

NOTES ON WISCONSIN PARASITIC FUNGI. XVII

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The fungi referred to in this series of notes were, unless stated otherwise, collected during the season of 1951.

SYNCHYTRIUM AUREUM Schroet. has been reported as occurring on several kinds of violets in Wisconsin. Of a specimen on *Viola pallens* from near Mazomanie, Dane Co., May 22, 1947, M. T. Cook informs me that it cannot be *S. aureum*, but appears to him to be probably *S. globosum* Schroet. which occurs on species of *Viola* in Europe. J. J. Davis once, in the same locality, collected a specimen on *Viola* sp. which he doubtfully assigned to *S. globosum*.

MYCOSPHAERELLA sp. was noted on dead, brown areas of fronds of *Polypodium virginianum*, collected near Klevenville, Dane Co., July 1. A number of species of *Mycosphaerella* have been found on ferns, but this specimen matches none of the descriptions. The perithecia are only about 50–60 μ diam., the asci 25 x 10 μ , with very small ascospores, about 5 x 2 μ . Parasitism doubtful, although large portions of the affected fronds were still green and living.

MYCOSPHAERELLA sp., of uncertain parasitism, occurred on withered, brown leaves of *Leptoloma cognatum* at Madison, September 5. Entire plants of this tuft-forming grass were affected, their stunted condition and poor color contrasting strongly with nearby healthy individuals. The numerous black perithecia are from subglobose to definitely flattened in shape, about 80–115 x 50–75 μ . Some of the perithecia are beaked. The curved-clavate asci are 50–60 x 14–15 μ , the hyaline, uniseptate, subcylindric ascospores 17–20 x 6.5–8 μ . Accompanying the perithecia are occasional pycnidia which contain ellipsoid to subfusoid, hyaline, Macrophoma-type conidia, 17–22 x 4–6 μ .

MYCOSPHAERELLA sp., parasitizing leaves of a scrub tree of *Pyrus malus*, was collected at Madison, August 2. Due to the large number of early and, all too frequently, inadequate descriptions of species within this genus, it is often difficult or practically impossible to ascertain whether or not one is dealing with a previously described species, and that is the case with this collection. The following notes were made: Spots faint roseate-grayish to cinereous, with narrow, dark, elevated margins on

upper leaf surface—on lower surface, dull whitish to rufescent, sunken, mostly immarginate, but sometimes with a well-defined, raised, darker border. Spots usually numerous, well-defined and conspicuous, rounded or variously orbicular, 1.5–5 mm., mostly 2–3 mm., diam. Perithecia amphigenous, but mostly epiphyllous, scattered or gregarious, black, subglobose, approx. 125–175 μ diam.; asci hyaline, narrow-cylindric to subclavate, 45–65 x 10–13 μ ; ascospores hyaline, uniseptate, subcylindric to subfusoid, 13–16 x 5–6 μ .

GNOMONIA sp. is in close association with *Marssonina quercina* (Wint.) Lentz on spots produced on still living leaves of *Quercus* (probably *Q. rubra*) collected at Madison, September 29. The perithecia have relatively short, thick beaks and are about 115–150 μ diam. The asci are narrow-clavate, 30–45 x 6–7 μ , the ascospores hyaline, uniseptate, narrow-fusoid, about 20 x 3 μ , very uniform in shape and size. The long, slender spores do not match those of any other species described as occurring on *Quercus*. It seems to me highly probable that this is the perfect state of *Marssonina quercina*.

LEPTOSPHERIA sp., very likely connected with *Stagonospora brachyelytri* Greene, occurs intimately associated with the latter in lesions on living leaves of *Brachyelytrum erectum*, collected near Darlington, Lafayette Co., July 30. The black, globose perithecia are about 175 μ diam., the asci 75–85 x 11–13 μ , the olivaceous ascospores 25–35 x 4–4.5 μ and 8-septate. A peculiarity of the ascospores is that the third cell from the base of the spore (referenced to the base of the ascus) is nearly always nodulose-enlarged.

LEPTOSPHERIA sp., in a possibly parasitic relationship, was collected on *Bromus inermis* at Madison, July 11. The spots are subelliptic to sublinear, about 2–4 mm. long, cinereous, with dark brown margins. The perithecia, from one to several per spot, are black, subglobose, about 150–160 μ diam. The asci are clavate, 50–60 x 8–10 μ . The dark-olivaceous ascospores are 3-septate, subfusoid, 17–19 x 4 μ .

