

# **A Checklist of the Rust Fungi of the British Isles**

**by  
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**British  
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Society**

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## Introduction

Wilson and Bisby published a 'List of British Uredinales' in 1954 as a precursor to 'British Rust Fungi' by Wilson and Henderson (1966). Since then Alan Bennell collated much information for me and we published 'British Rust Fungi: additions and corrections' in 1979. I had annotated an interleaved copy of the 1966 edition over the years and the further changes and additions since 1979 now warrant publication of a completely updated list.

The form of this new list follows closely that adopted by Wilson and Bisby in 1954. Accepted rust names are in bold. If a name or authority has been changed from the 1966 flora the previous names are indicated. Place of publication is cited only for names new to the 1966 rust flora.

The spore stages are indicated by the conventional symbols 0, I : II, III. Spore stages known, but not recorded in Britain, are often included in square brackets to encourage the search for them.

The names of native, naturalised and cultivated plants conform to those in Stace's New Flora of the British Isles (1997); the names of cultivated plants otherwise are according to the 'New Royal Horticultural Society's Dictionary of Gardening'. Where host names have changed (too often!) the name in Henderson and Wilson is cited as a synonym. Where I doubt the validity of a host record it is cited in quotes, e.g. '*Senecio jacobaea*'.

Certain frequent references have been much contracted to save space, e.g. WH p.xx refers to the Wilson and Henderson flora of 1966, Gj. p.xx to Gjaerum's 'A contribution to the rust flora (Uredinales) of Ireland'. All these are listed in the list of references.

The distribution data are usually restricted to presence in Great Britain including the Channel Islands (GB) and Ireland including Northern Ireland (Ir) except where the distribution is remarkable. No attempt has been made to assess frequency.

I have received the greatest help and encouragement from many colleagues and friends. Halvor B.Gjaerum (Ås, Norway) urged me to produce this new checklist and has helped immeasurably in its production. Alan Bennell and later Stefan Helfer (RBG Edinburgh) gave me invaluable assistance and the former has kindly allowed me to use his unpublished information on *Chrysomyxa rhododendri*. Dr. R.W.G. Dennis has over the years helped and encouraged me. My colleague Roy Watling has answered many queries and tolerated my interest in rusts on many excursions. I have received records from many mycological friends: Bruce Ing, Derek Reid, John Manners, E.A.Ellis, J.N.Gibbs, Derek Redfern, Nick Legon, Paul Kirk, Maura Scannell, Jerry Cooper, Nigel Stringer and many others noted in the references or in the text. Tom Preece has been particularly generous in extracting his many records and allowing me to use them.

Since the 1966 flora the following are additions to the list: *Chrysomyxa ledicola*, *Dietelia codiae*, *Gymnosporangium asiaticum*, *Mikronegeria fagi*, *Milesia magnusiana*, *Phragmidium fusiforme*, *Puccinia asperulae-cynanchicae*, *P. distincta*,

*P. kusanoi*, *P. lulinica*, *P. longicornis*, *P. mariana*, *P. scorzonericola*, *Uredo morvernensis*; of these only *Phragmidium fusiforme*, *Puccinia asperulae-cyananchiae*, *P. scorzonericola* and *Uredo morvernensis* are probably native. The rest are relatively recent introductions.

Names new to the list due to taxonomic or nomenclatural changes are: *Chrysomyxa pirolata* (*C. pyrolae*), *C. ledi* var. *rhododendri* (*C. rhododendri*), *Endocronartium pini* (*Peridermium pini*), *Frommeëlla tormentillae* (*Frommea obtusa*), *Puccinia graminis* subsp. *graminicola* (*P. graminis* p.p.), *P. impatientis* (*P. argentata*), *P. veronicae-longifoliae* (*P. veronicae* p.p.), *Uromyces gentianae* (*U. eugentianae*), *U. pisi-sativi* (*U. pisi*).

#### List of Species

***Chrysomyxa abietis*** Unger. III on *Picea abies*, *P. rubens* and *P. sitchensis* (0, I on *Picea* in North America). WH p.58. Alien. GB & Ir.

***Chrysomyxa empetri*** Cummins. II on *Empetrum hermaphroditum*, *E. nigrum* s.l., *E. nigrum* subsp. *nigrum* (STR, Wales). WH p.60. GB & Ir.

***Chrysomyxa ledicola*** (Peck) Lagerh. II on imported *Ledum groenlandicum* from Canada. A new alien but not established..

***Chrysomyxa pirolata*** Wint. II, (III rare) on *Pyrola minor*, *P. rotundifolia* and *P. rotundifolia* var. *maritima* (0, I on cone scales of *Picea* in Europe). WH p.61.(as *Chrysomyxa pyrolae* Rostrup). GB.

***Chrysomyxa ledi*** var. ***rhododendri*** (de Bary) Savile in Can. J. Bot. 33: 491 (1955). 0, I(rare) on *Picea abies*, *P. omorika* 'Pendula', *P. engelmanii*, *P. gemmata*, *P. glauca* var. *albertiana*, *P. sitchensis*, *P. sitchensis* x *jezoensis* and *P. wilsonii* and on cultivars of *Picea abies* 'Acrocona', 'Argentea', 'Filicoides', 'Humilis', 'Nidiformis', 'Procumbens', 'Pumila', 'Densa', 'Pumila Glauca', 'Pungens Globosa', 'Pygmaea'. Both II and III unless otherwise indicated. On many Rhododendrons :

*Azaleodendron* 'Dr Masters', *Rhododendron brachyanthum* x *hypolepidodotum* (III), *R. brachyanthum* x *ludlowii*, *R. campylogynum* 'Patricia', *R. campylogynum* (III), *R. carolinianum* x *calostrotum* (II), *R. carolinianum* 'Yellow', *R. charitopes*, *R. calostrotum* subsp. *keleticum*, *R. ciliatum* (II), *R. ciliatum* x *glaucophyllum*, *R. ciliocalyx* x *bullatum* (II), *R. cinnabarinum* (II), *R. cinnabarinum* subsp. *cinnabarinum* (= *R. cinnabarinum* var. *roylei*) (II), *R. cinnabarinum* subsp. *xanthocodon* (= *R. concatenans*) (II), *R. cinnabarinum* x *maddeni*, *R. x edgeworthii*, *R. ferrugineum*, *R. ferrugineum* x *campylogynum* (II), *R. ferrugineum* 'Glenarn form.', *R. ferrugineum* x *moupinense* (II), *R. flavidum* x 'Lady Roseberry' (II), *R. glaucophyllum* (II), *R. glaucophyllum* var. *tubiforme* (II), *R. glaucophyllum* x *ludlowii* (II), *R. hippophaeoides* x *racemosum*, *R. hirsutum*, *R. hirsutum* var. *fl. pleno*, *R. kotschkyi* x *sargentianum* (= *myrtifolium* x *sargentianum*), *R. javanicum* (inoculation), *R. keysii* (II), *R. lochae* (by inoculation), *R. ludlowii* (II), *R. minus* var. *minus* x *calostrotum* (II), *R. multiflorum* (III), *R. myrtifolium*, *R. myrtifolium* x *sargentianum*, *R. parryae* (III), *R. ponticum* (III usually, II rare), *R. racemosum* x

*tephropeplum* (II), *R. sargentianum* (II), *R. scabrifolium* var. *spiciferum* (II), *R. schweiniense*, *R. tephropeplum*, *R. trichocladium* (= *oulotrichum*) (II), *R. trichocladium* x *lowndsii*, *R. trichostomum* x *Ledum groenlandicum* (II), *R. trichostomum* x *Ledum* (by inoculation), *R. uniflorum*, *R. yunnanense* x *roylei*. On many cultivars : 'Anna Baldsiefen', 'Chelsea' (II), 'Chikor' (II), 'Claret', 'Countess of Sefton', 'Curlew' (II), 'Dona Amateis', 'Fragrantissimum', 'Gleam' (II), 'Golden Queen' (II), 'Grouse', 'Hawk' var. 'Crest' (II), 'Lady Chamberlain', 'Lady Exbury' (II), 'Lady Roseberry', 'Lady Roseberry Pink Delight' (II), 'Lavender Girl', 'Leonard Messel' (II), 'Moonshine', 'Moonshine Supreme', 'Mozart', 'Phalarope', 'Princess Alice', 'Racil', 'Razorbill', 'Romany Chal', 'Rosy Bell' (II), 'Royal Flush', 'Sirius' (II), 'Teal' (II), 'Trewithen Orange', 'White Lace' (II), 'White Wings' (II). WH p.62 (as *Chrysomyxa rhododendri* de Bary). Established alien. GB (especially North and West) & Ir.

***Coleosporium tussilaginis*** (Pers.) Berk. Outlines of British Fungology 333 (1860). WH p.3 (as *C. tussilaginis* (Pers.) Lév.). 0, I on *Pinus sylvestris*, *P. nigra* and *P. pinaster*. *P. pinaster* is a new host in Britain (S.W.Scotland, Herb.E) : II, III on many native and some introduced angiosperms, viz;

*Calanthe reflexa* cult. WH p.4.(as *C. tussilaginis* sens. lat.). GB.

*Calendula officinalis*, II only, WH p.7.(as *C. senecionis*). Devon and Aberdeen. only.

*Campanula carpatica* var. *turbinata*, *C. glomerata*, *C. isophylla*, *C. latifolia*, *C. planifera* 'alba', *C. persicifolia*, *C. rapunculoides*, *C. rotundifolia*, *C. trachelium*. WH p.5. (as *C. campanulae*). GB & Ir.

***Chrysanthemum carinatum***. WH p.8.(as perhaps *C. senecionis*). Norfolk only. *Delairea odorata* (= *Senecio mikanioides*). WH p.8.(as *C. senecionis*). GB.

*Emilia sagittata* (= *Cacalia hastata*). WH p.4 (as *C. cacaliae*). GB.

*Euphrasia officinalis* agg. WH p.7.(as *C. rhinanthacearum*), *E. arctica* subsp. *borealis* (STR, Wales), *E. rostkoviana* (TFP, Salop.). GB & Ir.

***Euryops acraeus*** WH p.10 (as perhaps *C. tussilaginis*) GB. *Euryops evansii* in WH was a host misidentification

*Kleinia grandiflora* (= *Notonia grandiflora*). WH p.7.(as perhaps *C. senecionis*). GB.

*Melampyrum arvense*, *M. pratense*. WH p.6. (as *C. rhinanthacearum*). GB & Ir. *Narcissus poeticus* var. *majalis* (= *N. majalis*) II only. WH p.6 (as *C. narcissi*). Lincolnshire in 1920. Not recorded since.

*Odontites vernus*. WH p.7.(as *C. rhinanthacearum*). *O. vernus* subsp. *vernus* (STR, Wales) GB & Ir.

*Parentucellia viscosa* WH p.7 (as *C. rhinanthacearum*) GB & Ir.

*Pericallis cruentus* (= *Senecio cruentus*). WH p.8.(as *C. senecionis*) GB & Ir.

*Petasites albus*, *P. hybridus*, *P. japonicus*, *P. palmatus*. WH p. 6.(as *C. petasitis*). GB & Ir.

***Rhinanthus minor*** agg. WH p.7 (as *C. rhinanthacearum*). *R. minor* subsp. *minor* (STR, Wales). GB & Ir.

*Senecio argentinus* (=*S. leucostachys*), *congestus* var. *palustris*, '*S. jacobaea*', *S. squalidus*, *sylvaticus*, *viscosus*, *vulgaris* and on cultivated *S. cinerea* (= *S. candicans*), *S. flaviatilis*, *S. leucostachys*, *S. moorei*, *S. smithii*. WH p. 8 (as *C. senecionis*). GB & Ir.

*Sonchus arvensis*, *asper*, *oleraceus*, *palustris*. WH p.9 (as *C. sonchi*). GB & Ir.

*Synosma suaveolens* (=*Cacalia suaveolens*). WH p.4 (as *C. cacaliae*) GB.

*Tropaeolum peregrinum* II only, WH p.9.(as *C. tropaeoli*) Surrey, Yorkshire, Channel Is. Recorded recently in Shropshire (TFP, 1989).

*Tussilago farfara*. WH p.10 (as *C. tussilaginis*).GB & Ir.

**Cronartium flaccidum** (Alb.& Schw.) Wint. 0, I on *Pinus sylvestris*: II, III on *Paeonia mascula* and *Tropaeolum majus*. WH p.51. Introduced. S. England. For the autoecious race on *Pinus* see *Endocronartium* (=*Peridermium pini* ).

**Cronartium ribicola** J. C. Fischer. 0,I on *Pinus aristata*, *P.ayacahuite*, *P. cembra*, *P. griffithii*, *P.lambertiana*, *P. monticola*, *P. parviflora*, *P. strobus*, II, III on *Ribes nigrum*, *R. sanguineum*, *R. sylvestre*, *R. uva-crispa*. Introduced. WH p.54. GB & Ir.

**Cumminsiella mirabilis** (Peck) Nannf.. 0, I (rare): II, III on *Mahonia aquifolium*, *M. bealei*. WH p.300. Introduced. GB & Ir.

**Dietelia codiaeae** (H. Sydow) Boerema. 0, I on *Codiaeum variegatum*. A new introduced rust (Boerema et al., 1994).

**Endocronartium pini** (Willd. ex Pers.) Y. Hirats. in Can. Jour. Bot. 47:1494, 1969. 0, I on *Pinus sylvestris*. WH p. 52 (as *Peridermium pini* ). GB.

**Endophyllum euphorbiae-silvaticae** (DC.) Wint. III on *Euphorbia amygdaloides* WH p.308. S. England and Eire.

**Endophyllum sempervivi** (Alb.& Schw.) de Bary. 0, III on *Sempervivum arachnoideum*, *S. calcareum*, *S. x fimbriatum*, *S. globiferum*, *S. montanum*, *S. tectorum*, '*S. webberi*' (=*S. webbei*?). WH p.309. Introduced. GB.

**Frommeëlla tormentillae** (Fuck.) Cummins & Y. Hiratsuka in Illustrated Genera of Rust Fungi p.120, 1983. 0, I : II, III on *Potentilla erecta* s.l., *P. erecta* subsp. *erecta* (STR,Wales), *P. reptans*. WH p.110 (as *Frommea obtusa* (Str.)Arth.).GB & Ir..

