellina* L.; Ont. (18).
S. bebbiana Sarg.; N.B. (18).
S. candida Flugge; Sask. (2).
S. cordata Muhl.; Man. (2).
S. purpurea L. var. *gracilis* Anderss.; Man. (14).
S. rubra Richards.; Ont. (14).
- Melampsora albertensis*
 O-I On *Pseudotsuga taxifolia* (Poir.) Britt.
 (*P. mucronata* (Raf.) Sudw.; B.C. (1), ?B.C., Alta. (37))
 II-III On *Populus tremuloides* Michx.; B.C., Alta. (1, 37).
- Melampsora arctica* Rostr.
 II-III On *Salix anglorum* Cham.; Alta., B.C. (1).
S. arbusculoides Anders.; Alta. (1).
S. balsamifera (Hook.) Barratt; Alta. (1).
S. glaucops Anders.; Alta. (1).
S. petrophila Rydb.; Alta., B.C. (1).
Salix spp.; Alta. (1).
- Melampsora bigelowii* Thuem.
 O-I On *Larix laricina* (DuRoi) Koch.; Alta. (1).
L. lyallii Parl.; Alta. (1).
 II-III On *Salix amygdaloides* Anders.; Man. (2).
Salix spp.; Sask., Alta. (25), Man. (19), B.C. (5).
- Melampsora farlowii* (Arth.) J. J. Davis
 III On *Tsuga canadensis* (L.) Carr.; N.S. (1).
- Melampsora lini* (Pers.) Lév.
 O-I-II-III Common on *Linum* spp.
- Melampsora medusae* Thuem.
 O-I On *Larix laricina* (DuRoi) Koch.; N.S. (1).
 II-III On *Populus balsamifera* L. (*P. tacamahacca* Mill.); Man. (19),
 Sask. (25), Nfld. (1).
P. deltoides Marsh.; Man. (25).
P. sargentii Dode.; Alta. (25).
P. tremuloides Michx.; Man. (19), Ont. (24).
Populus spp.; Man., Sask., Alta. (25), Ont. (7), Que. (14).
- Melampsora occidentalis* Jacks.
 O-I On *Pseudotsuga taxifolia* (Poir.) Britt.; B.C., Alta. (37).
 II-III On *Populus acuminata* Rydb.; B.C. (1).
P. balsamifera L.; B.C. (1), Sask. (25).
P. trichocarpa T. & G.; B.C. (1, 37), Alta. (13).
- Melampsora ribesii-purpurea* Kleb.
 O-I On *Grossularia divaricata* (Dougl.) Cov. & Britt.; B.C. (1).
Ribes echinatum Lindl.; B.C. (1).
 II-III On *Salix bebbiana* Sarg.; Alta. (24)

Melampsorella cerastii (Pers.) Schroet.

- O-I On *Abies balsamea* (L.) Mill.; Man., N.B., N.S., Ont., P.E.I., Nfld. (1), Que. (5).
A. grandis Lindl.; B.C. (1).
A. lasiocarpa (Hook.) Nutt.; B.C. (1).
Picea engelmanni (Parry) Engelm.; Sask. (1).
P. excelsa (Lam.) Link; Man. (1).
P. glauca (Moench) Voss (*P. canadensis* (Mill.) B.S.P.); Alta., Sask., Yukon (1), Man., Sask. (2).
P. glauca var. *albertiana* (S. Brown) Sarg.; B.C. (1).
P. mariana (Mill.) B.S.P.; Alta., Que., Nfld. (1), Man., Sask. (2).
- II-III On *Cerastium alpinum* L.; B.C. (1).
C. arvense L.; Man., Sask. (25), Alta. (1).
Cerastium spp.; Man., B.C. (1).
Stellaria graminea L.; Ont. (24).
S. longipes Goldie; Alta. (1).

Melampsorium betulinum (Pers.) Kleb.

- II-III On *Betula populifolia* Marsh.; N.S. (1).
B. pumila L.; Nfld. (1).
Betula sp.; Man. (25), Alta. (11).

Milesia darkeri Faull

- II-III On *Cryptogramma acrostichoides* R.BR.; B.C. (1).

Milesia fructuosa Faull

- O-I On *Abies balsamea* (L.) Mill.; N.S., Ont., Que. (1).
II-III On *Dryopteris intermedia* (Muhl.) Gray; N.S., Que., Ont. (1).
D. spinulosa (O. F. Muell.) Watt.; Que. (1).

Milesia marginalis Faull & Wats.

- O-I On *Abies balsamea* (L.) Mill.; Ont. (1).
II-III On *Dryopteris marginalis* (L.) Gray.; Ont., Que. (1).

Milesia polypodophila (Bell) Faull

- O-I On *Abies balsamea* (L.) Mill.; N.S., Ont., Que. (1).
II-III On *Polypodium virginianum* L.; N.S., Ont., Que. (1).

Nyssopsora clavellosa (Berk.) Arth.

- III On *Aralia nudicaulis* L.; N.S., N.B., Ont., Que., Nfld. (1), Sask., Man. (2).

Phragmidium americanum (Peck) Diet.

- O-I-II-III On *Rosa blanda* Ait.; Ont. (1).
R. virginiana Mill.; N.S., Ont. (1).
Rosa spp.; Ont. (1), Que. (14), N.B., N.S. (23).

Phragmidium andersoni Shear

- I-II-III On *Dasiphora fruticosa* (L.) Rydb. (*Potentilla* f. L.); Alta., B.C., N.B., Ont. (1), Man., Sask. (2), Que. (14).

Phragmidium disciflorum (Tode) J. F. James

(legitimate name, *P. mucronatum* (Pers.) Schlecht.)

- O-I-II-III On *Rosa* spp., N.B. (1), B.C., Que., N.S. (23), Ont. (14), Man. (25).

Phragmidium subcorticinum (Schrank) Wint.

- Reported from Kentville N.S. (14), Ont. (20). On *Rosa* spp.
Spore stage in doubt.

Phragmidium ivesiae Syd.

- I-II-III On *Potentilla bipinnatifida* Dougl.; Man. (2).
P. nuttallii Lehm.; Alta. (1), Sask. (2).
Potentilla spp.; Alta. (1), Alta., Sask. (25).

Phragmidium montivagum Arth.

- O-I-II-III On *Rosa blanda* Ait.; Man. (25).
R. bourgeauiana Crépin; Alta. (1).
Rosa sp.; Man. (25).

Phragmidium occidentale Arth.

- O-I-II-III On *Rubus parviflorous* Nutt.; B.C. (1).

Phragmidium potentillae (Pers.) Karst.

- O-I-II-III On *Potentilla* spp.; N.W.T., Alta., Man., Sask., Nfld. (1).

Phragmidium rosae-acicularis Liro

- O-I-II-III On *Rosa* spp.; Alta., B.C., Ont., Man. (1).

Phragmidium rosae-arkansanae Diet.

- O-I-II-III On *Rosa suffulta* Greene; Alta. (1).
 II-III On *Rosa* sp.; Sask., Alta. (25).

Phragmidium rosae-californicae Diet.

- O-I-II-III On *Rosa* spp.; B.C. (1).

Phragmidium rosae-pimpinellifoliae Diet.

- O-I-II-III On *Rosa* spp.; Que., P.E.I. (23).

Phragmidium rosicola (Ell. & Ev.) Arth.

- III On *Rosa suffulta* Greene; Alta. (1).
Rosa sp.; Sask. (1).

Phragmidium rubi-idaei (DC.) Karst.

- O-I-II-III On *Rubus* spp.; Alta., B.C., Man., N.B., N.S., Ont., Sask., Que.,
 Nfld. (1).
R. idaeus L. var. *strigosus* Maxim.; Man. (2).
R. occidentalis L.; Nfld. (1).

Phragmidium rubi-odorati Diet.

- I-II-III On *Rubus odoratus* L.; Ont. (1).

Phragmidium speciosum (Fries) Cooke

- O-I-III On *Rosa blanda* Ait.; N.S. (1).
R. macounii Greene; Sask. (2).
R. virginiana Mill.; N.S. (1).
Rosa spp.; Man., Sask., (25) Alta., Ont., Que., N.B., N.S. (23).

Pileolaria toxicodendri (Berk. & Rav.) Arth.

- O-II-III On *Rhus aromatica* Ait.; Ont. (1).
R. radicans L.; Man., Ont., Que. (1).
(*R. toxicodendron* auct.); Man. (2), Que. (13).

Puccinia absinthii (Hedw.f.) DC.

- II-III On *Artemesia cana* Pursh; Sask., Alta. (25).
A. frigida Willd.; Sask., Alta. (25), Man. (6).
A. gnaphalodes Nutt.; Man. (2).
A. ludoviciana Nutt.; B.C. (1).

Puccinia adoxae (Hedw.f.) DC.

- III On *Adoxa* sp.; Alta. (26).

Puccinia albulensis Magn.

- III On *Veronica alpina* L. var. *unalaschcensis* C. & S. (*V. wormskjoldii* R. & S.); B.C. (1).

Puccinia amphigena Diet.

- O-I On *Maianthemum canadense* Desf.; Sask. (2).
Nemexia lasioneuron (Hook.) Rydb.; Man., Sask. (25).
Smilacina stellata (L.) Desf.; Sask. (25)
Smilax herbacea L.; Man. (2).

- II-III On *Calamovilfa longifolia* (Hook.) Hack.; Man. (2).

Puccinia andropogonis Schw.*P. andropogonis* var. *micropunctata* Arth.

- O-I On *Castilleja sessiliflora* Pursh; Sask. (2).

P. andropogonis var. *melampyri* Arth.

- O-I On *Melampyrum lineare* Lam.; Ont. (1).

P. andropogonis var. *onobrychidis* Arth.

- O-I On *Lupinus perennis* L.; N.S. (1).
Petalostemon candidus (Willd.) Michx.; Man. (2).
P. purpureus (Vent.) Rydb.; Man. (2).

P. andropogonis var. *pentstemonis* Arth.

- O-I On *Pentstemon acuminatus* Dougl.; Sask. (1), Man. (2).
P. albidus Nutt.; Sask. (2).
P. eriantherus Pursh; Sask. (2).
P. nitidus Dougl.; Sask. (2).

P. andropogonis var. *polygalina* Arth.

- O-I On *Polygala senega* L.; Man. (2).

P. andropogonis var. *pustulata* Arth.

- O-I On *Comandra pallida* A. DC.; Man. (2).
C. umbellata (L.) Nutt.; Ont. (1), Man. (2).
 II-III On *Andropogon provincialis* Lam.; Ont. (1).
A. scoparius Michx.; Man., Sask. (2).

Puccinia anemones-virginianae Schw.

- III On *Anemone canadensis* L.; Man., Sask. (2).
A. riparia Fern.; Man. (16).
A. virginiana L.; Ont., Que. (1).

Puccinia angelicae (Schum.) Fuckel

- II-III On *Zizia aurea* (L.) Koch; Man. (25).

Puccinia angustata Peck

- O-I On *Lycopus americanus* Muhl.; Ont. (1).
L. asper Greene; Sask. (25).
L. rubellus Moench; Ont. (1).
Lycopus spp.; N.B., Ont. (1).
Mentha arvensis L.; N.S. (1).
M. canadensis L.; Man. (1).
M. glabrior (Hook.) Rydb.; Man. (25).
Senecio triangularis Hook.; B.C. (1).
 II-III On *Eriophorum angustifolium* Roth.; Sask. (25).
E. viridicarinatum (Engelm.) Fern.; B.C. (1).
Scirpus atrovirens Muhl.; Ont., Que. (1), Man. (25).
S. cyperinus (L.) Kunth.; N.S., Que., Ont. (1).
S. microcarpus Presl; Man. (25), Sask. (2).

Puccinia antirrhini Diet. & Holw.

II-III On *Antirrhinum majus* L.; all provinces except Nfld. (23).

Puccinia arabicola Ell. & Ev.

O-I-III On *Cardamine douglasii* (Torr.) Britt.; Ont. (1).

Puccinia arenariae (Schum.) Wint.

III On *Honkenya peploides* (L.) Ehrh.; N.S. (1).

Merckia physodes Fisch.; N.W.T. (1).

Moehringia lateriflora (L.) Fenzl; Sask. (2).

Stellaria longifolia Muhl.; Sask. (2).

S. longipes Goldie; Alta. (1), Sask. (2).

Puccinia areolata Diet. & Holw.

O-I-II-III On *Caltha leptosepala* DC.; B.C., Sask. (1).

Puccinia argentata (Schultz) Wint.

O-I On *Adoxa* sp.; Alta. (26).

II-III On *Impatiens biflora* Walt.; Sask. (2).

I. pallida Nutt.; Alta. (1).

I. noli-tangere L.; Alta. (26).

Puccinia aristidae Tracy

O-I On *Triglochin maritima* L.; Alta. (1), Sask. (2).

Polygonum erectum L.; Sask. (2).

P. neglectum Bess.; Sask. (2).

Chenopodium album L.; Alta. (1), Man., Sask. (2).

Sarcobatus vermiculatus (Hook.) Torr.; Sask. (2).

Spinacia oleracea L.; Alta. (1).

Cheirinia cheiranthoides (L.) Link; Sask. (2).

Draba lutea Gilib.; Alta. (1).

Sisymbrium altissimum L.; Sask. (2).

Thlaspi arvense L.; Sask. (2).

Glaux maritima L.; Sask. (1)

Lappula echinata Gilib.; Man. (2).

Plantago eriopoda Torr.; Sask., Alta. (2).

II-III On *Distichlis spicata* (L.) Greene; Alta. (1), Man., Sask. (2).

Puccinia asarina Kunze

III On *Asarum caudatum* Lindl.; B.C. (1).

Puccinia asparagi DC.

O-I-II-III On *Asparagus officinalis* L.; Man., Sask. (2), B.C. (12), Que. (11),
Ont. (13), N.S. (10), N.B. (5), P.E.I. (3).

Puccinia asteris Duby

III On *Aster cordifolius* L.; Ont. (2).

A. ericoides L.; Sask. (2).

A. laevis L.; Sask. (25).

A. lindleyanus T. & G.; Man. (2).

A. novae-angliae L.; Man. (25) Ont. (14).

Psilactis asteroides Gray; Nfld. to B.C. (1).

Puccinia atrofusca (Dudl. & Thomp.) Holw.

O-I On *Artemisia biennis* Willd.; Alta. (1).

A. camporum Rydb.; Alta. (1), Sask. (2).

A. caudata Michx.; Alta. (1).

A. frigida Willd.; Alta. (1).

- A. glauca* Pall.; Sask. (2).
A. gnaphalodes Nutt.; Man., Sask., Alta. (2).
A. purshiana Bess.; Alta. (1), Sask. (2).
 II-III On *Carex douglasii* Boott; Alta. (1), Man. (2).
C. eleocharis Bailey; Yukon (1).
C. filifolia Nutt.; Alta. (1), Sask. (2).
C. praegracilis Boott; Man. (2).
C. rossii Boott; B.C. (1).
Puccinia atropuncta Peck & Clint.
 II-III On *Zygadenus chloranthus* Richards.; Sask. (2), Ont. (1).
Puccinia balsamorhizae Peck
 O-I-II-III On *Balsamorhiza sagittata* (Pursh) Nutt.; B.C. (1.)
Puccinia bardanae (Wallr.) Cda.
 O-I-II-III On *Arctium minus* Schk.; N.S., Ont. (1), Man. (2).
Puccinia bistortae (Strauss) DC.
 II-III On *Bistorta vivipara* (L.) S. F. Gray; Alta., Ont. (1), Que. (6).
Puccinia blasdalei Diet. & Holw.
 O-I-II-III On *Allium textile* N. & M.; Alta. (1).
Puccinia bolleyana Sacc.
 II-III On *Carex intumescens* Rudge; N.S. (1).
C. lupuliformis Sartw.; Ont. (1).
Puccinia calthae (Grev.) Link
 O-I-II-III On *Caltha palustris* L.; Man. (1), Ont. (1).
Puccinia calthaeicola Schroet.
 O-I-II-III On *Caltha palustris* L.; Man. (1), Sask. (2).
Puccinia campanulae Carm.
 III On *Campanula rotundifolia* L. var. *intercedens* Witasek.; Que. (17)
Puccinia canadensis Arth.
 III On *Viola orbiculata* Geyer.; Alta., B.C. (1).
Puccinia canaliculata (Schw.) Lagerh.
 II-III On *Cyprus strigosus* L.; Ont. (1).
Puccinia caricis (Schum.) Schroet.
 (legitimate name, *P. caracina* DC.)
P. caricis var. *urticata* (Kern) Arth.
 O-I On *Urtica dioica* L.; Ont. (1).
U. gracilis Ait.; Ont. (1), Man. (2).
U. lyallii Wats.; B.C. (1), Sask. (2).
 II-III On *Carex vesicaria* L.; Man., Sask. (2).
Carex spp.; Man., Sask. (2).
P. caricis var. *grossulariata* Arth.
 O-I On *Grossularia cynosbati* (L.) Mill.; Ont., Que. (1).
G. hirtella (Michx.) Spack; N.S. (1).
G. setosa (Lindl.) Cov. & Britt.; Alta. (1).
Ribes americanum Mill.; Ont. (1), Man., Sask. (2).
R. bracteosum Dougl.; B.C. (1).
R. glandulosum Grauer; Alta., B.C., N.S., Labr. (1).
R. grossularia L. (*Grossularia uva-crispa* (L.) Mill.); Man.,
 Sask. (2).

