

DISEASES OF MISCELLANEOUS PLANTS

The information here reported on parasitic fungi was received from collaborators. Time unfortunately has not permitted the recording of the fungi collected about Ottawa this summer, as a large portion of the collections remain to be examined. All records that would duplicate last year's report are also omitted.

Agropyron cristatum J. Gaertn.

Claviceps purpurea (Fr.) Tul. Edmonton, Alta.

Agropyron dasystachyum (Hook.) Scribn.

Claviceps purpurea (Fr.) Tul. Cayley, Alta.

Agropyron repens (L.) Beauv.

Puccinia graminis Pers. Forty-five per cent of the plants were moderately rusted at the Experimental Station, Fredericton, N.B. Common this year in York county.

Claviceps purpurea (Fr.) Tul. Edmonton, Alta. Also 5 per cent of the plants moderately affected at the Experimental Station, Fredericton, N.B.

Agrostis palustris Huds.

Puccinia graminis Pers. Twenty per cent of the plants were moderately rusted at the Experimental Station, Fredericton. Widespread this year in York county.

Amaranthus retroflexus L.

Cystopus Bliti (Biv.) Lév. Plants moderately affected at the Experimental Station, Fredericton, N.B.

Amelanchier alnifolia Nutt.

Apiosporina Collinsii (Schw.) v. Höhnelt. Saskatoon, Sask.

Anenone cylindrica A. Gray

Puccinia Clematidis (DC.) Lagerh. Sutherland, Sask.

Anticlea elegans (Pursh) Rydb.

Puccinia atropuncta Peck. & Clint. III Saskatoon, Sask. Rather rare.

Arabis brachycarpa (T. & G.) Britton

Puccinia monoica (Peck.) Arth. This rust is common on the high banks of the South Saskatchewan river at Saskatoon, Sask. It is probably the first rust to appear there each spring. This year the pycnia were collected April 21, and the aecia on May 20. (R. C. Russell)

Arisaema Trifolium (L.) Schott

Uromyces Caladii (Schw.) Farl. Fredericton, N.B. June 15, 1930.

Artemisia sp.

Puccinia universalis Arth. 0 & I St. Gregor, Sask.

Calamagrostis canadensis (Michx.) Beauv.

Claviceps purpurea (Fr.) Tul. Nestow, Alta. The grass was severely infected over a large area in the sand hills (zone 10). (A. W. Henry).

Calamovilfa longifolia (Hook.) Hack.

Puccinia amphigena Diet. III Sutherland, Sask. The rust is common on this host. Nemexia lasioneuron (Hook.) Rydb. (Smilax herbacea Coult.) was growing within a few rods of this location. (R. C. Russell.)

Capsella Bursa-pastoris (L.) Medic.

Cystopus candidus (Pers.) de Bary Lincoln county, Ontario.

Chrysopsis hirsutissima Greene

Puccinia Stipae (Opiz.) Arth. I. Saskatoon, Sask. "This is the first time that P. Stipae has been reported on this host in Saskatchewan, as far as I am aware. It is listed in the North American Flora on C. villosa in Montana". (R.C. Russell).

Cirsium arvense L.

Puccinia saueolens (Pers.) Rostr. This rust is very prevalent throughout Annapolis and Kings counties, N.S. (J. F. Hockey).

Cirsium sp.

Puccinia Cirsii Lasch II. St. Gregor, Sask.

Uromyces Junci (Desm.) Tul. O.I. Saskatoon, Sask. Common on the native "bull" thistle.

Clematis ligusticifolia Nutt.

Puccinia Clematidis (DC.) Lagerh. O.I. Saskatoon, Sask. This rust was heavy on a vine growing under cultivation. (C.H. Bryce).

Crataegus chrysocarpa Ashe

Gymnosporangium clavariaeforme (Jacq.) DC. Pycnia were well developed on July 3 and the aecia were past their best on July 31, at Saskatoon, Sask.

Elymus condensatus Presl.

Claviceps purpurea (Fr.) Tul. Pincher Creek, Alta.

Eupatorium purpureum L.

Erysiphe cichoracearum DC. Collected in P.E.I.

Galium boreale L.

Puccinia rubefaciens Johans. III. Battleford, Saskatoon and Humboldt, Sask. The rust was heavy at the last place. The sori were surrounded by reddish borders.

Phoma elliptica Peck. appeared to be killing a patch of Galium boreale at Saskatoon, Sask. The stems showed lesions and the

leaves were yellowing and then turning dark. Last year's stems which were still standing were covered with pycnidia of a fungus, which was identified as Phoma elliptica by Dr. Dearness (R.C. Russell).