**Gymnoconia nitens** (Schwein.) Kern & Thurston in Bull. Penn. State Coll.239:16 (1929). On imported 'Dewberry' (*Rubus* sp.). WH p.107 (as *Kunkelia nitens* ). HB p. 481. England. Not recently reported.

**Gymnosporangium asiaticum** Yamada in Shokobutsu Byorigaku Tokyo Hakubunkwan 9:304 (1904).(0, I) : III on imported *Juniperus chinensis* bonsai. HB 1979. Alien not established. GB.

**Gymnosporangium clavariiforme** (Pers.) DC. 0, I on *Crataegus monogyna*, *C. laevigata* (=*oxyacanthoides*) : III on *Juniperus communis* and *J. communis* 'Hibernica'(H&B p.481). WH p.116. GB & Ir.

**Gymnosporangium confusum** Plowr. 0, I on *Crataegus monogyna*, *C. laevigata* (=*oxyacanthoides*), *Cydonia oblonga*, *Mespilus germanica*, III on *Juniperus sabina* cult.WH p.117, Introduced. England only.

**Gymnosporangium juniperi-virginianae** Schwein. I on 'Apple'. (*Malus* sp.). WH p. 122, HB p.482. Introduced, England and Scotland.

**Gymnosporangium cornutum** Kern. 0, I on *Sorbus aucuparia* and on cultivated *Sorbus sargentiana* and *S. x thuringiaca* in Perthshire (new host records). III on *Juniperus communis*, WH p.121. England and Wales scarce, Scotland frequent, Ir.

**Gymnosporangium sabinae** (Dickson) Wint. 0,I on *Pyrus communis*, III on *Juniperus sabina* cult. WH p.119 (as *G. fuscum*). Introduced, GB only.

**Hyalopsora adianti-capilli-veneris** Sydow II on *Adiantum capillis-veneris*. WH p.29, Kent (HB p.476 ) and Galway.

**Hyalopsora aspidiotus** Magn. II, III on *Gymnocarpium dryopteris*. WH p.27, Scotland.

**Hyalopsora polypodii** (Diet.) Magn. II,(III) on *Cystopteris fragilis*. WH p.28, GB & Ir., especially in the north. (First Irish record, Co. Sligo,Curtis & Scannell, 1987).

**Kuehneola uredinis** (Link) Arth. 0, I : II, III on *Rubus fruticosus* s.l. and on *Rubus* 'Merton Thornless'cult.(H&B p.481 ) and *R. x loganobaccus* Loganberry. WH p.108. GB & Ir.

**Melampsora allii-fragilis** Kleb.[0, I on *Allium ursinum*]: II,III on *Salix fragilis* and *Salix pentandra* and the hybrid between them. WH p.92. GB and doubtfully Ir.

**Melampsora allii-populina** Kleb. 0, I on *Allium ursinum* and *Arum maculatum*. (aerial hosts need confirmation) : II, III on *Populus nigra*, *P. trichocarpa* and possibly other spp. WH p. 71, GB.

**Melampsora amygdalinae** Kleb. 0, I : II, III on *Salix triandra* and *S. triandra* x *viminalis*. WH p. 90. GB & Ir The second host is a new host to the British Isles and the rust on both hosts is new to Ireland (Gj.p.43) .

**Melampsora arctica** Rostr. in Medd. om Groenl. 3:535,1888. 0, I on *Saxifraga hypnoides*, *S. oppositifolia* : II, III on *Salix herbacea* and by inoculation *S. herbacea* x *lanata*, *S. herbacea* x *myrsinites*. WH p. 83 (as *Melampsora epitea* p.p.). Scotland.(see Helfer, 1992)

**Melampsora capraearum** Thuem. 0, I on *Larix decidua*, *L. kaempferi* : II, III on *Salix aurita*, *S. aurita* x *caprea*, *S. aurita* x *cineraria* subsp.*oleoides*, *S. caprea*, *S. caprea* subsp. *caprea* (STR, Wales), *S. caprea* 'Kilmarnock' (TP, Salop, 1999), *S. caprea* x *viminalis*, *S. cinerea* subsp. *cineraria*, subsp. *oleoides* (=subsp. *atrocineraria*). WH p. 77. GB & Ir. The two hybrids *S. aurita* x *caprea*, *S. aurita* x *cineraria* subsp. *oleoides* are new host records for Britain. (Sutherland, BMS foray 1990) as is the cultivar 'Kilmarnock'. *S. aurita* is a new host for Ireland (Gj. p.43).

**Melampsora epitea** Thuem. var. *epitea*

0,I on *Euonymus europaeus* II, III on *Salix cinerea* subsp. *cineraria* and subsp.*oleifolia*, *S. aurita*, *S. caprea*. WH p. 87. GB.

0,I on *Larix decidua* and *L. kaempferi*, II, III on *Salix acutifolia*, *S. arbuscula*, *S. aurita*,*S. x calodendron*, *S. caprea* s.l., *S. caprea* subsp.*caprea* (STR, Wales),*S. cinerea*, *S. cinerea* subsp. *oleifolia* (=*S. atrocineraria*), *S. daphnoides*, *S. dasyclados*, *S. fragilis*, *S. herbacea*, *S. hibernica*, *S. hippophaefolia*, *S. lapponum*, *S. nigricans*, *S. phyllicifolia*, *S. purpurea*, *S. reticulata*, *S. smithiana*, *S. viminalis*, *S. waldsteiniana*. W&H p.80.

0, I on Orchidaceae, *Gymnadenia conopsea*, *Listera ovata*, *Dactylorrhiza*

*incarnata*, *D. maculata* agg., *D. praetermissa* : II, III on *Salix 'aurita'*, *S. repens*.  
*S. 'viminalis'* (Ireland, Muskett & Malone). WH p.89. GB & Ir.

[0, I on *Ribes alpinum*, *R. uva-crispa*] : II, III on *Salix purpurea*. WH p.89. GB  
var. *reticulatae* (Blytt) Jorst. 0, I on *Saxifraga aizoides* : II, III on *Salix arbuscula*, *S. herbacea*, *S. reticulata*. WH p. 82. Scotland, only.

*Melampsora epitea* sensu lat. II, III on *Salix arbuscula*, *S. hibernica* (=*S. phylicifolia*) cult. (Newcastle, N.Ireland, Scannell, in litt 1969, Herb. E), *S. lapporum*, *S. myrsinifolia*, WH pp. 80-88. GB & Ir.

*Melampsora euphorbiae* Cast. 0, I : II, III on *Euphorbia amygdaloides*, *E. characias*, *E. cyparissias*, *E. dulcis*, *E. exigua*, *E. helioscopia*, *E. hyberna*, *E. lathyrus*, *E. paralias*, *E. peplus*. WH p. 67. GB & Ir. The rust on *E. characias* was on imported plants (Herb. E). The record on *E. lathyrus* is the first for Britain (in Cornwall, 1991 TFP in litt. Also D. Reid, Aldwick, 1994 in litt. and STR, Wales in 1996).

*Melampsora hypericorum* Wint. I:III on *Hypericum androsaemum*, *H. hirsutum*, *H. maculatum*, *H. perforatum*, *H. pulchrum*, *H. tetrapterum* and cultivated *H. calycinum*, *H. cernuum*, *H. elatum*, *H. x inodorum*, *H. patulum*. WH p. 70. *H. perforatum*, *H. pulchrum* are new hosts for Ireland (Gj. p.45) as is the record on *H. calycinum* from Ireland (BMS, foray, 1989.) *H. x inodorum* is a new British host (STR, Wales)..

*Melampsora larici-pentandrae* Kleb.[0, I on *Larix*] : II, III on *Salix pentandra*, *S. fragilis* x *pentandra*. WH p. 79. Scotland and Ir.

*Melampsora larici-populina* Kleb.[0, I on *Larix*] : II, III on *Populus x canadensis*, *P. x canadensis* 'Serotina', *P. x canescens*, *P. x generosa*, *P. laurifolia*, *P. nigra*; *P. nigra* var. *italica*, *P. nigra* var. *betulifolia*, *P. robusta*, *P. trichocarpa*. WH p.73. The record on *P. canescens* (=*P. alba* x *tremula*) is a new British host (Gj. p.46) as is *P. nigra* var. *betulifolia* (STR, Wales).

*Melampsora lini* (Ehrenb.) Desm. var. *lini* II, III on *Linum catharticum*. WH p.65. GB & Ir.

var *liniperda* Koernicke 0, I : II, III on *Linum usitatissimum*. WH p.65. GB & Ir.

*Melampsora populnea* (Pers.) Karst.

0, I on *Larix decidua* : II, III on *Populus alba*, *P. tremula*. WH p.75. GB.

0,I on *Mercurialis perennis*, *M. annua* : II,III on *Populus alba*, *P. tremula*. WH p. 76. GB. *M. annua* is a new host (Wurzell, Middlesex, TFP, in litt. 1999).

0, I on *Pinus nigra*, *P. nigra* subsp. *laricio*, *P. pinaster*, *P. sylvestris* : II, III on *Populus tremula*, *P. tremula* x *tremuloides*. WH p. 77. GB.

*Melampsora ribesii-viminalis* Kleb. [0, I on *Ribes*] : II, III on *Salix viminalis*. WH p. 80. GB & Ir. A new rust for Ireland (Gj. p.46).

*Melampsora salicis-albae* Kleb. [0, I on *Allium ursinum*] :II, III on *Salix alba*, *S. alba* var. *vitellina* and *S. alba* var. *vitellina* GB & Ir. and *S. alba* x *babylonica* and *S. alba* x *fragilis* in Ir (Gj p.46), the last two are new hosts for the British Isles. WH p.91.

*Melampsora vernalis* Wint. 0, I : III on *Saxifraga granulata*. WH p. 67.Scotland

only.

*Melampsorella caryophyllacearum* Schroet. 0, I on *Abies alba*, *A. cephalonica*, *A. lowiana*, *A. nordmanniana*, *A. pinsapo* : II, III on *Cerastium arcticum*, *C. arvense*, *C. glomeratum*, *C. holosteoides*, *C. semidecandrum*, *C. tomentosum*, *Stellaria graminea*, *S. holostea* and *S. media*. WH p.43. GB & Ir.

*Melampsorella symphyti* Bubák [0, I on *Abies*] : II on *Symphytum asperum*, *S. officinale*, *S. tuberosum*, II, III on *S. x uplandicum* (=*S. officinale* x *asperum*) WH p.46. GB & Ir.

*Melampsoridium betulinum* (Fr.) Kleb. 0, I on *Larix decidua*, *L. gmelini* (=dahurica)(by inoculation), *L. kaempferi* and *L. potanini*. *L. potanini* is a new British host (Dennis, 1995); II, III on *Alnus cordata*, *A. glutinosa* (as *M. hiratsukanum*), *A. incana*, *Betula nana*, *B. pendula*, *B. pubescens* s.l., *B. pubescens* subsp. *pubescens* (STR, Wales) and in Scotland cultivated *B. fontinalis*, *B. jacquemontii* and *B. papyrifera* (Herb.E) ; the last three are new hosts for the British Isles. *Betula nana* is a new native British host (West Ross, Henderson, 1999, Herb E). WH p.49. GB & Ir.

*Mikronegeria fagi* Diet. & Neger in Bot. Jahrb. 27:16, 1899.[0, I on *Araucaria*] : II, III on *Nothofagus*. A new introduced rust . Found at Westonbirt Arboretum in 1976 ( For Comm. For. Rec. 122:1980)

*Milesia magnusiana* (Jaap) Faull in Contr. Arnold Arbor. 2:32, 1932. II, [III?] on *Asplenium adiantum-nigrum*. Dingle (1964), Bandon, Cork (Scannell, in litt.), S.W.England ( Hudson, 1970, in litt.). A rust new to England and Ireland.(HB p.476).

*Milesina blechni* Sydow 0,I on *Abies alba*, *A. amabilis*, *A. cephalonica* and *A. pectinata* : II, III on *Blechnum spicant*.WH p.18.GB & Ir.

*Milesina carpatorum* Hyl. Jørst.& Nannf. II, III on *Dryopteris filix-mas*, WH p.23. Devon and Cavan and Louth (new records for Ireland, Gj p.47). England & Ir.

*Milesina dieteliana* (Sydow) Magnus. 0,I on *Abies alba* and *cephalonica* (by inoculation) : II, III on *Polypodium cambricum*, *P. interjectum*, *P. x mantoniae*, *grandis*, *A.nordmanniana* and by inoculation *A. concolor*: II, III on *Dryopteris affinis* subsp. *affinis*, *D. affinis* subsp. *borreri*, *D. carthusiana*, *D. dilatata*, *D. filix-mas*. WH p.21. GB & Ir.

*Milesina scolopendrii* (Faull) Henderson.0, I on *Abies pectinata* (new host), *A.alba*, *A. concolor* ( by inoculation.) : II, III on *Scolopendrium vulgare*. WHp.19. GB & Ir.

*Milesina vogesiaca* Syd. 0, I on *Abies alba* by inoculation: II, III on *Polystichum aculeatum*, *P. setiferum*. WH p.23. GB & Ir.

*Milesina whitei* (Faull) Hiratsuka [0, 1 unknown]: II, III on *Polystichum setiferum* WH p. 24. GB & Ir.

*Miyagia pseudosphaeria* (Mont.) Jorst 0.I : II,III on *Sonchus arvensis*, *S. asper*, *S. oleraceus* WH p.298. GB & Ir.

*Naohidemyces vaccinii* (Wint.) Sato, Katsuya & Y.Hiratsuka in Trans. Myc. Soc.

Japan 34:48, 1993. [0, I on *Tsuga*] : II, [III] on *Vaccinium oxycoccus*, *V. myrtillus*, *V. uliginosus* and *V. vitis-idaea*. WH p.38 (as *Pucciniastrum vaccinii*). GB & Ir. *Nyssopsora echinata* (Lév.) Arth. III only, on *Meum athamanticum*. WH p114. Scotland only.

*Ochropsora ariae* (Fuck.) Ramsb. 0, I on *Anemone nemorosa* and perhaps *A. blanda*: II, III on *Sorbus aucuparia* and perhaps *Sorbus aria* (Mycologist 4(2): 81,1990) and 'Crab Apple' (= *Malus domestica*), (Bramley, 1985). WH p.11. GB only.

*Phragmidium acuminatum* (Fr.) Cooke 0?, I : II, III on *Rubus saxatilis*. WH p. 98. Scotland (not recorded since 1879).