CHILONECTRIA CUCURBITULA (Tode) Sacc. has, until recently, been represented in the University of Wisconsin Herbarium exclusively by specimens of the perfect stage. However, in October, in eastern Vilas Co., J. R. Hansbrough collected on dead leaders of plantation trees of *Pinus resinosa* a delicate species of *Tubercularia* which I assume is connected with *Chilonectria*, although I have been unable to find anything in the literature to indicate this is the case. Like the perithecia, the sporodochia are macroscopically small, crowded, and bright red. Unlike the perithecia, the sporodochia appear as appressed-convolute rather than

globose or collapsed-globose. The delicate, ramose conidiophores are about 20–25 x 1–1.5 μ , the tiny, hyaline, rod-shaped conidia 3 x .7–1 μ .

PUCCINIASTRUM PUSTULATUM (Pers.) Diet. I on *Abies balsamea* was reported by Davis in his "Provisional List of the Parasitic Fungi of Wisconsin", but before 1951 there was no Wisconsin specimen at the University of Wisconsin. In August, I. L. McMahon gathered good material near Sturgeon Bay, Door Co.

CINTRACTIA SUBINCLUSA (Körn) Magn. was reported on *Carex lupulina* from Kenosha Co. on the basis of specimens taken many years ago near Racine. D. B. O. Savile has examined some of this material, including Fungi Columbiani 2615, and states that the host is *Carex lupuliformis* instead. Since achene characters seem to offer the only reasonably reliable means of determination, several specimens in the Wisconsin Herbarium were examined in the hope of finding some achenes still unmetamorphosed. In a specimen labeled as having been collected by J. J. Davis in Kenosha Co., August 14, 1904, such an achene was found and proved to be that of *Carex lupuliformis* as described, so Savile is correct, at least insofar as this specimen is concerned.

PHYLLOSTICTA sp., collected July 17 in a nursery at Madison, and appearing parasitic on leaves of *Celtis occidentalis*, is plainly not *P. celtidis* Ell. & Kell. The orbicular, dark-bordered tan spots are about 5 mm. diam., one or two per leaf. The thin-walled, sub-globose pycnidia are approx. 100–175 μ diam., the short-cylindric, hyaline conidia 4–6 x 2.5–3.5 μ . Similar material was collected July 30 near Darlington, Lafayette Co.

ASTEROMELLA ANDREWSII Petr. in its ordinary conidial manifestation is common on certain species of gentian in Wisconsin. Leaves collected in September 1951 have, in addition to pycnidia bearing the usual globose conidia, other morphologically similar pycnidia producing rod-shaped hyaline microconidia, about 3–5 x 1.2 μ , possibly the precursor of the subsequent *Mycosphaerella* stage.

ASCOCHYTA sp. on *Desmodium illinoense*, collected August 18 near Dekorra, Columbia Co., provides a puzzling problem, for the lesions on which it is borne are identical with those which I had assumed to be distinctive and characteristic for *Phyllosticta desmodii* Ell. & Ev. which has small conidia, on the order of 3.5–5 x 1.5–2.5 μ . Those of the *Ascochyta* are about 11–13 x 3 μ or even somewhat wider, and are in the range of *Ascochyta pisi* Lib., reported for Wisconsin on a number of other leguminous hosts. This latter fungus, however, when in good development,

usually produces rounded, zonate spots, quite different from the angular, patchy lesions of the collection in question.

ASCOCHYTA sp., on spots which are thin, translucent and rounded, occurred on leaves of *Chrysanthemum balsamita* var. *tanacetoides* at Madison in July. The pale brown, subglobose pycnidia are about 125μ diam., and the subhyaline, short-cylindric conidia $5-7 \times 3-3.5\mu$. This is quite different from another undetermined *Ascochyta* on the same host (Amer. Midl. Nat. 41: 715. 1949) which was on much better defined spots and had conidia $8-12 \times 2.5-3\mu$.