Glaux maritima L.

Puccinia Distichlidis O.I. Undora, Sask. Light infection.

Glycyrrhiza lepidota (Nutt.) Pursh

Uromyces Glycyrrhizae (Rabh.) P. Magn. Saskatoon, Sask. The telia were scattered irregularly over the leaf and therefore looked quite different from the systemic uredinia. The uredinial stage was also collected at Saskatoon and Humboldt.

Grindelia squarrosa (Pursh) Dunal

Puccinia Grindeliae Peck. III. Saskatoon, Sask. A fairly heavy infection was found in an open pasture.

Halerpestes cymbalaria (Pursh) Greene

Puccinia Clematidis (DC.) Lagerh. O.I. Common on this host about Saskatoon, Sask.

Helianthus subtuberosus Bourgeau

Puccinia Heliathi Schw. III. Saskatoon, Sask. Infection fairly heavy.

Hordeum jubatum L.

Ustilago Lorentziana Thüm. This smut was collected 8 times in zones 2-4 and 10-11 in Alta. The infections were local. One collection also made near Windermere, B.C., (G.B. Sanford). It was collected at Indian Head, Sask.

Puccinia graminis Pers. Ferintosh and Jarrow, Alta.

Iva axillaris Pursh

Puccinia intermixta Peck. I. Allan, Sask. Heavy systemic infection was found on some plants.

Juncus balticus Willd.

Uromyces Junci (Desm.) Tul. III. Saskatoon, Sask., Sept., 16, 1930. The rust was heavy and common. Cirsium near by bore pycnia and aecia on July 1.

Juncus longistylis Torr.

Uromyces Silphii (Burr.) Arth. (U. Junci-tenuis Syd.) II. III. Saskatoon, Sask., Sept. 1, 1930.

Lactuca pulchella (Hook.) Kuntze

Puccinia hemisphaerica (Pk.) Ell. & Ev. O.I. Radisson and Tessier, Sask.

Lappula Lappula (L.) Karst.

Peronospora Echinospemi Swingle Locally on a patch of blue burr at Saskatoon, Sask.

Leontodon autumnalis L.

Yellows (Virus) Five per cent of the plants, Kings county, N.S.

Puccinia Hieracii (Schum.) Mart. Queens county, P.E.I. Infection light.

Lepidium densiflorum Schrad.

Peronospora Lepidii (McAlpine) G. W. Wilson. The downy mildew produces witches broom on the host. This disease is common around Saskatoon, Sask. (R.C. Russell)

Limonium carolinianum (Walt.) Britton

Uromyces Limonii (DC.) Lév. Queens county, P.E.I. Plants noticeably injured.

Lygodesmia juncea Don.

Puccinia patruelis Arth. I. Saskatoon, Sask. Not abundant.

Malvastrum coccineum (Pursh) Gray

Puccinia Sherardiana Korn. III. Saskatoon and Glenside, Sask.

Nabalus racemosa (Michx.) DC.

Puccinia orbicula Pk. & Clint. III. St. Gregor, Sask. Common in the Humboldt district.

Puccinia patruelis O. I. St. Gregor, Sask.

Norta altissima (L.) Britt. (Sisymbrium altissimum L.)

Peronospora parasitica (Pers.) de Bary Saskatoon, Sask. Material collected Sept. 16, bore an abundance of oospores in the affected areas. These spots were overgrown with Alternaria. (E. G. & R. C. Russell).

Cystopus candidus (Pers.) de Bary Saskatoon, Sask. Trace found.

Oenothera biennis L.

Uromyces plumbarius Peck. O. I. Kentville, N. S. Few plants found.

Erysiphe Polygoni DC. York county, N.B.

Phalaris arundinacea L.

Claviceps purpurea (Fr.) Tul. Clyde, Alta.

Phlox Hoodii Richards.

Puccinia Douglasii Ell. & Ev. O. I. Saskatoon, Sask. The aecial stage is found occasionally in this district.

Plantago major L.

Yellows (Virus) Affected plants were collected by Mr. Groh in the lawn of the Arboretum, Experimental Farm, Ottawa, Ont., in May. The disease has been noted in previous seasons. Plants of the common milk weed (Asclepias syriaca L.) and toadflax (Linaria vulgaris Hill) were also collected by Mr. Groh, in Ottawa West. Diseased plants were sent to Dr. L. O. Kunkel. He reported that the symptoms were typical of yellows, but he had never seen it on toadflax, nor had he tested the plant experimentally.

Erysiphe Cichoracearum DC. Severe and widespread this season in York county, N.B.

Poa pratensis L.

