

THE APHIDS (HOMOPTERA:APHIDIDAE) OF BRITISH COLUMBIA

18. FURTHER ADDITIONS

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Abstract

Five species of aphids and new host records are added to the taxonomic list of the aphids of British Columbia.

INTRODUCTION

Thirteen previous lists of the aphids of British Columbia (Forbes, Frazer and MacCarthy 1973; Forbes, Frazer and Chan 1974; Forbes and Chan 1976, 1978, 1980, 1981, 1983, 1984, 1985, 1986a, 1986b, 1987; Forbes, Chan and Footitt 1982) recorded 392 species of aphids collected from 919 hosts or in traps. The records include 1764 aphid-host plant associations. The present list adds 5 aphid species (indicated with an asterisk in the list) and 279 aphid-host plant associations to the previous lists. One hundred and thirty-three of the new aphid-host plant associations are plant species not recorded before. The additions bring the number of known aphid species in British Columbia to 397. Aphids have now been collected from 1052 different host plants and the total number of aphid-host plant associations is 2043. The aphid names are listed alphabetically by species and are in conformity with Eastop and Hille Ris Lambers (1976), except *Sitobion dorsatum* (Richards) has been changed back to *Aulacorthum dorsatum* Richards based on karyotyping ($2n = 12$, R.L. Blackman, personal communication). Two new collection sites are tabulated in Table I. The location of each collection site can be determined from Table I or from the tables of localities in the previous papers. The reference points are the same as those shown on the map which accompanies the basic list (Forbes, Frazer and MacCarthy 1973).

Table 1. Collection sites of aphids, with airline distances from reference points.

Locality	Reference Point	Dir	Distance	
			km	mi
Buntzen Lake	Vancouver	NE	32	20
Ellison Lake	Kamloops	SE	70	44

LIST OF SPECIES

ABIETINUM (Walker), ELATOBIIUM

Picea glauca: Surrey, Oct19/87.

ABSINTHII (Linnaeus), MACROSIPHONIELLA

Artemisia arborescens 'Powis Castle': Vancouver (UBC), Aug20/87.

AEGOPODII (Scopoli), CAVARIELLA

Anthriscus cerefolium: Vancouver (CDA), Dec15/87.

Hedera helix: Vancouver (UBC), May14/58

Phygellus aequalis 'Yellow Trumpet': Vancouver (UBC), Nov27/87.

AGATHONICA Hottes, AMPHOROPHORA

Rubus idaeus: Abbotsford, Jul9/59; Chilliwack, Jul8/59; Sardis, Jun15/59.

Rubus occidentalis 'Munger': Vancouver (CDA), Jan22/88.

ALBIFRONS Essig, MACROSIPHUM

Lupinus arboreus: Vancouver (UBC), May6/87, Dec7/87.

Lupinus nootkatensis var. *nootkatensis*: Vancouver (UBC), May6/87.

ALNI (de Geer), PTEROCALLIS

Alnus rubra: Buntzen Lake, Jul25/87; Tofino, Aug7/87; Vancouver (UBC), Aug28/87.

ANNULATUS (Hartig), TUBERCULATUS

Quercus robur: Vancouver (UBC), Jul23/87.

ASCALONICUS Doncaster, MYZUS

Arctostaphylos uva-ursi: Vancouver (UBC), Jun19/87.

Capsella bursa-pastoris: Bowen Island, Jun23/87.

Clematis orientalis 'Bill Mackenzie': Vancouver (UBC), Nov19/87, Nov27/87.

Dicentra formosa ssp. *formosa*: Vancouver (UBC), May6/87.

Fragaria x ananassa 'Burlington': Vancouver (UBC), Aug20/87.

Fragaria x ananassa 'Totem': Vancouver (UBC), Apr8/87.

Geum rivale: Vancouver (UBC), Dec7/87.

Liriope muscari 'Silvery Sunproof': Vancouver (UBC), Nov27/87.

Malva pusilla: Vancouver (UBC), Mar10/87.

Potentilla rubricaulus: Vancouver (UBC), Dec7/87.

Solidago missouriensis var. *missouriensis*: Vancouver (UBC), May6/87.

ATRIPLICIS (Linnaeus), HAYHURSTIA

Amaranthus retroflexus: Soda Creek, Jul16/57.

AVELLANAE (Schrank), CORYLOBIUM

Corylus cornuta var. *californica*: Vancouver, May16/87, Jun9/87.

AVENAE (Fabricius), SITOBION

Dactylis glomerata: Vancouver, May27/87.