STAGONOSPORA sp. was collected on *Verbena stricta* at Madison, June 28. The fungus is on spots of the type which are usually associated with so-called *Phyllosticta decidua* Ell. & Kell. The leaves are peppered with small, closely ranked, rounded, very thin translucent areas on which are borne rather large, thin-walled pycnidia, usually only one per spot. In this, and in other cases, the translucent spots suggest primary insect damage, but ordinarily there is none of the debris that so characteristically accompanies such infestations, so such origin is not certain. The parasitism of the fungi which occur on such spots is surely open to doubt, but since there is also doubt as to their saprophytism it seems proper to include them in these lists on a provisional basis.

Cirsium, *Artemisia*, and *Antennaria* in Wisconsin are frequently found bearing, on the wooly undersides of their leaves, setose perithecial or pycnidial fungi—more often the latter. The perithecia, so far as observed, are those of *Acanthostigma occidentale* (Ell. & Ev.) Sacc., and the amerosporous pycnidia sometimes associated with them, or sometimes alone, have been regarded as a stage of the *Acanthostigma*. However, in September 1951, on *Cirsium muticum*, there were setose pycnidia which contained 2-3-septate phragmospores, $13-23 \times 2.5-3.5\mu$. While the amerosporous forms would be considered as belonging in the imperfect genus *Pyrenochaeta*, there seems to be no place in the existing classification for fungi with setose pycnidia bearing phragmospores. The pycnidia on *Cirsium muticum* are morphologically identical, although perhaps of slightly greater diameter, with previously collected amerosporous pycnidia.

SEPTORIA sp. occurred on the blackened tips of leaves of *Zigadenus elegans* on the Scuppernong Prairie near Eagle, Waukesha Co., June 2. The inconspicuous pycnidia are sooty, globose, about 100μ diam. The spores are hyaline, continuous, granular, mostly curved, but sometimes straight or slightly flexuous, rather thick in proportion to length, $10-30 \times 2-2.5\mu$, ejected in slender cirrhi. I find no report of *Septoria* on *Zigadenus*.

SEPTORIA sp. occurs on, and seemingly is confined to, lesions of *Albugo bliti* on leaves of *Amaranthus retroflexus*, collected at Madison, August 15. The pycnidia are gregarious, dark brown, subglobose, 100–125 μ diam. The spores are hyaline, slender, somewhat broader at the base, if septate very indistinctly so, from flexuous to strongly curved, 35–65 x 1.5–1.7 μ . There seems to be no record of any *Septoria* on Amaranthaceae or on Albuginaceae.

SEPTORIA BACILLIGERA Wint. has been listed as occurring on *Ambrosia trifida* in Wisconsin, and a number of specimens so labeled, including several standard exsiccati, have been placed in the University of Wisconsin Herbarium. None of these corresponds with Winter's description (Jour. Mycol. 1: 122. 1885) which gives the spores as 9–23 x 3–3.5 μ , and 1–3-septate, and would thus seem to refer to an organism in the *Stagonospora* category. For example, North American Fungi 2645 has spores 20–25 x 1.5 μ , Fungi Columbiani 3383 has them 36–42 x 2.5–3 μ and several Wisconsin specimens are as follows: 16–18 x 1–1.5 μ , 30–33 x 2 μ , 30–50 x 2 μ , 16–27 x 1 μ . It is scarcely possible to reconcile these with Winter's organism.

SEPTORIA sp. was found on *Ambrosia psilostachya* from near Dekorra, Columbia Co., August 18. In extreme spore dimensions, up to 110 x 3.5 μ , this is far removed from *Septoria bacilligera* Wint. and from specimens which have been filed under that name, as will be seen by consulting the preceding note. On *A. psilostachya* the rather large black pycnidia are epiphyllous and clustered on irregular brown spots, the smaller and newer of which have angular, ashen areas on which the pycnidia occur. The spores are multi-septate, usually strongly curved, subobtuse at one end, tapered at the other, with many from 70–80 x 3 μ and, as noted, up to 110 x 3.5 μ . If additional equally well-marked specimens can be collected on this host, the conclusion that this is distinct may perhaps be justified. *Septoria ambrosicola* Speg. is described as having spores 50–100 x 1.5–2 μ , similar to the Wisconsin specimen in length, but much narrower.

CYLINDROSPORIUM BETULAE J. J. Davis has not yet been connected with a perfect stage, but the existence of it is indicated in a specimen on *Betula papyrifera*, collected by E. M. Gilbert in September at Brule, Douglas Co. On the old *Cylindrosporium* spots there are scattered large, amphigenous, black, non-rostrate, depressed, immature perithecia which probably require overwintering for full development.

