NOTES ON PARASITIC FUNGI IN WISCONSIN. XVI

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It is perhaps well to repeat that this series of notes is supplemental to a list of parasitic fungi in Wisconsin published in the Transactions of the Wisconsin Academy of Science, Arts and Letters 17: 846-984. Names of hosts are according to Gray’s New Manual of Botany, seventh edition.

*Peronospora urticae* (Lib.) DBy. was collected in 1883 at Kirkland (now Devils Lake) by Trelease and at La Crosse by Pammel. These localities are 80 miles apart. No further collections appear to have been made in America except a record by Harkness & Moore of its occurrence in California but there appears to be no specimen extant.

It has recently come to my attention that *Geranium maculatum* was recorded as a host of *Erysiphe polygoni* DC. in the Provisional List while the parasite is really *Sphaerotheca humuli* (DC.) Burr. While looking the matter up in the herbarium I found that the specimen of *Sphaerotheca humuli* (DC.) Burr. on Geranium in Ellis & Everhart *Fungi columbiani continued* 1438 was labeled *Erysiphe polygoni* DC.

Because of the previous use of the name Keithia for a genus of Labiatae by Bentham Maire replaces Keithia Sacc. by Didymascella Sacc. & Maire and makes new combinations accordingly *(Bull. Soc. Nat. Hist. Afrique du Nord. 18: 120μ, Abstract in Review of Applied Mycology 7: 59.*) Keithia appears to have been used as a generic name still earlier by Sprengel, applied to some phanerogamous plant.

Pycnidia of *Phyllosticta viticola* (B. & C.) Thuem. *(Ph. labruscae Thuem.*) occur in which the sporules are mostly 4-7 x 2-3 μ. This may be microconidial rather than immature.
In the 34th Report of the State Museum of Natural History (1881), p. 45, Peck described a leaf parasite of *Apocynum androsaemifolium* under the name *Septogloeum apocyni* n. sp. and gave figures of a spotted leaf and of sporules on Plate I, fig. 2 & 3. Because of the presence of a thin wall surrounding the hymenium this was transferred to *Stagonospora* in Transactions of the Wisconsin Academy of Science, Arts and Letters 19: 699 (1919). In *Hedwigia* 58: 25 (1917) Bubak, apparently unaware of Peck’s publication, described the parasite as *Dearnessia apocyni* n. gen. & n. sp. The thinness of the pycnidial wall and the presence of superficial hyphae hardly seem to be generic characters. Sydow, *Fungi exotici* exs. 749, represents the Fungus.

In the provisional list a parasite of *Gentiana andrewsii* was recorded under the name *Leptothyrium gentianaecolum* (DC.?) Baeml. Wisconsin specimens were distributed in Ellis & Everhart *North American Fungi* 2766 labeled *Phyllosticta* (Depaea) gentianaecola (DC.). In Ellis & Everhart’s *North American Phyllostictas* it was included under the name *Phyllosticta gentianaecola* with Depaea gentianaecola given as a synonym. In *North American Flora* 6: 30, it is *Phyllosticta gentianaecola* (DC.) Ellis & Ev. In “Notes” X, pp. 272–3 it was suggested that it might be *Asteroma gentianaec* Fckl. In an attempt to clear the matter up material was sent to the European mycologist, Dr. F. Petrak, who thinks it to be distinct and suggests the new binomial *Asteromella andrewsii* nom. nov. The ascogenous state that seems to be connected with it being *Mycosphaerella andrewsii* Sacc. As stated in “Notes” X there is one collection on *Gentiana puberula*.

In July, 1927 a collection was made at Portage that appears to be a better developed state of the parasite that was described in *Trans. Wis. Acad.* 9: 99 under the name *Septoria brevispora* Ell. & Davis (Syll. Fungorum 18: 396). In this collection the spots become sordid white, except the peripheral portion, the pycnidia dark brown with a black ring around the pore and the sporules 15–80 x 2 ½–4 μ. On staining, a median division of the cytoplasm
appears. The host of the Portage collection was a coarse grass without fructification which may well be *Bromus ciliatus* or a cognate species. In the collections made at Racine, of which there are 4, development may have been arrested by death of the host tissues.

In a collection of Septoria on leaves of what is perhaps *Populus nigra* from Sauk City (Aug. 5, 1927) most of the spots become finally round, white and arid, 1–2 mm. in diameter. The sporules are biseptate only the short ones having but one septum. This seems to be intermediate between *S. Populi* Desm. and *S. musiva* Pk. and is of interest in connection with the suggestion in “Notes” I, p. 83, of a single variable species.