*Phragmidium bulbosum* (Str.) Schlecht. 0, I : II, III on *Rubus fruticosus* sect. *Corylifolii*, *R. caesius* and *R. ulmifolius* x *vestitus* (new host. Ir.BMS foray,1989). WH p.95. GB & Ir..

*Phragmidium fragariae* (DC.) Rabh. 0, I : II, III on *Potentilla sterilis*. WH p.100. GB & Ir.

*Phragmidium fusiforme* Schroet. in Schles. Ges. Vaterl. Cult. Nat. Abt. 1869-72: 24 (1870). 0, I : II, III on *Rosa pendulina*(as *Phragmidium rosae-alpinae* on *R. alpina*, Plowright 1889 p.226) and *Rosa glauca* (as *R. rubrifolia* Howden & Jacobs, 1973).HB 1974 p. 481. Reinstated to the British list. Introduced. GB.

*Phragmidium mucronatum* (Pers.) Schlect. 0, I: II, III. On *Rosa x alba*, *R. 'arvensis'*, *R. canina*, *R. caesia* var.*caesia*, *R. x centifolia*, *R. 'x involuta'*, *R. laxa*, *R. mollis* *R. 'rubiginosa'*, *R. 'rugosa'*, *R. sherardii*, *R. 'tomentosa'*. WH p. 104. GB & Ir.. *R. caesia*, *R. mollis* and *R. sherardii* are new host records (TP 1999), but the whole group requires critical revision.

*Phragmidium potentillae* (Pers.) Karst. 0, I : II, III on *Potentilla anglica*, '*P. argentea*', *P. neumanniana* (as *P. tabernaemontani*), and cultivated '*Potentilla* sp. WH p. 101. GB & Ir.

*Phragmidium rosae-pimpinellifoliae* Diet. 0, I : II, III on *Rosa pimpinellifolia* and perhaps some *pimpinellifolia* cultivated hybrids. WH p.103. GB & Ir.

*Phragmidium rubi-idaei* (DC.) Karst. 0,I (rare) : II, III on *Rubus idaeus* and some cultivars (HB p.480). (cv. Glen Clova, Lloyd George, STR, Wales).. WH p. 96. GB & Ir.

*Phragmidium sanguisorbae* (DC.) Schroet. 0, I :II, III on *Sanguisorba minor* s.l. (= *Poterium sanguisorba*), *S. minor* subsp. *minor* (STR, Wales), *S. minor* subsp. *muricata* (= *P. polygamum*). WH p. 102. GB & Ir.

*Phragmidium tuberculatum* J. Müller 0, I :II, III on *Rosa afzeliana*, *R. rubiginosa*, *R. rugosa* and *Rosa* cultivars. WH p. 106. GB & Ir.

*Phragmidium violaceum* (C. F. Schultz ) Wint. 0, I II, III on *Rubus fruticosus* agg., cultivated blackberries, loganberry (*R. loganobaccus*), *R. laciniatum*. WH p.98. GB & Ir.

*Puccinia acetosae* Koernicke II, III on *Rumex acetosa* s.l., *R. acetosa* subsp. *acetosa* (STR, Wales) and rarely *R. acetosella*. WH p.159. (First record on *R. acetosella* for Ireland, Gj. p.51). GB & Ir.

*Puccinia adoxae* Hedw. f. III on *Adoxa moschatellina*. WH p. 186. GB only. *Puccinia aegopodii* Rohl III on *Aegopodium podagraria* WH p. 144. GB & Ir. *Puccinia albescens* Plowright, 0, I : II, III on *Adoxa moschatellina*.WH p. 188. GB only.

*Puccinia albulensis* Magn. III on *Veronica alpina*. WH p.172. Scotland only, rare.

*Puccinia allii* Rud. 0, I (on *Allium schoenoprasum* only) : II, III on *Allium cepa*, *A. cyaneum*, *A. fistulosum*, *A. sativum*, *A. schoenoprasum*, *A. scorodoprasum*, *A. vineale*. WH p.217. HB p. 486. GB & Ir. (See Jennings et al.,1990).

*Puccinia angelicae* (Schum.) Fuck. 0, I : II, III on *Angelica sylvestris*, *Peucedanum palustre*, *Selinum carvifolium*, *Silaum silaus*. WH p.145. GB & Ir. Only on *Angelica* in Ireland. (M M, 1980: Gj, p. 52).

*Puccinia annularis* (Str.) Röhl., III on *Teucrium scorodonia*, WH p.177. GB & Ir.

*Puccinia antirrhini* Diet. & Holw. II, III on *Antirrhinum majus*, WH p. 173. GB & Ir.

*Puccinia apii* Desm. 0, I : II, III on *Apium graveolens*. WH p.146. GB & Ir.

*Puccinia arenariae* (Schum.) Wint. III on *Arenaria serpyllifolia*, *Cerastium fontanum* subsp. *holosteoides* (= *C. holosteoides*), *Claytonia sibirica*, *Cucubalus baccifer*, *Dianthus barbatus*, *D. deltoides*, *Gypsophila elegans*, *Herniaria ciliolata* (as *H. ciliata*), *Minuartia verna* 'aurea', *Moehringia trinervia*, *Sagina apetala*, *S. intermedia*, *S. maritima*, *S. nodosa*, *S. procumbens*, *S. saginoides*, *Silene dioica*, *S. latifolia* (= *S. alba*), *Spergula arvensis*, *Stellaria graminea*, *S. holostea*, *S. media*, *S. nemorum*, *S. x normaniana*, *S. palustris*, *S. subulata*, *S. uliginosa* (= *S. alsine*). WH p.127. *Sagina x normaniana* and *S. subulata* are new British hosts (HB, p.482) as is *Sagina apetala* (STR, Wales). *Sagina procumbens* and *S. nodosa* are new hosts in Ireland.(Gj.p.63). GB & Ir. The record on *Claytonia sibirica* from Arran (J. Cooper in litt.) requires further investigation.

*Puccinia asperulae-cynanchicae* Wurth in Centralbl. Bakt. II, 14: 316, 1905. II, III on *Asperula cynanchica* Galway. (Gj.p.53). A rust new to the British Isles.

*Puccinia behenis* Otth II, III on *Silene dioica*, *S. latifolia* (= *alba*), *S. uniflora* (= *maritima*), *S. vulgaris*. WH p.131. GB& Ir.

*Puccinia betonicae* (Alb. & Schwein.)DC. III on *Stachys officinalis*, WH p.177.GB (rare in Scotland).

*Puccinia bistortae* DC. 0, I on *Angelica sylvestris*, *Conopodium majus* : II, III on *Persicaria* (= *Polygonum*) *bistorta*, *P. vivipara*. WH p.177. GB scarce.

*Puccinia brachypodii* Otth var.*brachypodii* II, III on *Brachypodium 'pinnatum'*, *B. sylvaticum*. WH p. 251. (HB,p.489). GB & Ir.

var. *arrhenatheri* (Kleb.) Cummins & Greene in Mycologia 58:709, 1966. 0, I on *Berberis vulgaris* : II, III on *Arrhenatherum elatius*, *A. elatius* var. *bulbosum* cv. *variegatum*. WH p.272 (as *P. poae-nemoralis* Otth) and *Deschampsia cespitosa* WH p. 244 (as *P. deschampsiae* Arth.). GB & Ir. *A. elatius* var. *bulbosum* cv. *variegatum* is new host for Britain. *Deschampsia cespitosa* is a new host for

Ireland. (Gj. p.54).

var. *poae-nemoralis* (Otth) Cummins & Greene in Mycologia 58: 705, 1966. II, III on *Anthoxanthum odoratum*, *Glyceria fluitans* (recent record, STR, Wales), *Poa annua*, *P. nemoralis*, *P. pratensis*, *P. trivialis*, *Puccinellia maritima*, *P. rupestris*. WH p. 272 (as *P. poae-nemoralis* Otth). GB & Ir. *Anthoxanthum odoratum*, *Poa annua*, *P. pratensis*, *P. trivialis*, *Puccinellia maritima* are new hosts for Ireland (Gj. p.55).

*Puccinia bulbocastani* Fuck. 0, I : III on *Bunium bulbocastanum*. WH p.147. England only.

*Puccinia bupleuri* Rud. 0, I : II, III on *Bupleurum tenuissimum*. WH p.147. S.England, rare.

*Puccinia buxi* DC. III on *Buxus sempervirens*. WH p.135. GB & Ir.

*Puccinia calcitrapae* DC. 0, I : II, III on *Arctium lappa*, *A. minus* subsp. *minus*, *A. minus* subsp. *pubens* (= *A. pubens*), *Carduus acanthoides*, *C. crispus*, *C. crispus* subsp. *multiflorus* (TFP, Salop, 1893), *C. crispus* x *nutans*, (Sussex, Reid, *in litt.* 1999), *C. nutans*, *C. tenuifolius*, *Carlina vulgaris*, *Carthamus tinctorius* (on introduced host, HB. p.485), *Centaurea calcitrapa*, *C. nigra*, *C. scabiosa*, *Cirsium acaule*, *C. dissectum*, *C. heterophyllum*, *C. palustre*. WH p. 191. GB & Ir. *Centaurea scabiosa* is a new host for Ireland (Gj.p.55 ).

*Puccinia calthae* Link. 0, I : II, III on *Caltha palustris*. WH p. 123. GB & Ir.

*Puccinia calthicola* Schroet. 0, I : II, III on *Caltha palustris*. WH p.124. GB & Ir.

*Puccinia campanulae* Berk. III on *Campanula 'persicifolia'*, *C. rapunculoides*, *C. rotundifolia*, *Jasione montana*. WH p.182. GB.

*Puccinia cancellata* Sacc. II, III on *Juncus acutus*. WH p. 221. GB (S.W.England Wales, Channel Islands.).

*Puccinia caricina* DC. 0, I on *Ribes nigrum*, *R. sanguineum*, *R. sylvestre*, *R. uva-crissa*. WH p. 232. GB & Ir.

var. *caricina* [0,I on *Ribes*] : II, III on *Carex pseudocyperus*. WH p.235. England only.

var. *magnusii* (Kleb.) Henderson [0, I on *Ribes*] : on *Carex riparia*.WH.p.235. GB & Ir.

var. *pringsheimiana* (Kleb.) Henderson. 0, I on *Ribes nigrum*, *R. sanguineum*, *R. uva-crissa* : II, III on *Carex acuta*, *C. nigra*. WH p. 236. GB & Ir.

var. *ribis-nigri-lasiocarpea* (Hasler) Henderson [0, I on *Ribes*] : II, III on *Carex lasiocarpa*. WH p. 236. Scotland.

var. *ribis-nigri-paniculatae* (Kleb.) Henderson [0, I on *Ribes*] : II, III on *Carex paniculata*. WH p. 216. GB.

var. *ribesii-pendulae* (Hasler) Henderson. [0, I on *Ribes*] : II, III on *Carex pendula*. WH p.237. GB & Ir.

*Puccinia caricina* DC. *sensu lato*. II, III on *Carex aquatilis* (Caithness & Inverness-shire, (Dennis, 1980) *C. binervis*, *C. caryophyllea*, *C. disticha*, *C. hostiana* (Aberdeenshire, W. Ross, Sutherland, (Dennis, 1980), *C. hostiana* x *viridula* subsp. *oedocarpa*, *C. juncella*, *C. laevigata*, *C. nigra*, *C. cfr. rostrata* x *vesicaria*. WH p.

240. The records on *Carex aquatilis*, *C. hostiana* and *C. hostiana* x *viridula* subsp. *oedocarpa* are new hosts for Britain, the record on *C. caryophyllea* (Gj. p.56) is a new host for Ireland but is known from Guernsey (Herb.E). *Carex disticha* is a new host for the British Isles (Gj. p.56). GB & Ir.

*Puccinia chaerophylli* Purton 0, I : II, III on *Anthriscus sylvestris*, *Chaerophyllum aureum*, *Myrrhis odorata*. WH p. 148. GB & Ir.

*Puccinia chrysosplenii* Grev. III on *Chrysosplenium alternifolium*, *C. oppositifolium*, WH p.137. GB & Ir.

*Puccinia cicutae* Lasch. 0, I : II, III on *Cicuta virosa*, WH p. 149. S.E.England.

*Puccinia circaeae* Pers. III on *Circaea 'alpina'*, *C. x intermedia*, *C. lutetiana*. WH p.141. GB & Ir.

*Puccinia cladii* Ellis & Tr. II, [III] on *Cladium mariscus*. WH p. 229. S.E.England.

*Puccinia clintonii* Peck III on *Pedicularis palustris*, *P. sylvatica*. WH p.175. GB (Scotland) & Ir. Savile regards the British rust as an endemic var. *sylvaticae* (Savile, 1967, see HB. p.484).

*Puccinia cnici* Mart. 0, I II, III on *Cirsium eriophorum*, *C. vulgare*, WH p,196. GB & Ir. (Rust new to Ir. Gj. p.59).

*Puccinia cnici-oleracei* Pers. ex Desm. III on *Achillea millefolium*, *A. ptarmica*, *Aster tripolium*, *Chrysanthemum segetum*, *Cirsium heterophyllum*, *C. palustre*, *Leucanthemum vulgare* (=*Chrysanthemum leucanthemum*). WH p.197. GB & Ir. (*Aster tripolium* and *Leucanthemum vulgare* new hosts for Ireland Gj. p. ).

*Achillea ptarmica* is a new British host ( Stradley,STR, 1997).

*Puccinia commutata* P.& H. Sydow 0, I : III on *Valeriana officinalis* and its subsp. *sambucifolia*. WH p.189. Scotland & Ir. (Rust new to Ireland, Gj. p59).

*Puccinia conii* Lagerh. II, III on *Conium maculatum*. WH p.150. GB & Ir.

*Puccinia convolvuli* Cast. [0] I : II, III on *Calystegia sepium* (=*Convolvulus sepium*). WH p.171. England, rare.

*Puccinia coronata* Corda 0, I on *Frangula alnus* and *Rhamnus catharticus* : II,III on *Agropyron repens*, *Agrostis canina*, , *A. stolonifera*, *A. tenuis*, *Alopecurus pratensis*, *Arrhenatherum elatius*, *Avena fatua*, *A. fatua*, *A. strigosa*, *Bromus racemosus*, *Calamagrostis canescens*, *C. epigeos*, *Dactylis glomerata*, *Deschampsia cespitosa*, *Festuca altissima*, *F. arundinacea*, *F. gigantea*, *F. pratensis*, *F. pratensis* x *Lolium multiflorum*, *F. pratensis* x *Lolium perenne*, *Glyceria maxima*, *Holcus lanatus*, *H. mollis*, *Lolium multiflorum*, *L. perenne*, *Phalaris arundinacea* *Poa pratensis*. *Bromus racemosus* is a new host in the British Isles (Ir. Gj. p.61) WH p.251. GB & Ir.