BOTRYTIS sp., a large, coarse form with conidiophore branches torulose, is hypophyllous on large rounded, grayish-brown lesions on leaves of *Sanguinaria canadensis*, collected June 27 near Mil-

ford, Jefferson Co. Like other infections of *Botrytis* observed during the cool, wet summers of 1949, 1950 and 1951 this appears to have been at least weakly parasitic, for the spots although very large, are sharply defined.

CLADOSPORIUM sp. is present and seemingly parasitic on plants of *Polygala verticillata* collected at Madison, October 3, 1951. In 1950 plants of this species at the same station were found heavily parasitized by *Curvularia lunata* (Wakker) Boedijn. The *Cladosporium* has conidiophores which are closely tufted, clear brown, straight to slightly curved, simple or once geniculate, 0-5-septate, approx. 50-100 x 5 μ . The conidia are dilute gray, smooth, continuous or 1-septate, subcylindrical or subfusoid, with prominent spore scars and appearing to have been catenulate, 14-20 x 4-5 μ . Accompanying the usual *Cladosporium*-type conidia are short, broadly ellipsoid to limoniform conidia, a feature which is characteristic of certain other species of *Cladosporium*.

CLADOSPORIUM sp., which may be parasitic, was collected at Madison, June 20, on large, pale-brown, wedge-shaped areas on the leaves of *Symphoricarpos occidentalis*. Within the large spots the fungus is amphigenous on sharply delimited angular areas (vein islets). The conidiophores are scattered, or in tufts of not more than ten. They are almost straight, multiseptate, usually with several inconspicuous geniculations near the tip, which is paler than the lower chestnut-brown portion. Phores measured are from 65-160 x 4.5-6.5 μ . The conidia are 1-septate, dark-olivaceous, markedly asperate, 13-20 x 4-7 μ . There seem to be no reports of *Cladosporium* on *Symphoricarpos*.

ALTERNARIA HERCULEA (Ell. & Mart.) Elliott has been reported on *Brassica nigra* in Wisconsin and, if one follows Weimer (Jour. Agr. Res. 33: 645. 1926) in considering *A. herculea* as distinct from *A. brassicae* (Berk.) Sacc., a collection on *Brassica arvensis* made at Madison in 1951, with conidia 200 μ or more, must undoubtedly be referred to *A. herculea*. However, other specimens are not so well-marked, and I believe the current tendency of plant pathologists is to consider these species as not distinct from one another.

TUBERCULINA (?) sp. occurred on living leaves and stems of *Desmodium illinoense*, collected August 20 near Delavan, Walworth Co. Viewed from above, the green host leaves appear to bear pulvinate gray-black sporodochia. In section, however, the layer of fungal tissue is seen to be relatively thin and the sub-bullate aspect of the lesions appears to be due in large measure to hypertrophy of the host. The sporodochia, as I nevertheless

interpret them to be, are amphigenous, sordid whitish when young, later becoming grayish-black with the development of a compact layer of sooty conidiophores, at least some of which appear ramose. In outline the sporodochia are rounded, somewhat angled, or tend to be nervisequous, are often slightly convolute on the leaves, less so on the stems where the lesions are also more elongate and sometimes confluent. On the leaves the sporodochia are mostly about 1 mm. or somewhat less in diam., usually numerous, scattered to crowded, not on spots. The conidia are hyaline, ovoid or ellipsoid, 2.5–3.5 x 4–6 μ , smaller than those of most species of *Tuberculina* which have been described. Another collection of a possibly related fungus was made at about the same time on living leaves and stems of this same host at a station in Lafayette Co., near Platteville. In the latter case, what appears to be a less well-marked development of the fungus described above has been overrun by a coarse, conspicuous species of *Cladosporium*. The picture is further complicated by the presence of *Ramularia desmodii* Cooke, and from the material at hand it would not be possible to assert there is no connection between the *Ramularia* and the presumed *Tuberculina*, although in the specimen from Delavan there is no evidence whatsoever of earlier *Ramularia* infection.

ADDITIONAL HOSTS

The following hosts have not been previously recorded in these lists as bearing the fungi mentioned in Wisconsin.