- R. hudsonianum* Richards.; Alta. (1).
R. lacustre (Pers.) Poir.; Alta., Ont. (1).
R. laxiflorum Pursh; B.C. (1).
R. oxycanthoides L. (*G. o.* (L.) Mill.); Man., Sask. (2).
R. nigrum L.; Sask. (2).
R. setosum Lindl.; Sask. (2).
Ribes spp.; N.B., P.E.I. (23).
 II-III On *Carex* spp.; Man., Sask. (2).
P. caricis var. *uniporula* (Orton) Arth.
 O-I On *Grossularia cynosbati* (L.) Mill.; Ont. (1).
 II-III On *Carex* spp.; Nfld., N.S., Que., Ont. (1).
Puccinia caricis-shepherdiae J. J. Davis
 O-I On *Elaeagus angustifolia* L.; Sask. (1), Man. (16), B.C. (8).
E. commutata Bernh.; Alta., Man., Sask. (2).
Shepherdia argentea Nutt.; Sask. (2).
S. canadensis (L.) Nutt.; Man., Sask. (2), Alta., Ont., Nfld. (1).
 II-III On *Carex aquatilis* Wahl.; Sask. (1).
C. atherodes Spreng.; Sask. (2).
C. eburnea Boott; Ont., Que. (1).
C. lanuginosa Michx.; Sask. (2).
C. substricta (Kuekenth.) Mack.; Sask. (2).
C. vesicaria L., Sask. (2).
Puccinia carthami Corda
 O-II-III On *Carthamus tinctorius* L.; Alta., Man. (14), Sask. (12).
Puccinia cicutae Lasch
 O-I-II-III On *Cicuta maculata* L.; N.S., Man. (1).
C. occidentalis Greene; Sask. (2).
Puccinia circaeae Pers.
 III On *Circaea alpina* L.; Nfld., N.S., Ont., Sask. (1), Man. (2)
 Que. (5).
C. latifolia Mill.; N.S., Que., Ont (1).
C. pacifica Asch. & Magn.; B.C. (1).
Puccinia cirsii Lasch
 O-I-II-III On *Cirsium flodmanii* (Rydb.) Arth.; Man., Sask. (2).
C. undulatum (Nutt.) Spreng.; Alta. (1), Man. (2).
Cirsium spp.; Sask. (2).
Puccinia cnici Mart.
 O-I-II-III On *Cirsium lanceolatum* (L.) Hill; B.C., Ont. (1).
Puccinia cockerelliana Bethel
 II-III On *Festuca scabrella* Torr.; Alta. (1).
Puccinia comandrae Peck
 II-III On *Comandra livida* Richards.; Man. (2).
C. pallida A. DC.; Sask. (2).
Puccinia commutata Syd.
 O-I-III On *Valeriana septentrionalis* Rydb.; Alta. (1).
V. sitchensis Bong.; B.C. (1).
Puccinia conglomerata (Strauss) Schmidt & Kunze
 III On *Petasites frigidus* (L.) Fries; Alta., B.C. (1).
P. palmatus (Ait.) Gray; Alta., Ont., Sask. (1), Man. (2).

Puccinia convolvuli (Pers.) Cast.

O-I-II-III On *Convolvulus sepium* L.; Que. (1), Man. (2).

Puccinia coronata Corda

O-I On *Elaeagnus commutata* Bernh.; Man., Sask. (25).

Rhamnus alnifolia L'Her.; Man., Sask., Ont. (1), Que. (17).

R. cathartica L.; Sask., Ont. (1), Man. (2), B.C., Que., N.B., N.S., P.E.I. (23).

R. davurica Pall.; Man. (22).

R. frangula L.; N.B. (18).

R. purshiana DC.; B.C. (1).

R. utilis Decne.; Man. (22).

Shepherdia canadensis (L.) Nutt.; Alta., Yukon, Sask., Man. (1).

II-III Common on oats and many cultivated and native grasses. Varieties of this rust species have been separated in Europe and North America.

The varieties of this rust found in Canada are:

P. coronata var. *avenae* Erikss.

O-I On *Rhamnus cathartica* L. (1).

II-III On *Avena fatua* L. (1).

Avena spp., (1).

Lamarkia aurea (L.) Moench (*Achyrodes aureum* Ktze.) (1).

P. coronata var. *calamagrostis* Fraser & Led.

O-I On *Rhamnus alnifolia* L'Her. (1).

II-III On *Calamagrostis canadensis* (Michx.) Beauv. (1).

C. elongata (Kearney) Rydb. (1).

Scolochloa festucacea Link (1).

P. coronata var. *bromi* Fraser & Led.

O-I On *Shepherdia canadensis* (L.) Nutt. (1)

II-III On *Bromus ciliatus* L. (1).

B. latiglumis (Shear) Hitchc. (1).

B. pumpellianus Scribn. (1).

P. coronata var. *elaeagni* Fraser & Led.

(O)-I On *Elaeagnus commutata* Bernh. (1).

II-III On *Calamagrostis montanensis* Scribn. (1).

(Besides the varieties reported above, var. *agrostis* Erikss. has been isolated from aecia on *Rhamnus frangula* from N.B., var. *festucae* Erikss. from aecia on *R. cathartica* from Eastern Canada, and an apparently new variety (20), subsequently named *P. coronata* f.sp. *secalis* by B. Peturson (Can. J. Botany 32:42 1954), from aecia on *R. cathartica* from Man. and Eastern Canada; II-III on *Agropyron repens* (L.) Beauv.; capable of attacking other wild grasses and cultivated varieties of *Hordeum vulgare* and *Secale cereale*).

Puccinia crandallii Pamm. & Hume

O-I On *Symphoricarpos albus* (L.) Blake; B.C. (1).

S. occidentalis Hook.; Sask. (1), Man. (2).

Symphoricarpos spp.; Alta. (23).

II-III On *Festuca ovina* L.; Sask. (2).

F. saximontana Rydb.; Sask. (1).

- Puccinia cruciferarum* Rud.
III On *Cardamine bellidifolia* L.; B.C. (1).
- Puccinia cryptotaeniae* Peck
O-III On *Cryptotaenia canadensis* (L.) DC.; Que. (1).
- Puccinia cyani* (Schleich.) Pass.
O-I-III On *Centaurea cyanus* L.; Ont. (1), B.C. (16), N.S. (23).
- Puccinia cypripedii* Arth. & Holw.
II On *Cypripedium parviflorum* Salisb.; Sask. (1).
- Puccinia dayi* G. W. Clint.
III On *Steironema ciliatum* (L.) Raf.; Ont., Alta., Sask. (1).
- Puccinia difformis* Kunze
O-I-III On *Galium aparine* L.; B.C. (1).
- Puccinia distichlidis* Ell. & Ev.
O-I On *Glaux maritima* L.; Sask. (25).
Steironema ciliatum (L.) Raf.; Man., Sask. (25).
II-III On *Spartina gracilis* Trin.; Sask., Man. (25).
S. pectinata Link (*S. michauxiana* Hitchc.); Man. (1), Sask., (25).
Spartina sp.; Sask. (25).
- Puccinia douglasii* E. & E.
O-I-III On *Phlox hoodii* Richards.; Alta., Sask. (1).
- Puccinia drabae* Rud.
III On *Draba arabisans* Michx.; Que. (1).
D. incerta Payson; Alta. (1).
Draba sp.; Man. (2).
- Puccinia eatoniae* Arth.
P. eatoniae var. *ranunculi* Mains
O-I On *Ranunculus abortivus* L.; Ont. (1), Man. (2).
II-III On *Sphenopholis obtusata* (Michx.) Scribn.; Sask. (1).
S. pallens (Spreng.) Scribn.; Sask. (1).
- Puccinia eleocharidis* Arth.
O-I On *Eupatorium perfoliatum* L.; N.S., Ont. (1).
E. purpureum L.; N.S., Ont. (1).
E. purpureum var. *maculatum* (L.) Darl.; Man. (2).
II-III On *Eleocharis palustris* (L.) R. & S.; Ont., Que. (1).
Eleocharis spp.; Man. (2).
- Puccinia ellisiana* Thuem.
O-I On *Viola nephrophylla* Greene.; Sask. (25).
Viola sp.; Man., Sask. (25).
II-III On *Andropogon provincialis* Lam.; Sask. (25), Man. (6).
Schizachyrium scoparium (Michx.) Nash; Sask. (25).
- Puccinia emaculata* Schw.
II-III On *Panicum capillare* L.; Ont. (1).
- Puccinia epilobii* DC.
III On *Epilobium alpinum* L.; Que. (1).
Epilobium sp.; Sask. (25).
- Puccinia erigeniae* (Orton) Arth.
O-I-III On *Erigenia bulbosa* (Michx.) Nutt.; Ont. (1).

Puccinia extensicola Plowr.(legitimate name, *P. dioicae* P. Magn.)*P. extensicola* var. *asteris* Arth.I On *Aster* spp.; Man., Sask. (2).II-III On *Carex* spp.; Man., Sask. (2).*P. extensicola* var. *erigerontis* Arth.II-III On *Carex* spp.; B.C. and east of the Rocky Mts. (1).*P. extensicola* var. *solidaginis* Arth.I On *Solidago nemoralis* Ait.; Man. (2).*S. rigida* L.; Man. (2).*S. serotina* Ait.; Sask., Man. (2).II-III On *Carex* spp.; Man., Sask. (2).*P. extensicola* var. *euthamii* Arth.I On *Euthamia graminifolia* (L.) Nutt. (*Solidago g.* (L.) Salisb.);
Ont. (1).II-III On *Carex scoparia* Schk.; N.S., Ont., Que. (1).*P. extensicola* var. *oenotherae* Arth.I On *Chamaenerion spicatum* (Lam.) S. F. Gray; Sask., Man. (1).*Oenothera biennis* L.; Man., Sask. (2).II-III On *Carex sartwelli* Dewey; Man. (2).*P. extensicola* var. *hieraciata* Arth.I On *Senecio columbianus* Greene; Sask. (1).*S. flavulus* Greene; Alta. (1).*Hieracium scabriusculum* Schw.; Man., Sask. (2).*Lactuca pulchella* (Pursh) DC.; Man., Sask. (2).*L. sativa* L.; Man., Sask. (2), Alta., Ont., Que., N.B., N.S. (23).*Lygodesmia juncea* (Pursh) D. Don; Sask. (2).*Nabalus albus* (L.) Hook.; Man. (2).*Agoseris glauca* (Nutt.) Greene; Sask. (2).II-III On *Carex sprengelii* Dewey; Sask. (2).*Carex* spp.; Man., Sask. (2).*P. extensicola* var. *phrymae* Arth.II-III On *Carex sprengelii* Dewey; Ont. (1).*Puccinia fergussoni* Berk. & Br.III On *Viola langsдорфii* Fisch.; B.C. (1).*V. mackloskeyi* Lloyd; B.C. (1).*V. nephrophylla* Greene; B.C. (1).*Puccinia festucae* (DC.) Plowr.O-I On *Lonicera caerulea* L.; N.B. (1).*Puccinia fischeri* Cruchet & MayorIII On *Saxifraga oppositifolia* L.; Yukon (34).*Puccinia fraseri* Arth.III On *Hieracium scabrum* Michx.; N.S., Que. (1).*Puccinia gentianae* (Str.) LinkO-I-II-III On *Gentiana affinis* Griesb.; Sask. (1).*G. andrewsii* Griesb.; Ont. (1).*G. interrupta* Greene; Sask. (1).

Puccinia gigantea Karst.

III On *Chamaenerion spicatum* (Lam.) S. F. Gray; Alta., Man. (1).

Puccinia gigantispora Bubak

O-I-III On *Anemone cylindrica* Gray; Alta., B.C., Sask. (1).

A. globosa Nutt.; Alta., B.C. (1).

Puccinia glumarum (Schmidt.) Erikss. & Henn.

II-III Common on graminaceous hosts in southwestern Sask., in Alta. and B.C.

Puccinia graminis Pers.

O-I On *Berberis vulgaris* L.; wherever this host occurs.

B. aquifolium Pursh, (*Mahonia a.* (Pursh) Nutt.); Sask. (2).

Berberis spp.; Que. (16), Ont. (6).

Mahonia sp.; Ont. (6).

II-III Common on graminaceous hosts.

The following varieties of this rust occur in Canada:—

P. graminis var. *avenae* Erikss. & Henn.

II-III On *Avena* spp.; common.

P. graminis var. *poae* Erikss. & Henn.

II-III On *Poa* spp.; Man. (6).

P. graminis var. *phlei-pratensis* (Erikss. & Henn.) Stakm. & Piem.

II-III On *Phleum pratense* L.; common.

Brachypodium pinnatum Beauv.; Man. (16).

P. graminis var. *secalis* Erikss. & Henn.

II-III On *Secale cereale* L.; common.

Hordeum vulgare L.; fairly common.

P. graminis var. *tritici* Erikss. & Henn.

II-III On *Triticum* spp.; common.

Agropyron spp.; common.

Hordeum jubatum L.; common.

Hordeum vulgare L.; common.

(To the varieties mentioned above may be added *P. graminis* var. *agrostidis* Erikss., which T. Johnson and G. J. Green (Can. J. Botany 29: 1-9. 1951) found to be the second most common variety isolated from aecia on naturally infected barberry in eastern Canada).

Puccinia granulispora Ell. & Gall.

O-I-II-III On *Allium cernuum* Roth; Alta, B.C. (1).

Allium sp.; B.C. (1).

Puccinia grindeliae Peck

III On *Grindelia perennis* A. Nels.; Alta., Sask. (2).

G. squarrosa (Pursh) Dunal.; Alta., Sask. (25).

Lygodesmia juncea (Pursh) D. Don.; Man. (25).

Sideranthus spinulosus (Pursh) Sweet; Sask. (25).

Puccinia grumosa Syd. & Holw.

O-I-II-III On *Zygadenus elegans* Pursh; B.C. (1).

Puccinia haleniae Arth. & Holw.

III On *Gentiana amarella* L. var. *acuta* (Michx.) Herder; Ont. (2).

Puccinia helianthi Schw.

- O-I-II-III On *Helianthus annuus* L.; cult. common.
H. aridus Rydb.; Sask. (2).
H. fascicularis Greene; Man. (1), Sask. (2), Alta. (14).
H. giganteus L.; Ont. (1), Sask. (25).
H. maximiliani Schrad.; Man. (25).
H. rigidus (Cass.) Desf.; Ont. (1).
H. strumosus L.; Ont. (1).
H. subrhomboideus Rydb.; Sask. (25).
H. subtuberosus Bourg.; Alta. (2).
H. tuberosus L.; Ont. (1), Man. (2), N.S. (23).

Puccinia heucherae (Schw.) Diet.*P. heucherae* var. *austroberingiana* Savile

- III On *Mitella breweri* Gray; B.C. (1, 34).
M. trifida Graham; B.C. (34).
Saxifraga punctata ssp.; B.C., Yukon, Keew. (34).
Tellima grandiflora (Pursh) Dougl.; B.C. (1, 34).

P. heucherae var. *heucherae*

- III On *Heuchera cylindrica* Dougl. var. *glabella* (T. & G.) Wheelock;
 B.C. (34).
H. glabra Willd.; B.C. (1, 34).
H. micrantha Dougl. ex. Lindl. vars.; B.C. (34).
H. ovalifolia Nutt.; Alta. (1), B.C. (34).
Mitella diphylla L.; Ont. (1).
M. nuda L.; Alta., Sask., Ont. (1), Man. (2), B.C., Mack.,
 Que., Nfld. (34).
M. ovalis Greene; B.C. (34).
Saxifraga lyallii Engler (*Micranthes l.* (Engler) Small); B.C.
 (34), Alta. (1, 34).
Tiarella cordifolia L.; Ont. (1, 34), Que. (1).
T. unifoliata Hook.; B.C. (1, 34).
Tolmiea menziesii (Pursh) T. & G.; B.C. (34).

P. heucherae var. *saxifragae* (Schlecht.) Savile

- III On *Heuchera cylindrica* Dougl. var. *trionalis* R.B. & L.; B.C.,
 Alta. (34).
H. ovalifolia Nutt.; B.C. (34).
H. richardsonii R.Br.; Man. (1, 34).
Saxifraga cernua L.; Mack., Frank., Keew., Que. (34).
S. hieracifolia Waldst. & Kit.; Frank., Keew. (34).
S. nivalis L.; Frank., Keew. (34).
S. occidentalis S. Wats. ssp. *rufidula* (Small) Basigalupi; B.C.
 (34).
S. rivularis L.; B.C. (1, 34), Frank., Que., Labr. (34).
S. tenuis (Wallr.) Sm.; Frank. (34).
S. virginiensis Michx.; Que. (34).

Puccinia hieracii (Schum.) Mart.

- O-I-II-III On *Agoseris glauca* (Nutt.) Greene; Sask. (2).
Apargia autumnalis (L.) Hoffm.; N.S. (1).
Cichorium intybus L.; Ont., Que., N.S. (1).
Crepis runcinata (James) T. & G.; Sask. (2).

- Hieracium canadense* Michx.; Alta., Ont., Que. (1), Man. (2).
H. scabriusculum Schw.; Sask., Man. (2).
H. scabrum Michx.; Man. (2), N.S. (1).
Taraxacum dumetorum Greene; Sask. (2).
T. kok-saghyz Rod.; Alta., Man., Ont., N.S. (14).
T. vulgare (Lam.) Schr.; B.C., Alta., Sask., Ont., Que., N.S. (1), Man. (2).

Puccinia holboellii (Hornem.) Rostr.

- O-III On *Arabis divaricarpa* Nels.; Alta. (1).
A. drummondii A. Gray; B.C. (1).
A. lignipes A. Nels.; Alta. (1).
A. lyallii Wats.; B.C. (1).

Puccinia hordei Otth

- II-III Common (23). On cultivated barley in most provinces, particularly Ont. and Que.

Puccinia intermixta Peck

- O-I-III On *Iva axillaris* Pursh; Sask., Man. (2).

Puccinia investita Schw.

- O-I-III On *Gnaphalium macounii* Greene; Ont. (1).

Puccinia iridis (DC.) Wallr.

- II-III On *Iris versicolor* L.; N.S., Ont., Que. (1), Man. (2).
Iris sp.; N.B., P.E.I. (4), Que. (15).

Puccinia karelica Tranz.

- I On *Trientalis americana* Pursh; N.S. (1).
 II-III On *Carex paupercula* Michx.; N.S. (1).

Puccinia koeleriae Arth.

- O-I On *Mahonia aquifolium* (Pursh) Nutt.; B.C. (1).
M. repens (Lindl.) Don.; B.C. (1).
 II-III On *Koeleria cristata* (L.) Pers.; Sask. (25).

Puccinia lapsanae (Cooke) Fckl.

- O-I-II-III On *Lapsana communis* L.; Ont. (1).

Puccinia liatridis (Webber) Bethel

- O-I On *Liatris aspera* (Michx.) Greene; Man., Sask. (2).
L. ligulistylis (A. Nels.) Rydb.; Sask. (2).
L. punctata Hook.; Sask. (2).
 II-III On *Agrostis hyemalis* (Walt.) B.S.P.; Man., Sask. (2).

Puccinia ligustici Ell. & Ev.

- III On *Ligusticum apiifolium* (Nutt.) Gray; B.C. (1).

Puccinia limosae Magn.

- O-I On *Naumburgia thyrsiflora* (L.) Duby; Ont., Man. (1).
 II-III On *Carex limosa* L.; Ont. (1).
C. stratiformis Britt.; Que. (1).

Puccinia linkii Klotzsch

- III On *Viburnum pauciflorum* Pylaie; Man., Sask., Que. (1).