*Puccinia crepidicola* Syd. II, III on *Crepis biennis*, *C. capillaris*, *C. vesicaria* subsp. *taraxacifolia*. WH p.200. GB & Ir..*C. biennis* is a new host in Ireland (Gj. p.62).

*Puccinia cyani* Pass. 0, I : II, III on *Centaurea cyanus*. WH p. 201. GB only.

*Puccinia difformis* Kunze 0, I : II,III on *Galium aparine*. WH p. 184. GB & Ir. A rust new to Ireland (Gj.p.62).

**Puccinia dioicae** Magn. var. *dioicae*. 0, I on *Cirsium dissectum*, *C. palustre* : II, III on *Carex dioica*. WH p. 241. Scotland & Ir.  
var. *arenariicola* (Plowr.) Henderson. 0, I on *Centaurea nigra* : II, III on *Carex arenaria*. WH p. 242. Recorded in Norfolk in 1888 but not since.  
var. *extensicola* (Plowr.) Henderson 0, I on *Aster tripolium* : II, III on *Carex extensa*. WH p. 242. GB & Ir.  
var. *schoeleriana* (Plowr. & Magn.) Henderson. 0, I on *Senecio jacobaea*: II, III on *Carex arenaria*. WH.p. 242. GB & Ir.  
var. *silvatica* (Schroet.) Henderson. II, III on *Carex capillaris*. WH.p. 243. Scotland only.  
**Puccinia dioicae sensu lato**. II, III on *Carex disticha*, *C. viridula* subsp. *brachyrryncha* (=*C. lepidocarpa*), *C. viridula* subsp. *oedocarpa* (=*C. demissa*). WH p. 243. GB & Ir. The record on *Carex disticha* from Ireland (Gj. p.62) is also a new host record for the British Isles.  
**Puccinia distincta** McAlpine in Agric Gaz. Sydney 6:4, 1896. 0, I : III on *Bellis perennis* and cultivars. Discovered in Britain in 1997 (Weber *et al.*, 1998). Probably alien. England.  
**Puccinia elymi** West. [0, I on *Thalictrum*] : II, III on *Ammophila arenaria*, x *Calammophila* (=*Ammocalamagrostis*) *baltica*, *Leymus* (=*Elymus*) *arenarius*. WH p. 256. GB only.  
**Puccinia epilobii** DC. III on *Epilobium anagallidifolium*, *E. hirsutum*, *E. montanum*, *E. obscurum*, *E. palustre*. WH p.142. GB & Ir.  
**Puccinia eriophori** Thuem. 0, I on *Solidago vigurea* : II, III on *Trichophorum cespitosum* subsp. *germanicum*. WH p.230. Scotland only.  
**Puccinia eutremae** Lindr. III on *Cochlearia alpina*, *C. danica*. WH p. 125. Scotland.  
**Puccinia fergussonii** B. & Br. III on *Viola palustris*. WH p. 126. GB & Ir.  
**Puccinia festucae** Plowr. 0, I on *Lonicera periclymenum*: II, III on *Festuca arenaria*, (= *F. rubra* subsp. *arenaria*), *F. longifolia*, *F. ovina*, *F. rubra* s.l., *F. rubra* subsp. *rubra* (STR, Wales). WH p.258. GB & Ir.  
**Puccinia galii-cruciatae** Duby. 0, I : II, III on *Cruciata* (=*Galium*) *laevipes*. WH p.183. GB & Ir.  
**Puccinia galii-verni** Ces. III on *Cruciata* (=*Galium*) *laevipes*, *Galium palustre*, *G. saxatile*, *G. uliginosum*, *G. verum*. WH.p.186. GB & Ir. *Galium palustre* is a new host in the British Isles (Gj. p.63).  
**Puccinia gentianae** Röhl. [0, I] : II, III on cultivated *Gentiana acaulis*, *G. verna*. Alien. WH p. 170. GB.  
**Puccinia gladioli** (Requien) Cast. III on *Gladiolus* cult. Alien. WH p.225. England, rare.  
**Puccinia glechomatis** DC. III on *Glechoma hederacea*. WH p. 178. GB & Ir.  
**Puccinia glomerata** Grev. III on *Senecio aquaticus*, *S. jacobaea*. WH p.202. GB & Ir.  
**Puccina graminis** Pers. 0, I on *Berberis vulgaris*, *Mahonia aquifolium*, *M. bealii*.

subsp. *graminis* II, III on *Agrostis canina*, *A. capillaris*, *Arrhenatherum elatius*, *Avena sativa*, *Bromus sterilis*, *Elytrigia repens*, *Hordeum vulgare*, *Secale cereale*, *Trisetum flavescens*, *Triticum aestivum*. WH p. 259.(HB p. 489). GB & Ir.  
subsp. *graminicola* Urban in Ceska Mykol. 21:14, 1967. II, III on *Anthoxanthum odoratum*, *Briza media*, *Dactylis glomerata*, *Deschampsia cespitosa*, *Phleum pratense*, *Poa annua*, *P. pratensis*, *P. trivialis*, *Sesleria caerulea* (new British host, Ireland, Gj. p.64).WH p. 259 (HB p. 489). GB & Ir.  
**Puccinia graminis** sensu lato II, III on *Agrostis canina*, *A. gigantea* (new British host, Dennis, 1995), *A. tenuis*, *Alopecurus pratensis*, *Bromus inermis*, *B. ramosus*, *Cynosurus cristatus*, *Festuca gigantea*, *F. pratensis*, *F. rubra*, *Helictotrichon pratense*, *Hordeum murinum*, 'Lolium perenne'. WH p.259. GB & Ir.  
**Puccinia helianthi** Schwein. WH p.202. A very doubtful record by Massee (1913).  
**Puccinia heraclei** Grev. 0, I : II, III on *Heracleum sphondylium* WH p. 151. GB & Ir.  
**Puccinia hieracii** Mart. var. *hieracii* 0, I : II, III on *Centaurea nigra*, *Cichorium endivia*, *C. intybus*, *Hieracium* spp. *H. orimeles*, *H. perpropinquum* (TP, 1999) *sabaudum*, *H. vagum* (TP,1999), *Hypochaeris maculata*, *Leontodon autumnalis*, *L. hispidus*, *L. taraxacoides*, *Picris hieracioides*, *Serratula tinctoria*, *Taraxacum* spp. WH p.203. GB & Ir.  
var. *hypocoeridis* (Oud.) Jørst. 0, I : II, III on *Hypochoeris glabra*, *H. radicata*. WH p.206. GB & Ir.  
var. *piloselloidarum* (Probsr.) Jørst.0, I : II, III on *Pilosella officinarum* (=*Hieracium pilosella*). WH p. 206. GB & Ir.  
**Puccinia hordei** Otth, 0, I on *Ornithogalum pyrenaicum* (rare), II, III on *Holcus lanatus*, *H. mollis*, (WH p. 285 as *P. recondita* f. sp.*holcina*). *Hordeum distichon*, *H. murinum*, *H. vulgare*, ( WH p. 264), *Lolium multiflorum*, *Vulpia bromoides* (WH p.290 as *P. schismi*), *V. myuros* (a new host, Caerns. STR, 1997) GB & Ir. This arrangement follows Cummins (1971).  
**Puccinia horiana** P.Henn. III on *Dendranthema* (=*Chrysanthemum*) *sinense*, *D. jezoense*, hybrids of *D. indicum*, *D. koreeanum* and by inoculation *D. nipponicum*, *D. koreeanum*. WH p.368. GB & Ir.  
**Puccinia hydrocotyles** Cooke, II, III on *Hydrocotyle vulgare*. WH p. 131. GB & Ir., rare.  
**Puccinia hysterium** (Str.)Rohl. 0, I : III on *Tragopogon pratensis* subsp. *pratensis* and subsp. *minor*. WH p.207. GB only.  
**Puccinia impatientis** Schubad in Fic. Dresd. 2: 252, 1823. 0, I on *Adoxa moschatellina* : II, III on *Impatiens capensis*. WH p.134 (as *Puccinia argentata* (C.F. Schultz) Wint.. S. England. (Laundon, 1963).  
**Puccinia iridis** Wallr. II, III on *Iris foetidissima*, *I. germanica*, *I. missouriensis*, (= *I. tolmeiana*), *I. sibirica*, *I. xiphium* var. WH p.226. GB.& Ir.  
**Puccinia kusanoi** Diet. in Bot. Jahrb. 27:568, 1899. II, III, on *Arundinaria fastuosa*. GB (Sussex , Reid, 1978 and Cornwall). Alien. A species new to Britain.  
**Puccinia lagenophorae** Cooke I : III on *Bellis perennis*, *Calendula officinalis*,

*Pericallis hybrida* (= *Senecio cruentus*), *Senecio cambreensis*, *S. squalidus*, *S. vulgaris*, *S. vulgaris* var. *radiatus*. WH p. 213. GB & Ir.  
*Puccinia lapsanae* Fuck. 0, I : II, III on *Lapsana communis*. WH p. 209. GB & Ir.  
*Puccinia libanotidis* Lindr. 0, I : II, III on *Seseli libanotis*. WH p. 153. England, rare.  
*Puccinia liliacearum* Duby. I : III on *Ornithogalum pyrenaicum*, *O. umbellatum*. WH p. 220. GB, rare  
*Puccinia ljunica* Hinkova & Koeva in Rev. Roumaine Biol. Ser. Bot. 11: 107-109, 1966. III on *Smyrnium perfoliatum*. Royal Botanic Gardens, Kew. A new introduced rust. (Legon, in litt.).  
*Puccinia longicornis* Pat. & Hariot in Bull Soc. Myc. Fr. 7:143, 1891. II, III on *Pseudosasa (Arundinaria) japonica* (Sussex, Reid, 1978), on *Sasa veitchii* (Sussex, Reid (1984). Alien. A species new to Britain.  
*Puccinia longissima* Schroet. II, III on *Koeleria macrantha* (= *K. cristata*) WH p. 265. GB & Ir. (new record for Ireland. Gj. p. 68).  
*Puccinia luzulae* Lib. II, III on *Luzula pilosa*. WH p. 222. GB & Ir.  
*Puccinia maculosa* (Str.) Röhl. I : II, III on *Mycelis muralis*. GB only.  
*Puccinia magnusiana* Körnicke 0, I on *Ranunculus bulbosus*, *R. flammula*, *R. lingua*, *R. repens* : II, III on *Phragmites australis* (= *P. communis*). WH p. 266. GB & Ir. (on *Phragmites australis* and *Ranunculus repens* new to Ireland. Gj p.68).  
*Puccinia major* (Diet.) Diet. 0, I : II, III on *Crepis paludosa*. WH p. 210. GB & Ir.  
*Puccinia mariana* DC. II, III on *Silybum marianum*. A new rust to Britain, collected by E. A. Ellis in 1981 in Norfolk. (Gjaerum & Dennis, 1997b).  
*Puccinia malvacearum* Mont. III on *Alcea rosea* (*Althaea rosea*), *Althaea officinalis*, *Brotex* sp., *Lavatera arborea*, *L. cretica*, *Malva moschata*, *M. neglecta*, *M. pusilla*, *M. sylvestris*, *Sidalcea* sp. WH p. 132. GB & Ir. *Althaea officinalis* is a new host in Britain, HB p. 482 as is *Lavatera cretica* (TFP in litt.).  
*Puccinia menthae* Pers. 0; I : II, III on *Calamintha ascendens*, *Clinopodium vulgare*, *Mentha aquatica*, *M. arvensis*, *M. x cordifolia*, *M. x gracilis* (including *M. cardiaca*, and *M. x gentilis*), *M. longifolia*, *M. x niliaca*, *M. x piperita*, *M. pulegium*, *M. rotundifolia*, *M. x smithiana*, *M. spicata*, *M. suaveolens* (= *rotundifolia*), *M. x verticillata*, *M. villosa* (= *M. x niliaca*), *Origanum vulgare*, *Satureja hortensis*. WH p. 179. GB & Ir. (*Mentha x verticillata* is a new host in Britain. HB p. 485 as is *M. pulegium*, Mynydd Maur, TFP, in litt. 1999).  
*Puccinia microsora* Körnicke. II, amphispores and III on *Carex vesicaria*. WH p. 245. Scotland only.  
*Puccinia moliniae* Tul. 0, I on *Prunella vulgaris* : II, III on *Molinia caerulea*. WH p. 268. Scotland only.  
*Puccinia nemoralis* Juel in Oefvers. Kgl. Svenska Vet. Akad. Forhandl. 51:503 (1894). 0, I on *Melampyrum pratense* : II, III on *Molinia caerulea*. A rust new to Britain. HB p. 490. Wales and N.W.Scotland.  
*Puccinia nitida* (Str.) Röhl. 0, I : II, III on *Aethusa cynapium*, *Petroselinum crispum*