Danthonia carphoides: Vancouver (UBC), Nov27/87.

Iris pallida 'Variegata': Vancouver (UBC), Sep10/87.

BERBERIDIS (Kaltenbach), LIOSOMAPHIS

Berberis buxifolia: Burnaby, Sep12/87.

*BETULAE (Koch), EUCERAPHIS

Betula pendula: Vancouver (UBC), Nov12/87.

BRASSICAE (Linnaeus), BREVICORYNE

Capsella bursa-pastoris: Richmond, Jul17/87; Vancouver (UBC), Nov12/87.

Raphanus sativus: Richmond, Jul9/87.

CALIFORNICA Hille Ris Lambers, NEARCTAPHIS

Sorbus aucuparia: Vancouver, Jul6/86.

CANADENSE (Robinson), DELPHINIOBIUM

Lonicera involucrata: Tofino, Aug6/87.

CAPILANOENSE Robinson, AULACORTHUM

Rubus spectabilis: North Vancouver, Jul15/65; Vancouver, Jun3/87, Jun22/87; Vancouver (UBC), Jun4/87.

CARDUI (Linnaeus), BRACHYCAUDUS

Arctium minus: Keremeos, Jul28/67.

Senecio vulgaris: Vancouver (UBC), Jan14/87.

CARPINI (Koch), MYZOCALLIS

Carpinus betulus: Vancouver, Nov26/87.

CERASI (Fabricius), MYZUS

Prunus serrulata 'Kwanzan': Vancouver (UBC), Apr28/87.

CERTUS (Walker), MYZUS

Anthriscus cerefolium: Vancouver (CDA), Jan12/88.

Rheum rhabarbarum "Victoria": Vancouver (CDA), Aug19/87.

CIRCUMFLEXUM (Buckton), AULACORTHUM

Akebia quinata: Vancouver (UBC), May5/87, Nov24/87.

Anthriscus cerefolium: Vancouver (CDA), Dec15/87.

Aquilegia 'Mrs Scott Elliott': Vancouver (UBC), Jun4/87.

Arachis hypogaea: Vancouver (CDA), Sep21/87.

Claytonia sibirica var. *sibirica*: Vancouver (CDA), Dec15/87.

Fragaria x ananassa 'Totem': Vancouver (UBC), Aug18/87.

Fragaria vesca 'Semperflorens': Vancouver (CDA), Sep21/87.

Gaultheria shallon: Vancouver (UBC), May19/87.
Hypericum calycinum: Vancouver (UBC), Apr8/87, Jun4/87.
Malus sylvestris: Vancouver (UBC), Apr15/87, May15/87.
Onoclea sensibilis: Vancouver (UBC), May12/87.
Oxalis corniculata: Vancouver (UBC), Jun22/87.
Pernettya mucronata 'Pink Pearl': Vancouver (UBC), Apr6/87.
Physalis pubescens: Vancouver (CDA), Dec11/87.
Pityrogramma triangularis var. *triangularis*: Vancouver (UBC), May12/87.
Polystichum lonchitis: Vancouver (UBC), May12/87.
Ranunculus occidentalis: Vancouver, Jun10/87.
Salvia splendens 'St John's Fire': Vancouver (UBC), Jun22/87.
Taraxacum officinale: Vancouver (UBC), Apr8/87.
Vaccinium corymbosum 'Blue Haven': Vancouver (UBC), Jun4/87.
Vaccinium macrocarpon 'McFarlin': Vancouver (UBC), May15/87.
Vaccinium vitis-idaea ssp. *minus*: Vancouver (UBC), Apr6/87.

CORNII (Fabricius), ANOECIA

Fuchsia x hybrida: Vancouver, Aug26/87.
Philadelphus lewisii: Vancouver, Aug26/87.
Rosa rugosa 'Alba': Vancouver, Aug26/87.

CORYLI (Goeze), MYZOCALLIS

Corylus cornuta: Vancouver (UBC), Jun4/87.

COWENI (Cockerell), TAMALIA

Arctostaphylos uva-ursi: Vancouver (UBC), May12/87, Jun19/87, Aug6/87.

CRATAEGARIUS (Walker), OVATUS

Mentha sp.: Vancouver (UBC), Jun12/87.
Mentha spicata: Vancouver (UBC), Jun15/87.

*CRATAEGIFOLIAE SSP OCCIDENTALIS Hille Ris Lambers, NEARCTAPHIS

Prunus avium 'Mazzard': Vancouver (UBC), Sep15/87.