Claviceps purpurea (Fr.) Tul. Midnapore, Alta.

Physalis heterophylla Nees

Puccinia Physalidis Peck. A heavy infection on plants in an orchard in Rouville county, Que.

Potentilla viridescens Rydb. and P. flabelliformis Lehm.

Phragmidium Ivesiae Syd. III. Saskatoon, This species is not collected as commonly as P. Potentillae in this area.

Potentilla sp.

Phragmidium Potentillae (Pers.) Karst. York county, N.B.

Portulaca oleracea L.

Cystopus Portulacae (DC.) Lév. Plants moderately infected at Experimental Station, Fredericton, N.B.

Prunus melanocarpa (A. Nels.) Rydb.

Dibotryon morbosum (Schw.) Theiss. & Syd. conidial stage collected at Qu'Appelle, Sask. July 13, 1930.

Prunus pennsylvanica L. f.

Coccomyces hiemalis Higgins (Cylindrosporium Padi Karst.)  
A moderate infection of this shot hole was reported from Saskatoon.

Prunus virginiana L.

Dibotryon morbosum (Schw.) Theiss. & Syd. Quite severe on chokecherry in vicinity of Agricultural College, Winnipeg, Man. It was also reported from Neepawa, Man. A severe infection was observed at Hawkesbury, Ont. The disease is severe in many parts of New Brunswick on chokecherry and related species. (D.J. MacLeod)

Pulsatilla ludoviciana (Nutt.) Heller.

Puccinia suffusca Holw. Saskatoon, Sask. This rust is not very common.

Rhamnus cathartica L. (escaped)

Puccinia coronata Corda Trace collected June 3, at Fairy Lake, Que.

Rubus melanolasius Focke

Mycosphaerella Rubi Roark (Septoria Rubi West.) The imperfect stage was abundant in a sheltered valley of a creek at Beaver Creek, Sask.

Rubus strigosus Michx.

Pucciniastrum americanum (Farl.) Arth. Queens county, P.E.I.

Rubus triflorus Richards

Gymnoconia Peckiana (Howe) Trotter Severe at Experimental Station, Fredericton, N.B. The disease is widespread in the province on this species.

Sabina horizontalis (Moench.) Rydb.

Gymnosporangium juvenescens Kern. Sutherland, Sask. This rust causes witches' brooms on the host. It is quite common along the river.

Gymnosporangium corniculans Kern. Sutherland, Sask. This rust is fairly common on the steep slopes of the river bank where Sabina and Amelanchier grow in fairly close proximity to each other.

Sanicula marilandica L.

Puccinia marylandica Lindr. St. Gregor, Sask. Aecia collected June 5, and telia July 16 and August 29. Rust was not plentiful although the host was abundant.

Sideranthus spinulosus (Pursh.) Sweet

Puccinia Grindeliae Peck. Southey, Sask. Heavy infection.

Solanum triflorum Nutt.

Entyloma australe Speg. Saskatoon, Sask. Not very plentiful this year, although common in some years.

Solidago sp.

Coleosporium Solidaginis (Schw.) Thüm. York county, N.B.

Stieronema ciliatum (L.) Raf.

Puccinia Dayi Glint. III. Saskatoon, Sask. Heavy infection. Also collected at Englefield, Sask.

Symphoricarpos occidentalis Hook.

Puccinia Crandallii Pamm. & Hume O. I. Carmel, Sask.

Septoria Symphoricarpi Ell. & Ev. Lyston and Saskatoon, Sask.

Taraxacum officinale Weber

Puccinia Hieracii (Schum.) Mort. Very common in Lincoln county, Ont. Abundant in Nova Scotia.

Sphaerotheca Humuli (DC.) Burr. var fulginea (Schlecht.) Salmon Common and severe in York county, N.B.

Ramularia Taraxaci Karst. Indian Head, Sask. Very common.

Tithonia speciosa Hook. (cult.)

Sclerotinia Sclerotiorum (Lib.) de Bary Experimental Station, Morden, Man. Plants completely destroyed. The seed from which these plants were grown was imported from South Africa.

Vicia Cracca L. (Cow vetch)

Erysiphe Polygoni DC. Queens county, P.E.I. Apparently injurious.

Vicia sparsifolia Nutt.

Uromyces albus Diet. & Holw. O.I. Saskatoon, Sask., May 19; and

Radisson, Sask. Common about Saskatoon. The rust changes the habit of the host. The plant is erect instead of decumbent and is also modified in other ways.

Viola canadensis L.

Puccinia Violae (Schum.) DC. Saskatoon, Sask.

Viola sp.

Puccinia Violae (Schum.) DC. York county, N.B.