WH p. 153. GB & Ir.  
*Puccinia obscura* Schroet. 0, I on *Bellis perennis* : II, III on *Luzula campestris*, *L. forsteri*, *L. multiflora*, *L. pilosa*, *L. sylvatica*. WH p. 223. GB & Ir.  
*Puccinia opizii* Bubák, 0, I on *Lactuca sativa*, *L. virosa* : II, III on *Carex appropinquata* and *C. paniculata* (England), *C. muricata*. WH p. 244. GB & Ir. A rust new to Ireland, Gj. p. 70.  
*Puccinia oxalidis* (Lev.) Diet. & Ellis, Hedwigia 34:291, (1895). [0, I on Berberidaceae] : II, III on *Oxalis adenophylla*, *O. articulata*, *O. corymbosa*, *O. latifolia*, *O. tubiflora*. HB p.483. S. England & Channel Islands. *O. articulata* is a new British host (Tottenham, Wurzell per TFP, 1990) as is *O. adenophylla* (TFP in Wales).  
*Puccinia oxyriæ* Fuck. II, III on *Oxyria digyna*. WH p. 163. Scotland, Wales.  
*Puccinia paludosa* Plowr. Mon. Brit. Ured. Ustil. 236, 1889. 0,I on *Pedicularis palustris* : II, III on *Carex 'bigelowii'*, *C. elata*, *C. elata 'Aurea'*, *C. nigra*, *C. panicea*. WH p. 235.(as *P. caricina* var. *paludosa*). GB & Ir. *C. elata 'Aurea'* is a new host (STR,Wales).  
*Puccina pazschkei* Diet. var. *pazschkei*. III on *Saxifraga callosa* (= *S. lingulata*), *S. cotyledon*, *S. diapensioides*, *S. hostii*, *S. longifolia*, *S. 'Obristii'* (= *S. obristii*), *S. paniculata* (= *S. aizoon*), *S. porophylla*, all cultivated.Alien. WH p. 139, GB.  
 var. *jueliana* (Diet.) Savile III on *Saxifraga aizoides*, *S. oppositifolia*. WH p. 139, Scotland.  
*Puccinia pelargonii-zonalis* Doidge in Bothalia 2, 98, 1926. II, III on *Pelargonium zonale* and its hybrids. A South African alien found by Mac Guffoc in 1965 (MacGuffoc, 1966) in S England and now widespread in GB (Spooner & Fox, 1993). An earlier introduction in 1879 presumably died out (Dennis, 1993).  
*Puccinia phragmitis* (Schum.) Körnicke 0, I on *Rheum rhaboticum*, *Rumex acetosa*, *R. conglomeratus*, *R. crispus*, *R. hydrolapathum*, *R. obtusifolius*, *R. sanguineus*, II, III on *Phragmites australis* (= *P. communis*). WH p.269. GB & Ir. *Rumex sanguineus* is a new British host (Devon, BMS foray,1990).  
*Puccinia physospermi* Pass. 0, III on *Physospermum cornubiense*. WH p.154. One record in S. England.  
*Puccinia pimpinellae* (Str.) Röhl. 0, I : II, III on *Pimpinella major*, *P. saxifraga*, WH p. 155. GB & Ir. (a rust new to Ireland. Gj p.70).  
*Puccinia poarum* Niels. 0, I on *Tussilago farfara* : II, III on *Poa annua*, *P. pratensis*, *P. trivialis*. WH p. 274. GB & Ir.  
*Puccinia polemonii* Diet. & Holw. III on *Polemonium caeruleum*. WH p. 170. Derbyshire only.  
*Puccinia polygoni-amphibii* Pers.var.*polygoni-amphibii* [ 0, I on *Geranium* ] : II, III on *Persicaria* (= *Polygonum*) *amphibium*, '*P. lapathifolia* (= *Polygonum lapathifolium*)', *P. maculosa* (= *Polygonum persicaria*). WH p. 164. GB & Ir.  
 var. *convolvuli* Arth. 0, I on *Geranium dissectum* : II, III on *Fallopia* (= *Polygonum*) *convolvulus*. WH p. 165. England and Ireland, rare.  
*Puccinia porri* Wint. in Rabh. Krypt. Fl. Ed.2,1:200 (1882). II, III(rare) on *Allium*

*porrum*. WH p. 217 p.p. HB p. 487. GB & Ir. See Jennings et al. (1990).

*Puccinia pratensis* Blytt. II, III on *Helictotrichon pratense*. WH p. 275. Rare, Yorkshire only.

*Puccinia primulae* Duby. I : II, III on *Primula vulgaris* (and perhaps *P. x veris*, see HB p. 484). GB & Ir.

*Puccinia prostii* Moug. 0: III on *Tulipa australis*, *T. sylvestris*. WH p. 220, HB. p. 487. Alien introduction. GB only. *T. australis* is a new host.

*Puccinia pulverulenta* Grev. 0, I : II, III on *Epilobium adnatum*, *E. hirsutum*, *E. montanum*, *E. parviflorum*. WH p. 143. GB & Ir.

*Puccinia punctata* Link. 0, I : II, III on *Cruciata laevipes* (=*Galium cruciata*), *Galium aparine*, *G. mollugo*, *G. odoratum*, *G. palustre*, *G. saxatile*, *G. uliginosum*, *G. verum*. WH p. 185. GB & Ir.

*Puccinia punctiformis* (Str.) Röhl. 0, I : II, III on *Cirsium arvense*. WH p. 210. GB & Ir.

*Puccinia pygmaea* Eriks. var. *pygmaea*. II, III on *Calamagrostis epigejos*. WH p. 276. GB. (HB p. 490)

var. *ammophilina* (Mains) Cummins. II, III on *Ammophila arenaria*. WH p. 276. GB & Ir. (HB. p. 490).

*Puccinia recondita* Rob. & Desm.

0, I on *Anchusa officinalis*, *Lycopsis arvensis* : II, III on *Secale cereale*. WH p. 288 (as f. sp. *recondita*).

0, I on *Aquilegia vulgaris* : II, III on *Agrostis stolonifera*, *A. tenuis* and perhaps *A. gigantea*. WH p. 280 (as f. sp. *agrostidis*). GB & Ir.

0, I on *Echium vulgare* : [II, III on *Agropyron*]. WH p. 284 (as f. sp. *echii-agropyrina*). England.

0, I on *Ranunculus acris* : II, III on *Alopecurus pratensis*. WH p. 286 (as f. sp. *perplexans*). GB & Ir.

0, I on *Thalictrum alpinum* : [II, III on grasses]. WH p. 281(as f. sp. *borealis*). Scotland only.

0, I on *Thalictrum minus* subsp.*arenarium*, *T. flavum* and perhaps *Helleborus viridis*: II, III on *Elymus caninus* var. *donianus* (= *Agropyron donianum*), *Elytrigia juncea* (= *Agropyron junceiforme*), *E. repens* (= *Agropyron repens*). WH p. 286 (as f. sp. *persistens*). GB.

II, III on *Bromus* WH p. 282 (as f. sp. *bromina*). on *Anisantha diandra*, *A. madritensis*, *A. tectorum*, *Bromopsis erecta*, *B. ramosus* (= *Bromus asper*), *Bromus arvensis*, *B. commutatus*, *B. hordeaceus* subsp. *hordeaceus* (= *Bromus mollis*), subsp. *ferronii* (= *Bromus ferronii*), subsp. *thominei*, *B. interruptus*, *B. lepidus*, *B. pseudosecalinus*, *B. x pseudothominei*, *B. racemosus*. (for the many additions see Dennis, 1989).

II, III on *Triticum aestivum*. WH. p.289 (as f. sp.*tritici*). GB & Ir.

*Puccinia ribis* DC. III on *Ribes spicatum*. WH p. 140. Scotland only.

*Puccinia rugulosa* Tranz. 0, I : II, III on *Peucedanum officinale*. WH p. 156. England rare.

*Puccinia saniculae* Grev. 0, I : II, III on *Sanicula europaea*. WH p. 157. GB & Ir.

*Puccinia satyrii* Sydow. III on *Satyrium aureum*. WH p.229. Alien. Once recorded.

*Puccinia saxifragae* Schlecht. III on *Saxifraga granulata*, *S. spathulata*, *S. stellaris*, *S. umbrosa*. WH p. 138. GB & Ir.

*Puccinia schroeteri* Pass. III on *Narcissus jonquilla*, *N. majalis*, *N. pseudonarcissus*. England, perhaps extinct.

*Puccinia scirpi* DC. 0, I on *Nymphoides peltata* : II, III on *Schoenoplectus lacustris*. WH p. 245 . England, rare.

*Puccinia septentrionalis* Juel. I on *Thalictrum alpinum* : II, III on *Persicaria* (= *Polygonum*) *vivipara*. WH p. 166. Scotland only.

*Puccinia sessilis* Schroet. 0, I on *Allium ursinum*, *Arum maculatum*, *Arum creticum* (cult.), *Convallaria majalis*, *Dactylorhiza fuchsii*, *D. praetermissa*, *D. incarnata*, *Gymnadenia conopsea*, *Listera ovata*, *Paris quadrifolia* : II , III on *Phalaris arundinacea*. WH p. 291. *Arum creticum* is a new host from Trowbridge, Wilts. (Herb. E). GB & Ir.

*Puccinia smyrnii* Biv.- Bernh. 0, I : II, III on *Smyrnium olusatrum* WH p. 157. GB & Ir.(new to Scotland, Fife 1985, Henderson, E).

*Puccinia soldanellae* Fuck. 0, I on *Soldanella alpina*. WH p. 168. GB. A rare introduction.

*Puccinia sorghi* Schw. 0, I on *Oxalis corniculata* by inoculation (Mahindapala, 1978), II, III on *Zea mays*, II on *Euchlaena mexicana* by inoculation (Mahindapala, 1978). WH p. 293. England.

*Puccinia striiformis* Westend. var. *striiformis*. II, III on *Elymus* (= *Agropyron*) *caninum*, *E. repens*, *Brachypodium sylvaticum*, *Anisantha* (= *Bromus*) *sterilis*, '*Bromus* sp.' *Hordeum marinum*, *H. murinum*, *H. vulgare*, *Leymus* (= *Elymus*) *arenarius*, *Secale cereale*, *Triticum aestivum*. WH p.294. GB & Ir.

var. *dactylidis* Manners. II, III on *Dactylis glomerata*.WH p. 297. GB & Ir.

*Puccinia tanaceti* DC. II, III on *Artemisia absinthium*, *A. maritimum*, *A. vulgaris*, *Dendranthema grandiflorum* (= *Chrysanthemum* x *morifolium* ( *Puccinia chrysanthemi* Roze, WH p. 194), *Tanacetum* (= *Chrysanthemum*) *coccineum*, *vulgare*. WH p. 212. GB & Ir.

*Puccinia thesii* Chaillet 0, I : II, III on *Thesium humifusum*. WH p. 144, S. England only.

*Puccinia thymi* (Fuck.) Karsten. III on *Thymus polytrichus* (= *T. drucei*), *T. pulegioides*, *Origanum vulgare*, WH p. 180. GB.

*Puccinia tumida* Grev. II, III on *Conopodium majus*. WH p. 158. GB & Ir.

*Puccinia uliginosa* Juel in Overs. K. Vet. Akad. Forh. 51:410,1894. I on *Parnassia palustris* : II, III on *Carex nigra*. WH p. 237 (as *P. caricina* var. *uliginosa*).GB & Ir.

*Puccinia umbilici* Duby. III on *Sedum rosea*, *Umbilicus rupestris*. WH p. 136. GB & Ir.

*Puccinia urticata* Kern in Mycologia 9: 214, 1917. 0, I on *Urtica dioica*, *U. urens*. WH p. 232. GB & Ir. Zwetko's (1993) research lead to some changes in the Sedge

Rusts, essentially separating the *Urtica* rusts from those alternating with *Ribes*.

var. *biporula* Zwetko in Bibl. Mycotheca 153: 81, 1993. II, [III] on *Carex pallescens*. WH p. 240 (as *P. caricina sens lat.*) GB. This is the first record of this distinctive rust at varietal rank in the British Isles.

var. *urticae-acutae* (Kleb.) Zwetko in Bibl. Mycotheca 153:82, 1993. II, III on *Carex nigra*, *C. elata*. WH p. 238 as *P. caricina* var. *urticae-acutae*).GB & Ir.

var. *urticae-acutiformis* (Kleb.) Zwetko in Bibl. Mycotheca 153: 83, 1993. II, III, on *Carex acutiformis*, *C. pseudocyperus*. WH p.238. GB & Ir.

var. *urticae-flaccae* (Hasler) Zwetko in Bibl. Mycotheca 153: 85,1993. II, III on *Carex flacca*. WH p.238 (as *P. caricina* var. *urticae-flaccae*). GB & Ir. A new record for Ireland (Gj. p.57).

var. *urticae-hirtae* (Kleb.) Zwetko in Bibl. Mycotheca 153: 85, 1993. 0, I on *Urtica dioica* : II, III on *Carex hirta*. WH p. 239 (as *P. caricina* var. *urticae-hirtae*). GB & Ir. A new record for Ireland (Gj. p.57).

var. *urticae-inflatae* (Hasler) Zwetko in Bibl. Mycotheca 153: 87, 1993. II, III on *Carex rostrata*. WH p. 239. ( as *P. caricina* var. *urticae-inflatae*). GB.

var. *urticae-paniceae* (Mayor) Zwetko in Bibl. Mycotheca 153, 88,1993. Ir only. II, III on *Carex panicea*. This a new record for the British Isles. (Donegal, Gj.p 75).

var. *urticae-ripariae* ((Hasler) Zweško in Bibl. Mycotheca 153:89, 1993. III on *Carex riparia*. WH p. 239.( as *P. caricina* var. *urticae-inflatae*), GB & Ir. A new record for Ireland (Gj. p.57).

var.*urticae-vesicariae* (Kleb.) Zwetko in Bibl. Mycotheca 153: 90, 1993. II, III on *Carex vesicaria*.WH p.240 (as *P. caricina* var. *urticae-vesicariae*). GB & Ir. A new rust for Ireland (Gj. p. 58).

*Puccinia variabilis* Grev. 0?, I : II, III on *Taraxacum officinale* agg., *T. palustre* agg. WH p. 214. GB & Ir.

*Puccinia veronicae* Schröet. III on *Veronica montana*. WH p.176. GB & Ir.

*Puccinia veronicae-longifoliae* Savile in Can. J. Bot. 46:635, 1968. III on *Veronica spicata* subsp. *hybrida*. WH p. 176 (under *Puccinia veronicae* ). England, Wales.

*Puccinia vincae* Berk. 0, I : II, III on *Vinca major*. WH p. 168. GB & Ir.

*Puccinia violae* DC. 0, I : II, III on *Viola canina*, *V. cornuta*, *V. hirta*, *V. lutea*, *V. odorata*, *V. reichenbachiana*, *V. riviniana*, *V. tricolor*, *V. tricolor* subsp.*curtisii*, *Viola* cultivars. WH p. 126. GB & Ir.

*Puccinia virgae-aureae* (DC.) Lib. III on *Solidago virgaurea*. WH p. 216. GB & Ir.

*Puccinia agrimoniae* (Diet.) Tranz. II on *Agrimonia eupatoria*. WH p. 35. GB & Ir.

*Pucciniastrum areolatum* (Fr.) Otth. 0, I on *Picea abies* : II, III on *Prunus padus*. WH p. 35, GB & Ir.