A specimen from this collection was sent to Dr. F. Petrank who identified it as *Septoria populi* Desm. and stated that *S. musiva* Pk. is a form of that species.

In a collection of *Septoria negundinis* E. & E. from Arena the pycnidia are effused over areas that sometimes retain the green color until full maturity of the parasite. Some of the sporules exceed 50μ in length. The hosts are dooryard trees.

A collection made at Carmel, California, by Mrs. Effie S. Spalding communicated by Dr. B. M. Duggar which I refer to this species shows sporules 20–38 x 3–4μ, 3-septate.

In making comparison with specimens of *Septoria davisii* Sacc. in the Davis herbarium the following notes as to size of sporules were found on the packets: “33–40 x 2μ. Type of *Septoria canadensis* Ell. & Davis,” “36–80μ long,“ “30–70 x 2–3μ,” “33–52 x 1½–2μ.” In the specimen that was being compared they were 33–36 x 2μ. The host appears to be what is now known as *Solidago altissima* L. The parasite is probably not distinct from *Septoria fumosa* Pk.

In addition to the typical form of *Septoria rudbeckiae* Ell. & Hals. *Rudbeckia laciniata* bears a form in which the spots are orbicular to angular, white and arid with a very narrow dark margin, 1–2 mm. in diameter, sometimes confluent. The sporules are straight, 35–70 x 1μ.
Gloeosporium apocryptum Ell. & Ev. was described as having sporules 5–12 x 2½–5μ. Wisconsin collections show sporules up to 17 x 7μ. In germination on a slide dark “apressoria” were produced about 10 x 6μ.

Dr. F. J. Seaver kindly compared Tuberculina argillacea Davis (“Notes” XI, p. 293) with Gloeosporium rubi Ell. & Ev. (Journ. Mycol. 4: 52) and found that they appear to be the same. It is not typical of either genus. The reference to Tuberculina was based largely on its apparent relation to Caemoula.

Dr. Petrak states that a Wisconsin specimen labeled Ramularia uredinis (Voss) Sacc. is Ramularia rosea (Fckl.) Sacc. (Ann. Mycol. 25: 222). It was noted in the 1st and 3d supplementary lists of parasitic Fungi of Wisconsin that it sometimes appeared on leaves of Salix on which no sori of Melampsora were seen. What appears to be the same organism has been collected on Caemoula-infected leaves of Populus deltoides as was recorded in “Notes” IV, p. 679. Typical Ramularia rosea (Voss) Sacc. is common in Wisconsin on leaves of various species of Salix not bearing Melampsora.

In the transactions of the Wisconsin Academy of Science Arts and Letters 16: 762–3 Ramularia paulula was published as a new species on Elodes (Hypericum) virginica. It was afterwards found that the host was probably Lysimachia thyrsiflora and the parasite Ramularia lysimachiae Thuem., hence it was omitted from the Provisional list.

In the description of Cladosporium humile (“Notes” V, 702) it was stated that the conidiophores are epiphyllous. They occur on the lower surface of the spots also.

The record of Cercospora zebrina Pass. on Trifolium dubium in “Notes” XII, p. 160 was an error. It should be Cercospora medicaginis Ell. & Ev. if that is distinct, on Medicago lupulina. The collection was made hastily at a junction point while changing trains.

While studying the germination of the spores of leaf smut of Glyceria Bauch found that the sporidia of Ustilago longissima (Sow.) Tul. were of two classes as shown
by their behavior in conjugation while those of the var. macrospora were of three kinds. (Zeitschr. f. Botanik 15: 241 et seq.) On morphological grounds Liro considered the variety specifically distinct, proposing for it the binomial Ustilago davisi. (Usilagineen Finnlands 1: 80). This illustrates the different conceptions of the limits of a group of organisms that shall be considered a species. When the varietal distinction was first made the host was known as Glyceria fluitans; later it was segregated under the name G. septentrionalis.

A specimen of Entyloma compositarum Farl. on Lepachys pinata collected at New Glarus June 20, 1927 shows unusual development of conidia ranging up to 70 x 2μ.

In "Notes" XIV record was made of the development of Puccinia on Andropogon furcatus in the greenhouse in the spring of 1925 using aeciospores of Aecidium falcatae Arth. on Amphicarpia monoica as the inoculum.