Puccinia lobeliae Ger.

- III On *Lobelia syphilitica* L.; Ont. (1).

Puccinia maculosa Schw.

- III On *Agoseris glauca* (Nutt.) Greene; Alta. (1).
Nabalus racemosus (Michx.) DC.; Que. (1).

Puccinia magnusiana Koern.

- O-I On *Anemone canadensis* L.; Sask. (1), Man. (2).
 II-III On *Phragmites communis* Trin.; Man. (2).

Puccinia malvacearum Bert.

- III On *Althaea ficifolia* (L.) Cav.; Ont. (1).
A. rosea (L.) Cav.; common.
Malva moschata L.; Ont. (1).
M. rotundifolia L.; Ont. (1), Man. (2), Que. (6).
Malva spp.; Man., Que., Ont. (23).

Puccinia mariae-wilsoni G. W. Clint.

- O-I-III On *Claytonia caroliniana* Michx.; Ont. (1).
C. virginica L.; Ont., Que. (1).

Puccinia marylandica Lindr.

- O-I-II-II On *Sanicula marilandica* L.; Alta., Sask., Man. (1).
Sanicula sp.; N.S. (1).

Puccinia mcclatchieana Diet. & Holw.

- II-III On *Scirpus microcarpus* Presl; B.C., N.S. (1).

Puccinia menthae Pers.

- O-I-II-III On *Clinopodium vulgare* L.; Ont. (1).
Mentha arvensis L.; N.S. (1).
M. canadensis L.; N.S., Que., Ont., Sask., Alta. (6), B.C. (5).
M. glabrior (Hook.) Rydb.; Man., Sask. (2).
M. piperta L.; Man. (15).
M. spicata L.; Ont. (1), B.C. (22).
Monarda didyma L.; Ont. (1).
M. fistulosa L.; Alta., Ont., Man. (1).
M. menthaefolia Benth.; Alta. (1), Sask. (2).
M. mollis L.; Alta., Man., Yukon (1).
M. mollis var. *menthaefolia* Fern.; B.C. (6).
Pycnanthemum flexuosum (Walt.) B.S.P.; Ont. (1).
P. virginianum (L.) Dur. & Jacks.; Ont. (1).

Puccinia mesomajalis Berk. & Curt.

- III On *Clintonia borealis* (Ait.) Raf.; N.S. (1), Ont. (2).
C. uniflora (Schult.) Kunth; B.C. (1).

Puccinia microica Ellis

- II-III On *Cryptotaenia canadensis* (L.) DC.; Que. (1).

Puccinia millefolii Fuckel

- III On *Achillea millefolium* L.; Man., Sask. (2), Que. (20).
A. multiflora Hook.; Alta. (1).
A. ptarmica L.; Que. (17, 20).
Artemisia frigida Willd.; Man. (2), B.C. (1).

Puccinia minussensis Thuem.

- O-I-II-III On *Lactuca pulchella* (Pursh) DC.; Man., Sask., Alta., B.C. (1).

Puccinia minutissima Arth.

- O-I On *Decodon verticillatus* (L.) Ell.; Ont. (1).
 II-III On *Carex lasiocarpa* Ehrh.; Ont. (1).
C. substricta (Kuek.) Mack.; Ont. (1).

Puccinia monoica (Peck) Arth.

- O-I On *Arabis brachycarpa* (T. & G.) Britt.; Alta. (1), Sask. (2).
A. drummondii Gray; Alta. (1).
A. lyrata L.; Ont. (1).
A. nuttallii B. L. Rob.; B.C. (1).
A. ovata (Pursh) Poir.; Sask. (2).
A. retrofracta Grah.; B.C. (1), Sask. (2).
Arabis spp.; Man. (2).
- II-III On *Koeleria cristata* (L.) Pers.; Sask. (2).
Trisetum spicatum (L.) Richt.; Sask. (2).

Puccinia montanensis Ellis

- II-III On *Agropyron trachycaulum* (Link) Malte var. *unilaterale* (Cassidy)
 Malte; Man. (16).
Agropyron spp.; Alta., Sask., Man. (1).
Elymus canadensis L.; Alta., Man. (1).
E. curvatus Piper; Man. (1).
E. dahuricus Turcz.; Man. (14).

Puccinia obscura Schroet.

- II-III On *Luzula campestris* (L.) DC. var. *multiflora* (Ehrh.) Celak.;
 N.S. (1), Sask. (2).
L. carolinae Wats.; N.S., Ont. (1).
L. parviflora (Ehrh.) Devs.; B.C. (1)

Puccinia obtecta Peck

- II-III On *Scirpus validus* Vahl.; Ont., Sask. (1).

Puccinia obtegens (Link) Tul.

- O-I-II-III On *Cirsium arvense* (L.) Scop.; N.S., Ont., Que. (1), P.E.I., Sask.
 (24). Collected at Comox, B.C., May, 1949. A. M. Brown.
 A perennial rust cultured in garden at Winnipeg from 1940
 to 1945. Originating from urediospores brought from
 England by the late Dr. A. H. R. Buller. Rust was lost
 due to road construction 1946. A.M.B.

Puccinia oenotherae Vize

- O-I-II-III On *Epilobium minutum* Lindl.; B.C. (1).

Puccinia onopordi Syd.

- II-III On *Onopordum acanthium* L.; N.S. (1).

Puccinia orbicula Pk. & G. W. Clint.

- O-I-II-III On *Nabalus altissimus* (L.) Hook.; N.S. (1).
N. racemosus (Michx.) DC.; Sask. (2).
N. trifoliolatus Cass.; Que. (1).
Nabalus sp.; Ont. (1).

Puccinia ornata Arth. & Holw.

- III On *Rumex britannica* L.; Sask. (1).
R. occidentalis S. Wats.; Man., Sask., Alta. (2).
Rumex sp.; Alta., Man. (1).

Puccinia ornatula Holw.

- III On *Viola canadensis* L.; B.C. (1).
V. glabella Nutt.; B.C. (1).
V. rugulosa Greene; B.C. (1).

Puccinia ortonii Jacks.

- O-I-II-III On *Dodecatheon jeffreyi* Moore; B.C. (1).
D. pauciflorum (Durand) Greene; Sask. (2).

Puccinia oxyriæ Fuckel

- II-III On *Oxyria digyna* (L.) Hill., Alta., B.C. (1).

Puccinia parkerae Diet. & Holw.

- III On *Grossularia divaricata* (Dougl.) Cov. & Britt.; B.C. (1).
Ribes echinatum Lindl.; B.C. (1).
R. lacustre (Pers.) Poir.; Alta. (2).

Puccinia parnassiae Arth.

- III On *Parnassia fimbriata* Banks; Alta., B.C. (1).

Puccinia pazschkei Diet.*P. pazschkei* var. *heterisiae* (Jacks.) Savile

- III On *Saxifraga mertensiana* Bong.; B.C. (34).

P. pazschkei var. *jueliana* (Diet.) Savile

- III On *Saxifraga aizoides* L.; Frank. (34).
S. ferruginea Graham (*S. nootkana* Moq.); B.C. (1, 34).

P. pazschkei var. *oppositifoliae* Savile

- III On *Saxifraga oppositifolia* L.; Que. (34).

P. pazschkei var. *tricuspidatae* Savile

- III On *Saxifraga bronchialis* L.; B.C. (34).
S. tricuspidata Rottb. (*Leptasea t.* (Rottb.) Haw.); N.W.T.
(1), Yukon, Mack., Frank., Keew. (34).

Puccinia phragmitis (Schum.) Koern.

- O-I On *Rheum rhaponticum* L.; Man. (2).
Rumex mexicanus Meisn.; Man. (1).
R. occidentalis S. Wats.; Man. (2).
II-III On *Phragmites communis* Trin.; Man. (1).

Puccinia physalidis Peck

- III On *Physalis heterophylla* Nees; Ont., Man. (1).
P. virginiana Mill.; Man. (1).

Puccinia pimpinellæ (Strauss) Mart.

- O-I-II-III On *Osmorrhiza claytoni* (Michx.) Clarke; Ont., Que. (1).
O. longistylis (Torr.) DC.; Ont. (1), Man., Sask. (2).

Puccinia poae-nemoralis Otth (*P. poae-sudeticae* (West.) Jörstad)

- II-III On *Poa annua* L.; Alta. (1).
P. compressa L., B.C. (23).
P. crocata Michx.; Alta. (1).
P. interior Ryd.; Alta. (1).
P. nemoralis L.; Alta. (1).
P. palustris L.; Alta. (1), Sask. (2).
P. pratensis L.; Alta., Ont., Que., Man. (1), Sask. (2), B.C.,
P.E.I. (23).
Anthoxanthum odoratum L.; N.S. (1).

P. poae-sudeticae var. *airae* (Lagerh.) Arth.

- II-III On *Deschampsia caespitosa* (L.) Beauv.; Alta. (1).

Puccinia poarum Niels.

- O-I On *Tussilago farfara* L.; N.S. (1).

Puccinia podophylli Schw.

O-I-III On *Podophyllum peltatum* L.; Ont. (1).

Puccinia polygami-amphibii Pers.

P. polygami-amphibii var. *convolvuli* (Alb. & Schw.) Arth.

II-III On *Polygonum convolvulus* L.; Ont. (1), Man. (2).

P. polygami-amphibii var. *persicariae* (Strauss) Arth.

O-I On *Geranium maculatum* L.; Ont. (1).

II-III On *Polygonum coccineum* Muhl.; Ont., Que. (1).

P. hartwrightii Gray; Alta., B.C., N.S., Man. (1), Sask. (2).

P. hydrophiperoides Michx.; Ont. (1).

P. lapathifolium L.; Ont. (1).

P. muhlenbergii (Meissn.) S. Wats.; Ont., Que. (1), Man., Sask., Alta. (2).

P. pennsylvanicum L.; Que. (1).

P. persicaria L.; (4).

Puccinia porphyrogenita Curt.

III On *Cornus canadensis* L.; Nfld., B.C., N.S., Sask. (1), Man. (2), Que. (5), P.E.I. (6).

Puccinia porri (Sow.) Wint.

II-III On *Allium* sp.; B.C. (18).

Puccinia praegracilis Arth.

P. praegracilis var. *praegracilis*

I On *Habenaria gracilis* Wats.; B.C. (1, 29).

II-III On *Agrostis thurberiana* Hitchc.; B.C. (1).

P. praegracilis var. *connersii* (Savile) Savile

syn. *P. connersii* Savile

I On *Habenaria dilatata* (Pursh) Hook.; Que. (29).

II-III On *Deschampsia atropurpurea* (Wahl.) Scheele; Que. (29).

Puccinia pulsatillae Kalchbr.

III On *Anemone parviflora* Michx.; B.C., Que. (1).

A. patens L. var. *wolfgangiana* (Bess.) Koch; Sask. (2).

Pulsatilla ludoviciana (Nutt.) Heller; Alta., Sask. (1).

Trautvetteria grandis Nutt.; B.C. (1).

Puccinia punctata Link

O-I-II-III On *Galium asprellum* Michx.; N.S., Ont. (1).

G. trifidum L.; Man. (2).

P. punctata var. *troglydites* (Lindr.) Arth.

II-III On *Galium triflorum* Michx.; Man. (2).

Puccinia pygmaea Erikss.

II-III On *Oryzopsis asperifolia* Michx.; Ont. (1).

Puccinia pyrolae Cooke

III On *Polygala paucifolia* Willd.; Ont. (1).

Puccinia ranunculi Blytt

III On *Ranunculus suksdorfii* Gray; B.C. (1).

Puccinia recedens Syd.

III On *Senecio willingii* Greenm.; Alta. (1).

Puccinia ribis DC.

III On *Ribes triste* Pall.; Man., Sask. (2).

Puccinia rubefaciens Johans.

III On *Galium boreale* L.; Alta. (1), Man., Sask. (2).

Puccinia rubigo-vera (DC.) Wint.

P. rubigo-vera var. *agropyri* (Erikss.) Arth.

O-I On *Thalictrum* spp.; common:

II-III On *Poaceae* common.

P. rubigo-vera var. *agropyrina* (Erikss.) Arth.

O-I On *Thalictrum* spp.; common.

II-III On *Poaceae* common

P. rubigo-vera var. *tritici* (Erikss. & Henn.) Carl.

O-I On *Thalictrum dipterocarpum* Franch. and
T. glaucum Desf.; in greenhouse at Winnipeg. A.M.B.

II-III On *Triticum* spp.; common.

Secale cereale L. Rosen rye in greenhouse at Winnipeg.
A.M.B.

P. rubigo-vera var. *secalis* (Erikss.) Carl.

II-III On *Secale cereale* L.; common.

P. rubigo-vera var. *apocrypta* (Ell. & Tracy) Arth.

O-I On *Phacelia heterophylla* Pursh; B.C. (1).

P. rubigo-vera var. *impatiens* (Arth.) Mains

O-I On *Impatiens biflora* Walt.; Man., Ont., Que. (1).

I. pallida Nutt.; Ont. (1).

II-III On *Agrostis perennans* (Walt.) Tuck., N.S. (1).

Elymus virginicus L.; Ont., Que. (1).

Hordeum jubatum L.; Man. (1).

Puccinia rydbergii Garrett

III On *Sedum stenopetalum* Pursh; B.C. (1).

Puccinia scaber (Ell. & Ev.) Barth.

II-III On *Stipa viridula* Trin.; Alta. (1), Man., Sask. (2).

Puccinia scandica Johans.

III On *Epilobium* sp.; B.C. (1).

Puccinia schedonnardi Kell. & Swingle

II-III On *Muhlenbergia cuspidata* (Torr.) Rydb.; Man. (14).

Puccinia septentrionalis Juel

II-III On *Bistorta vivipara* (L.) S. F. Gray; Nfld. (1).

Puccinia sessilis Schneid.

O-I On *Convallaria* sp.; N.S. (9).

Maianthemum canadense Desf.; Man. (2).

Smilacina stellata (L.) Desf.; B.C., Ont. (1), Man., Sask. (2).

Iris versicolor L.; Que., Man. (1).

II-III On *Phalaris arundinacea* L.; Ont., Man. (1), Sask. (2).

Puccinia seymouriana Arth.

O-I On *Cephalanthus occidentalis* L.; Que. (1).

II-III On *Spartina pectinata* Link (*S. michauxiana* Hitchc.); Ont., Que.
(1).

Pucciana sherardiana Koern.

O-III On *Sphaeralcea coccinea* (Nutt.) Rydb.; Alta., Sask., Man. (2).

Puccinia sorghi Schw.

- II-III On *Zea mays* L.; Man., Sask. (2), P.E.I. (16), N.S., Ont., Que., N.B. (23).

Puccinia sparganioides Ellis & Barth.

- O-I On *Fraxinus americanus* L., Que. (4), N.S. (19).
Fraxinus pennsylvanica Marsh. var. *lanceolata* (Borkh.) Sarg.; Que. (16), Man. (15).

- II-III On *Spartina pectinata* (Link; Que. (18).

Puccinia sporoboli Arth.

- O-I On *Lilium umbellatum* Pursh; Sask. (2).
Lilium sp.; Man. (10).

Puccinia stipae Arth.

- O-I On *Chrysopsis hirsutissima* Greene; Sask. (2).
Solidago glaberrima Mart.; Alta. (1).
S. mollis Bartl.; Alta. (1).
Solidago sp.; Sask. (2).

- II-III On *Stipa comata* Trin. & Rupr.; Alta., Man. (1), Sask. (2).
S. spartea Trin.; Man., Sask. (2).
S. tweedyi Scribn. & Vasey.; Alta. (1).

Puccinia subcircinata Ell. & Ev.

- O-I-III On *Senecio triangularis* Hook.; Alta. (1).

Puccinia symphoricarpi Harkn.

- III On *Symphoricarpos albus* (L.) Blake; B.C. (1).

Puccinia treleasiana Paz.

- III On *Caltha leptosepala* DC.; B.C. (1).

Puccinia uliginosa Juel

- I On *Parnassia palustris* L.; Man. (2).

Puccinia vagans (DC.) Arth.

P. vagans var. *epilobii-tetragoni* DC.

- O-I-II-III On *Epilobium adenocaulon* Haussk.; Sask. (2).

Puccinia variabilis Grev.

- O-II-III On *Taraxacum vulgare* (Lam.) Schr.; N.S. (1).

Puccinia veratri (DC.) Duby.

- O-I On *Chamaenerion latifolium* (L.) Sweet; B.C. (1).
Epilobium hornemannii Reichenb.; B.C. (1).

- II-III On *Veratum californicum* Durand; B.C. (1).
V. eschscholtzianum (R. & S.) Rydb.; B.C. (1).

Puccinia vexans Farl.

- II-III On *Bouteloua gracilis* (H.B.K.) Lag.; Man. (2).

Puccinia vincae (DC.) Berk.

- O-I-II-III On *Vinca major* L.; Ont. (1).

Puccinia violae (Schum.) DC.

- O-I-II-III On *Viola adunca* J. E. Sm.; Man. (2).
V. canadensis L.; Alta., B.C. (1), Man., Sask. (2), Que. (5).
V. conspersa Reichenb.; Que. (1).
V. eriocarpa Schw.; Ont. (1).
V. nephrophylla Greene; Alta. (1), Sask. (2), Que. (4).
V. odorata L.; Man. (2), B.C. (21).

- V. pedatifida* G. Don.; Man., Sask. (2).
V. pubescens Ait.; Ont. (3).
V. renifolia Gray; Sask. (2).
V. septentrionalis Greene; N.S., Ont. (1).
V. sororia Willd.; Ont. (1).
V. tricolor L.; Man. (2), B.C. (23).
Viola spp., B.C.; Sask., Man., N.B., N.S. (2).

Puccinia virgaureae (DC.) Lib.

- III On *Solidago puberula* Nutt.; N.S. (1).

Puccinia waldsteiniae Curt.

- III On *Waldsteinia fragarioides* (Michx.) Tratt.; Ont. (1).

Puccinia windsoriae Schw.

- II-III On *Triodia flava* (L.) Smyth; Ont. (1).

Puccinia xanthii Schw.

- III On *Ambrosia coronopifolia* T. & G.; Man. (2).
A. trifida L.; Ont. (1), Man. (2).
Xanthium commune Britt.; Man. (2).
X. chinense Mill.; Ont. (1).

Puccinia ziziae E. & E.

- III On *Zizia cordata* (Walt.) Koch; Sask. (2).

Pucciniastrum agrimoniae (Schw.) Tranz.