UNCINULA CIRCINATA Cke. & Peck on *Acer spicatum*. Door Co., Cave Point 4 mi. south of Jacksonport, September 9. Coll. I. L. McMahan.

MICROSPHAERA DIFFUSA Cke. & Peck on *Desmodium bracteosum* var. *longifolium*. Green Co., New Glarus Woods, October 6.

ERYSIPHE CICHORACEARUM DC. on *Aster ericoides*. Dane Co., Madison, October 9.

PHYLLACHORA VULGATA Theiss. & Syd. on *Muhlenbergia glomerata*. Door Co., Bailey's Harbor, September 24, 1932. On a phanerogamic specimen in the University of Wisconsin Herbarium.

PUCCINIA CARICIS (Schum.) Schroet. ii, III on *Carex flava* var. *fertilis* (*C. cryptolepis*). Door Co., Fish Creek, October 19, 1920. Coll. and det. J. J. Davis, who collected a correctly determined phanerogamic specimen at the same time, but who failed to include this *Carex* as a Wisconsin host, perhaps because he did not find uredospores which are, however, present and characteristic,

although in very small numbers. An earlier report of *P. caricis* on *Carex flava* var. *elatior* (*C. lepidocarpa* according to current treatment) should probably be deleted, since it appears this plant does not occur in Wisconsin, so far as now known.

CERATOBASIDIUM ANCEPS (Bres. & Syd.) Jacks. on *Cornus canadensis*. Door Co., Sturgeon Bay, July 7. Coll. E. H. Varney.

PHYLLOSTICTA FRAGARICOLA Desm. & Rob. on *Potentilla recta*. Waukesha Co., Kettle Moraine State Forest Ranger Station near Eagle, July 26. Very similar to earlier material on *Potentilla arguta* assigned to this species.

ASTEROMELLA ANDREWSII Petr. on *Gentiana saponaria*. Green Co., Exeter, September 19.

ASCOCHYTA COMPOSITARUM J. J. Davis on ray flowers of *Heliopsis scabra*. Dane Co., Madison, August 8. Referred here with some doubt. This is the small-spored form which Davis (Trans. Wis. Acad. Sci. 19(2): 700. 1919) originally set aside as var. *parva*, but later included with the species since he felt there was an intergrading series. So far as noted, none of the leaves of the host *Heliopsis* plants were infected.

STAGONOSPORA CONVULVULI Dearn. & House on *Convolvulus arvensis*. Dane Co., Madison, June 28. Placed under *Stagonospora* because the pycnidia are perfect above with well-defined ostioles. That *Stagonospora convolvuli* and *Septogloeum convolvuli* Ell. & Ev. are really distinct from one another may be doubted. They probably represent the extremes of a series.

SEPTORIA AGROPYRINA Lobik on *Elymus virginicus*. Pepin Co., Durand, July 13, 1923. Coll. J. J. Davis, and filed as *Septoria* sp.

SEPTORIA ELYMI Ell. & Ev. on *Agropyron repens*. Dane Co., Madison, July 17. Only the name is new. Previous specimens were placed under *Septoria agropyri* Ell. & Ev. which Sprague states is a synonym.

SEPTORIA ANEMONES Desm. on *Anemone canadensis*. Iowa Co., Canyon Park near Dodgeville, July 15. Also found at stations in Columbia and Sauk Cos.

SELENOPHOMA EVERHARTII (Sacc. & Syd.) Sprague & Johns. on *Hystrix patula*. Green Co., New Glarus Woods, August 23, 1949.

PHAEOSEPTORIA FESTUCAE var. MUHLENBERGIAE R. Sprague on *Elymus canadensis*. Dane Co., Madison, August 12. Associated with char spot and *Phyllachora*, so perhaps not parasitic.

CERCOSPORA RIBIS Earle on *Ribes cynosbati*. Grant Co. near Platteville, July 30.

ADDITIONAL SPECIES

The fungi mentioned have not been previously reported as occurring in Wisconsin.

CALICIUM TIGILLARE (B. & Br.) Sacc. on *Polystictus pergamenus*. Waupaca Co., Symco, August 17. Coll. C. F. Pierson.