In 1926 similar infection was secured from Aecidium xanthoxyliPk. except that the uredospores were of the Puccinia pustulata type. Record of this is made in "Notes" XV issued herewith.

In conversation with Dr. E. B. Mains he told me that he had once infected Polygala Senega with Puccinia andropogonis but that the return inoculation on Andropogon failed and he did not publish for that reason. In the spring of 1927 two lots of rusted Andropogon furcatus that had been overwintered out-doors were anchored in a locality where Polygala Senega was growing but where no Aecidium had been seen on it. One lot had been obtained at Blue River and about it no aecia appeared. The other lot came from Dill and around it Aecidium appeared on the Polygala. With these aecia Andropogon furcatus was infected in the greenhouse resulting in uredinia and a few telia. The uredospores were of the typical P. andropogonis type.

Sheldon reported that he had brought about development of Uromyces on Sisyrinchium by infection from aeciospores of Aecidium houstoniatum Schw. on Houstonia caerulea. He also reported that he had tried several times to inoculate Sisyrinchium with aeciospores from Houstonia purpu-
rea both in the field and in the greenhouse but without definite success (Torreya 9: 54–5). Aecidium houstoniatum Schw. occurs in Wisconsin on Houstonia longifolia but no rust has been found on Sisyrinchium although it has been looked for in the vicinity of infected Houstonia. In June, 1927 an attempt was made to infect Sisyrinchium obtained from two sources with Aecidium on Houstonia but although the conditions appeared to be favorable no infection resulted.

In the Preliminary List of Parasite Fungi of Wisconsin by William Trelease (Trans. Wisconsin Academy of Science Arts & Letters 6 (188), Uredo sp. (No. 216) on Mimulus ringens and Aecidium pentstemonis Schw. (No. 240) on the same host were reported as having been collected at La Crosse by Pammel. I am informed that Dr. Pammel’s specimens, which are in the herbarium of Iowa State College, have been examined by Dr. Arthur who concluded that the host is Epilobium coloratum, the Uredo Pucciniastrum pustulatum (Pers.) Diet. and the Aecidium that of Puccinia peckii (De Toni) Kell. The latter has not been recorded as occurring on Epilobium in Wisconsin.

**ADDITIONAL HOSTS FOR WISCONSIN**

It is customary to add each year another host for Synchytrium in Wisconsin. For 1927 it is Steironema ciliatum and the parasite is referred to Synchytrium aureum Schroet. In this collection which was made at Blue River, the wall surrounding the sorus is often very irregularly thickened. This may have been due to the character of the season which was very dry.

Albigo candida (Pers.) O. Kuntze


Spotting of the leaves of water cress, Radicula nasturtiium-aquaticum, growing in the waters of springs emptying into lake Wingra at Madison due to Cercospora nasturtii Pass. is not uncommon. In 1927 however abundant leaf spotting occurred which was due to Peronospora parasitica (Pers.) Tul.
Sphaerotheca humuli (DC.) Burr.
On Geum strictum. Sauk City.

Erysiphe cichoracearum DC.

Microsphaera alni (Wallr.) Wint. (M. elevata Burr.)
On Catalpa (cult.) Cudahy. A. C. Burrill.

Acanthostigma occidentale (E. & E.) Sacc.
Stylosporous state on Artemisia ludoviciana. Token Creek. The stylospores are about 5 x 2μ.

Stagonospora intermixta (Cke.) Sacc.
On Agrostis alba. La Valle. In this collection the pycnidial wall is of uniform thickness, the 7-septate sporules 43–48 x 3⅓μ.

Septoria caricina Sacc. & Roum.

Septoria violae West.
On Viola blanda. Hollandale.

Septoria lysimachiae West.
On Lysimachia quadrifolia. La Valle. Scanty and poorly developed in this collection.

Colletotrichum graminicolum (Ces.) Wilson.
On culms of Cinna arundinacea. Arena.
On Sorghastrum nutans. Browntown.
But few sporules in this collection. The spots are purple bordered.

Marssonina coronaria (Ell. & Davis) Davis. (Marsonia coronariae Sacc. & Dearn.)
On Pyrus ioensis. Trempealeau and Highland.

Ramularia decipiens Ell. & Ev.

On Rumex obtusifolius. Browntown.

Fusicladium effusum Wint. var. carpineum Ell. & Ev.
On Carpinus caroliniana. Hollandale.