- II-III On *Agrimonia gryposepala* Wallr.; N.S. (1), Alta., Man. (25),
 Que. (4).
A. pubescens Wallr.; Ont. (1).
A. striata Michx.; Alta. (1).
Agrimonia sp.; N.S. (31).

Pucciniastrum americanum (Farl.) Arth.

- O-I On *Picea glauca* (Moench) Voss (*P. canadensis* (Mill.) B.S.P.);
 Ont. (1).
 II-III On *Rubus melanolasius* Focke; B.C. (1).
R. strigosus Michx.; N.S., Ont., Que. (1).
Rubus spp.; P.E.I. (4), Que. (5), N.B. (23).

Pucciniastrum arcticum (Lagerh.) Tranz.

- O-I On *Picea glauca* (Moench) Voss (*P. canadensis* (Mill.) B.S.P.);
 Alta., Ont. (1).
 II-III On *Rubus acaulis* Michx.; Sask. (2).
R. arcticus L.; Man. (2).
R. pubescens Raf.; Man. (25).
R. iriflorus Richards.; Alta., Man., N.B., Ont. (1), Sask. (2).
Rubus spp.; Ont., P.E.I. (23).

Pucciniastrum galii (Link) E. Fisch.

- II-III On *Galium triflorum* Michx.; B.C. (1).

Pucciniastrum goeppertianum (Kuehn) Kleb.

- O-I On *Abies balsamea* (L.) Mill.; N.S., Que., Sask. (1).
A. lasiocarpa (Hook.) Nutt.; Alta., B.C. (1).
 III On *Vaccinium myrtillus* L.; Alta. (1).
V. oreophilum Rydb.; Alta. (1).
V. pennsylvanicum Lam.; N.S., Nfld. (1).
V. vitis-idaea L.; Sask. (2).
Vaccinium spp.; Ont., Man. (2), Que., N.B., N.S. (23).

Pucciniastrum myrtilli (Schum.) Arth.

- O-I On *Tsuga canadensis* (L.) Carr.; N.S. (1).
 II-III On *Rhodora canadensis* (L.) Torr.; N.S. (1).
Gaylussacia baccata (Wang.) K. Koch; Que. (1).
Vaccinium corymbosum L., Ont. (1).
V. myrtilloides L.; Alta. (1).
V. pennsylvanicum Lam.; N.S. (1).

Pucciniastrum potentillae Kom.

- II-III On *Potentilla tridentata* Ait. (*Sibbaldiopsis t.* (Ait.) Rydb.); Man. (2), N.B., Ont. (1).

Pucciniastrum pustulatum (Pers.) Diet.

- O-I On *Abies amabilis* (Loud.) Forbes; B.C. (1).
A. balsamea (L.) Mill.; Alta., N.S. (1), Ont. (24).
A. lasiocarpa (Hook.) Nutt.; B.C. (1).
 II-III On *Chamaenerion spicatum* (Lam.) S. F. Gray; Alta., B.C., Man., N.S., N.W.T., Sask., Nfld. (1).
Clarkia spp.; Sask., P.E.I. (23).
Epilobium adenocaulon Haussk.; Ont. (24), Man., Sask. (2), B.C. (1).
Epilobium spp.; Ont. (1), Que. (5).
Godetia spp.; Alta., Sask., Man., Ont., Que., P.E.I. (23).

Pucciniastrum pyrolae (Pers.) Schroet.

- II-III On *Moneses uniflora* (L.) Gray; Alta. (1).
Pyrola asarifolia Michx.; Alta., Man. (1), Sask. (2).
P. chlorantha Sw.; Alta. (1), Man. (25).
P. elliptica Nutt.; Alta., N.S., Ont., Sask. (1).
P. rotundifolia Michx.; Man. (2).
P. secunda L.; Alta., Ont. (1).

Pucciniastrum sparsum (Wint.) E. Fisch.

- II-III On *Arctostaphylos alpina* (L.) Spreng.; B.C. (1), Man. (2).
Arbutus menziesii Pursh; B.C. (6).

Tranzschelia fusca (Pers.) Diet.

- O-III On *Anemone quinquefolia* L.; Ont. (1).

Tranzschelia pruni-spinosae (Pers.) Diet.

- O-I On *Anemone coronaria* L.; B.C. (19).
A. quinquefolia L.; Ont., Que. (1).
Hepatica acutiloba DC.; Que. (1).
Ranunculus recurvatus Poir.; B.C. (1).
 II-III On *Padus nana* (DuRoi) Roem., Ont. (1).
Prunus domestica L.; B.C. (23).

Tranzschelia suffusca (Holw.) Arth.

- O-III On *Anemone patens* L., var. *wolfgangiana* (Besser) Koch; Man., Sask. (2).
Pulsatilla ludoviciana (Nutt.) Heller; Sask. (1).

Tranzschelia thalictri (Chev.) Diet.

- O-III On *Thalictrum dasycarpum* Fisch. & Lall.; Man. (2).
T. polygamum Muhl.; N.S., Ont. (1).
T. venulosum Trel.; Sask. (2).
Thalictrum sp.; Que. (Collected by A. Payette, July 1949.)

Uraecium holwayi Arth.

- O-I On *Tsuga heterophylla* (Raf.) Sarg.; B.C. (1).
T. mertensiana (Bong.) Carr.; B.C. (1).

Uredinopsis macrosperma (Cooke) Magn.

- O-I On *Abies* sp.; B.C. (12).
 II-III On *Pteridium aquilinum* (L.) Kuehn var. *pubescens* Underw.; B.C. (1).

Uredinopsis mirabilis (Peck) Magn.

- O-I On *Abies balsamea* (L.) Mill.; N.S., Nfld., Ont. (1)
 II-III On *Onoclea sensibilis* L.; N.S., Ont., Que. (1).

Uredinopsis osmundae Magn.

- O-I On *Abies balsamea* (L.) Mill.; N.S. (1), Ont. (24).
 II-III On *Osmunda claytoniana* L.; N.S. (1), Ont. (24).
O. spectabilis Willd.; N.S. (1).

Uredinopsis phegopteridis Arth.

- O-I On *Abies balsamea* (L.) Mill.; N.S. (1), Ont. (24).
 II-III On *Phegopteris dryopteris* (L.) Fée; Alta., N.S. (1), Ont. (24).

Uredinopsis struthiopteridis Stoermer

- O-I On *Abies balsamea* (L.) Mill.; N.S. (1), Man., Sask. (2), Ont. (24).
 II-III On *Athyrium cyclosorum* Rupr., N.S., Ont. (1)
Filix bulbifera (L.) Underw., Ont. (1).
Pteretis nodulosa (Michx.) Nieuwl.; Alta., N.S., Que., Nfld. (1), Man. (2).
Dryopteris thelypteris (L.) Gray; N.S., Ont. (1).

Uromyces abbreviatus Arth.

- O-III On *Psoralea physodes* Dougl.; B.C. (1).

Uromyces acuminatus Arth.

- II-III On *Spartina alterniflora* Loisel., N.S. (1).
S. gracilis Trin.; Alta. (1), Sask. (2).
S. pectinata Link (*S. michauxiana* Hitchc.); Man., N.S. (1), Sask. (25).

U. acuminatus var. *magnatus* (Arth.) J. J. Davis

- O-I On *Maianthemum canadense* Desf.; N.S. (1), Sask. (2).
Smilacina stellata (L.) Desf.; Sask. (2).

U. acuminatus var. *polemonii* J. J. Davis

- O-I On *Collomia linearis* Nutt., Sask. (2).
Phlox sp., Sask. (25).

U. acuminatus var. *spartinae* (Farl.) Arth.

- O-I On *Moehringia lateriflora* (L.) Fenzl; N.S. (1).
Spergularia canadensis (Pers.) D. Don; N.S. (1).

U. acuminatus var. *steironematis* (Arth.) J. J. Davis

- O-I On *Dodecatheon pauciflorum* (Durand) Greene; Sask. (1).

Uromyces alopecuri Seym.

- O-I On *Ranunculus macounii* Britt.; Man. (25), Sask. (2).
R. micranthus Nutt.; Alta. (1).
R. scleratus L.; Man. (25).
 II-III On *Alopecurus aristulatus* Michx.; Man., Sask. (25).
A. geniculatus L. var. *aristulatus* Torr.; Man. (2).

Uromyces amoenus Syd.

III On *Anaphalis subalpina* (Gray) Rydb.; B.C. (1).

Uromyces armeriae (Schlecht.) Lév.

U. armeriae ssp. *hudsonicus* Savile & Connors

O-I-II-III On *Armeria maritima* Willd. var. *labradorica* Wallr.; Que. (30).

U. armeriae ssp. *pacificus* Savile & Connors

I-II-III On *Armeria maritima* Willd.; B.C. (30).

Uromyces asclepiadis (Schw.) Cooke

II-III On *Asclepias incarnata* L.; Ont. (1).

A. syriaca L.; Ont. (1).

Uromyces betae (Pers.) Lév.

II-III On *Beta vulgaris* L.; B.C. (12).

Uromyces caladii (Schw.) Farl.

O-I-II-III On *Arisaema triphyllum* (L.) Schott; N.S., Ont., Que. (1).

Muricauda dracontium (L.) Small; Ont. (1).

Uromyces caryophyllinus (Schr.) Wint.

II-III On *Dianthus caryophyllus* L.; Man. (2), Sask. (25), all provinces (23).

Uromyces coloradensis Ell. & Ev.

U. coloradensis var. *campester* Arth.

O-I-III On *Vicia americana* Muhl., Alta. (1), Man. (2).

V. cracca L.; Man. (2).

V. oregana Nutt.; Ont. (1).

V. sparsifolia Nutt.; Sask. (2).

U. coloradensis var. *maritimus* Arth.

O-I-III On *Vicia americana* Muhl.; B.C. (1).

Uromyces dactylidis Otth

O-I On *Ranunculus repens* L.; N.S. (1).

II-III On *Dactylis glomerata* L.; N.S. (23).

Poa crocata Michx.; Alta. (1).

P. pratensis L.; Alta. (1).

P. trivialis L.; N.S. (1).

Uromyces fabae (Pers.) de Bary

O-I-II-III On *Lathyrus myrtifolius* Muhl; Ont. (1).

L. ochroleucus Hook.; Alta., Ont. (1), Man., Sask. (25).

L. venosus Muhl.; Alta. (1), Sask. (25), Man. (2).

Pisum sativum L.; Man., Sask. (25), B.C., P.E.I., Que. (12),
Ont., Que., N.B., N.S. (23).

Vicia americana Muhl.; Man., Alta. (25), B.C. (1).

V. angustifolia Reichard; B.C. (1).

V. cracca L.; N.S., Que. (1).

V. oregana Nutt.; Alta. (25).

V. sativa L.; B.C., Alta. (23).

V. sparsifolia Nutt.; Alta. (1).

Uromyces gentianae Arth.

II-III On *Gentiana strictiflora* (Rydb.) Nels.; Sask. (2).

Pleurogyne rotata (L.) Griesb.; Que. (1).

Uromyces geranii (DC.) Fries

O-I-II-III On *Geranium* spp.; P.E.I. (12), Ont. (23).

Uromyces glycyrrhizae (Rab.) Magn.

O-I-III On *Glycyrrhiza lepidota* Nutt.; Alta. (1), Man., Sask. (25).

Uromyces hedysari-obscuri (DC.) Car. & Picc.

O-I-II-III On *Hedysarum americanum* (Michx.) Britt.; Alta. (1).

H. boreale Nutt.; Alta. (1), Man., Sask. (2).

H. cinerascens Rydb.; Alta. (1), Sask. (2).

H. mackenzii Richards.; Alta. (1).

H. sulphurascens Rydb.; Alta. (1).

Uromyces hedysari-paniculati (Schw.) Farl.

O-I-II-III On *Desmodium dillenii* Darl.; Ont. (1).

Uromyces heterodermus Syd.

O-III On *Erythronium grandiflorum* Pursh; B.C. (1).

Uromyces holwayi Lagerh.

O-I-II-III On *Lilium canadense* L.; Ont. (1).

L. columbianum Hanson; B.C. (1).

L. michiganense Farwell; Ont. (1).

Uromyces houstoniatus (Schw.) Sheldon

O-I On *Houstonia longifolia* Gaertn.; Sask. (1).

Uromyces hyperici (Spreng.) Curt.

O-I-II-III On *Hypericum kalmianum* L.; Ont. (1).

H. perforatum L.; Man. (2).

H. prolificum L.; Ont. (1).

H. virginicum L.; (*Triadenum v.* (L.) Raf.); N.S., Ont., Que. (1).

Uromyces intricatus Cooke

O-I-III On *Eriogonum flavum* Nutt.; Sask. (2).

Uromyces junci (Desm.) L. Tul.

O-I On *Aster* spp.; Sask., Ont. (1).

Helianthus petiolaris Nutt.; Man., Sask. (25).

H. subrhomboides Rydb.; Sask. (2).

H. subtuberosus Bourg.; Alta. (1).

H. tuberosus L.; Man. (1).

Cirsium flodmanii (Rydb.) Arth.; Man. (1), Sask. (2).

C. megacephalum (Gray) Cockerell; Sask. (2).

C. undulatum (Nutt.) Spreng.; Alta. (1), Sask. (25).

Arnica chamissonis Less.; Alta. (1).

II-III On *Juncus ater* Rydb.; Alta. (1), Sask. (25).

J. balticus Willd.; Man., Sask. (25).

J. dudleyi Wieg.; Man. (25).

J. filiformis L.; Sask. (25).

Uromyces junci-effusi Syd.

II-III On *Juncus filiformis* L.; N.S. (1).

J. xiphioides E. Mey.; B.C. (1).

Uromyces lapponicus Lagerh.

O-I-III On *Astragalus macounii* Rydb.; Alta. (1).

Astragalus sp.; Alta. (1).

Phaca frigida L.; N.W.T. (1).

Uromyces lespedezae-procumbentis (Schw.) Curt.

O-I-II-III On *Lespedeza capitata* Michx.; Ont. (1).

Uromyces limonii (DC.) Lév.

- O-I-II-III On *Limonium latifolium*; B.C. (30).
L. vulgare; Ont. (30).

Uromyces limonii-caroliniani Savile & Conners

- O-I-II-III On *Limonium nashii* Small (not *L. carolinianum* (Walt.) Britt.);
 Que., N.B., N.S. (30).

Uromyces lupini Berk. & Curt.

- O-I-II-III On *Lupinus* sp.; B.C. (13).

Uromyces minor Schroet.

- I-III On *Trifolium dubium* Sibth.; B.C. (18).
T. microdon H. & A.; B.C. (1).
T. oliganthum Steud.; B.C. (1).

Uromyces miurae Syd.

- III On *Fritillaria kamschatcensis* Ker.; B.C. (1).

Uromyces nerviphilus (Grognot) Hotson

- O-I-III On *Trifolium hybridum* L.; Sask. (2).
T. pratense L.; Ont. (23).
T. repens L.; Ont. (1). Man. (2).

Uromyces peckianus Farl.

- O-I On *Atriplex patula* L.; N.S. (1).
Chenopodium album L.; N.S. (1).
Salicornia herbacea L.; N.S. (1).
S. pacifica Standl.; B.C. (1).
Suaeda maritima (L.) Dumort; N.S. (1).
Plantago eriopoda Torr.; Alta. (1).
 II-III On *Distichlis spicata* (L.) Greene; B.C., N.S. (1).

Uromyces perigynius Halst.

- II-III On *Rudbeckia ampla* A. Nels.; Man. (6).
 O-I On *R. laciniata* L.; Man. (1).

Uromyces phaseoli (Pers.) Wint.

- O-I-II-III On *Phaseolus vulgaris* L.; Ont. (1), B.C. (13), P.E.I. (12), N.B. (19), Que., N.S. (23).

Uromyces plumbarius Peck

- O-I-II-III On *Gaura coccinea* Nutt.; Alta. (1), Sask. (25), Man. (2).

Uromyces polygoni (Pers.) Fckl.

- O-I-II-III On *Polygonum aviculare* L.; Ont., Que. (1), Alta. (6), P.E.I. (4),
 Man. (2).
P. buxiforme Small; Sask. (2).
P. erectum L.; Man. (2).
P. fowleri Rob.; Nfld. (1).
P. ramosissimum Michx.; Man. (2).
P. rubescens Small; Sask. (2).
P. spergulariaeforme Meissn.; B.C. (1).

Uromyces proëminens (DC.) Pass.

U. proëminens var. *euphorbiicola* (Tranz.) Arth.

- O-I-II-III On *Chamaesyce humistrata* (Engelm.) Small; Ont. (1).

U. proeminens var. *proëminens*

- O-I-II-III On *Chamaesyce glyptosperma* (Engelm.) Small; Sask. (25).
C. hirsuta (Torr.) Arth.; Ont. (1).
C. serphyllifolia (Pers.) Small; B.C. (1), Man. (25).

Uromyces psoraleae Peck*U. psoraleae* var. *argophyllae* (Seym.) Arth.

- O-I-III On *Psoralea argophylla* Pursh; Sask. (2).

U. psoraleae var. *psoraleae*

- O-I-III On *Psoralea lanceolata* Pursh; Sask. (2).

Uromyces punctatus Schroet.

- II-III On *Oxytropis gracilis* (A. Nels.) K. Schum.; Man. (2).

Uromyces pyriformis Cooke

(See note under *U. sparganii*)

- II-III On *Acorus calamus* L.; Ont. (1).

Uromyces rhynchosporae Ellis

- II-III On *Rhynchospora alba* (L.) Vahl; Ont. (1).

Uromyces rudbeckiae Arth. & Bisby

- III On *Rudbeckia laciniata* L.; Man. (2), Ont. (1).

Uromyces scirpi (Cast.) Burr.

- O-I On *Cicuta occidentalis* Greene; Sask. (2).

Sium cicutaefolium Schrank; Man., Sask. (2).

- II-III On *Scirpus fluviatilis* (Torr.) Gray; Que. (1).

S. paludosus Nels.; N.S. (1), Sask. (2).

S. validus Vahl; N.S., Ont. (1).

(According to G.B. Cummins (Mycologia 27: 611. 1935) the rust on *Scirpus validus* is *U. americanus* Speg., not *U. scirpi*).

Uromyces silphii (Burr.) Arth. •

- II-III On *Juncus longistylis* Torr.; Man. (1), Sask. (2).

J. macer S. F. Gray; Sask. (2), Ont. (1).

Uromyces sparganii Cooke & Peck

- II-III On *Sparganium eurycarpum* Englem.; Ont., Que. (1).