*Pucciniastrum circaeae* (Wint.) De Toni. II, III on *Circaeae 'alpina'*, *C. x intermedia*, *C. lutetiana*. WH p.34. GB & Ir.

*Pucciniastrum epilobii* Otth. 0, I on *Abies grandis* : II, III on *Chamaerion angustifolium*, *Epilobium anagallidifolium*, *E. montanum*, *E. palustre*, *Fuchsia magellanica*, *Fuchsia* cultivars. WH p. 31. GB & Ir.

*Pucciniastrum goeppertianum* (Kuhn) Kleb. III on *Vaccinium vitis-idaea* and on cultivated *Vaccinium corymbosum* and Blueberry cv, 'Fraser'(Baker, 1972) WH p. 40. GB & Ir.

*Pucciniastrum guttatum* (Schroet.) Hyl., Jørst., Nannf. II, III on *Galium odoratum*, *G. palustre*, *G. saxatile*, *G. uliginosum*, *G. verum*, *Sherardia arvensis*. WH p.41. GB & Ir. (new to Ireland, Gj. p.76).

*Pucciniastrum pyrolae* Diet. ex Arth. II on *Orthilia secunda*, *Pyrola media*, *P. minor*, '*P. rotundifolia*'. WH p. 37. GB, rare.

*Trachyspora intrusa* (Grev.) Arth. 0, I : II, III on *Alchemilla filicaulis*, *A. glabra*, *miniima*, *A. monticola*, *A. vestita*, *A. xanthochloa*. WH p. 364. GB & Ir.

*Tranzschelia anemones* (Pers.) Nannf. II, III on *Anemone nemorosa*, *Thalictrum flavum*, *T. minus* subssp. *arenarium* and *montanum*. WH p. 303. GB & Ir.

*Tranzschelia discolor* (Fuck.) Tranz. & Litv. 0, I on *Anemone coronaria*, *A. x fulgens* : II,III on *Prunus armeniaca*, *P. domestica* subssp. *domestica* and *instititia*, *P. persica* var.*persica* and var. *nectarina*. WH p. 304. GB & Ir.

*Tranzschelia pruni-spinosae* (Pers.) Diet. II, III on *Prunus spinosa*. WH p. 307. GB & Ir. Many records confused with *T. discolor*.

*Triphragmium filipendulae* Pass. [0], I : III on *Filipendula vulgaris*. WH p. 112. England only.

*Triphragmium ulmariae* (DC.) Link 0, I : II, III on *Filipendula ulmaria*. WH p.112. GB & Ir.

*Uredinopsis americana* Syd. II on *Onoclea sensibilis*. WH p.15. Alien. Once found in London.

*Uredinopsis filicina* Magn. II, III on *Phegopteris connectilis* (=*Thelypteris phegopteris* ). WH p. 16. Scotland, rare.

*Uredo behnickiana* P. Henn. II on *Encyclia pentotis* ( PPL. in litt.), *Epidendrum vitellinum* (MM., Ireland,1980), *Laelia gouldiana* (PPL. in litt.), *Oncidium varicosum* and perhaps *Phajus wallichii*. WH p. 366. Alien in glasshouses. GB & Ir. *Encyclia pentotis*, *Epidendrum vitellinum*, *Laelia gouldiana* are new British host records.

*Uredo epidendri* P. Henn. II on *Epidendrum paniculatum*. A new alien. (HB p.495)

*Uredo festucae* DC. II only on *Festuca brevipila* (=*trachyphylla*), *F. ovina*, *F. rubra*. *Festuca brevipila* is a new host to the British Isles (Gj. p.77). GB & Ir.

*Uredo goodyerae* Tranz. II on *Goodyera repens*. WH p. 42. Scotland.

*Uredo morvernensis* Dennis in Kew Bull. 38: 201, 1983. II on *Thymus polytrichus*. A new species so far known only from Argyll and Galway (Gj. p. 78., *Uredo oncidii* P. Henn. II on *Oncidium cavendishianum*, *Spiranthes* sp., *Cattleya dowiana* all cultivated, and on native *Spiranthes spiralis* once in Hampshire. WH p. 366. GB.

**Uredo quercus** Duby. II on *Quercus ilex*, *Q. robur*. WH p. 367. S. England only.

**Uromyces acetosae** Schroet. 0, I : II, III on *Rumex acetosa*, *R. acetosella*. WH p. 341. GB & Ir.

**Uromyces aecidiiformis** (Str.) Rees. 0, I : III on *Lilium candidum*, *L. aff. martagon* (a new host, HB p.494). WH p. 352. Introduced alien. England.

**Uromyces airae-flexuosae** Ferd. & Winge. II, III on *Deschampsia flexuosa*. WH p. 359. GB & Ir. A rust new to Ireland, Gj p.78

**Uromyces aloes** (Cooke) Magnus. 0 : III on *Aloe glauca* WH p. 349 and *Aloe* sp. (HB p.494). Alien. GB.

**Uromyces ambiguus** (DC.) Fuck. II, III on *Allium babingtonii*, *A. schoenoprasum*, *A. scorodoprasum*, *A. ursinum*. WH p. 349. GB & Ir. *Allium ursinum* is a new host for the British Isles (Ireland, Gj. p. 52). See Jennings et al. (1990).

**Uromyces anthyllidis** Schroet. II, III on *Anthyllis vulneraria*, *Hippocrepis comosa*, *Lotus hispidus*, *Lupinus* sp., *Trifolium dubium*, *T. campestre*. WH p. 319. GB & Ir. *Lupinus* is a new British host (Cornwall, 1985, Gjaerum & Dennis, 1997a).

**Uromyces appendiculatus** (Pers.) Unger. 0, I : II, III on *Phaseolus coccineus*, *P. vulgaris*. WH p. 321. S. England.

**Uromyces ari-triphylli** (Schw.) Seeler. 0, I on *Arisaema triphyllum*, *Peltandra virginica*. WH p. 356. Alien. GB.

**Uromyces armeriae** Kickx. 0, I : II, III on *Armeria alliacea* (=*A. plantaginea*), *A. maritima* subsp. *maritima* *A. maritima* subsp. *elongata*, *A. maritima* var. *planifolia*, *A. pseudarmeria*. WH p. 345. GB & Ir.

**Uromyces behenis** (DC.) Unger. 0, I : II, III on *Silene uniflora* (=*S. maritima*), *S. vulgaris*. WH p. 311. GB & Ir.

**Uromyces betae** Kickx Fl. Flandres 2: 74, 1867. 0, I : II, III on *Beta vulgaris* subsp. *cicla* (Spinach Beet), subsp. *maritima*, subsp. *vulgaris* (including, Beetroot, Fodder Beet and Sugar Beet). WH p. 315 (as *Uromyces betae* (Pers.) Tul. GB & Ir.

**Uromyces chenopodii** (Duby) Schroet. 0, I : II, III on *Suaeda maritima*, *S. maritima* var. *flexilis*, *S. vera*(=*S. fruticosa*). WH p.316. GB.

**Uromyces colchici** Mass. III on *Colchicum autumnale*, *C. speciosum*, *C. 'bavaricum'*, WH p. 354. Alien. England.

**Uromyces croci** Pass. III on *Crocus vernus*. WH p. 356. Alien. Scotland.

**Uromyces dactylidis** Otth. 0, I on *Ranunculus acris*, *R. 'auricomus'*, *R. bulbosus*, *R. ficaria*, *R. repens*, *R. sceleratus* : II, III on *Dactylis glomerata*, '*Festuca ovina*' *F. rubra*, '*Poa annua*', *P. compressa*, *P. nemoralis*, *P. palustris*, *P. pratensis*, *P. trivialis*. WH p. 360. GB & Ir. *Poa compressa* and *P. palustris* are new hosts in Britain ( Dennis, 1995).

**Uromyces dianthi** (Pers.) Niessl. II, III on *Dianthus barbatus*, *D. caryophyllinus*, *D. chinensis* WH p. 312. GB & Ir.

**Uromyces ervi** West. 0, I : II, III on *Vicia hirsuta*. WH p.322, GB.

**Uromyces erythronii** (DC.) Pass. 0, I : II, III on *Erythronium dens-canis*: WH p. 350. Introduced alien. England.

**Uromyces fallens** (Arth.) Barth. Handbk. N. Amer. Ured. 61, 1928. 0, I : II, III on *Trifolium 'incarnatum'*, *T. 'medium'*, *T. pratense*. WH p. 326 (as *Uromyces fallens* (Desm.) Kern). GB & Ir.

**Uromyces ficariae** Tul. II, III on *Ranunculus ficaria* subsp. *ficaria*, subsp. *bulbilifer*. WH p. 310. (as *Uromyces ficariae* (Alb. & Schw.) Lév. GB & Ir. *R. ficaria* subsp. *bulbilifer* is a new host (STR, Wales).

**Uromyces gageae** Beck III on *Gagea lutea*. WH p. 351.England, rare.

**Uromyces gentianae** Arth., in Bot Gaz. 16: 227, 1891. II, III on *Gentianella amarella*. WH p.347 (as *Uromyces eugentianae* Cumm.). England.

**Uromyces geranii** (DC.) Fries 0, I : II, III on *Geranium cinereum* 'Ballerina', *G. dissectum*, *G. molle*, *G. pratense* var. *pratense*, *G. pratense* var. *album*, *G. pusillum*, *G. pyrenaicum*, *G. robertianum*, *G. rotundifolium*, *G. sylvaticum*. WH p. 318. (as *Uromyces geranii* (DC.) Lév.). GB & Ir. *Geranium cinereum* is a new host (TFP in litt., 1999).

**Uromyces holwayi** Lagerh. II on *Lilium columbianum*. WH p. 351. Imported alien. Last recorded 1879.

**Uromyces inaequaltus** Lasch. II, III on *Silene nutans*. WH p. 313. S. England, rare.

**Uromyces junci** (Desm.) Tul. 0,I on *Pulicaria dysenterica* : II, III on *Juncus effusus*, *J. inflexus*, *J. subnodulosus*. WH.p.355. England.

**Uromyces limonii** (DC.) Berk. Outlines British Fungology, 333, 1860. 0,I : II,III on *Goniolimon* (=*Limonium*) *tataricum* var. *angustifolium*(cult.), *Limonium latifolium* (cult.), *L. vulgare*. WH p. 346. (as *Uromyces limonii* (DC.) Lév. England only.

**Uromyces lineolatus** (Desm.) Schroet. 0, I on *Berula erecta*, *Glaux maritima*, *Oenanthe crocata*, *O. fistulosa*, *O. lachenalii*, *Sium latifolium*.II,III on *Bulboschoenus* (*Scirpus*) *maritimus* WH p. 357. *Sium latifolium* is a new host in the British Isles. (Ireland, MM,1980) GB & Ir.(see Reid, 1989).

**Uromyces minor** Schroet. I : II, III on *Trifolium dubium*, *T. incarnatum* subsp. *molinerii* (*T. molinerii*). WH p. 328. GB & Ir.

**Uromyces muscari** (Duby ) Graves, Cat. 280, 1857. III on *Hyacinthoides hispanicus*, *H. non-scripta*, *H. non-scripta* x *hispanica*, *Muscari polyanthum*, *Scilla bifolia*, *S. verna*. WH p. 353 (as *Uromyces muscari* (Duby) Lév.). GB & Ir.

**Uromyces pisi-sativi** (Pers.) Liro, Uredineae Fenniae 100, 1908. 0, I on *Euphorbia cyparissias* : II, III on *Astragalus danicus*, *Cytisus battandieri*, *C. scoparius*, *Galega officinalis*, *Genista anglica*, *G. sagittalis*, *G. tinctoria*, *Laburnum anagyroides*, *Lathyrus pratensis*, *Lotus angustissimus*, *L. corniculatus*, *L. tenuis*, *Medicago arabica*, *M. lupulina*, *M. polymorpha*, *M. sativa*, *Onobrychis viciifolia*, *Pisum sativum*, *Ulex europaeus*. WH p. 330 (as *Uromyces pisi* (DC.) Otth). GB & Ir. *Cytisus battandieri* (cult.) is a new host in Britain (HB p.350) as is *Galega officinalis* (B.M.S. Spooner, Molesey, Kent, 1999, Dennis in litt.). *Lathyrus pratensis* is a new host in Ireland (Gj. p.81).

**Uromyces polygoni-aviculariae** (Pers.) Karst. 0, I : II ,III on *Polygonum*

*avenastrum*, *P. aviculare*, *Rumex acetosella*. WH p. 342. *P. avenastrum* is a new British host (BMS, 1987, Foray). GB & Ir.

**Uromyces rumicis** (Schum.). Wint. 0, I on *Ranunculus ficaria*: II, III on *Rumex conglomeratus*, *R. crispus*, *R. hydrolapathum*, *R. longifolius*, *R. maritimus*, *R. patientia*, *R. sanguineus*. WH p. 343. The aecidial host was confirmed in Britain in 1960 (HB p.494). *Rumex longifolius* is a new host in the British Isles recorded from Ireland (Gj. p.81).GB & Ir.

**Uromyces salicorniae** de Bary 0, I : II, III on *Salicornia europaea*, *S. perennis*, *S. ramosissima*. WH p. 317. *Salicornia perennis* is a new host in Britain.(Felixstowe, 1966, Herb.E. HB. p.492 ). S. England, Wales.

**Uromyces scrophulariae** Fuck. 0, I : III on *Scrophularia aquatica*, *S. auriculata*, *S. nodosa*, *S. scorodonia*, *S. umbrosa*. WH p. 347. GB & Ir. *S. auriculata* is a new British host (STR, Wales).

**Uromyces scutellatus** (Pers.) Lév. III on *Euphorbia cyperissias*. WH p. 339. GB. First record for Scotland, Strathnaver, Sutherland, leg Boa, 1979, Herb E.

**Uromyces sparsus** (Schm. & Kze.) Cooke. 0, I : II, III on *Spergularia marina*, *S. media*, *S. rubra*, *S. marina*. WH p. 314 (as *Uromyces sparsus* (Schm. & Kze.) Lév. New to Irish flora (Gj. p.83) on *S. marina*, *S. media*. GB & Ir.

**Uromyces tinctoriicola** Magn. III on *Euphorbia hyberna*. WH p.340. S.W.Ireland only.

**Uromyces transversalis** (Thuem.) Wint. in Flora 42:263, 1884. II : [III] on cut *Gladiolus* sp . from S. Africa (PPL.in litt.) 1968. Not established. (HB p. 494).