CRYSTLEAE SSP BARTHOLOMEWI (Essig), ILLINOIA

Lonicera involucrata: Tofino, Aug6/87.

CYTISORUM Hartig, APHIS

Cytisus scoparius: Bowen Island, May18/87; Tofino, Aug7/87.

DAPHNIDIS Börner, MACROSIPHUM

Daphne x burkwoodii 'Somerset': Vancouver (UBC), Nov19/87.
Daphne laureola: Vancouver (UBC), May29/87.
Daphne x mantensiana: Vancouver (UBC), Oct9/87.

DAVIDSONI (Mason), ILLINOIA

Arnica sp.: Garibaldi Provincial Park, Aug3/59.

DIRHODUM (Walker), METOPOLOPHIUM

Rosa rugosa 'Hansa': Vancouver (UBC), Oct30/87.
Rosa 'White Grootendorst': Vancouver (UBC), Apr10/87.
Zea mays 'Sunny Vee': Vancouver (CDA), Jan22/88.

DORSATUM Richards, AULACORTHUM

Gaultheria shallon: Vancouver (UBC), May5/87, May19/87.

EPILOBII Kaltenbach, APHIS

Epilobium ciliatum: Williams Lake, Aug4/58.

EQUISETI Holman, SITOBION

Equisetum arvense: Vancouver, Jun27/87.

ERIGERONENSIS (Thomas), UROLEUCON

Conyza canadensis var. *canadensis*: Vancouver (UBC), Sep29/87.

EUPHORBIAE (Thomas), MACROSIPHUM

Amaranthus retroflexus: Brentwood, Aug5/59.

FABAE Scopoli, APHIS

Abutilon 'Moon Chimes': Vancouver (UBC), Jul23/87, Oct7/87.

Allium ampeloprasum porrum group: Brentwood, Jul5/59.

Amaranthus retroflexus: Brentwood, Aug5/59.

Cucurbita pepo: Vancouver, Sep19/58.

Dipsacus fullonum ssp. *fullonum*: Vancouver (UBC), Aug1/86.

Impatiens capensis Vernon, Sep29/42.

Liriodendron tulipifera: Vancouver (UBC), Sep3/86.

FAGI (Linnaeus), PHYLLAPHIS

Fagus sylvatica 'Purpurea Pendula': Vancouver (UBC), Jun3/87.

Fagus sylvatica 'Zlatia': Vancouver (UBC), Jun3/87.

FARINOSA Gmelin, APHIS

Salix sp.: Vancouver, May20/87, May26/87.

FIMBRIATA Richards, FIMBRIAPHIS

Capsella bursa-pastoris: Vancouver (CDA), May25/87.

Fragaria x ananassa 'Totem': Abbotsford, Jan21/88.

Fragaria vesca 'Semperflorens': Vancouver (CDA), May22/87.

Rosa 'Beauty Secret': Vancouver (CDA), May22/87.

FLAVA (Davidson), OESTLUNDIELLA

Alnus rubra: Vancouver (UBC), Jul30/87, Aug28/87.

FOENICULI (Passerini), HYADAPHIS

Anthriscus cerefolium: Vancouver (CDA), Sep15/87.

Daucus carota: Vancouver (CDA), Dec14/87.

Lonicera japonica: Vancouver (CDA), Jan22/88.

Lonicera sempervirens 'Flava': Vancouver (UBC), May6/87, Nov14/85.

FRAGAEFOLII (Cockerell), CHAETOSIPHON

Fragaria x ananassa 'Totem': Abbotsford, Nov2/87; Vancouver (UBC), Apr8/87, May14/87.

Fragaria vesca 'Semperflorens': Vancouver (UBC), Apr8/87.

FRAGARIAE (Walker), SITOBION

Rubus discolor: Vancouver, May4/87, May6/87.

GALEOPSIDIS (Kaltenbach), CRYPTOMYZUS

Galeopsis tetrahit: Surrey, Jul10/56.

GENTNERI (Mason) FIMBRIAPHIS

Amelanchier laevis: Vancouver (UBC), Sep22/87.

Crataegus monogyna 'Alba': Vancouver, Jun9/87.

Photinia x fraseri: Vancouver, May6/87, Jun8/87.

GILLETTEI Davidson, EUCERAPHIS

Alnus rubra: Tofino, Aug6/87, Aug7/87; Vancouver (UBC), Sep4/87.

HELIANTHI Monell, APHIS

Helianthus annuus: Kamloops, Aug13/34, Sep5/57.