(J. A. Parmelee and D. B. O. Savile (Mycologia 46: 823-826. 1954) report that *U. pyriformis* on *Acorus calamus* is indistinguishable from *U. sparganii* ssp. *sparganii* and have demonstrated that the O-I states, which were found in Ont. and Que., occur on *Hypericum virginicum*. The II-III states were also reported on *A. calamus* in Que., N.S., and on *S. eurycarpum* in N.S.).

Uromyces spragueae Hark.

- I-III On *Lewisia rediviva* Pursh; B.C. (5).

(D. B. O. Savile and J. A. Parmelee (Mycologia 1956, in press) have placed the rust on *L. rediviva* in B.C. in *U. unitus* Peck ssp. *unitus*).

Uromyces striatus Schroet.

- O-I On *Euphorbia cyparissias* L.; Ont. (18).

- II-III On *Medicago lupulina* L.; Ont. (1).

M. sativa L.; Man. (2), Sask. (18), Ont., N.S., P.E.I. (23).

Uromyces trifolii (Hedw. f.) Lév.

U. trifolii var. *trifolii-repentis* (Liro) Arth.

O-I-II-III On *Trifolium repens* L.; Nfld., Man. (1), Alta. (2), P.E.I. (12),
B.C., Sask., Ont., Que. (23).

T. incarnatum L.; P.E.I. (23).

U. trifolii var. *hybridi* (W. H. Davis) Arth.

O-I-II-III On *Trifolium hybridum* L.; Ont. (1), Man., Sask., Alta. (2), All
provinces (23).

U. trifolii var. *fallens* (Desm.) Arth.

O-I-II-III On *Trifolium medium* L.; Man. (2).

T. pratense L.; Man., B.C., Ont., Que., N.S. (1), N.B., P.E.I.
(23).

Uromyces zygadeni Arth.

O-I-II-III On *Zygadenus gramineus* Rydb.; Alta. (1).

Uropyxis amorphae (Curt.) Schroet.

II-III On *Amorpha canescens* Pursh.; Man. (2).

A. fruticosa L.; Man. (25).

A. nana Nutt.; Man. (2).

Uropyxis petalostemonis (Farl.) de Toni

O-I-II-III On *Petalostemon oligophyllus* (Torr.) Rydb.; Sask. (2).

A LIST OF HOSTS AND THE RUSTS THAT MAY BE EXPECTED TO OCCUR ON THEM

- Abies amabilis* (Loud.) Forbes
 Pucciniastrum pustulatum
Abies balsamea (L.) Mill.
 Hyalopsora aspidiotus
 Melampsora abietis-capraearum
 Melampsorella cerastii
 Milesia fructuosa
 M. marginalis
 M. polypodophila
 Pucciniastrum goeppertianum
 P. pustulatum
 Uredinopsis macrosperma
 U. mirabilis
 U. osmundae
 U. phegopteridis
 U. struthiopteridis
Abies grandis Lindl.
 Melampsorella cerastii
Abies lasiocarpa (Hook.) Nutt.
 Melampsorella cerastii
 Pucciniastrum pustulatum
 P. goeppertianum
Abies sp.
 Uredinopsis macrosperma
Achillea millefolium L.
 Puccinia millefolii
Achillea multiflora Hook.
 Puccinia millefolii
Achillea ptarmica L.
 Puccinia millefolii
Acorus calamus L.
 Uromyces pyriformis
Actaea alba (L.) Mill.
 Puccinia rubigo-vera var. *agropyri*
Actaea brachypoda Ell.
 Puccinia rubigo-vera var. *agropyrina*
Actaea rubra (Ait.) Willd.
 Puccinia rubigo-vera var. *agropyri*
Adoxa moschatellina L.
 Puccinia argentata
Adoxa sp.
 Puccinia adoxae
Aegilops cylindrica Host, cult.
 Puccinia glumarum
Aegilops sp., cult.
 Puccinia glumarum
 P. rubigo-vera var. *tritici*
Agoseris glauca (Pursh) Raf.
 Puccinia extensicola var. *hieraciata*
 P. hieracii
 P. maculosa
Agrimonia gryposepala Wallr.
 Pucciniastrum agrimoniae
Agrimonia pubescens Wallr.
 Pucciniastrum agrimoniae
 Agrimonia striata Michx.
 Pucciniastrum agrimoniae
Agrimonia sp.
 Pucciniastrum agrimoniae
Agropyron albicans Scribn. & Sm.
 Puccinia montanensis
 P. rubigo-vera var. *agropyrina*
Agropyron cristatum (L.) Gaertn., cult.
 Puccinia glumarum
 P. graminis
Agropyron dasystachyum (Hook.) Scribn.
 Puccinia glumarum
 P. graminis
 P. montanensis
 P. rubigo-vera var. *agropyri*
Agropyron desertorum Schult.
 Puccinia glumarum
Agropyron elongatum Host
 Puccinia glumarum
Agropyron griffithsii Scribn. & Sm.
 Puccinia glumarum
 P. graminis
Agropyron obtusiusculum Lange
 Puccinia glumarum
Agropyron repens (L.) Beauv.
 Puccinia coronata
 P. glumarum.
 P. graminis
 P. montanensis
 P. rubigo-vera var. *agropyrina*
Agropyron richardsonii (Trin.) Schrad.
 Puccinia graminis
 P. glumarum
 P. montanensis
 P. rubigo-vera var. *agropyrina*
Agropyron smithii Rydb.
 Puccinia coronata
 P. graminis
 P. glumarum
 P. montanensis
 P. rubigo-vera var. *agropyri*
Agropyron spicatum (Pursh) Scribn. & Sm.
 Puccinia glumarum
 P. rubigo-vera var. *agropyri*
Agropyron trachycaulum (Lk.) Malte (*A. tenerum* Vasey)
 Puccinia coronata
 P. glumarum
 P. graminis
 P. montanensis
 P. rubigo-vera var. *agropyri*
 P. rubigo-vera var. *agropyrina*
Agropyron violaceum (Hornem.) Lange
 Puccinia rubigo-vera var. *agropyri*
Agrostis exarata Trin.
 Puccinia ?*praegracilis*

- Agrostis hyemalis* (Walt.) B.S.P.
 Puccinia graminis
 P. liatridis
Agrostis palustris Huds.
 Puccinia graminis
Agrostis perennans (Walt.) Tuckerm.
 Puccinia graminis
 P. rubigo-vera var. *impatiens*
Agrostis stolonifera L.
 Puccinia graminis
Agrostis tenuis Sibth.
 Puccinia graminis
Agrostis thurberiana Hitchc.
 Puccinia praegracilis var. *praegracilis*
Allium cernuum Roth
 Puccinia granulispora
Allium textile Nels. & Macbr.
 Puccinia blasdalei
Allium sp.
 Puccinia granulispora
 P. porri
Alopecurus aristulatus Michx.
 Uromyces alopecuri
Alopecurus geniculatus L. var. *aristulatus*
 Torr.
 Uromyces alopecuri
Alopecurus pratensis L.
 Puccinia graminis
 P. rubigo-vera var. *agropyrina*
Althaea ficifolia (L.) Cav.
 Puccinia malvacearum
Althaea rosea (L.) Cav.
 Puccinia malvacearum
Ambrosia psilostachya DC. (*A. coronopifolia*
 T. & G.)
 Puccinia xanthii
Ambrosia trifida L.
 Puccinia xanthii
Amelanchier alnifolia Nutt.
 Gymnosporangium clavariaeforme
 G. clavipes
 G. corniculans
 G. juvenescens
 G. nelsoni
Amelanchier canadensis (L.) Medic.
 Gymnosporangium clavariaeforme
Amelanchier intermedia Spach
 Gymnosporangium clavipes
 G. nidus-avis
Amelanchier florida Lindl.
 Gymnosporangium juvenescens
Amelanchier oligocarpa (Michx.) Roem.
 Gymnosporangium clavipes
Amelanchier pumila Nutt.
 Gymnosporangium juvenescens
Amelanchier sanguinea (Pursh) DC.
 Gymnosporangium corniculans
 G. clavipes
Amelanchier spicata
 Gymnosporangium clavariaeforme
Amelanchier spp.
 Gymnosporangium clavipes
- Amorpha canescens* Pursh
 Uropyxis amorphae
Amorpha fruticosa L.
 Uropyxis amorphae
Amorpha nana Nutt.
 Uropyxis amorphae
Anaphalis subalpina (Gray) Rydb.
 Uromyces amoenus
Andropogon provincialis Lam.
 Puccinia andropogonis var. *pustulata*
 P. ellisiana
Andropogon scoparius Michx.
 Puccinia andropogonis var. *pustulata*
 P. ellisiana
Anemone canadensis L.
 Puccinia anomones-virginianae
 P. magnusiana
Anemone coronaria L.
 Tranzschelia pruni-spinosae
Anemone cylindrica Gray
 Puccinia gigantisporea
 P. rubigo-vera var. *agropyri*
 P. rubigo-vera var. *agropyrina*
Anemone globosa Nutt.
 Puccinia gigantisporea
 P. rubigo-vera var. *agropyri*
 P. rubigo-vera var. *agropyrina*
Anemone husdoniana Richards.
 Puccinia rubigo-vera var. *agropyrina*
Anemone parviflora Michx.
 Puccinia pulsatillae
Anemone patens L. var. *wolfgangiana* (Besser)
 Koch
 Puccinia pulsatillae
 Tranzschelia suffusca
Anemone quinquefolia L.
 Puccinia rubigo-vera var. *agropyrina*
 Tranzschelia fusca
 T. pruni-spinosae
Anemone riparia Fern.
 Puccinia anomones-virginianae
 P. rubigo-vera var. *agropyrina*
Anemone virginiana L.
 Puccinia anomones-virginianae
 P. rubigo-vera var. *agropyri*
Anthoxanthum odoratum L.
 Puccinia poae-nemoralis
Antirrhinum majus L., cult.
 Puccinia antirrhini
Apargia autumnalis (L.) Hoffm.
 Puccinia hieracii
Aquilegia flavescens Wats.
 Puccinia rubigo-vera var. *agropyri*
Aquilegia formosa Fisch.
 Puccinia rubigo-vera var. *agropyri*
Arabis brachycarpa (Torr. & Gray) Britt.
 Puccinia monoica
Arabis divaricarpa Nels.
 Puccinia holboellii
Arabis drummondii Gray
 Puccinia holboellii
 P. monoica

- Arabis lignipes* Nels.
 Puccinia holboellii
Arabis lyallii Wats.
 Puccinia holboellii
Arabis lyrata L.
 Puccinia monoica
Arabis nuttallii B. L. Rob.
 Puccinia monoica
Arabis ovata (Pursch) Poir.
 Puccinia monoica
Arabis retrofracta Grah.
 Puccinia monoica
Arabis sp.
 Puccinia monoica
Aralia nudicaulis L.
 Nyssopsora clavellosa
Arbutus menziesii Pursh
 Pucciniastrum sparsum
Arctium minus Schk.
 Puccinia bardanae
Arctostaphylos alpina (L.) Spreng.
 Pucciniastrum sparsum
Arctostaphylos uva-ursi (L.) Spreng.
 Chrysomyxa arctostaphyli
Arisaema triphyllum (L.) Schott.
 Uromyces caladii
Armeria maritima Willd., cult.
 Uromyces armeriae ssp. *pacificus*
Armeria maritima Willd. var. *labradorica*
 Wallr.
 Uromyces armeriae ssp. *hudsonicus*
Arnica chamissonis Less.
 Uromyces junci
Aronia arbutifolia (L.) Ell.
 Gymnosporangium clavipes
Aronia melanocarpa (Michx.) Ell.
 Gymnosporangium clavipes
Artemisia biennis Willd.
 Puccinia atrofusca
Artemisia camporum Rydb.
 Puccinia atrofusca
Artemisia cana Pursh
 Puccinia absinthii
Artemisia caudata Michx.
 Puccinia atrofusca
Artemisia frigida Willd.
 Puccinia absinthii
 P. atrofusca
 P. millefolii
Artemisia glauca Pallas
 Puccinia atrofusca
Artemisia gnaphalodes Nutt.
 Puccinia absinthii
 P. atrofusca
Artemisia ludoviciana Nutt.
 Puccinia absinthii
Artemisia purshiana Besser
 Puccinia atrofusca
Asarum caudatum Lindl.
 Puccinia asarina
Asclepias incarnata L.
 Uromyces asclepiadis
- Asclepias syriaca* L.
 Uromyces asclepiadis
Asparagus officinalis L., cult.
 Puccinia asparagi
Aster conspicuus Lindl.
 Coleosporium solidaginis
Aster cordifolius L.
 Coleosporium solidaginis
 Puccinia asteris
Aster ericoides L.
 Coleosporium solidaginis
 Puccinia asteris
Aster junceus Ait.
 Coleosporium solidaginis
Aster laevis L.
 Coleosporium solidaginis
 Puccinia asteris
Aster lateriflorus (L.) Britt.
 Coleosporium solidaginis
Aster lindleyanus Torr. & Gray
 Coleosporium solidaginis
 Puccinia asteris
Aster novae-angliae L.
 Coleosporium solidaginis
 Puccinia asteris
Aster occidentalis Nutt.
 Coleosporium solidaginis
Aster paniculatus Lam.
 Coleosporium solidaginis
Aster salicifolius Lam.
 Coleosporium solidaginis
Aster umbellatus Mill.
 Coleosporium solidaginis
Aster spp.
 Puccinia extensicola var. *asteris*
 Uromyces junci
Astragalus macounii Rydb.
 Uromyces lapponicus
Astragalus sp.
 Uromyces lapponicus
Athyrium cyclosorum Rupr.
 Uredinopsis struthiopteridis
Atriplex patula L.
 Uromyces peckianus
Avena fatua L.
 Puccinia coronata
 P. graminis
Avena nuda L.
 Puccinia graminis
Avena sativa L., cult.
 Puccinia coronata
 P. graminis
Balsamorhiza sagittata (Pursh) Nutt.
 Puccinia balsamorhizae
Beckmannia erucaeformis (L.) Host.
 Puccinia coronata
Beckmannia syzigachne (Steud.) Fern.
 Puccinia coronata
 P. graminis
Berberis aquifolium Pursh (*Mahonia a.*
 (Pursh) Nutt.), cult.
 Puccinia graminis

- Berberis vulgaris* L., cult. and escaped
 Puccinia graminis
Berberis spp.
 Puccinia graminis
Beta vulgaris L.
 Uromyces betae
Betula populifolia Marsh.
 Melampsorium betulinum
Betula pumila L.
 Melampsorium betulinum
Betula sp.
 Melampsorium betulinum
Bistorta vivipara (L.) S. F. Gray
 Puccinia bistortae
 P. septentrionalis
Bouteloua gracilis (H.B.K.) Lag.
 Puccinia vexans
Briza maxima L.
 Puccinia graminis
Briza minor L.
 Puccinia graminis
Bromus carinatus Thurb.
 Puccinia glumarum
Bromus carinatus hookerianus (Thurb.) Shear
 Puccinia rubigo-vera var. *agropyri*
Bromus ciliatus L.
 Puccinia coronata
 P. glumarum
 P. rubigo-vera var. *agropyri*
 P. rubigo-vera var. *agropyrina*
Bromus ciliatus laeviglumis Scribn.
 Puccinia rubigo-vera var. *agropyrina*
Bromus hordeaceus L.
 Puccinia graminis
Bromus latiglumis (Shear) Hitchc.
 Puccinia coronata
 P. rubigo-vera var. *agropyrina*
Bromus marginatus Nees.
 Puccinia glumarum
Bromus porteri (Coulter) Nash
 Puccinia coronata
 P. rubigo-vera var. *agropyri*
Bromus pumpellianus Scribn.
 Puccinia coronata
 P. graminis
 P. rubigo-vera var. *agropyri*
Bromus purgans L.
 Puccinia rubigo-vera var. *agropyrina*
Bromus sitchensis Trin., cult.
 Puccinia glumarum
Bromus spp.
 Puccinia glumarum

Calamagrostis canadensis (Michx.) Beauv.
 Puccinia coronata
Calamagrostis elongata (Kearney) Rydb.
 Puccinia coronata
Calamagrostis montanensis Scribn.
 Puccinia coronata
Calamagrostis rubescens Buckl.
 Puccinia coronata

Calamovilfa longifolia (Hook.) Hack.
 Puccinia amphigena
Callistephus chinensis Nees, cult.
 Coleosporium solidaginis
Caltha leptosepala DC.
 Puccinia areolata
 P. treleasiana
Caltha palustris L.
 Puccinia calthae
 P. calthaeicola
Campanula persicifolia L.
 Coleosporium campanulae
Campanula rapunculoides L.
 Coleosporium campanulae
Campanula rotundifolia L., var. *intercedens*
 Witasek
 Puccinia campanulae
Campanula spp.
 Coleosporium campanulae
Cardamine bellidifolia L.
 Puccinia cruciferarum
Cardamine douglasii (Torr.) Britt.
 Puccinia arabicola
Carex aquatilis Wahl.
 Puccinia caricis-shepherdiae
Carex atherodes Spreng.
 Puccinia caricis-shepherdiae
Carex douglasii Boott
 Puccinia atrofusca
Carex eburnea Boott
 Puccinia caricis-shepherdiae
Carex eleocharis Bailey
 Puccinia atrofusca
Carex filifolia Nutt.
 Puccinia atrofusca
Carex intumescens Rudge
 Puccinia bolleyana
Carex lanuginosa Michx.
 Puccinia caricis-shepherdiae
Carex lasiocarpa Ehrh.
 Puccinia minutissima
Carex limosa L.
 Puccinia limosae
Carex lupuliformis Sartw.
 Puccinia bolleyana
Carex paupercula Michx.
 Puccinia karelica
Carex praegracilis Boott
 Puccinia atrofusca
Carex rossii Boott
 Puccinia atrofusca
Carex sartwellii Dewey
 Puccinia extensicola var. *oenotherae*
Carex scoparia Schk.
 Puccinia extensicola var. *euthamii*
Carex spengelii Dewey
 Puccinia extensicola var. *hieraciata*
 P. extensicola var. *phrymae*
Carex stratiformis Britt.
 Puccinia limosae
Carex substricta (Kuek.) Mack.
 Puccinia caricis-shepherdiae
 P. minutissima