**Uromyces trifolii** (Hedw. f. ex DC.) Fuck. Symb. Myc. 63, 1870. III on *Trifolium repens*, *T. fragiferum*. WH p. 328 (as *Uromyces nerviphilus* (Grognot) Hotson). GB & Ir.

**Uromyces tuberculatus** Fuck. 0, I : II, III on *Euphorbia exigua*. WH p. 341. S.England, only.

**Uromyces valerianae** (DC.) Fuck. 0, I : II, III on *Valeriana dioica*, *V. officinalis* subsp. *officinalis*, *V. officinalis* subsp. *sambucifolia*. WH p.348. *V. officinalis* subsp *sambucifolia* is a host new for the British Isles (Ireland, Clare, Gj. p. 83 and STR, Wales, 1999).GB & Ir.

**Uromyces viciae-fabae** (Pers.) Schroet. var. *viciae-fabae*. 0, I : II, III on *Pisum sativum*, *Vicia angustifolia*, *V. bithynica*, *V. cracca*, *V. faba*, *V. hirsuta*, *V. lathyroides*, *V. lutea*, *V. sativa* sens. lat. *V. sativa* subsp. *segetalis*, *V. sepium*. WH p. 323. *V. lathyroides* is a new host for the British Isles (Ireland, Galway, Gj. p. 83). GB & Ir.

var. *orobi* (Schum.) Jørst. II, III on *Lathyrus montanus*. WH p. 326. GB & Ir.

**Xenodochus carbonarius** Schlecht. I : III on *Sanguisorba officinalis*. WH p.109. GB, mostly southern.

**Zaghouania phillyreae** Pat. 0, I : II, [III] on *Phillyrea latifolia*, *P. latifolia* var *minor* WH. p. 14. S. England. Alien, probably extinct.

### Contracted References

BMS = Foray records of the British Mycological Society

Gj = Gjaerum (1998).

HB = Henderson & Bennell (1979).

MM = Muskett & Malone (1980).

PPL in litt. = Letters from the Central Plant Pathology Laboratory, Harpenden.

STR = Stringer (1999).

TFP = T.F.Preece (1999).

WH = Wilson & Henderson (1966)

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### Index to rusts by Host Genera

<i>Abies</i>	<i>Uromyces ambiguum</i>
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<i>Milesina dieteliana</i>	
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<i>Pucciniastrum agrimoniae</i>	
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<i>Puccinia coronata</i>	
<i>Puccinia recondita</i>	
<i>Agrostis</i>	
<i>Puccinia coronata</i>	
<i>Puccinia graminis sensu lato</i>	
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<i>Alcea</i>	
<i>Puccinia malvacearum</i>	
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<i>Allium</i>	
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<i>Melampsora allii-populina</i>	
<i>Melampsora salicis-albae</i>	
<i>Puccinia allii</i>	
<i>Puccinia porri</i>	
<i>Puccinia sessilis</i>	
<i>Alnus</i>	
<i>Melampsoridium betulinum</i>	
<i>Aloe</i>	
<i>Uromyces aloes</i>	
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<i>Puccinia coronata</i>	
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<i>Althaea</i>	
<i>Puccinia malvacearum</i>	
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<i>Arenaria</i>	<i>Puccinia arenariae</i>
<i>Arisaema</i>	<i>Uromyces ari-triphylli</i>
<i>Armeria</i>	<i>Uromyces armeriae</i>
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	<i>Puccinia coronata</i>
	<i>Puccinia graminis subsp. graminis</i>
<i>Artemisia</i>	<i>Puccinia tanaceti</i>
<i>Arum</i>	<i>Melampsora allii-populina</i>
	<i>Puccinia sessilis</i>
<i>Arundinaria</i>	<i>Puccinia kusanoi</i>
<i>Asparagus</i>	<i>Puccinia asparagi</i>
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<i>Asplenium</i>	<i>Milesia magnusiana</i>
<i>Aster</i>	<i>Puccinia cnici-oleracei</i>
	<i>Puccinia dioicae var. extensicola</i>
<i>Astragalus</i>	<i>Uromyces pisi-sativi</i>
<i>Avena</i>	<i>Puccinia coronata</i>
	<i>Puccinia graminis subsp. graminis</i>
<i>Azaleodendron</i>	<i>Chrysomyxa ledi var. rhododendri</i>
<i>Bellis</i>	<i>Puccinia distincta</i>
	<i>Puccinia lagenophorae</i>
	<i>Puccinia obscura</i>
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	<i>Puccinia graminis</i>
<i>Berula</i>	<i>Uromyces lineolatus</i>
<i>Beta</i>	<i>Uromyces betae</i>
<i>Betula</i>	<i>Melampsoridium betulinum</i>
<i>Blechnum</i>	<i>Milesina blechni</i>
<i>Brachypodium</i>	<i>Puccinia brachypodii var. brachypodii</i>
	<i>Puccinia striiformis var. striiformis</i>
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<i>Bromopsis</i>	<i>Puccinia recondita</i>
<i>Bromus</i>	<i>Puccinia graminis sensu lato</i>
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	<i>Puccinia striiformis var. striiformis</i>
<i>Brotex</i>	<i>Puccinia malvacearum</i>
<i>Bulboschoenus</i>	<i>Uromyces lineolatus</i>
<i>Bunium</i>	<i>Puccinia bulbocastani</i>
<i>Bupleurum</i>	<i>Puccinia bupleuri</i>
<i>Buxus</i>	<i>Puccinia buxi</i>
<i>Cacalia</i>	<i>Coleosporium tussilaginis</i>
<i>Calamagrostis</i>	<i>Puccinia coronata</i>
<i>Calamintha</i>	<i>Puccini menthae</i>
<i>Calanthe</i>	<i>Coleosporium tussilaginis</i>
<i>Calendula</i>	<i>Puccinia lagenophorae</i>
<i>Calendula officinalis</i>	<i>Coleosporium tussilaginis</i>
<i>Caltha</i>	<i>Puccinia calthae</i>

<i>Puccinia calthicola</i>	<i>Puccinia calcitrapae</i>	<i>Puccinia tumida</i>	<i>Puccinia arenariae</i>
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<i>Campanula</i>	<i>Centaurea</i>	<i>Crataegus</i>	<i>Milesina carpatorum</i>
<i>Coleosporium tussilaginis</i>	<i>Puccinia calcitrapae</i>	<i>Gymnosporangium confusum</i>	<i>Milesina kriegeriana</i>
<i>Puccinia campanulae</i>	<i>Puccinia cyani</i>	<i>Gymnosporangium clavariiforme</i>	<i>Echium</i>
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	<i>Puccinia arenariae</i>	<i>Uromyces croci</i>	<i>Elytrigia</i>
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	<i>Puccinia chrysosplenii</i>	<i>Puccinia arenariae</i>	<i>Chrysomyxa empetri</i>
	<i>Chrysanthemum</i>	<i>Cydonia</i>	<i>Encyclia</i>
	<i>Coleosporium tussilaginis</i>	<i>Gymnosporangium confusum</i>	<i>Uredo behnickiana</i>
	<i>Puccinia cnici-oleracei</i>	<i>Cynosurus</i>	<i>Epidendrum</i>
	<i>Cichorium</i>	<i>Puccinia graminis</i> <i>sensu lato</i>	<i>Uredo behnickiana</i>
	<i>Puccinia hieracii</i> var. <i>hieracii</i>	<i>Cystopteris</i>	<i>Uredo epidendri</i>
	<i>Cicuta</i>	<i>Hyalopsora polypodii</i>	<i>Epilobium</i>
	<i>Puccinia cicutae</i>	<i>Cytisus</i>	<i>Puccinia epilobii</i>
	<i>Ciræa</i>	<i>Uromyces pisi-sativi</i>	<i>Puccinia pulvрerulenta</i>
	<i>Pucciniastrum circaeae</i>	<i>Dactylis</i>	<i>Pucciniastrum epilobii</i>
	<i>Cirsium</i>	<i>Puccinia coronata</i>	<i>Erythronium</i>
	<i>Puccinia cnici-oleracei</i>	<i>Puccinia graminis</i> subsp. <i>graminicola</i>	<i>Uromyces erythronii</i>
	<i>Puccinia dioicae</i> var. <i>dioicae</i>	<i>Puccinia striiformis</i> var. <i>striiformis</i>	<i>Euchlaena</i>
	<i>Puccinia dioicae</i> var. <i>extensiscola</i>	<i>Uromyces dactylidis</i>	<i>Puccinia sorghi</i>
	<i>Puccinia dioicae</i> var. <i>schoeleriana</i>	<i>Dactylorrhiza</i>	<i>Euonymus</i>
	<i>Puccinia dioicae</i> var. <i>silvatica</i>	<i>Melampsora epitea</i> var. <i>epitea</i>	<i>Melampsora epitea</i> var. <i>epitea</i>
	<i>Puccinia microsora</i>	<i>Delairea</i>	<i>Euphorbia</i>
	<i>Puccinia opizii</i>	<i>Coleosporium tussilaginis</i>	<i>Endophyllum euphorbiae-silvaticae</i>
	<i>Puccinia paludosa</i>	<i>Dendranthema</i>	<i>Melampsora euphorbiae</i>
	<i>Puccinia uliginosa</i>	<i>Puccinia horiana</i>	<i>Uromyces pisi-sativi</i>
	<i>Puccinia urticata</i> var. <i>biporula</i>	<i>Puccinia tanaceti</i>	<i>Uromyces scutellatus</i>
	<i>Puccinia urticata</i> var. <i>urticae-acutae</i>	<i>Deschampsia</i>	<i>Uromyces tinctoriicola</i>
	<i>Puccinia urticata</i> var. <i>urticae-acutiformis</i>	<i>Puccinia brachypodii</i> var. <i>arrhenatheri</i>	<i>Uromyces tuberculatus</i>
	<i>Puccinia urticata</i> var. <i>urticae-flaccae</i>	<i>Puccinia coronata</i>	<i>Euphrasia</i>
	<i>Puccinia urticata</i> var. <i>urticae-hirtae</i>	<i>Puccinia graminis</i> subsp. <i>graminicola</i>	<i>Coleosporium tussilaginis</i>
	<i>Puccinia urticata</i> var. <i>urticae-inflatæ</i>	<i>Uromyces airae-flexuosae</i>	<i>Euryops</i>
	<i>Puccinia urticata</i> var. <i>urticae-paniceæ</i>	<i>Dianthus</i>	<i>Coleosporium tussilaginis</i>
	<i>Puccinia urticata</i> var. <i>urticae-ripariae</i>		<i>Fallopia</i>
	<i>Puccinia urticata</i> var. <i>urticae-vesicariae</i>		
	<i>Puccinia urticata</i> var. <i>urticae-paniceæ</i>		
<i>Carlina</i>	<i>Colchicum</i>		
	<i>Uromyces colchici</i>		
	<i>Conium</i> , 21		
	<i>Puccinia conii</i>		
	<i>Conopodium</i>		
	<i>Puccinia bistortae</i>		

*Puccinia polygoni-amphibii* var.  
*convolvuli*  
*Festuca*  
*Puccinia coronata*  
*Puccinia festucae*  
*Puccinia graminis sensu lato*  
*Uredo festucae*  
*Uromyces dactylidis*  
*Filipendula*  
*Triphragmium filipendulae*  
*Triphragmium ulmariae*  
*Frangula*  
*Puccinia coronata*  
*Fuchsia*  
*Pucciniastrum epilobii*  
*Gagea*  
*Uromyces gageae*, 43  
*Galium*  
*Puccinia difformis*  
*Puccinia galii-verni*  
*Puccinia punctata*  
*Pucciniastrum guttatum*  
*Genista*  
*Uromyces pisi-sativi*  
*Gentiana*  
*Puccinia gentianae*  
*Gentianella*  
*Uromyces gentianae*  
*Geranium*  
*Puccinia polygoni-amphibii* var.  
*convolvuli*  
*Puccinia polygoni-amphibii* var.  
*polygoni-amphibii*  
*Uromyces geranii*  
*Gladiolus*  
*Uromyces transversalis*  
*Glaux*  
*Uromyces lineolatus*  
*Glechoma*  
*Puccinia glechomatis*  
*Glyceria*  
*Puccinia brachypodii* var.  
*poae-nemoralis*  
*Puccinia coronata*

*Goniolimon*  
*Uromyces limonii*  
*Goodyera*  
*Uredo goodyerae*  
*Gymnadenia*  
*Melampsora epitea* var. *epitea*  
*Puccinia sessilis*  
*Gymnocarpium*  
*Hyalopsora aspidiotus*  
*Gypsophila*  
*Puccinia arenariae*  
*Helianthus*  
*Puccinia helianthi*  
*Helictotrichon*  
*Puccinia graminis sensu lato*  
*Puccinia pratensis*  
*Helleborus*  
*Puccinia recondita*  
*Heracleum*  
*Puccinia heraclei*  
*Herniaria*  
*Puccinia arenariae*  
*Hieracium*  
*Puccinia hieracii* var. *hieracii*  
*Hippocrepis*  
*Uromyces anthyllidis*  
*Holcus*  
*Puccinia coronata*  
*Puccinia hordei*  
*Hordeum*  
*Puccinia graminis sensu lato*  
*Puccinia graminis subsp. *graminis**  
*Puccinia hordei*  
*Puccinia striiformis* var. *striiformis*  
*Hyacinthoides*  
*Uromyces muscari*  
*Hydrocotyle*  
*Puccinia hydrocotyles*  
*Hypericum*  
*Melampsora hypericorum*  
*Hypochaeris*  
*Puccinia hieracii* var. *hypochaeridis*  
*Hypochoeris*  
*Puccinia hieracii* var. *hypochaeridis*