Oplopanax horridus: Vancouver (UBC), Apr10/59, Jun27/56.

HELICHRYSI (Kaltenbach), BRACHYCAUDUS

Achillea millefolium: Victoria, Jul12/60.

Arctostaphylos uva-ursi: Vancouver (UBC), May5/87, May 12/87.

Conyza canadensis var. *canadensis*: Vancouver (UBC), Dec30/86.

Erigeron acris ssp. *politus*: Vancouver (UBC), Nov19/87.

Gnaphalium uliginosum: Vancouver, Jun24/87.

Lupinus nootkatensis var. *nootkatensis*: Vancouver (UBC), May6/87.

Pelargonium denticulatum: Vancouver (UBC), Jun12/87.

Salix lanata: Vancouver (UBC), Apr22/87.

Solidago missouriensis var. *missouriensis*: Vancouver (UBC), May6/87.

Tanacetum vulgare: Vancouver, May6/87.

Vinca major: Vancouver (UBC), May6/87.

HERACLELLA Davis, APHIS

Conium maculatum: Prince George, Aug10/55

Heracleum sphondylium ssp. *montanum*: Manning Park, Aug20/87.

HIPPOPHAES (Walker), CAPITOPHORUS

Polygonum persicaria: Richmond, Jul29/87

HUMULI (Schrank), PHORODON

Humulus lupulus: Vancouver, May24/87.

IDAEI van der Goot, APHIS

Rubus idaeus: Vancouver, May28/60.*Rubus idaeus* ssp. *melanolasius*: Vancouver, Aug3/56

INSERTUM (Walker), RHOPALOSIPHUM

Malus sylvestris: Penticton, Jul27/67.

LACTUCAE (Linnaeus), HYPEROMYZUS

Lactuca serriola: Tofino, Aug9/87.*Sonchus asper*: Vancouver (UBC), Nov11/87.*Sonchus oleraceus*: Vancouver, Jun27/87.

LACTUCAE (Passerini), ACYRTHOSIPHON

Lactuca serriola: Richmond, Jul10/87.

LIRIODENDRI (Monell), ILLINOIA

Liriodendron tulipifera.: Vancouver, Aug21/87.

LONGICAUDA (Richards), EOESSIGIA

Spiraea douglasii: Vancouver, Jul8/87.*Spiraea douglasii* ssp. *menziesii*: Vancouver (UBC), Nov19/87.

MACROSIPHUM (Wilson), ACYRTHOSIPHON

Amelanchier laevis: Vancouver (UBC), Sep2/87.

MAIDIS (Fitch), RHOPALOSIPHUM

Avena sativa: Vancouver (CDA), Jan22/88.

MALVAE (Mosley), ACYRTHOSIPHON

Geranium sp.: Chilcotin. Jun11/31.

MAXIMA (Mason), ILLINOIA

Rubus parviflorus: Vancouver (UBC), May24/56.

MODESTUM (Hottes), MYZODIUM

Polytrichum juniperinum: Vancouver (UBC), Jul13/87.

NERVATA (Gillette), WAHLGRENIELLA

Arbutus menziesii: Vancouver (UBC), Dec7/87.

NYMPHAEAE (Linnaeus), RHOPALOSIPHUM

Actinidia chinensis 'Hayward': Vancouver (UBC), Sep15/87.*Alisma plantago-aquatica*: Vancouver, Aug28/87, Sep2/87.*Callitriche stagnalis*: Vancouver (UBC), Sep11/87.*Menyanthes trifoliata*: Vancouver, Aug28/57.*Myriophyllum spicatum*: Ellison Lake, Aug18/86.*Prunus avium* 'Mazzard': Vancouver (UBC), Sep15/87.

*OLIVEI Moran, UROLEUCON

Aster sp.: Vancouver, Jun18/57.

ORNATUS Laing, MYZUS

Akebia quinata: Vancouver (UBC), Nov24/87.*Arabidopsis thaliana*: Vancouver (UBC), Apr10/87.*Arctostaphylos uva-ursi*: Vancouver (UBC), Feb25/87.*Chrysanthemum balsamita*: Vancouver (UBC), Jun12/87.*Chrysanthemum leucanthemum*: Bowen Island, Jun22/87.*Cichorium intybus*: Vancouver (UBC), Jun26/87.*Clematis orientalis* 'Bill Mackenzie': Vancouver (UBC), Nov19/87, Nov27/87.*Diascia rigescens*: Vancouver (UBC), Dec7/87.*Epilobium ciliatum*: Vancouver (UBC), Jul16/87.*Erigeron acris* ssp. *politus*: Vancouver (UBC), Nov19/87.*Erodium cicutarium* ssp. *cutarium*: Vancouver (UBC), Dec8/87.*Fragaria x ananassa* 'Totem': Vancouver (UBC), May14/87.