NEOCOSMOSPORA VASINFECTA (Atk.) E. R. Smith has been isolated in culture from roots of morbid clover plants from Wisconsin sources. Typical perithecia, with mature asci and ascospores were developed. Pathogenicity is so far uncertain, but it will be most interesting if the organism causing wilt of cotton and okra in the South is proved to produce the same effect on a leguminous crop in Wisconsin.

ARMILLARIA MELLEAE (Vahl) Quel. on *Pinus resinosa*. Field and experimental studies conducted by R. F. Patton of the University of Wisconsin Department of Plant Pathology on plantation trees at Wisconsin Rapids and elsewhere show that *A. melleae* may act as more than a wound parasite and attacks the host through the unbroken tissue of the crown. This species has not been included in these lists before because of considerable doubt as to its active parasitism.

PHYLLOSTICTA DULCAMARAE Sacc. on *Solanum dulcamara*. Door Co., Sturgeon Bay, September 2. Coll. E. H. Varney. The pycnidia are somewhat larger than the 80–90 μ of the description, but the specimen corresponds closely to Krieger's *Fungi saxonici* 1943, issued as *Phyllosticta dulcamarae*, so is referred to that species.

ASCOCHYTA VERATRI Cav. on *Zigadenus elegans*. Waukesha Co., Scuppernong Prairie near Eagle, June 13. On *Zigadenus* the fungus occurs on the blackened leaf tips. There is close correspondence microscopically with Kabat and Bubak's 262 of their *Fungi imperfecti exsiccati*, issued as *A. veratri* on leaves of *Veratrum lobelianum*. *A. veratrina* Ell. & Ev. has much larger pycnidia and smaller spores.

ASCOCHYTA VIBURNI (Roun.) Sacc. on *Viburnum opulus* (cult.). Dane Co., Madison, October 5. This specimen shows almost exact correspondence with European collections on the same host.

SEPTORIA CARICINA Brun. on *Carex sprengei*. Dane Co., Madison, September 23. Described as with spores 32–35 x 1–1.5 μ , a very narrow range. The Wisconsin specimen has them mostly 30–45 x 1–1.5 μ . The pycnidia are minute, not over 65 μ diam., and many smaller.

Phleospora panici sp. nov.

Pycnidia hypophyllis, sparsis, late apertis imperfectisque supra, clausis infra, subglobosis, 85–115 μ diam., muris tenuibus, pallido-brunneis; conidiophoris hyalinis, brevibus, angustis, 10 x 2 μ ca., in ordinibus compactis; conidiis hyalinis, curvis maxime, multiseptatis indistinctis, 55–75 x 1.5–2 μ .

Pycnidia hypophyllous, scattered, widely open and imperfect above, but entire below, subglobose in outline, 85–115 μ diam., wall thin, pale brown; conidiophores hyaline, short, narrow, about 10 x 2 μ , in compact layer over inner surface of pycnidium; conidia hyaline, very strongly curved, indistinctly multiseptate, 55–75 x 1.5–2 μ .

On living leaves of *Panicum praecocius*. Chicago & Northwestern Railroad right-of-way in Lafayette Co., three miles southeast of Platteville, Wisconsin, U. S. A., August 4, 1951. Also on *Panicum scribnerianum* collected June 30, 1942, in section 2, Town of Troy, Walworth Co., Wis. and tentatively reported at that time (*Trans. Wis. Acad. Sci.* 35: 116. 1944) as *Septoria* sp. indet. Re-examination of the material, however, shows it to be very similar to the type on *P. praecocius*, differing materially only in having some pycnidia of greater diameter, up to 150 μ or slightly more.

Dried pale-flesh-colored, globular masses of spores mark the position of the flaring pycnidia which are so deeply seated as to touch on both lower and upper epidermis without, however, causing any external distortion or discoloration of the leaf. Associated with the *Phleospora*, in the case of both host species, are numerous shining black, depressed, subapplanate bodies, approx. 175–250 μ diam., which appear to be immature perithecia and which, in the field, were thought to be ascomata of *Phyllachora puncta*. Comparison with authentic material of the latter species, however, shows that the two are quite different.

Phleospora is considered by some to be an untenable genus, and the species have been reassigned to *Septoria* or to *Cylindrosporium*, but it seems to me that, pending final taxonomic placement of the fungi now thereunder, *Phleospora* is a useful form genus which should be retained.