[Demaree finds that the conidia of Fusicladium effusum Wint. on Carya are catenulate and refers the species to Cladosporium with a new description (Journ. Ag'l Re-
search 37: (86) The form on Carpinus appears to be of the same character.]

*Cercospora helianthi* Ell. & Ev.

On *Helianthus strumosus*. Browntown. In this collection the conidiophores are hypophyllous, tortuous, multi-septate, ranging up to 200μ in length.

*Isariopsis albo-rosetella* Sacc.

On *Stellaria aquatica*. South Wayne and Gratiot. Abundant at the latter station but not well developed at the time of collection. It was thought to be *Graphiothecium pusillum* (Fckl.) Sacc. until septate conidia were found.

In 1911 *Puccinia graminis* Pers. was observed on a single plant in a colony of *Glyceria grandis* near Butternut in northern Wisconsin. In 1927 this experience was repeated at New Glarus in southern Wisconsin. At Blue River a plant of *Leersia virginica* was found bearing *Puccinia impatiens-elymi* Arth. (Klebahn) = *P. impatiens* Arth. = *P. elymi-impatiens* Davis. This rust is abundant in the locality on Elymus but in only the single instance has it been found on *Leersia* although 3 species of the genus occur there and it has been a favorite collecting ground in previous years. There appears to be no record of its occurrence on this host elsewhere. Such occurrences may lead one to surmise that development of a species on a new host may occasionally take place and that this may sometimes be followed by adaptation, physiological changes due to the new substratum resulting in isolation followed in time by morphological differentiation and the development of a new species.

*Acerates floridana* is recorded as an aecial host of *Dicaema jamesianum* (Pk.) Arth. = *Puccinia bartholomaei* Diet. in Wisconsin in North American Flora 7: 320.

*Puccinia seymouriana* Arth.

Aecia on leaves and stems of *Asclepias ovalifolia*. New Glarus.

*Puccinia peckii* (De Toni) Kell.

Aecia on *Oenothera rhombipetala*. Mazomanie.
Solidago graminifolia should be included in the list of aecial hosts of Puccinia extensicola Plowr. in Wisconsin.

Chrysomyxa pyroleae (Pers.) Diet.
Uredinia on Pyrola americana. Friendship.

Coleosporium solidagine (Schw.) Thuem.
On Callistephus chinensis (cult.)
Oconto (A. C. Burrill)

ADDITIONAL SPECIES

Not hitherto recorded as occurring in Wisconsin.
Investigation of host relations of obligate fungous parasites has shown that they are usually adapted to the kind of host upon which they are found. That the adaptation may be relative rather than absolute has also been shown, and that it is not necessarily accompanied by morphological differentiation is well known. By some mycologists new species have been proposed based only upon adaptation to a particular species of host. The practice of considering these as physiological races seems the better one and hence they are not recorded in these notes in which the hosts have already been given.

Peronospora oxybaphi Ell. & Kell.
On Oxybaphus nectaragineus. Browntown and Brodhead along the railroad. The conidia range up to 30μ in length and 22μ in breadth and are ovate in outline.

At a station near Friendship a few plants of Melampyrum lineare were found, only 3 or 4 as I remember, and none were found elsewhere in that locality. On the young upper leaves of these plants was a parasite regarding which the following notes were made: Forming a sordid gray coating on the lower leaf surface; conidiphores 300–400μ long, 3–4 times branched, usually dichotomously, but sometimes the branches are at an obtuse or even a right angle, ultimate branchlets short, straight, acute, divergent; conidia fuscous, elliptical, acute at base, 24–36 x 20μ. No oospores were found.

Plasmopara melampyri Bucholtz I know only from the description in Saccardo: Sylloge Fungorum 21: 861 but
the Wisconsin plant seems to be referable to that species. Bucholtz appears to have been in doubt as to whether it should be placed in Peronospora or Plasmopara. To the writer it furnishes additional evidence that they are congeneric and that the latter was given generic rank before the evidence was all in. As this parasite has apparently been found in the single locality in Russia and the very restricted station in Wisconsin only, one might suspect that it is well on the way toward extinction. However recrudescences have been known to occur in such cases.

[This was collected the following year at Radisson. As in the previous collection it was confined to the lower surface of the upper leaves and would escape detection when the hosts were observed from above as the infected leaves, at least at the time of collection, were not changed in appearance by the presence of the parasite. The germination of the conidia has not been observed and oöspores have not been seen.]