- Fritillaria crassifolia*: Vancouver (UBC), Apr8/87.
Garrya elliptica: Vancouver (UBC), Jan13/88.
Geum rivale: Vancouver (UBC), Dec7/87.
Gnaphalium uliginosum: Vancouver, Jun24/87.
Helichrysum bracteatum: Vancouver (UBC), Sep29/87.
Lilium candidum: Vancouver (UBC), Apr8/87.
Meconopsis cambrica: Vancouver (UBC), Dec8/87.
Oxalis corniculata: Vancouver (UBC), Jun22/87.
Pernettya mucronata 'Pink Pearl': Vancouver (UBC), Apr6/87, May15/87.
Pernettya mucronata 'White Pearl': Vancouver (UBC), May6/87.
Potentilla caulescens: Vancouver (UBC), Dec7/87.
Potentilla fruticosa: Vancouver (UBC), Dec8/87.
Rhinopetalum bucharium: Vancouver (UBC), Apr8/87.
Rumex acetosella: Vancouver (UBC), May5/87, May6/87.
Salvia officinalis: Vancouver (UBC), Jun12/87.
Salvia officinalis 'Aurea': Vancouver (UBC), Nov27/87.
Salvia splendens 'St John's Fire': Vancouver (UBC), Jun22/87.
Sanguisorba officinalis ssp. *microcephala*: Vancouver (UBC), Nov19/87.
Sonchus oleraceus: Vancouver (UBC), Jul6/87.
Tulipa bakeri: Vancouver (UBC), Apr22/87.
Vaccinium corymbosum 'Northsky': Vancouver (UBC), Jun4/87.
Vaccinium macrocarpon 'McFarlin': Vancouver (UBC), May15/87.
Vaccinium vitis-idaea ssp. *minus*: Vancouver (UBC), Apr6/87.
Vinca major: Vancouver (UBC), May6/87.

PADI (Linnaeus), RHOPALOSIPHUM

- Liriope muscari* 'Silvery Sunproof': Vancouver (UBC), Nov27/87.
Zea mays: Vancouver (UBC), Aug28/59.

PARVIFLORI Hill, AMPHOROPHORA

- Rubus parviflorus*: Vancouver, May15/79.

PARVIFOLII Richards, MACROSIPHUM

- Pernettya mucronata* "Pink Pearl": Vancouver (CDA), Apr21/87.
Vaccinium parvifolium: Vancouver (UBC), Apr22/87, Jun4/87.

PASTINACAE (Linnaeus), CAVARIELLA

- Heracleum sphondylium* ssp. *montanum*: Manning Park, Aug20/87.

PENDERUM Robinson, UROLEUCON

- Grindelia integrifolia*: Point Atkinson, May5/57.

PERSICAE (Sulzer), MYZUS

- Amaranthus retroflexus*: Pemberton, Sep20/87.
Anthriscus cerefolium: Vancouver (CDA), Jan22/88.
Antirrhinum majus: Victoria, Apr4/58.
Beta vulgaris cicla group: Vancouver (UBC), Sep15/87.
Capsella bursa-pastoris: Pemberton, Sep20/87; Vancouver (UBC), Nov12/87.
Galeopsis tetrahit: Pemberton, Sep20/87.
Malva neglecta: Vancouver (UBC), Nov27/87, Dec7/87.
Nasturtium officinale: Pemberton, Sep20/87.
Physalis pubescens: Vancouver (CDA), Dec15/87.
Prunus avium 'Mazzard': Vancouver (UBC), Sep15/87.
Rumex crispus: Pemberton, Sep20/87.
Solanum nigrum: Pemberton, Sep20/87.
Solanum tuberosum: Pemberton, Sep3/87.

PINETI (Fabricius), SCHIZOLACHNUS

- Pinus mugo*: Lulu Island, Jun7/61

PISUM (Harris), ACYRTHOSIPHON

- Cytisus scoparius*: Tofino, Aug7/87.
Phaseolus vulgaris: Brentwood, Jul4/59.

PLANTAGINEA (Passerini), DYSAPHIS

Malus sylvestris: Penticton, Jul27/67; Vancouver (UBC), May22/57.