*Impatiens*  
*Puccinia impatiens*  
*Iris*  
*Puccinia iridis*  
*Juncus*  
*Puccinia cancellata*  
*Uromyces junci*  
*Juniperus*  
*Gymnosporangium clavariiforme*  
*Gymnosporangium confusum*  
*Gymnosporangium cornutum*  
*Gymnosporangium nitens*  
*Gymnosporangium sabinae*  
*Kleinia*  
*Coleosporium tussilaginis*  
*Koeleria*  
*Puccinia longissima*  
*Laburnum*  
*Uromyces pisi-sativi*  
*Lactuca*  
*Puccinia opizii*  
*Laelia*  
*Uredo behnickiana*  
*Lapsana*  
*Puccinia lapsanae*  
*Larix*  
*Melampsora capraearum*  
*Melampsora epitea* var. *epitea*  
*Melampsora larici-pentandrae*  
*Melampsora larici-populina*  
*Melampsora populnea*  
*Melampsoridium betulinum*  
*Lathyrus*  
*Uromyces pisi-sativi*  
*Uromyces viciae-fabae* var. *orobi*  
*Lavatera*  
*Puccinia malvacearum*  
*Ledum*  
*Chrysomyxa ledi*  
*Chrysomyxa ledicola*  
*Leontodon*  
*Puccinia hieracii* var. *hieracii*  
*Leucanthemum*  
*Puccinia cnici-oleracei*

*Leymus*  
*Puccinia elymi*  
*Puccinia striiformis* var. *striiformis*  
*Lilium*  
*Uromyces acidiiformis*  
*Uromyces holwayi*  
*Limonium*  
*Uromyces limonii*  
*Linum*  
*Melampsora lini* var. *lini*  
*Melampsora lini* var. *liniperda*  
*Listera*  
*Melampsora epitea* var. *epitea*  
*Puccinia sessilis*  
*Lolium*  
*Puccinia coronata*  
*Puccinia graminis sensu lato*  
*Puccinia hordei*  
*Lonicera*  
*Puccinia festucae*  
*Lotus*  
*Uromyces anthyllidis*  
*Uromyces pisi-sativi*  
*Lupinus*  
*Uromyces anthyllidis*  
*Luzula*  
*Puccinia luzulæ*  
*Puccinia obscura*  
*Lycopsis*  
*Puccinia recondita*  
*Mahonia*  
*Cumminsia mirabilis*  
*Puccinia graminis*  
*Malus*  
*Gymnosporangium juniperi-virginianae*  
*Ochropsora ariae*  
*Malva*  
*Puccinia malvacearum*  
*Medicago*  
*Uromyces pisi-sativi*  
*Melampyrum*  
*Coleosporium tussilaginis*  
*Puccinia moliniae*

<i>Mentha</i>	<i>Puccinia menthae</i>	<i>Puccinia hordei</i>	<i>Puccinia coronata</i>	<i>Polygonum</i>
<i>Mercurialis</i>	<i>Melampsora populnea</i>	<i>Puccinia liliacearum</i>	<i>Puccinia sessilis</i>	<i>Uromyces polygoni-aviculariae</i>
<i>Mespilus</i>	<i>Gymnosporangium confusum</i>	<i>Orthilia</i>	<i>Phaseolus</i>	<i>Polypodium</i>
<i>Meum</i>		<i>Pucciniastrum pyrolae</i>	<i>Uromyces appendiculatus</i>	<i>Milesina dietiana</i>
		<i>Oxalis</i>	<i>Phegopteris</i>	<i>Polystichum</i>
		<i>Puccinia oxalidis</i>	<i>Uredinopsis filicina</i>	<i>Milesina vogesiaca</i>
		<i>Puccinia sorghi</i>	<i>Phillyrea</i>	<i>Milesina whitei</i>
		<i>Oxyria</i>	<i>Zaghouania phillyreae</i>	<i>Populus</i>
		<i>Puccinia oxyriæ.</i>	<i>Phleum</i>	<i>Melampsora allii-populina</i>
		<i>Paeonia</i>	<i>Puccinia graminis subsp. graminicola</i>	<i>Melampsora larici-populina</i>
		<i>Cronartium flaccidum.</i>	<i>Phragmites</i>	<i>Melampsora populnea</i>
		<i>Parentucellia</i>	<i>Puccinia magnusiana</i>	<i>Potentilla</i>
		<i>Coleosporium tussilaginis</i>	<i>Puccinia phragmites</i>	<i>Frommeella tormentillae</i>
		<i>Paris</i>	<i>Physospermum</i>	<i>Phragmidium fragariae</i>
		<i>Puccinia sessilis</i>	<i>Puccinia physospermi</i>	<i>Phragmidium potentillae</i>
		<i>Parnassia</i>	<i>Picea</i>	<i>Primula,</i>
		<i>Puccinia uliginosa</i>	<i>Chrysomyxa abietis</i>	<i>Puccinia primulæ</i>
		<i>Pedicularis</i>	<i>Chrysomyxa ledi var. rhododendri</i>	<i>Prunella</i>
		<i>Puccinia clintonii</i>	<i>Pucciniastrum areolatum</i>	<i>Puccinia moliniae</i>
		<i>Puccinia paludosa</i>	<i>Picris</i>	<i>Prunus</i>
		<i>Pelargonium</i>	<i>Puccinia hieracii var. hieracii</i>	<i>Tranzschelia discolor</i>
		<i>Puccinia pelargonii-zonalis</i>	<i>Pilosella</i>	<i>Tranzschelia pruni-spinosae</i>
		<i>Peltandra</i>	<i>Puccinia hieracii var piloselloidarum</i>	<i>Pseudosasa</i>
		<i>Uromyces ari-triphylli</i>	<i>Pimpinella</i>	<i>Puccinia longicornis</i>
		<i>Pericallis</i>	<i>Puccinia pimpinellæ</i>	<i>Puccinellia</i>
		<i>Coleosporium tussilaginis</i>	<i>Pinus</i>	<i>Puccinia brachypodii var. poae-</i>
		<i>Puccinia lagenophoræ</i>	<i>Coleosporium tussilaginis</i>	<i>nemoralis</i>
		<i>Persicaria</i>	<i>Cronartium flaccidum</i>	<i>Pulicaria</i>
		<i>Puccinia bistortae</i>	<i>Cronartium ribicola</i>	<i>Uromyces junci</i>
		<i>Puccinia polygoni-amphibii var.</i>	<i>Endocronartium pini</i>	<i>Pyrola</i>
		<i>polygoni-amphibii</i>	<i>Melampsora populnea</i>	<i>Chrysomyxa ledi</i>
		<i>Puccinia septentrionalis</i>	<i>Pisum</i>	<i>Chrysomyxa ledicola</i>
		<i>Puccinia sessilis</i>	<i>Uromyces pisi-sativi</i>	<i>Chrysomyxa pirolata</i>
		<i>Petasites</i>	<i>Uromyces viciae-fabae var. viciae-</i>	<i>Puccinia graminis</i>
		<i>Coleosporium tussilaginis</i>	<i>fabae</i>	<i>Pucciniastrum pyrolae</i>
		<i>Petroselinum</i>	<i>Poa</i>	<i>Pyrus</i>
		<i>Puccinia nitida</i>	<i>Puccinia brachypodii var. poae-</i>	<i>Gymnosporangium sabinae</i>
		<i>Peucedanum</i>	<i>nemoralis</i>	<i>Quercus</i>
		<i>Puccinia angelicae</i>	<i>Puccinia coronata</i>	<i>Uredo quercus</i>
		<i>Peucedanum</i>	<i>Puccinia graminis subsp. graminicola</i>	<i>Ranunculus</i>
		<i>Puccinia rugulosa</i>	<i>Puccinia poarum</i>	<i>Puccinia magnusiana</i>
		<i>Phajus</i>	<i>Uromyces dactylidis</i>	<i>Puccinia recondita</i>
		<i>Uredo behnickiana</i>	<i>Polemonium</i>	<i>Uromyces dactylidis</i>
		<i>Phalaris</i>	<i>Puccinia polemonii</i>	<i>Uromyces ficariae</i>

*Uromyces rumicis*  
*Rhamnus*  
*Puccinia coronata*  
*Rheum*  
*Puccinia phragmites*  
*Rhinanthus*  
*Coleosporium tussilaginis*  
*Rhododendron*  
*Chrysomyxa ledi* var. *rhododendri*.  
*Ribes*  
*Cronartium ribicola*  
*Melampsora epitea* var. *epitea*  
*Melampsora ribesii-viminalis*  
*Puccinia caricina*  
*Puccinia caricina* var. *pringsheimiana*  
*Puccinia ribis*  
*Rosa*  
*Phragmidium fusiforme*  
*Phragmidium mucronatum*  
*Phragmidium rosae-pimpinellifoliae*  
*Phragmidium tuberculatum*  
*Rubus*  
*Gymnoconia nitens*  
*Kuehneola uredinis*  
*Phragmidium acuminatum*  
*Phragmidium bulbosum*  
*Phragmidium rubi-idaei*  
*Phragmidium tuberculatum*  
*Rumex*  
*Puccinia acetosae*  
*Puccinia phragmites*  
*Uromyces acetosae*  
*Uromyces polygoni-aviculariae*  
*Uromyces rumicis*  
*Sagina*  
*Puccinia arenariae*  
*Salicornia*  
*Uromyces europaea*  
*Uromyces salicorniae*  
*Salix*  
*Melampsora allii-fragilis*  
*Melampsora amygdalinae*  
*Melampsora arctica*  
*Melampsora capraeарum*

*Melampsora epitea* *sensu lat.*  
*Melampsora epitea* var. *epitea*  
*Melampsora epitea* var. *reticulatae*  
*Melampsora ribesii-viminalis*  
*Melampsora salicis-albae*  
*Sanguisorba*  
*Phragmidium sanguisorbae*  
*Xenodochus carbonarius*  
*Sanicula*  
*Puccinia saniculae*  
*Sasa*  
*Puccinia longicornis*  
*Satureja*  
*Puccinia menthae*  
*Satyrium*  
*Puccinia satyrii*  
*Saxifraga*  
*Melampsora arctica*  
*Melampsora epitea* var. *reticulatae*  
*Melampsora vernalis*  
*Puccinia pazschkei* var. *jueliana*  
*Puccinia pazschkei* var. *pazschkei*  
*Puccinia saxifragae*  
*Schoenoplectus*  
*Puccinia scirpi*  
*Scilla*  
*Uromyces muscari*  
*Scolopendrium*  
*Milesina scolopendrii*  
*Scrophularia*  
*Uromyces scrophulariae*  
*Secale*  
*Puccinia graminis* subsp. *graminis*  
*Puccinia recondita*  
*Puccinia striiformis* var. *striiformis*  
*Sedum*  
*Puccinia umbilici*  
*Selinum*  
*Puccinia angelicae*  
*Sempervivum*  
*Endophyllum sempervivi*  
*Senecio*  
*Coleosporium tussilaginis*  
*Puccinia dioicae* var. *schoeleriana*

*Puccinia glomerata*  
*Puccinia lagenophorae*  
*Serratula*  
*Puccinia hieracii* var. *hieracii*  
*Seseli*  
*Puccinia libanotidis*  
*Sesleria*  
*Puccinia graminis* subsp. *graminicola*  
*Sherardia*  
*Pucciniastrum guttatum*  
*Sidalcea*  
*Puccinia malvacearum*  
*Silaum*  
*Puccinia angelicae*  
*Silene*  
*Puccinia arenariae*  
*Puccinia behenis*  
*Uromyces behenis*  
*Uromyces inaequaltus*  
*Silybum*  
*Puccinia mariana*  
*Sium*  
*Uromyces lineolatus*  
*Smyrnium*  
*Puccinia smyrnii*  
*Puccinia ljunica*  
*Soldanella*  
*Puccinia soldanellae*  
*Solidago*  
*Puccinia eriophori*  
*Puccinia virgae-aureae*  
*Sonchus*  
*Coleosporium tussilaginis*  
*Miyagia pseudosphaeria*  
*Sorbus*  
*Gymnosporangium cornutum*  
*Ochropsora ariae*  
*Spergula*  
*Puccinia arenariae*  
*Spergularia*  
*Uromyces sparsus*  
*Spiranthes*  
*Uredo oncidii*  
*Stachys*  
*Puccinia betonicae*  
*Stellaria*  
*Melampsorella caryophyllacearum*  
*Puccinia arenariae*  
*Suaeda*  
*Uromyces chenopodii*  
*Symphytum*  
*Melampsorella symphyti*  
*Synosma*  
*Coleosporium tussilaginis*  
*Tanacetum*  
*Puccinia tanaceti*  
*Taraxacum*  
*Puccinia hieracii* var. *hieracii*  
*Puccinia variabilis*  
*Teucrium*  
*Puccinia annularis*  
*Thalictrum*  
*Puccinia recondita*  
*Puccinia septentrionalis*  
*Tranzschelia anemones*  
*Thesium*  
*Puccinia thessii*  
*Thymus*  
*Puccinia thymi*  
*Uredo morvernensis*  
*Tragopogon*  
*Puccinia hysterium*  
*Trichophorum*  
*Puccinia eriophori*  
*Trifolium*  
*Uromyces anthyllidis*  
*Uromyces fallens*  
*Uromyces minor*  
*Uromyces trifolii*  
*Trisetum*  
*Puccinia graminis* subsp. *graminis*  
*Triticum*  
*Puccinia graminis* subsp. *graminis*  
*Puccinia recondita*  
*Puccinia striiformis* var. *striiformis*  
*Tropaeolum*  
*Coleosporium tussilaginis*  
*Cronartium flaccidum*

<i>Tsuga</i>	<i>Puccinia commutata</i>
<i>Naohidemyces vaccinii</i>	<i>Uromyces valeriana</i>
<i>Tulipa</i>	<i>Puccinia prostii</i>
<i>Puccinia prostii</i>	<i>Puccinia albulensis</i>
<i>Tussilago</i>	<i>Coleosporium tussilaginis</i>
<i>Puccinia poarum</i>	<i>Puccinia veronicae</i>
<i>Puccinia veronicae-longifoliae</i>	
<i>Ulex</i>	<i>Vicia</i>
<i>Uromyces pisi-sativi</i>	<i>Uromyces ervi</i>
<i>Umbilicus</i>	<i>Uromyces viciae-fabae var. viciae-</i>
<i>Puccinia umbilici</i>	<i>fabae</i>
<i>Urtica</i>	<i>Vinca</i>
<i>Puccinia urticata</i>	<i>Puccinia vincae</i>
<i>Puccinia urticata var. biporula</i>	<i>Viola</i>
<i>Puccinia urticata var. urticae-hirtae</i>	<i>Puccinia fergusonii</i>
<i>Vaccinium</i>	<i>Puccinia violae</i>
<i>Naohidemyces vaccinii</i>	<i>Vulpia</i>
<i>Pucciniastrum goeppertianum</i>	<i>Puccinia hordei</i>
<i>Valeriana</i>	<i>Zea</i>
	<i>Puccinia sorghi</i>