**Fig. 1.** A conidiophore and three conidia of *Plasmopara melampyri* Bucholtz. Drawn by E. M. Gilbert with the aid of camera lucida.

The lower surface of the older leaves of the same plants of the Friendship collection bore *Ramularia melampyri* Ell. & Dearn. I have not seen a specimen of *Fusidium melampyri* Rostr. but the description suggests that it is the same species as the one described by Ellis & Dearness.
What has been known as *Ascochyta pisi* Lib. has been divided by Linford & Sprague into 2 species one retaining the name and the other a pycnidial state of *Mycosphaerella pinodes* (Berk. & Blox.) Stone with which the typical *Ascochyta pisi* Lib. is not connected. They also found a third form which they designated temporarily *Mycosphaerella pinodes* microform (?). *(Phytopath. 17: 390–91.)*

[For the “microform” the binomial *Ascochyta pinodella* n. sp. has been proposed by Leon K. Jones (N. Y. State Ag’l. Exp. Station, Geneva, Bull. 547, p. 10) and for the pycnidial stage of *Mycosphaerella pinodes*, *Ascochyta pinodes* (Berk. & Blox.) n. comb. (loc. cit. p. 4.)]

While examining leaves of *Anemone canadensis* for the presence of oöspores of *Plasmopara pygmaea* it was found that in addition to the oöspores there were present pycnidia about 100μ in diameter containing hyaline oblong sporules 18–30 x 3–7μ 1–2 septate. Whether or not this is *Stagonospora anemones* Pat. I do not know.

*Septoria polygalae* Pk.


This name was given by Peck to a species occurring on *Polygala pauciflora*. Subsequently he collected a form on *Polygala Senega* bearing Aecidium also to which he gave the name *Septoria consocia*. As described this differs from the former in its shorter sporules which otherwise are of the same character. On the Wisconsin collection there is no Aecidium and the sporules are intermediate in length (23–33 x 1½–1μ) as between the two descriptions.

*Septoria calystegiae* West.

On *Convolvulus arvensis*. Madison.

*Septoria polemonii* Thuem. (S. polemoniicola Ell. & Mart.)

On *Polemonium reptans*. Gratiot and Token Creek.

*S. polemoniicola* Ell. & Mart. appears to have been separated mostly because of the small white spots but European specimens bear similar spots. Ellis & Martin apparently knew von Thuemen’s species from the description only.

While some kinds of plants are infected by various fungi others are seldom found to be attacked. In Wisconsin no
parasite had been seen on Lithospermum. In July 1927, however, a few spotted leaves of L. canescens were observed near Portage. The spots are dark brown, more conspicuous below, subangular, 1–3 mm. in diameter. There are small spore bodies, usually near the periphery of the spot on the upper surface and few in number bearing tufts of hyaline conidia 40–60 x 2/3µ which are usually curved, often strongly so. The better developed spore bodies appear to be imperfectly formed pycnidia. It seems possible that this was a chance infection by a Septoria that normally develops on another host. I do not now recall whether the infection was confined to a single plant but the small number of infected leaves suggests that it may have been. For the purpose of filing this has been labeled Septoria lithospermi nom. herb.

Colletotrichum trifolii Bain is reported as occurring in Wisconsin by John Monteith, Jr., in U. S. Department of Agriculture Technical Bulletin No. 28.

Gloeosporium achaeniicola Rostr.
On epipcarp of Heracleum lanatum. Mineral Point. The type of this species was on fruit of Pastinaca sativa.

Cylindrosporum pimpinellae C. Massal. var. pastinacae Sacc.
In this collection the conidia are mostly 60–70 x 3–4µ curved, tapering both ways from the middle, becoming 1–3 septate.