- Carex vesicaria* L.
 Puccinia caricis var. *urticata*
 P. caricis-shepherdiae
Carex spp.
 Puccinia caricis var. *grossulariata*
 P. caricis var. *uniporula*
 P. caricis var. *urticata*
 P. extensicola var. *asteris*
 P. extensicola var. *hieraciata*
 P. extensicola var. *solidaginis*
 P. extensicola var. *erigerontis*
Carthamus tinctorius L.
 Puccinia carthami
Castilleja sessiliflora Pursh
 Puccinia andropogonis var. *micropuncta*
Centaurea cyanus L.
 Puccinia cyani
Cephalanthus occidentalis L.
 Puccinia seymouriana
Cerastium alpinum L.
 Melampsorella cerastii
Cerastium arvense L.
 Melampsorella cerastii
Cerastium berringianum C. & S.
 Melampsorella cerastii
Cerastium vulgatum L.
 Melampsorella cerastii
Chamaedaphne calyculata (L.) Moench
 Chrysomyxa cassandrae
 C. ledi var. *cassandrae*
Chamaenerion latifolium (L.) Sweet
 Puccinia veratri
Chamaenerion spicatum (Lam.) S. F. Gray
 Pucciniastrum pustulatum
 Puccinia extensicola var. *oenotherae*
 P. gigantea
Chamaesyce glyptosperma (Engelm.) Small
 Uromyces proëminens var. *proëminens*
Chamaesyce hirsuta (Torr.) Arth.
 Uromyces proëminens var. *proëminens*
Chamaesyce humistrata (Engelm.) Small
 Uromyces proëminens var. *euphorbiicola*
Chamaesyce serphyllifolia (Pers.) Small
 Uromyces proëminens var. *proëminens*
Chenopodium album L.
 Puccinia aristidae
 Uromyces peckianus
Cheirinia cheiranthoides (L.) Link
 Puccinia aristidae
Chiogenes hispidula (L.) T. & G.
 Chrysomyxa chiogenis
Chrysopsis hirsutissima Greene
 Puccinia stipae
Cichorium intybus L.
 Puccinia hieracii
Cicuta maculata L.
 Puccinia cicutae
Cicuta occidentalis Greene
 Puccinia cicutae
 Uromyces scirpi
Cinna arundinacea L.
 Puccinia graminis
 Cinna latifolia (Trev.) Gries.
 Puccinia graminis
Circaea alpina L.
 Puccinia circaeae
Circaea latifolia Mill.
 Puccinia circaeae
Circaeae pacifica Asch. & Magn.
 Puccinia circaeae
Cirsium arvense (L.) Scop.
 Puccinia suaveolens (P. obtegens)
Cirsium flodmanii (Rydb.) Arth.
 Puccinia cirsii
 Uromyces junci
Cirsium lanceolatum (L.) Hill
 Puccinia cnsii
Cirsium megacephalum (Gray) Cockerell
 Uromyces junci
Cirsium undulatum (Nutt.) Spreng.
 Puccinia cirsii
 Uromyces junci
Cirsium spp.
 Puccinia cirsii
Clarkia spp.
 Pucciniastrum pustulatum
Claytonia caroliniana Michx.
 Puccinia mariae-wilsoni
Claytonia virginica L.
 Puccinia mariae-wilsoni
Clematis ligusticifolia Nutt.
 Puccinia rubigo-vera var. *agropyri*
Clinopodium vulgare L.
 Puccinia menthae
Clintonia borealis (Ait.) Raf.
 Puccinia mesomajalis
Clintonia uniflora (Schult.) Kunth
 Puccinia mesomajalis
Collomia linearis Nutt.
 Uromyces acuminatus var. *polemonii*
Comandra livida Richards.
 Cronartium comandrae
 Puccinia comandrae
Comandra pallida A. DC.
 Cronartium comandrae
 Puccinia andropogonis var. *pustulata*
 P. comandrae
Comandra umbellata (L.) Nutt.
 Cronartium comandrae
 Puccinia andropogonis var. *pustulata*
Convallaria sp.
 Puccinia sessilis
Convolvulus sepium L.
 Puccinia convolvuli
Cornus canadensis L.
 Puccinia porphyrogenita
Cotoneaster lucida
 Gymnosporangium clavipes
Crataegus chrysoarpa Ashe
 Gymnosporangium betheli
 G. clavariaeforme
Crataegus coccinea L.
 Gymnosporangium globosum
Crataegus douglasii Lindl.
 Gymnosporangium betheli

- Crataegus punctata* Jacq.
 Gymnosporangium clavipes
 G. globosum
Crataegus tomentosa L.
 Gymnosporangium globosum
Crataegus spp.
 Gymnosporangium clavariaeforme
 G. clavipes
 G. globosum
 G. tubulatum
 G. betheli
Crepis runcinata (James) Torr. & Gray
 Puccinia hieracii
Cryptogramma acrostichoides R. Br.
 Milesia darkeri
Cryptotaenia canadensis (L.) DC.
 Puccinia cryptotaeniae
 P. microica
Cydonia olbonga Mill.
 Gymnosporangium clavariaeforme
 G. clavipes
Cydonia sp.
 Gymnosporangium clavipes
Cyperus strigosus L.
 Puccinia canaliculata
Cypripedium parviflorum Salisb.
 Puccinia cypripedii
- Dactylis glomerata* L.
 Puccinia graminis
 Uromyces dactylidii
Dasiphora fruticosa (L.) Rydb. (*Potentilla* f. L.)
 Phragmidium andersoni
Decodon verticillatus (L.) Ell.
 Puccinia minutissima
Deschampsia atropurpurea (Wahl.) Scheele
 P. praegracilis var. *connersii*
Deschampsia caespitosa (L.) Beauv.
 Puccinia coronata
 P. graminis
 P. poae-sudeticae var. *airae*
Desmodium dillenii Darl.
 Uromyces hedysari-paniculati
Dianthus caryophyllus L., cult.
 Uromyces caryophyllinus
Distichlis spicata (L.) Greene
 Puccinia aristidae
 Uromyces peckianus
Dodecatheon jeffreyi Moore
 Puccinia ortonii
Dodecatheon pauciflorum (Durand) Greene
 Puccinia ortonii
 Uromyces acuminatus var. *steironematis*
Draba arabisans Michx.
 Puccinia drabae
Draba incerta Payson
 Puccinia drabae
Draba lutea Gilib.
 Puccinia aristidae
Draba sp.
 Puccinia drabae
- Dryopteris marginalis* (L.) Gray
 Milesia marginalis
Dryopteris spinulosa (O. F. Muell.) Watt.
 Milesia fructuosa
Dryopteris thelypteris (L.) Gray
 Uredinopsis struthiopteridis
- Elaeagnus angustifolia* L.
 Puccinia caricis-shepherdiae
Elaeagnus commutata Bernh.
 Puccinia caricis-shepherdiae
 P. coronata
Eleocharis palustris (L.) R. & S.
 Puccinia eleocharidis
Eleocharis spp.
 Puccinia eleocharidis
Elymus canadensis L.
 Puccinia coronata
 P. graminis
 P. montanensis
 P. rubigo-vera var. *impatiens*
Elymus curvatus Piper
 Puccinia graminis
 P. montanensis
 P. rubigo-vera var. *agropyrina*
Elymus dahuricus Turcz.
 Puccinia graminis
 P. montanensis
Elymus diversiglumis Scribn. & Ball
 Puccinia rubigo-vera var. *agropyri*
 P. rubigo-vera var. *agropyrina*
Elymus glaucus Buckl.
 Puccinia glumarum
Elymus howellii Scribn. & Merr.
 Puccinia glumarum
Elymus innovatus Beal
 Puccinia coronata
Elymus jejunus (Ramaley) Rydb.
 Puccinia montanensis
 P. rubigo-vera var. *agropyrina*
Elymus macounii Vasey
 Puccinia graminis
 P. rubigo-vera var. *agropyri*
 P. rubigo-vera var. *agropyrina*
Elymus marginalis Rydb.
 Puccinia glumarum
Elymus vancouverensis Vasey
 Puccinia rubigo-vera var. *agropyri*
Elymus virginicus L.
 Puccinia graminis
 P. rubigo-vera var. *agropyrina*
 P. rubigo-vera var. *impatiens*
Empetrum atropurpureum Fern. & Wieg.
 Chrysomyxa empetri
Empetrum eamesii Fern. & Wieg.
 Chrysomyxa empetri
Empetrum nigrum L.
 Chrysomyxa empetri
Epilobium adenocaulon Haussk.
 Puccinia vagans var. *epilobii-tetragoni*
 Pucciniastrum pustulatum
Epilobium alpinum L.
 Puccinia epilobii

- Epilobium angustifolium* L.
 (Chamaenerion spicatum (Lam.) S.F. Gray)
Puccinia extensicola var. *oenotherae*
Pucciniastrum pustulatum
Epilobium coloratum Muhl.
Pucciniastrum pustulatum
Epilobium hirsutum L.
Pucciniastrum pustulatum
Epilobium hornemannii Reichenb.
Puccinia veratri
Epilobium minutum Lindl.
Puccinia oenotherae
Epilobium spp.
Puccinia epilobii
P. scandica
Pucciniastrum pustulatum
Puccinia vagans var. *epilobii-tetragoni*
Erigenia bulbosa (Michx.) Nutt.
Puccinia erigeniae
Eriogonum flavum Nutt.
Uromyces intricatus
Eriophorum angustifolium Roth
Puccinia angustata
Eriophorum viridicarinatum (Engelm.) Fern.
Puccinia angustata
Erysimum cheiranthoides L. (*Cheirinia c.* (L.) T. & G.)
Puccinia aristidae
Erythronium grandiflorum Pursh
Uromyces heterodermus
Eupatorium perfoliatum L.
Puccinia eleocharidis
Eupatorium purpureum L.
Puccinia eleocharidis
Eupatorium purpureum var. *maculatum* (L.) Darl.
Puccinia eleocharidis
Euphorbia cyparissias L.
Uromyces striatus
Euthamia graminifolia (L.) Nutt. (*Solidago g.* (L.) Salish.)
Puccinia extensicola var. *euthamii*

Festuca elatior L.
Puccinia graminis
Festuca myuros L.
Puccinia graminis
Festuca ovina L.
Puccinia crandallii
Festuca rubra L.
Puccinia rubigo-vera var. *agropyri*
Festuca saximontana Rydb.
Puccinia crandallii
Festuca scabrella Torr.
Puccinia cockerelliana
Festuca spp.
Puccinia coronata
Filix bulbifera (L.) Underw.
Uredinopsis struthiopteridis
Filix fragilis (L.) Gilib.
Hyalopsora polypodii

Fluminia festucacea (Willd.) Hitchc.
 (*Scolochloa festucacea* (Willd.) Link)
Puccinia coronata
Fraxinus americana L.
Puccinia sparganioides
Fraxinus pennsylvanica Marsh. var. *lanceolata* (Borkh.) Sarg.
Puccinia sparganioides
Fritillaria kamtschatcensis Ker.
Uromyces miurae

Galium aparine L.
Puccinia difformis
Galium asprellum Michx.
Puccinia punctata
Galium boreale L.
Puccinia rubefaciens
Galium trifidum L.
Puccinia punctata
Galium triflorum Michx.
Pucciniastrum galii
Puccinia punctata var. *trogloodytes*
Gaylussacia baccata (Wang.) K. Koch
Pucciniastrum myrtilli
Gaura coccinea Nutt.
Uromyces plumbarius
Gentiana affinis Griesb.
Puccinia gentianae
Gentiana amarella L. var. *acuta* (Michx.) Herder
Puccinia haleniae
Gentiana andrewsii Gries.
Puccinia gentianae
Gentiana interrupta Greene
Puccinia gentianae
Gentiana strictiflora (Rydb.) A Nels.
Uromyces gentianae
Geranium maculatum L.
Puccinia polygoni-amphibii var. *persicariae*
Geranium spp.
Uromyces geranii
Gilia linearis (Nutt.) Gray
Uromyces acuminatus var. *polemonii*
Glaux maritima L.
Puccinia aristidae
P. distichlidis
Glyceria grandis Wats.
Puccinia graminis
P. rubigo-vera var. *agropyrina*
Glycyrrhiza lepidota Nutt.
Uromyces glycyrrhizae
Gnaphalium macounii Greene
Puccinia investita
Godetia spp.
Pucciniastrum pustulatum
Grindelia perennis Nels.
Puccinia grindeliae
Grindelia squarrosa (Pursh) Dunal
Puccinia grindeliae

- Grossularia cynosbati* (L.) Mill.
 Cronartium ribicola
 Puccinia caricis var. *grossulariata*
 P. caricis var. *uniporula*
Grossularia divaricata (Dougl.) Cov. & Britt.
 Cronartium ribicola
 Melampsora ribesii-purpureae
 Puccinia parkerae
Grossularia hirtella (Michx.) Spach
 Puccinia caricis var. *grossulariata*
Grossularia setosa (Lindl.) Cov. & Britt.
 Puccinia caricis var. *grossulariata*
- Habenaria dilatata* (Pursh) Hook.
 Puccinia praegracilis var. *connersii*
Habenaria gracilis Wats.
 Aecidium graebnerianum
 Puccinia praegracilis var. *praegracilis*
Habenaria psycodes (L.) Sw.
 Aecidium graebnerianum
Hedysarum americanum (Michx.) Britt.
 Uromyces hedysari-obscuri
Hedysarum boreale Nutt.
 Uromyces hedysari-obscuri
Hedysarum cinerascens Rydb.
 Uromyces hedysari-obscuri
Hedysarum mackenzii Richards.
 Uromyces hedysari-obscuri
Hedysarum sulphurascens Rydb.
 Uromyces hedysari-obscuri
Helianthus annuus L., cult.
 Puccinia helianthi
Helianthus aridus Rydb.
 Puccinia helianthi
Helianthus fascicularis Greene
 Puccinia helianthi
Helianthus giganteus L.
 Puccinia helianthi
Helianthus petiolaris Nutt.
 Puccinia helianthi
 Uromyces junci
Helianthus rigidus (Cass.) Desf.
 Puccinia helianthi
Helianthus strumosus L.
 Puccinia helianthi
Helianthus subrhomboideus Rydb.
 Puccinia helianthi
 Uromyces junci
Helianthus subtuberosus Bourg.
 Puccinia helianthi
 Uromyces junci
Helianthus tuberosus L.
 Puccinia helianthi
 Uromyces junci
Hepatica acutiloba DC.
 Tranzschelia pruni-spinosae
Heuchera cylindrica Dougl. var. *glabella* (T. & G.) Wheelock
 Puccinia heucherae var. *heucherae*
Heuchera cylindrica var. *trionalis* R. B. & L.
 Puccinia heucherae var. *saxifragae*
- Heuchera glabra* Willd.
 Puccinia heucherae var. *heucherae*
Heuchera micrantha Dougl. ex Lindl.
 Puccinia heucherae var. *heucherae*
Heuchera ovalifolia Nutt.
 Puccinia heucherae var. *heucherae*
 P. heucherae var. *saxifragae*
Heuchera richardsonii R. Br.
 Puccinia heucherae var. *saxifragae*
Hieracium albiflorum Hook.
 Aecidium columbiense
Hieracium canadense Michx.
 Puccinia hieracii
Hieracium scabriusculum Schw.
 Puccinia extensicola var. *hieraciata*
 P. hieracii
Hieracium scabrum Michx.
 Puccinia fraseri
 P. hieracii
Hierochloë odorata (L.) Wahl.
 Puccinia coronata
Holcus lanatus L.
 Puccinia coronata
 P. rubigo-vera var. *agropyri*
Honkenya peploides (L.) Ehrh.
 Puccinia arenariae
Hordeum caespitosum Scribn.
 Puccinia glumarum
Hordeum jubatum L.
 Puccinia glumarum
 P. graminis
 P. montanensis
 P. rubigo-vera var. *agropyri*
 P. rubigo-vera var. *agropyrina*
 P. rubigo-vera var. *impatientis*
Hordeum murinum L., cult.
 Puccinia graminis
Hordeum vulgare L., cult.
 Puccinia graminis
 P. hordei (*P. anomala*)
 P. glumarum
Houstonia longifolia Gaertn.
 Uromyces houstoniatus
Hypericum kalmianum L.
 Uromyces hyperici
Hypericum perforatum L.
 Uromyces hyperici
Hypericum prolificum L.
 Uromyces hyperici
Hypericum virginicum L. (*Triadenum* v. (L.) Raf.)
 Uromyces hyperici
 U. sparganii
Hystrix patula Moench
 Puccinia rubigo-vera var. *agropyrina*
- Impatiens balsamina* L.
 Cronartium flaccidum
Impatiens biflora Walt.
 Puccinia argentata
 P. rubigo-vera var. *impatientis*
Impatiens noli-tangere L.
 Puccinia argentata

- Impatiens pallida* Nutt.
 Puccinia argentata
 P. rubigo-vera var. *impatientis*
Iris versicolor L.
 Puccinia iridis
 P. sessilis
Iris sp.
 Puccinia iridis
Iva axillaris Pursh
 Puccinia intermixta

Juncus ater Rydb.
 Uromyces junci
Juncus balticus Willd.
 Uromyces junci
 U. junci-effusi
Juncus longistylis Torr.
 Uromyces silphii
Juncus tenuis Willd.
 Uromyces silphii
Juncus xiphioides E. Mey.
 Uromyces junci-effusi
Juniperus communis L.
 Gymnosporangium clavipes
 G. clavariaeforme
Juniperus fragrans (cult.)
 Gymnosporangium globosum
Juniperus horizontalis Moench
 Gymnosporangium corniculans
 G. juvenescens
 G. globosum
 G. clavipes
Juniperus scopulorum Sarg.
 Gymnosporangium nelsoni
 G. betheli
Juniperus sibirica Burgsd.
 Gymnosporangium clavipes
 G. juniperinum
Juniperus virginiana L.
 Gymnosporangium clavipes
 G. globosum
 G. nidus-avis
 G. juniperi-virginianae
 G. corniculans
Juniperus spp.
 Gymnosporangium clavipes
 G. globosum

Koeleria cristata (L.) Pers.
 Puccinia koeleriae
 P. monoica

Lactuca pulchella (Pursh) DC.
 Puccinia extensicola var. *hieraciata*
 P. minussensis
Lactuca sativa L., cult.
 Puccinia extensicola var. *hieraciata*
Lamarkia aurea (L.) Moench
 (Achyrodes a Ktze.)
 Puccinia coronata
Lappula echinata Gilib.
 Puccinia aristidae