PLATANOIDIS (Schränk), DREPANOSIPHUM

Acer saccharum ssp. *grandidentatum*: Vancouver (UBC), Oct20/87.

*POLARIS Hille Ris Lambers, MYZUS

Cerastium fontanum ssp. *triviale*: Vancouver, Dec30/59.

POMI de Geer, APHIS

Chaenomeles speciosa: Vancouver, Jul20/58.

Crataegus monogyna 'Alba': Vancouver, Jun9/87.

Sorbus aucuparia: Vancouver, Jul6/86.

POPULIVENAE Fitch, PEMPHIGUS

Rumex acetosella: Vancouver (UBC), May5/87.

PRUNI (Geoffroy), HYALOPTERUS

Typha orientalis: Vancouver (UBC), Aug20/87.

PTERINIGRUM Richards, AULACORTHUM

Akebia quinata: Vancouver (UBC), Nov24/87.

Pieris japonica: Richmond, May23/67.

Rosa 'Beauty Secret': Vancouver (CDA), Dec8/87.

Vaccinium parvifolium: Tofino, Aug5/87.

RHAMNI (Clarke), SITOBION

Rhamnus purshiana: Vancouver (UBC), Aug12/87.

RIBIS (Linnaeus), CRYPTOMYZUS

Ribes sativum 'Red Lake': Vancouver (UBC), Jul23/87.

RIBISNIGRI (Mosley), NASONOVIA

Cichorium intybus: Vancouver (UBC), Jun26/87, Aug1/86.

Crepis capillaris: Richmond, Jul9/87.

Lactuca sativa: Cloverdale, May21/87; Vancouver, Sep11/87.

Lactuca serriola: Richmond, Jul17/87.

ROBINIAE (Gillette), APPENDISETA

Robinia pseudoacacia: Vancouver, May24/87.

ROSAE (Linnaeus), MACROSIPHUM

Centranthus ruber: Vancouver (UBC), Jun12/87, Jun26/87.

Centranthus ruber 'Atrococcineus': Vancouver (UBC), May25/87.

Dipsacus fullonum ssp. *fullonum*: Vancouver (UBC), Aug1/86.

Rosa 'A 22': Vancouver (UBC), Apr10/87, Apr29/87, May29/87, Jun25/87.

Rosa 'Admiral Rodney': Vancouver (UBC), Mar6/87.

Rosa 'Agnes': Vancouver (UBC), Aug12/87.

Rosa 'Amatsu Otome': Vancouver (UBC), Aug5/87, Sep2/87.

Rosa canina: Vancouver (UBC), May25/87.

Rosa 'Chicago Peace': Vancouver (UBC), Jan14/87.

Rosa damascena: Vancouver (UBC), Apr10/87.

Rosa 'Electron': Vancouver (UBC), Sep2/87.

Rosa 'Florentina': Vancouver (UBC), Sep2/87.

Rosa helenae: Vancouver (UBC), May29/87.

Rosa 'Iceberg': Vancouver (UBC), Sep2/87.

Rosa 'L 57': Vancouver (UBC), Apr10/87.

Rosa 'L 85': Vancouver (UBC), Apr10/87, Nov2/87.

Rosa 'Matangi': Vancouver (UBC), Feb25/87.

Rosa 'Mr. Chips': Vancouver (UBC), Mar6/87.

Rosa nutkana: Vancouver (UBC), May29/87.

Rosa 'Old Master': Vancouver (UBC), Aug5/87.

Rosa rubrifolia: Vancouver (UBC), May29/87, Jun25/87.

Rosa rugosa 'Alba': Vancouver (UBC), May5/87, May29/87, Sep10/87.

Rosa 'Sympathie': Vancouver (UBC), Apr10/87.

Rosa 'U O 4': Vancouver (UBC), Apr29/87.

Rosa virginiana: Vancouver (UBC), Apr29/87.

Rosa wichuraiana: Vancouver (UBC), Jun25/87.

Valeriana officinalis: Vancouver (UBC), Jun12/87.

ROSARUM (Kaltenbach), MYZAPHIS

Fragaria x ananassa 'Totem': Vancouver (CDA), Jan22/88.

Potentilla fruticosa: Vancouver, Sep12/87; Vancouver (UBC), Dec8/87.

Rosa 'A 22': Vancouver (UBC), Aug5/87.

Rosa 'Beauty Secret': Vancouver (CDA), Nov13/87.

Rosa 'Eddie's Jewel': Vancouver (UBC), Jun25/87.