GLOEOSPORIUM CHAMAEDAPHNIS Dearn. on *Chamaedaphne calyculata*. Door Co., Sturgeon Bay, September 2. A very clean-cut species, closely corresponding to the description.

FUSIDIUM PARASITICUM Westd. on *Xylaria oxyacanthae*. Dane Co., Madison, June 1951. Coll. and det. M. P. Backus and E. A. Stowell.

Cladosporium stipae sp. nov.

In foliis, maculis nullis vel indistinctis; conidiophoris solitariis, sparsis, ex subhyalinis, decumbentibus, superficialibus hyphis, claro-brunneis, subacuminatis, subgeniculatis, fere rectis vel curvis leviter vel flexuis, cicatricibus prope apicibus, 80–135 x 4–6 μ , 3–6-septatis; conidiis continuis plerumque, raro uniseptatis, subfusoides pallido-flavis, levibus, cicatricibus prominentibus, 17–20 x 3.5–5 μ .

On leaves, spots none or indistinct; conidiophores solitary, scattered, arising from subhyaline, decumbent, superficial mycelium, clear brown, subacuminate, subgeniculate, from almost straight to slightly curved or flexuous, spore scars in cluster near tip, 80–135 x 4–6 μ , 3–6-septate; conidia mostly continuous, rarely uniseptate, subfusoid, pale yellowish, smooth with prominent scar, 17–20 x 3.5–5 μ .

On living leaves of *Stipa spartea*. Madison, Dane County, Wisconsin, U. S. A., September 6, 1951.

Very inconspicuous and chiefly detectable by the dull discoloration of sections of the leaves. The fungus is confined to the inrolling, strongly ribbed side of the leaf. The conidiophore has a characteristic "foot-cell" in the shape of an inverted T.

CERCOSPORA ATRO-MARGINALIS Atk. on *Solanum nigrum*. Dane Co., Madison, October 15. Det. Chas. Chupp.

HELMINTHOSPORIUM GIGANTEUM Heald & Wolf on *Panicum capillare*. Dane Co., Mazomanie, August 16. This collection would seem to provide a decided extension of the hitherto recognized range, as Sprague states that it is primarily a disease of the southern states, up to now being found northward only as far as Maryland and Pennsylvania. He reports *H. giganteum* on the closely related *Panicum dichotomiflorum*, but not on *P. capillare*. The very characteristic "eye-spot" lesions seem constant, whatever the host.

Coremium triostei sp. nov.

Maculis sparsis, paucis, parvis, plerumque circulis vel orbicularibus, interdum angulosis, 1–2 mm. diam. ca.; supra cinereis vel pallido-brunneis, marginibus angustis, fuscis, infra pallidioribus, depressis; coremiis gregariis, hypophyllis, hyalinis, hyphis adpressis vel intertextis laxe, interdum solitariis, erectis vel suberectis—hyphis solitariis saepe pilis ascendentibus—continuis, 2.5–3 μ diam., usuque .3 mm. longis; conidiophoris rudibus, brevibus, rectis, lateralibus; conidiis catenulatis, hyalinis, fusoides vel subfusoides, 5–10 x 2.5–3 μ .

Spots scattered, few per leaf, small, mostly round or orbicular, occasionally angled, approx. 1–2 mm. diam.; cinereous to pale brown above with narrow dark borders, paler below and somewhat sunken; coremia gregarious, hypophyllous, hyaline, weakly organized, with the component hyphae loosely appressed or wound about one another, or occasionally single, erect or sub-erect—often ascending the host trichomes when single—continuous, 2.5–3 μ diam., up to .3 mm. long; conidiophores rudimentary, short, straight, lateral; conidia catenulate, hyaline, fusoid or subfusoid, 5–10 x 2.5–3 μ .

On living leaves of *Triosteum perfoliatum*. Grant County, near Platteville, Wisconsin, U. S. A., July 30, 1951.

A snow-white, very delicate species. As indicated in the description, the coremia are loosely organized, but the best-developed are erect, and from their upper portions the conidial chains diverge in widely spreading fashion. In the same season another specimen was taken on the same host in the New Glarus Woods, Green Co. In July 1925 the late J. J. Davis collected a large specimen of this fungus on *Triosteum aurantiacum* at Spring Valley, Pierce Co., but he did nothing further with it and the collection was recently found in undetermined material left by him.