Lapsana communis L.
 Puccinia lapsanae
Larix laricina (DuRoi) Koch
 Melampsora bigelowii
 M. medusae
Larix lyallii Parl.
 Melampsora bigelowii
Lathyrus myrtifolius Muhl.
 Uromyces fabae
Lathyrus ochroleucus Hook.
 Uromyces fabae
Lathyrus venosus Muhl.
 Uromyces fabae
Ledum glandulosum Nutt.
 Chrysomyxa ledi var. *glandulosi*
Ledum groenlandicum Oeder
 Chrysomyxa ledi var. *groenlandici*
 C. ledicola
 C. woronini
Ledum palustre L. var. *decumbens* Ait
 Chrysomyxa ledi var. *ledi*
 C. ledicola
 C. woronini
Lespedeza capitata Michx.
 Uromyces lespedezae-procumbentis
Lewisia rediviva Pursh
 Uromyces spragueae
Liatris aspera (Michx.) Greene
 Puccinia liatridis
Liatris ligulistylis (A. Nels.) Rydb.
 Puccinia liatridis
Liatris punctata Hook.
 Puccinia liatridis
Ligusticum apiifolium (Nutt.) Gray
 Puccinia ligustici
Ligusticum scoticum L.
 Aecidium ligustici
Lilium canadense L.
 Uromyces holwayi
Lilium columbianum Hanson
 Uromyces holwayi
Lilium michiganense Farwell
 Uromyces holwayi
Lilium umbellatum Pursh
 Puccinia sporoboli
Limonium latifolium
 Uromyces limonii
Limonium nashii Small (not *L. carolinianum*
 (Walt.) Britt.)
 Uromyces limonii-caroliniani
Limonium vulgare
 Uromyces limonii
Linum lewisii Pursh
 Melampsora lini
Linum rigidum Pursh
 Melampsora lini
Linum usitatissimum L., cult.
 Melampsora lini
Lobelia syphilitica L.
 Puccinia lobeliae
Lolium multiflorum Lam.
 Puccinia graminis

- Lolium perenne* L.
 Puccinia graminis
Lonicera caerulea L.
 Puccinia festucae
Lupinus perennis L.
 Puccinia andropogonis var. *onobrychidis*
Lupinus sp.
 Uromyces lupini
Luzula campestris (L.) DC. var. *multiflora*
 (Ehrh.) Celak.
 Puccinia obscura
Luzula carolinae Wats.
 Puccinia obscura
Luzula parviflora (Ehrh.) Desv.
 Puccinia obscura
Lycopus americanus Muhl.
 Puccinia angustata
Lycopus asper Greene
 Puccinia angustata
Lycopus rubellus Moench
 Puccinia angustata
Lycopus uniflorus Michx.
 Puccinia angustata
Lycopus virginicus L.
 Puccinia angustata
Lygodesmia juncea (Pursh) D. Don
 Puccinia extensicola var. *hieraciata*
 P. grindeliae
 P. stipae
Lysimachia thyrsiflora L.
 Puccinia limosae
- Madia sativa* Molina
 Coleosporium madaiae
Mahonia aquifolium (Pursh) Nutt.
 Puccinia koeleriae
Mahonia repens (Lindl.) Don
 Puccinia koeleriae
Mahonia sp.
 Puccinia graminis
 Cumminsella sanguinea
Maianthemum canadense Desf.
 Puccinia amphigena
 P. sessilis
 Uromyces acuminatus var. *magnatus*
Malus coronaria (L.) Mill.
 Gymnosporangium juniperi-virginianae
Malus pumila Mill.
 Gymnosporangium clavipes
 G. globosum
 G. juniperi-virginianae
Malus rivularis (Doug.) Roem.
 Gymnosporangium nootkatense
Malus sylvestris (L.) Mill.
 Gymnosporangium juniperi-virginianae
Malva moschata L.
 Puccinia malvacearum
Malva rotundifolia L.
 Puccinia malvacearum
Malva spp.
 Puccinia malvacearum
Medicago lupulina L.
 Uromyces striatus
- Medicago sativa* L.
 Uromyces striatus
Melampyrum lineare Lam.
 Puccinia adropogonis var. *melampyri*
Mentha arvensis L.
 Puccinia angustata
 P. menthae
Mentha canadensis L.
 Puccinia angustata
 P. menthae
Mentha glabrior (Hook.) Rydb.
 Puccinia angustata
 P. menthae
Mentha piperita L.
 Puccinia menthae
Mentha spicata L.
 Puccinia menthae
Merckia physodes Fisch.
 Puccinia arenariae
Micranthes lyallii (Engler) Small
 Puccinia heucherae var. *heucherae*
Milium effusum L.
 Puccinia graminis
Mitella breweri Gray
 Puccinia heucherae var. *austroberingiana*
Mitella diphylla L.
 Puccinia heucherae var. *heucherae*
Mitella nuda L.
 Aecidium mitellae
 Puccinia heucherae var. *heucherae*
Mitella ovalis Greene
 Puccinia heucherae var. *heucherae*
Mitella trifida Graham
 Puccinia heucherae var. *austroberingiana*
Moehringia lateriflora (L.) Fenzl
 Puccinia arenariae
 Uromyces acuminatus var. *spartinae*
Monarda didyma L.
 Puccinia menthae
Monarda fistulosa L.
 Puccinia menthae
Monarda menthaefolia Benth.
 Puccinia menthae
Monarda mollis L.
 Puccinia menthae
Monarda mollis var. *menthaefolia* Fern
 Puccinia menthae
Moneses uniflora (L.) Gray
 Chrysomyxa monesis
 C. pirolata
 Pucciniastrum pyrolae
Muhlenbergia cuspidata (Torr.) Rydb.
 Puccinia schedonnardi
Muricauda dracontium (L.) Small
 Uromyces caladii
Myrica gale L.
 Cronartium comptoniae
- Nabalus albus* (L.) Hook.
 Puccinia extensicola var. *hieraciata*
Nabalus altissimus (L.) Hook.
 Puccinia orbicula

- Nabalus racemosus* (Michx.) DC.
 Puccinia maculosa
 P. orbicula
Nabalus trifoliolatus Cass.
 Puccinia orbicula
Nabalus sp.
 Puccinia orbicula
Naumburgia thyrsoflora (L.) Duby
 Puccinia limosae
Nemexia herbacea (L.) Small
 Puccinia amphigena
Nemexia lasioneuron (Hook.) Rydb.
 Puccinia amphigena
- Oenothera biennis* L.
 Puccinia extensicola var. *oenotherae*
Onoclea sensibilis L.
 Uredinopsis mirabilis
Onopordum acanthium L.
 Puccinia onopordi
Onosmodium occidentale Mackenzie
 Puccinia rubigo-vera var. *apocrypta*
Oryzopsis asperifolia Michx.
 Puccinia pygmaea
Osmorrhiza claytoni (Michx.) Clarke
 Puccinia pimpinellae
Osmorrhiza longistylis (Torr.) DC.
 Puccinia pimpinellae
Osmunda claytoniana L.
 Uredinopsis osmundae
Osmunda spectabilis Willd.
 Uredinopsis osmundae
Oxyria digyna (L.) Hill.
 Puccinia oxyriae
Oxytropis gracilis (A. Nels.) K. Schum.
 Uromyces punctatus
- Padus nana* (DuRoi) Roem.
 Tranzschelia pruni-spinosae
Panicum capillare L.
 Puccinia emaculata
Parnassia fimbriata Banks
 Puccinia parnassiae
Parnassia palustris L.
 Puccinia uliginosa
Pentstemon acuminatus Dougl.
 Puccinia andropogonis var. *pentstemonis*
Pentstemon albidus Nutt.
 Puccinia andropogonis var. *pentstemonis*
Pentstemon eriantherus Pursh
 Puccinia andropogonis var. *pentstemonis*
Pentstemon nitidus Dougl.
 Puccinia andropogonis var. *pentstemonis*
Petalostemon candidus (Willd.) Michx.
 Puccinia andropogonis var. *onobrychidis*
Petalostemon oligophyllus (Torr.) Rydb.
 Uropyxis petalostemonis
Petalostemon purpureus (Vent.) Rydb.
 Puccinia andropogonis var. *onobrychidis*
Petasites frigidus (L.) Fries
 Puccinia conglomerata
Petasites palmatus (Ait.) A. Gray
 Puccinia conglomerata
- Phaca frigida* L.
 Uromyces lapponicus
Phacelia franklinii (R. Br.) Gray
 Puccinia rubigo-vera var. *apocrypta*
Phacelia heterophylla Pursh
 Puccinia rubigo-vera var. *apocrypta*
Phalaris arundinacea L.
 Puccinia sessilis
Phalaris canariensis L.
 Puccinia graminis
Phaseolus vulgaris L.
 Uromyces phaseoli
Phegopteris dryopteris (L.) Fée
 Uredinopsis phegopteridis
 Hyalopsora aspidiotus
Phleum pratense L.
 Puccinia graminis var. *phlei-pratensis*
Phlox hoodii Richards.-
 Puccinia douglasii
Phlox sp.
 Uromyces acuminatus var. *polemonii*
Phragmites communis Trin.
 Puccinia magnusiana
 P. phragmitis
Physalis heterophylla Nees
 Puccinia physalidis
Physalis virginiana Mill.
 Puccinia physalidis
Picea engelmanni (Parry) Engelm.
 Chrysomyxa empetri
 C. ledicola
 C. weirii
 Melampsorella cerastii
Picea excelsa (Lam.) Link
 Melampsorella cerastii
Picea glauca (Moench) Voss (*P. canadensis*
 (Mill.) B.S.P.)
 Chrysomyxa chiogenis
 C. empetri
 C. ledi var. *cassandrae*
 C. ledicola
 C. pirolata
 Melampsorella cerastii
 Pucciniastrum arcticum
 P. americanum
Picea glauca var. *albertiana* (S. Brown) Sarg.
 (*P. albertiana* S. Brown.)
 Chrysomyxa ledicola
 C. pirolata
 Melampsorella cerastii
Picea mariana (Mill.) B.S.P.
 Chrysomyxa chiogenis
 C. empetri
 C. ledi
 C. ledi var. *groenlandici*
 C. ledicola
 C. pirolata
 C. woronini
 Melampsorella cerastii
Picea pungens Engelm.
 Chrysomyxa ledi
 C. ledicola

- Picea rubens* Sarg.
Chrysomyxa empetri
C. ledi
C. ledi var. *cassandrae*
C. ledi var. *groenlandica*
C. ledicola
C. weirii
Picea sitchensis (Bong.) Carr.
Chrysomyxa ledicola
C. monesis
C. weiri
Picea sp.
Chrysomyxa weirii
Pinus banksiana Lamb.
Coleosporium solidaginis
Cronartium comandrae
C. comptoniae
Pinus contorta Dougl.
Coleosporium solidaginis
Cronartium coleosporioides
C. comandrae
Pinus ponderosa Dougl.
Cronartium coleosporioides
C. comandrae
Pinus spp.
Cronartium comandrae
C. ribicola
Pisum sativum L.
Uromyces fabae
Plantago eriopoda Torr.
Puccinia aristidae
Uromyces peckianus
Pleurogyne rotata Griesb.
Uromyces gentianae
Poa annua L.
Puccinia poae-nemoralis
Poa arida Vasey
Puccinia rubigo-vera var. *agropyri*
Poa compressa L.
Puccinia graminis
P. poae-nemoralis
Poa crocata Michx.
Puccinia poae-nemoralis
Uromyces dactylidis
Poa interior Rydb.
Puccinia poae-nemoralis
Poa nemoralis L.
Puccinia poae-nemoralis
Poa palustris L.
Puccinia poae-nemoralis
Poa pratensis L.
Puccinia poae-nemoralis
Uromyces dactylidis
Poa sandbergii Vasey
Puccinia rubigo-vera var. *agropyri*
Poa trivialis L.
Uromyces dactylidis
Poa spp.
Puccinia graminis var. *poae*
P. poae-nemoralis
Podophyllum peltatum L.
Puccinia podophylli
- Polygala paucifolia* Willd.
Puccinia pyrolae
Polygala senega L.
Puccinia andropogonis var. *polygalina*
Polygonum aviculare L.
Uromyces polygoni
Polygonum buxiforme Small
Uromyces polygoni
Polygonum coccineum (Muhl.) Pers.
Puccinia polygoni-amphibii var. *persicariae*
Polygonum convolvulus L.
Puccinia polygoni-amphibii var. *convolvuli*
Polygonum erectum L.
Puccinia aristidae
Uromyces polygoni
Polygonum fowleri Rob.
Uromyces polygoni
Polygonum harwrightii Gray
Puccinia polygoni-amphibii var. *persicariae*
Polygonum hydropiperoides (Michx.) Small
Puccinia polygoni-amphibii var. *persicariae*
Polygonum lapathifolium L.
Puccinia polygoni-amphibii var. *persicariae*
Polygonum muhlenbergii (Meisn.) Wats.
Puccinia polygoni-amphibii var. *persicariae*
Polygonum neglectum Besser
Puccinia aristidae
Polygonum pensylvanicum L.
Puccinia polygoni-amphibii var. *persicariae*
Polygonum persicaria L.
Puccinia polygoni-amphibii var. *persicariae*
Polygonum ramosissimum Michx.
Uromyces polygoni
Polygonum rubescens Small
Uromyces polygoni
Polygonum spergulariaeforme Meissn.
Uromyces polygoni
Polypodium virginianum L.
Milesia polypodophila
Populus acuminata Rydb.
Melampsora occidentalis
Populus balsamifera L. (*P. tacamahacca* Mill.)
Melampsora medusae
M. occidentalis
Populus deltoides Marsh.
Melampsora medusae
Populus grandidentata Michx.
Melampsora abietis-canadensis
Populus sargentii Dode
Melampsora medusae
Populus termuloides Michx.
Melampsora abietis-canadensis
M. albertensis
M. medusae

- Populus trichocarpa T. & G.
 Melampsora occidentalis
 Populus spp.
 Melampsora medusae
 Potentilla bipinnatifida Dougl.
 Phragmidium ivesiae
 P. potentillae
 Potentilla canadensis L.
 Frommea obtusa
 Potentilla concinna Richards.
 Phragmidium ivesiae
 Potentilla diversifolia Lehm.
 Phragmidium ivesiae
 Potentilla flabelliformis Lehm.
 Phragmidium ivesiae
 Potentilla fruticosa L.
 Phragmidium andersoni
 Potentilla glabrella Rydb.
 Phragmidium potentillae
 Potentilla glaucophylla Lehm.
 Phragmidium ivesiae
 Potentilla glomerata Nels.
 Phragmidium ivesiae
 Potentilla hippiana Lehm.
 Phragmidium potentillae
 P. ivesiae
 Potentilla nuttallii Lehm.
 Phragmidium ivesiae
 Potentilla pectinata Raf.
 Phragmidium potentillae
 Potentilla pennsylvanica L.
 Phragmidium potentillae
 Potentilla strigosa Pall.
 Phragmidium potentillae
 Potentilla tridentata Ait. (Sibbaldiopsis t.)
 Pucciniastrum potentillae
 Potentilla spp.
 Phragmidium ivesiae
 P. potentillae
 Prenanthes, see Nabalus
 Prunus domestica L.
 Tranzschelia pruni-spinosae
 Pseudotsuga taxifolia (Poir.) Britt. (P. mucro-
 nata (Raf.) Sudw.)
 Melampsora albertensis
 M. occidentalis
 Psilactis asteroides Gray
 Puccinia asteris
 Psoralea argophylla Pursh
 Uromyces psoraleae var. argophyllae
 Psoralea lanceolata Pursh
 Uromyces psoraleae var. psoraleae
 Psoralea physodes Dougl.
 Uromyces abbreviatus
 Pteridium aquilinum pubescens Underw.
 Uredinopsis macrosperma
 Pteretis nodulosa (Michx.) Nieuwl.
 Uredinopsis struthiopteridis
 Puccinellia maritima (Huds.) Parl.
 Puccinia rubigo-vera var. agropyrina
 Puccinellia nuttalliana (Schult.) Hitchc.
 Puccinia rubigo-vera var. agropyri
 Puccinella tenuiflora (Griesb.) Scribn. & Merr.
 Puccinia rubigo-vera var. agropyri
 P. rubigo-vera var. agropyrina
 Pulsatilla ludoviciana (Nutt.) Heller
 Tranzschelia suffusca
 Puccinia pulsatillae
 Pycnanthemum flexuosum (Walt.) B.S.P.
 Puccinia menthae
 Pycnanthemum virginianum (L.) Dur. & Jacks.
 Puccinia menthae
 Pyrola americana Sweet
 Chrysomyxa pirolata
 Pyrola asarifolia Michx.
 Chrysomyxa pirolata
 Pucciniastrum pyrolae
 Pyrola bracteata Hook.
 Chrysomyxa pirolata
 Pyrola chlorantha Sw. (P. virens Schweigg.)
 Chrysomyxa pirolata
 Pucciniastrum pyrolae
 Pyrola elliptica Nutt.
 Chrysomyxa pirolata
 Pucciniastrum pyrolae
 Pyrola grandifolia Radius
 Chrysomyxa pirolata
 Pyrola minor L.
 Chrysomyxa pirolata
 Pyrola picta Smith
 Chrysomyxa pirolata
 Pyrola rotundifolia Michx.
 Pucciniastrum pyrolae
 Pyrola secunda L.
 Chrysomyxa pirolata
 Pucciniastrum pyrolae
 Pyrola uliginosa T. & G.
 Chrysomyxa pirolata
 Pyrus communis L.
 Gymnosporangium clavariaeforme
 Pyrus sp.
 Gymnosporangium clavipes
 Ranunculus abortivus L.
 Puccinia eatoniae var. ranunculi
 Ranunculus acris L.
 Puccinia rubigo-vera var. agropyrina
 Ranunculus affinis R.Br.
 Puccinia rubigo-vera var. agropyrina
 Ranunculus cariophyllus Hook.
 Puccinia rubigo-vera var. agropyrina
 Ranunculus cymbalaria Pursh
 Puccinia rubigo-vera var. agropyri
 P. rubigo-vera var. agropyrina
 Ranunculus macounii Britt.
 Uromyces alopecuri
 Ranunculus micranthus Nutt.
 Uromyces alopecuri
 Ranunculus recurvatus Poir.
 Tranzschelia pruni-spinosae
 Ranunculus repens L.
 Uromyces dactylidis
 Ranunculus sceleratus L.
 Uromyces alopecuri