Rosa luciae var. *onoei* 'Yakushima Bara': Vancouver (UBC), Nov19/87, Nov27/87.

RUSSELLAE (Hille Ris Lambers) UROLEUCON

Anaphalis margaritacea: Tofino, Aug6/87.

SALICARIAE Koch, APHIS

Cornus alba 'Argenteo-marginata': Vancouver (UBC), May21/59.

Cornus capitata: Vancouver (UBC), May21/59.

SALIGNUS (Gmelin), TUBEROLACHNUS

Salix sp.: Vancouver (UBC), Oct31/41.

SCLEROSA (Richards) NEARCTAPHIS

Crataegus douglasii: Vancouver (UBC), Jun27/56.

SEDI Kaltenbach, APHIS

Sedum spectabile: Vancouver, Nov10/87.

SOLANI (Kaltenbach), AULACORTHUM

Akebia quinata: Vancouver (UBC), May5/87.

Anchusa capensis: Vancouver (UBC), May25/87, Jun12/87.

Callistemon pallidus: Vancouver (UBC), Feb19/87.

Capsella bursa-pastoris: Bowen Island, Jun21/87, Jun23/87.

Cichorium intybus: Vancouver (UBC), Jun26/87.

Claytonia sibirica var. *sibirica*: Vancouver (CDA), Jan22/88.

Conyza canadensis var. *canadensis*: Vancouver (UBC), Dec30/86.

Digitalis lutea: Vancouver (UBC), May6/87.

Disporum hookeri var. *oreganum*: Vancouver (UBC), Apr14/87.

Fragaria x ananassa 'Totem': Vancouver (UBC), May14/87.

Fritillaria crassifolia: Vancouver (UBC), Apr8/87.

Fuchsia magellanica: Vancouver, Aug26/87.

Gaultheria shallon: Vancouver (UBC), May5/87.

Geranium molle: Bowen Island, Jun22/87.

Geranium viscosissimum var. *viscosissimum*: Vancouver (UBC), Apr3/86.

Geum peruvianum: Vancouver (UBC), Feb18/87.

Geum rivale: Vancouver (UBC), Dec7/87.

Gnaphalium uliginosum: Vancouver, Jun24/87.

Gomphrena globosa: Vancouver (CDA), Sep18/87.

Iris longipetala: Vancouver (UBC), Feb19/87.

Leucothoe fontanesiana: Vancouver (UBC), May19/87.

Limonium latifolium 'Violetta': Vancouver (UBC), Nov27/87.

Mentha spicata: Vancouver (UBC), Jun15/87.

Monarda fistulosa var. *menthifolia*: Vancouver (UBC), Jun12/87.

Morina coulteriana: Vancouver (UBC), Feb18/87.

Nicotiana glauca: Vancouver (CDA), Jan22/88.

Onoclea sensibilis: Vancouver (UBC), May12/87.

Pelargonium denticulatum: Vancouver (UBC), Jun12/87.

Pernettya mucronata 'White Pearl': Vancouver (UBC), May6/87.

Petasites palmatus: Vancouver, Jun22/87.

Physalis pubescens: Vancouver (CDA), Dec11/87.

Pieris japonica: Richmond, Jun15/87.

- Polypodium glycyrrhiza*: Vancouver (UBC), Aug5/87.
Potentilla rubricaulus: Vancouver (UBC), Dec7/87.
Prunus laurocerasus: Vancouver, May12/87.
Romneya coulteri: Vancouver (UBC), Jun12/87, Jun26/87.
Rubus calycinoides: Vancouver (UBC), Apr24/87.
Ruta graveolens: Vancouver (UBC), May25/87.
Ruta graveolens 'Variegata': Vancouver (UBC), May25/87.
Salvia officinalis: Vancouver (UBC), Jun12/87.
Sanguisorba officinalis ssp. *microcephala*: Vancouver (UBC), Nov19/87.
Santolina chamaecyparissus: Vancouver (UBC), Jun12/87.
Senecio abrotanifolius: Vancouver (UBC), Feb18/87.
Sibiraea altaiensis: Vancouver (UBC), Feb19/87.
Symphoricarpos albus: Vancouver, May4/87.
Verbena x hybrida: Vancouver (UBC), Aug1/86.
Viola tricolor: Vancouver (UBC), Jun12/87.

SPIRAEAE (MacGillivray), ILLINOIA

- Spiraea douglasii*: Vancouver, Jul8/87.

SPYROTHECAE Passerini, PEMPHIGUS

- Populus nigra* 'Italica': Langley, Aug6/87.