Didymaria puncta n. sp.
On elongate light brown to sordid white areas; conidiophores borne on the outer aspect of globose brownish black tubercles, congested, hyaline varying from 15 x 2–3µ to obsolete; conidia apical, hyaline, straight, long fusoid, acute, 20–30 x 3µ developing a median septum. On stems and bracts of Sisyrinchium campestre. New Glarus, Wisconsin, June 17, 1927. The tubercles are closely spaced, 40–60µ in diameter. The conidia fall away readily and it was not determined whether they are catenulate or not.
From collections on leaves of *Saxifraga pennsylvanica* made at Portage, June 6 and 8, 1927 the following notes were made: Spots circular, brown sometimes more or less tinged with purple, becoming cinereous with the development of conidia and often zonate above, uniformly brown below, 4–8 mm. in diameter; conidiophores arising from dark tuberculoid stromata, congested, hyaline, straight or somewhat flexuose above, often subulate, 10–30 x 2–4 μ; conidia hyaline, filiform, straight or lax, 30–100 x 1–2 μ. I do not doubt that this is the species collected at Dover, Norway to which Rostrup gave the name *Cercosporella saxifragae* which I know only from description. There is a discrepancy in the length of the conidiophores which are described as being long but that is a character that cannot be stressed in this group.

Of a collection on leaves of *Tanacetum vulgare* from a garden in Highland the following notes were made: Spots becoming definite and black; conidiophores amphigenous, hyaline, fasciculate, simple, mostly straight and continuous, 20–40 x 3–4 μ; conidia hyaline, straight, cylindrical but usually with a slight taper, obtuse at each end, 24–43 x 3½–5 μ. On referring to the description of *Ramularia tanaceti* J. Lind in the *Sylloge Fungorum* the statement was met that the conidia are acute at each end. In Rabenhorst *Kryptogamenflora* Lindau gave a description which he stated was more complete than Lind’s and resulted from examination of original material. This description is the same as the one in the *Sylloge* including the statement that the conidia are acute at each end. In the original description by Lind (Ann. Mycol. 3: 431), however, the conidia are described as being obtuse at both ends as they are in the Wisconsin collection. There seems to be no question of the identity of the Wisconsin parasite and *Ramularia tanaceti* J. Lind. The similarity in the names of the three mycologists Lind, Lindau and Lindroth sometimes leads to confusion. For instance in Oudemans’ *Enumeratio Systematica Fungorum* this species is attributed to Lindroth.

*Cercospora thaspicola* n. sp.

Spots pale alutaceous becoming sordid white, angular, limited by the veinlets, with a narrow brown border, 2–5 x
1–2 mm.; conidiophores amphigenous, fuliginous tinted, caespitose, straight with an oblique apex and a shoulder, simple, continuous, 35–50 x 4–5μ; conidia hyaline, fusoid-cylindrical, obtuse, straight or slightly curved, 1–3 septe, 37–73 x 4–6μ. On Thaspium aureum. South Wayne, Wisconsin, June 27, 1927. Ellis & Everhart, North American Fungi 2585 is labeled Cercospora thaspii n. sp. On leaves of Thaspium trifoliatum Wilmington, Delaware, November 1889. A. Commons. Apparently no description was ever published. The specimen shows circular or sometimes angular brown spots which become white and arid with a brown border 1–2 mm. in diameter. The conidiophores are in small fascicles, erect or diverging, straight or but little flexuose, deep brown, pluri-septate, 50–100 x 5–6μ. As one might expect of a specimen collected so late in the season and so long ago, no conidia were found. In Gray's Manual of Botany, edition 5, which was in use in 1889, Zizia cordata DC. was referred to Thaspium trifoliatum as var. apterum and it is a question as to whether N. A. F. 2585 is on Thaspium or Zizia and in the absence of conidia what its relation may be to Cercospora ziziae Ell. & Ev. It may easily be that collections of a species made in June and in November would show differences but there does not seem to be justification for stating that N. A. F. 2585 and the Wisconsin collection are conspecific.

Although Puccinia mhlebergiae Arth. & Hol. has been known in Wisconsin no Aecidium on Malvaceae had been seen until 1927 when Aecidium napaeae Arth. & Hol. was collected on Napaecia dioica at Gratiot, New Glarus, Brown-town and South Wayne. These localities are in southern Wisconsin. The host seems to be spreading along the railroads especially where they pass over low ground and are ballasted with cinders.

Aecidium sparsum n. sp.

Pycnia hypophyllous, scattered, brown; aecia hypophyllous, scattered, ⅛–1/3 mm. in diameter; peridium white, lacerate, the lobes reflexed and caducous; spores yellow globose, thin-walled, finely and sparsely verrucose, 18–22μ in diameter. On Galium tinctorium on bottom lands of the
Wisconsin river opposite Sauk City, July 2, 1925 (Weber & Davis,) July 11, 1927. The distribution of the aecia suggests systemic infection but there is no distortion or discoloration of the host.

Herbarium,
University of Wisconsin,
April, 1928.