- Ranunculus suksdorfii* Gray
 Puccinia ranunculi
Rhamnus alnifolia L'Her.
 Puccinia coronata var. *calamagrostis*
Rhamnus cathartica L.
 Puccinia coronata var. *avenae*
Rhamnus davurica Pall.
 Puccinia coronata
Rhamnus frangula L.
 Puccinia coronata var. *agrostis*
Rhamnus purshiana DC.
 Puccinia coronata
Rhamnus utilis Decne.
 Puccinia coronata
Rheum rhaponticum L.
 Puccinia phragmites
Rhododendron lapponicum (L.) Wahl.
 Chrysomyxa ledi var. *rhododendri*
Rhodora canadensis (L.) Carr.
 Pucciniastrum myrtilli
Rhus aromatica Ait.
 Pileolaria toxicodendri
Rhus radicans L.
 Pileolaria toxicodendri
Rhus toxicodendron auct.
 Pileolaria toxicodendri
Rhynchospora alba (L.) Vahl
 Uromyces rhynchosporae
Ribes americanum Mill.
 Puccinia caricis var. *grossulariata*
Ribes bracteosum Dougl.
 Cronartium ribicola
 Puccinia caricis var. *grossulariata*
Ribes echinatum Lindl.
 Cronartium ribicola
 Melampsora ribesii-purpureae
 Puccinia parkerae
Ribes glandulosum Gauer
 Puccinia caricis var. *grossulariata*
Ribes grossularia L.
 Cronartium ribicola
 Puccinia caricis var. *grossulariata*
Ribes hudsonianum Richards.
 Puccinia caricis var. *grossulariata*
Ribes lacustre (Pers.) Poir.
 Puccinia caricis var. *grossulariata*
 P. parkerae
Ribes laxiflorum Pursh
 Puccinia caricis var. *grossulariata*
Ribes nigrum L.
 Cronartium ribicola
 Puccinia caricis var. *grossulariata*
Ribes setosum Lindley
 Puccinia caricis var. *grossulariata*
Ribes triste Pallas
 Puccinia ribis
Ribes spp.
 Cronartium ribicola
 Puccinia caricis var. *grossulariata*
Rosa acicularis Lindl.
 Phragmidium rosae-acicularis
Rosa blanda Ait.
 Phragmidium americanum
 P. montivagum
 P. speciosum
Rosa bourgeauiana Crépin
 Phragmidium montivagum
 P. rosae-acicularis
Rosa californica C. & S.
 Phragmidium rosae-californicae
Rosa gymnocarpa Nutt.
 Phragmidium rosae-californicae
Rosa macounii Greene
 Phragmidium speciosum
Rosa nutkana Presl
 Phragmidium rosae-acicularis
 P. rosae-californicae
Rosa pisocarpa Gray
 Phragmidium rosae-californicae
Rosa suffulta Greene
 Phragmidium rosicola
 P. rosae-acicularis
 P. rosae-arkansanae
Rosa virginiana Mill.
 Phragmidium americanum
 P. speciosum
Rosa spp.
 Phragmidium americanum
 P. disciflorum
 P. rosae-pimpinellifoliae
 P. rosae-arkansanae
 P. rosae-acicularis
 P. rosae-californicae
 P. rosicola
 P. speciosum
 P. subcorticinum
 P. montivagum
Rubus acaulis Michx.
 Gymnoconia peckiana
 Pucciniastrum arcticum
Rubus arcticus L.
 Gymnoconia peckiana
 Pucciniastrum arcticum
Rubus idaeus L. var. *strigosus* Maxim.
 Phragmidium rubi-idaei
Rubus leucodermis Dougl.
 Phragmidium rubi-idaei
Rubus melanolasius Focke
 Pucciniastrum americanum
 Phragmidium rubi-idaei
Rubus nigrobaccus Bailey
 Gymnoconia peckiana
Rubus occidentalis L.
 Phragmidium rubi-idaei
Rubus odoratus L.
 Phragmidium rubi-odorati
Rubus parviflorus Nutt.
 Phragmidium occidentale
Rubus procumbens Muhl.
 Kuenhneola uredinis
Rubus pubescens Raf.
 Kuehneola uredinis
 Pucciniastrum arcticum

- Rubus randii* (Bailey) Rydb.
 Gymnoconia peckiana
Rubus strigosus Michx.
 Phragmidium rubi-idaei
 Pucciniastrum americanum
Rubus triflorus Richards.
 Gymnoconia peckiana
 Pucciniastrum arcticum
Rubus spp.
 Gymnoconia peckiana
 Phragmidium rubi-idaei
 Pucciniastrum americanum
 P. arcticum
Rudbeckia ampla A. Nels.
 Uromyces perigynius
Rudbeckia laciniata L.
 Uromyces perigynius
 U. rudbeckiae
Rumex britannica L.
 Puccinia ornata
Rumex mexicanus Meisn.
 Puccinia phragmitis
Rumex occidentalis S. Wats.
 Puccinia ornata
 P. phragmitis
Rumex sp.
 Puccinia ornata
- Salicornia herbacea* L.
 Uromyces peckianus
Salicornia pacifica Standl.
 Uromyces peckianus
Salix alba L. var. *vitellina* L.
 Melampsora abieti-capraearum
Salix amygdaloides Anders.
 Melampsora bigelowii
Salix anglorum Cham.
 Melampsora arctica
Salix arbusculoides Anders.
 Melampsora arctica
Salix balsamifera (Hook.) Barratt
 Melampsora arctica
Salix bebbiana Sarg.
 Melampsora abieti-capraearum
 M. ribesii-purpurea
Salix candida Flugge
 Melampsora abieti-capraearum
Salix cordata Muhl.
 Melampsora abieti-capraearum
Salix glaucops Anders.
 Melampsora arctica
Salix myrtillofolia Anders.
 Melampsora arctica
Salix petrophila Rydb.
 Melampsora arctica
Salix purpurea L. var. *gracilis* Anders.
 Melampsora abieti-capraearum
Salix rubra Richards.
 Melampsora abieti-capraearum
Salix spp.
 Melampsora bigelowii
 M. arctica
- Sanicula marilandica* L.
 Puccinia marylandica
Sanicula sp.
 Puccinia marylandica
Sarcobatus vermiculatus (Hook.) Torr.
 Puccinia aristidae
Saxifraga aizoides L.
 Puccinia pazschkei var. *jueliana*
Saxifraga bronchialis L.
 Puccinia pazschkei var. *tricuspidatae*
Saxifraga cernua L.
 Puccinia heucherae var. *saxifragae*
Saxifraga ferruginea Graham
 Puccinia pazschkei var. *jueliana*
Saxifraga hieracifolia Waldst. & Kit.
 Puccinia heucherae var. *saxifragae*
Saxifraga lyallii Engler (*Micranthes* l. (Engler)
 Small
 Puccinia heucherae var. *heucherae*
Saxifraga mertensiana Bong.
 Puccinia pazschkei var. *heterisiae*
Saxifraga nivalis L.
 Puccinia heucherae var. *saxifragae*
Saxifraga occidentalis S. Wats. ssp. *rufidulus*
 (Small) Basigalupi
 Puccinia heucherae var. *saxifragae*
Saxifraga oppositifolia L.
 Puccinia fischeri
 P. pazschkei var. *oppositifoliae*
Saxifraga punctata sspp.
 Puccinia heucherae var. *austroberingiana*
Saxifraga rivularis L.
 Puccinia heucherae var. *saxifragae*
Saxifraga tenuis (Wallr.) Sm.
 Puccinia heucherae var. *saxifragae*
Saxifraga tricuspidata Rottb. (*Leptasea* t.
 (Rottb.) Haw.)
 Puccinia pazschkei var. *tricuspidatae*
Saxifraga virginiana Michx.
 Puccinia heucherae var. *saxifragae*
Scirpus atrovirens Muhl.
 Puccinia angustata
Scirpus cyperinus (L.) Kunth
 Puccinia angustata
Scirpus fluviatilis (Torr.) Gray
 Uromyces scirpi
Scirpus microcarpus Presl
 Puccinia angustata
 P. mcclatchieana
Scirpus paludosus A. Nels.
 Uromyces scirpi
Scirpus validus Vahl
 Puccinia obtecta
 Uromyces scirpi
Scolochloa festucacea (Willd.) Link
 Puccinia coronata
Sedum stenopetalum Pursh
 Puccinia rydbergii
Secale cereale L.
 Puccinia graminis
 P. rubigo-vera var. *secalis*
Sempervivum tectorum L.
 Endophyllum sempervivi

- Senecio columbianus* Greene
 Puccinia extensicola var. *hieraciata*
Senecio flavulus Greene
 Puccinia extensicola var. *hieraciata*
Senecio triangularis Hook.
 Puccinia angustata
 P. subcircinata
Senecio willingii Greenm.
 Puccinia recedens
Shepherdia argentea Nutt.
 Puccinia caricis-shepherdiae
Shepherdia canadensis (L.) Nutt.
 Puccinia caricis-shepherdiae
 P. coronata
Sibbaldiopsis tridentata (Sol.) Rydb.
 Pucciniastrum potentillae
Sideranthus spinulosus (Pursh) Sweet
 Puccinia grindeliae
Sisymbrium altissimum L.
 Puccinia aristidae
Sium cicutaefolium Schrank
 Uromyces scirpi
Smilacina stellata (L.) Desf.
 Puccinia amphigena
 P. sessilis
 Uromyces acuminatus var. *magnatus*
Smilax herbacea L.
 Puccinia amphigena
Solidago canadensis L.
 Coleosporium solidaginis
Solidago gilvocanescens (Rydb.) Smyth
 Coleosporium solidaginis
Solidago glaberrima Mart.
 Puccinia stipae
Solidago glabrum Mart.
 Coleosporium solidaginis
Solidago mollis Bartl.
 Puccinia stipae
Solidago multiradiata Ait.
 Coleosporium solidaginis
Solidago nemoralis Ait.
 Puccinia extensicola var. *solidaginis*
Solidago patula Muhl.
 Coleosporium solidaginis
Solidago puberula Nutt.
 Puccinia virgaureae
Solidago rigida L.
 Puccinia extensicola var. *solidaginis*
 P. stipae
Solidago serotina Ait.
 Coleosporium solidaginis
 Puccinia extensicola var. *solidaginis*
Solidago uliginosa Nutt.
 Coleosporium solidaginis
Solidago sp.
 Puccinia stipae
Sorbus americana Marsh.
 Gymnosporangium aurantiacum (G. cornutum)
Sorbus occidentalis (Wats.) Greene
 Gymnosporangium nootkatense
 G. juniperinum (G. tremelloides)
- Sorbus scopulina* Greene
 Gymnosporangium aurantiacum (G. cornutum)
 G. juniperinum (G. tremelloides)
Sorbus sitchensis Roem.
 Gymnosporangium juniperinum (G. tremelloides)
Sparganium eurycarpum Engelm.
 Uromyces sparganii
Spartina alterniflora Loisel.
 Uromyces acuminatus
Spartina gracilis Trin.
 Puccinia distichlidis
 Uromyces acuminatus
Spartina pectinata Link (S. michauxiana Hitchc.)
 Puccinia distichlidis
 P. seymouriana
 P. sparganioides
 Uromyces acuminatus
Spartina spp.
 Puccinia distichlidis
Spergularia canadensis (Pers.) D. Don
 Uromyces acuminatus var. *spartinae*
Sphaeralcea coccinea (Nutt.) Rydb.
 Puccinia sherardiana
Sphenopholis obtusata (Michx.) Scribn.
 Puccinia eatoniae
Sphenopholis pallens (Spreng.) Scribn.
 Puccinia eatoniae
Spinacia oleracea L.
 Puccinia aristidae
Sporobolus cryptandrus (Torr.) Gray
 Puccinia graminis
Steironema ciliatum (L.) Raf.
 Puccinia dayi
 P. distichlidis
Stellaria graminea L.
 Melampsorella cerastii
Stellaria longifolia Muhl.
 Puccinia arenariae
Stellaria longipes Goldie
 Puccinia arenariae
 Melampsorella cerastii
Stipa comata Trin. & Rupr.
 Puccinia stipae
Stipa spartea Trin.
 Puccinia stipae
Stipa tweedyi Scribn. & Vasey
 Puccinia stipae
Stipa viridula Trin.
 Puccinia scaber
Suaeda maritima (L.) Dumort
 Uromyces peckianus
Symphoricarpos albus (L.) Blake
 Puccinia crandallii
 P. symphoricarpi
Symphoricarpos occidentalis Hook.
 Puccinia crandallii
Symphoricarpos spp.
 Puccinia crandallii

- Taraxacum dumetorum Greene
 Puccinia hieracii
 Taraxacum kok-saghyz Rod.
 Puccinia hieracii
 Taraxacum vulgare (Lam.) Schr.
 Puccinia hieracii
 P. variabilis
 Tellima grandiflora (Pursh) Dougl.
 Puccinia heucherae var. austroberingiana
 Thalictrum alpinum L.
 Puccinia rubigo-vera var. agropyri
 Thalictrum dasycarpum Fisch. & Lall.
 Puccinia rubigo-vera var. agropyrina
 Tranzschelia thalictri
 Thalictrum dioicum L.
 Puccinia rubigo-vera var. agropyri
 Thalictrum polygamum Muhl.
 Tranzschelia thalictri
 Thalictrum venulosum Trel.
 Puccinia rubigo-vera var. agropyri
 P. rubigo-vera var. agropyrina
 Tranzschelia thalictri
 Thalictrum sp.
 Tranzschelia thalictri
 Thlaspi arvense L.
 Puccinia aristidae
 Tiarella cordifolia L.
 Puccinia heucherae var. heucherae
 Tiarella unifoliata Hook.
 Puccinia heucherae var. heucherae
 Tolmiea menziesii (Pursh) T. & G.
 Puccinia heucherae var. heucherae
 Trautvetteria grandis Nutt.
 Puccinia pulsatillae
 Trientalis americana Pursh
 Puccinia karelica
 Trifolium dubium Sibth.
 Uromyces minor
 Trifolium hybridum L.
 Uromyces nerviphilus
 U. trifolii var. hybridi
 Trifolium incarnatum L.
 Uromyces trifolii var. trifolii-repentis
 Trifolium medium L.
 Uromyces trifolii var. fallens
 Trifolium microdon H. & A.
 Uromyces minor
 Trifolium oliganthum Steud.
 Uromyces minor
 Trifolium pratense L.
 Uromyces trifolii var. fallens
 U. nerviphilus
 Trifolium repens L.
 Uromyces nerviphilus
 U. trifolii var. trifolii-repentis
 Triglochin maritima L.
 Puccinia aristidae
 Triodia flava (L.) Smyth
 Puccinia windsoriae
 Trisetum spicatum (L.) Ricker
 Puccinia monoica
 Triticum aestivum L.
 Puccinia glumarum
 P. graminis
 P. rubigo-vera var. tritici
 Triticum dicoccum Schrank.
 Puccinia graminis
 Triticum durum Desf.
 Puccinia graminis
 P. rubigo-vera var. tritici
 Triticum spelta L.
 Puccinia rubigo-vera var. tritici
 Tsuga canadensis (L.) Carr.
 Melampsora abietis-canadensis
 M. farlowii
 Pucciniastrum myrtilli
 Tsuga heterophylla (Raf.) Sarg.
 Uraecium holwayi
 Tsuga mertensiana (Bong.) Carr.
 Uraecium holwayi
 Tussilago farfara L.
 Puccinia poarum
 Urtica dioica L.
 Puccinia caricis var. urticata
 Urtica gracilis Ait.
 Puccinia caricis var. urticata
 Urtica lyallii Wats.
 Puccinia caricis var. urticata
 Vaccinium corymbosum L.
 Pucciniastrum myrtilli
 Vaccinium myrtilloides L.
 Pucciniastrum myrtilloides
 P. goeppertianum
 Vaccinium oreophilum Rydb.
 Pucciniastrum goeppertianum
 Vaccinium parvifolium Smith
 Chrysomyxa ledi var. vaccinii
 Vaccinium pennsylvanicum Lam.
 Pucciniastrum myrtilloides
 P. goeppertianum
 Vaccinium vitis-idaea L.
 Pucciniastrum goeppertianum
 Vaccinium spp.
 Pucciniastrum goeppertianum
 Valeriana septentrionalis Rydb.
 Puccinia commutata
 Valeriana sitchensis Bong.
 Puccinia commutata
 Veratrum californicum Durand
 Puccinia veratri
 Veratrum eschscholtzianum (R. & S.) Rydb.
 Puccinia veratri
 Veronica alpina L. var. unalaschcensis C. & S.
 (V. wormskjoldii R. & S.)
 Puccinia albulensis
 Viburnum cassinoides L.
 Coleosporium viburni
 Viburnum lentago L.
 Coleosporium viburni
 Viburnum pauciflorum Pylaie
 Puccinia linkii

- Vicia americana* Muhl.
 Uromyces coloradensis var. *campester*
 U. coloradensis var. *maritimus*
 U. fabae
Vicia angustifolia Reichard
 Uromyces fabae
Vicia cracca L.
 Uromyces coloradensis var. *campester*
 U. fabae
Vicia oregana Nutt.
 Uromyces coloradensis var. *campester*
Vicia sativa L.
 Uromyces fabae
Vicia sparsifolia Nutt.
 Uromyces coloradensis var. *campester*
 U. fabae
Vinca major L.
 Puccinia vincae
Viola adunca Smith
 Puccinia violae
Viola canadensis L.
 Puccinia violae
 P. ornatula
Viola conspersa Reichenb.
 Puccinia viola
Viola eriocarpa Schw.
 Puccinia violae
Viola glabella Nutt.
 Puccinia ornatula
Viola langsдорфii Fisch.
 Puccinia fergussoni
Viola mackloskeyi Lloyd
 Puccinia fergussoni
Viola nephrophylla Greene
 Puccinia ellisiana
 P. fergussoni
 P. violae
Viola odorata L.
 Puccinia violae
- Viola orbiculata* Geyer
 Puccinia canadensis
Viola pedatifida G. Don.
 Puccinia violae
Viola pubescens Ait.
 Puccinia violae
Viola renifolia Gray
 Puccinia violae
Violae rugulosa Greene
 Puccinia ornatula
Viola septentrionalis Greene
 Puccinia violae
Viola sororia Willd.
 Puccinia violae
Violae tricolor L.
 Puccinia violae
Viola spp.
 Puccinia ellisiana
 P. violae
- Waldsteinia fragarioides* (Michx.) Tratt.
 Puccinia waldsteiniae
- Xanthium commune* Britt.
 Puccinia xanthii
Xanthium chinense Mill.
 Puccinia xanthii
- Zea mays* L.
 Puccinia sorghi
Zizia aurea (L.) Koch
 Puccinia angelicae
Zizia cordata (Walt.) Koch
 Puccinia ziziae
- Zygadenus chloranthus* Richards.
 Puccinia atropuncta
Zygadenus elegans Pursh
 Puccinia grumosa
Zygadenus gramineus Rydb.
 Uromyces zygadeni

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