STANLEYI Wilson, MACROSIPHUM

- Sambucus racemosa* ssp. *pubens* var. *arborescens*: Bowen Island, Jul22/67; Vancouver (UBC), May6/87.

STAPHYLEAE (Koch), RHOPALOSIPHONINUS

- Anagallis monelli*: Vancouver (UBC), Feb18/87.
Anemone chinensis: Vancouver (UBC), Feb18/87.
Aquilegia caerulea var. *ochroleuca*: Vancouver (UBC), Feb19/87.
Arum korolkowii: Vancouver (UBC), Feb18/87.
Campanula rotundifolia: Vancouver (UBC), Feb18/87.
Campanula sartorii: Vancouver (UBC), Feb18/87.
Convolvulus althaeoides: Vancouver (UBC), Feb18/87.
Cyclamen cilicium: Vancouver (UBC), Feb18/87.
Dianthus deltoides: Vancouver (UBC), Feb19/87.
Erysimum wilczekianum: Vancouver (UBC), Feb19/87.
Fragaria chiloensis: Vancouver (UBC), Feb19/87.
Geum peruvianum: Vancouver (UBC), Feb18/87.
Goniolimon speciosum: Vancouver (UBC), Feb18/87.
Helleborus lividus: Vancouver (UBC), Feb18/87.
Helleborus niger: Vancouver (UBC), Feb18/87.
Hemerocallis sp. : Vancouver (UBC), Feb19/87.
Incarvillea olgae: Vancouver (UBC), Feb18/87.
Iris longipetala: Vancouver (UBC), Feb19/87.
Lilium formosanum var. *pricei*: Vancouver (UBC), Feb18/87.
Linum perenne ssp. *lewisii*: Vancouver (UBC), Feb18/87.
Luzula banksiana: Vancouver (UBC), Feb18/87.
Morina coulteriana: Vancouver (UBC), Feb18/87.
Oenothera odorata: Vancouver (UBC), Feb18/87.
Oenothera pilosella: Vancouver (UBC), Feb18/87.

Oenothera rosea: Vancouver (UBC), Feb18/87.
Papaver alpinum 'Plena': Vancouver (UBC), Feb18/87.
Pardanthopsis dichotoma: Vancouver (UBC), Feb18/87.
Phuopsis stylosa: Vancouver (UBC), Feb18/87.
Polemonium caeruleum ssp. *amygdalinum*: Vancouver (UBC), Feb18/87.
Pratia nummularia: Vancouver (UBC), Feb19/87.
Primula parryi: Vancouver (UBC), Feb19/87.
Salix vestita: Vancouver (UBC), Feb19/87.
Senecio abrotanifolius: Vancouver (UBC), Feb18/87.
Typha orientalis: Vancouver (UBC), Feb19/87.
Waldsteinia fragarioides: Vancouver (UBC), Feb18/87.

STELLARIAE Theobald, MACROSIPHUM

Anthriscus cerefolium: Vancouver (CDA), Jan12/88.
Gomphrena globosa: Vancouver (CDA), Jan22/88.

*TENUICAUDA Bartholomew, MACROSIPHUM

Apium graveolens: Vancouver (CDA), Sep9/87.
Capsella bursa-pastoris: Vancouver (CDA), Sep9/87.
Urtica dioica: Peace Arch Park, Aug3/87

TESTUDINACEUS (Ferne), PERIPHYLLUS

Acer saccharum ssp. *grandidentatum*: Vancouver (UBC), Oct20/87.

TILIAE (Linnaeus), EUCALLIPTERUS

Tilia platyphyllos 'Lacinia': Vancouver (UBC), Aug8/56.

ULMI (Linnaeus), ERIOSOMA

Ulmus americana: Vancouver (UBC), May22/58.

VARIANS Patch, APHIS

Epilobium angustifolium: Kamloops, Aug11/54; Tofino, Aug9/87.

WAKIBAE (Hottes), FIMBRIAPHIS

Capsella bursa-pastoris: Vancouver (CDA), Mar15/87.
Fragaria x ananassa 'Totem': Vancouver (CDA), Mar15/87.
Fragaria vesca 'Semperflorens': Vancouver (CDA), Mar15/87.
Rosa 'Beauty Secret': Vancouver (CDA), Mar15/87.
Rosa rugosa 'Hansa': Vancouver (UBC), Oct30/87.

XYLOSTEI (de Geer), PROCIPHILUS

Picea engelmannii: Nelson, Nov20/87.
Picea glauca: Quesnel, Oct6/87.

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