

## INDIANA FUNGI—XI.

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## BASIDIOMYCETES.

## UREDINEAE.

- Dicaeoma Impatientis* (Schw.) Arth. (*Aecidium Impatientis* Schw.).  
On leaves of *Impatiens pallida* Nutt., woods, Clay County, May 26, 1928. Otho Shaw. I. U. 4917.
- Dicaeoma Sambuci* (Schw.) Arth. (*Aecidium Sambuci* Schw.). The aecial stage on leaves and petioles of *Sambucus canadensis* L., Clay County, May 26, 1928. Shaw. I. U. 4918.
- Melampsora Biglowii* Thuem. On *Salix nigra* Marsh., Clay County, August 1, 1927. Shaw. I. U. 4851.

## AGARICACEAE.

- Favolus canadensis* Kl. On dead branch of *Ulmus*, Clay County, May 20, 1928. Shaw. I. U. 4899.
- Panus rudis* Fr. On decayed wood, Clay County, May 20, 1928. Shaw. I. U. 4905.
- Pleurotus ostreatus* Jacq. On dead wood, Posey County, May 12, 1928. Shaw. I. U. 4907.
- Psilocybe cernua* Fr. On humus in old orchard, Clay County, April 29, 1928. Shaw. I. U. 4887.

## POLYPORACEAE.

- Fomes Everhartii* Ell. & Gall. On *Quercus velutina* Lam., Clay County, April 29, 1928. Shaw. I. U. 4888.
- Polyporus arcularius* (Batsch.) Fr. On old wood of *Fraxinus*, Clay County, May 20, 1928. Shaw. I. U. 4901.
- Polyporus hirsutulus* Schw. On wood of *Rosaceae*, Monroe County. I. U. 4868.
- Polyporus lucidus* Leyss. (*Fomes lucidus* (Leyss.) Fr. On deciduous wood, Spencer County, May 10, 1927. Deam. I. U. 4867.

## HYDNACEAE.

- Hydnum coralloides* Scop. Growing in top of large beech tree, Fayette County, October, 1928. Mrs. Charles W. Masters. I. U. 4929. This specimen is of an unusually compact and rounded form.

## ASCOMYCETES.

- Caryospora putaminum* (Schw.) De Not. On old peach pits on ground, Clay County, May 26, 1928. Shaw. I. U. 4914. Also on decorticated wood of *Maclura aurantiaca* Nutt., some thirty yards from the specimens on seeds of peach (I. U. 4915).

- Both were very abundant. Since the two seem to be identical in description, they are evidently the same and the osage orange is a new host for this most interesting fungus.
- Claviceps purpurea* (Fr.) Tul. On *Ammophila arenaria* (L.) Link, Michigan City, August, 1928. Weatherwax. I. U. 4927. Common on the sand dunes of Lake Michigan. Also on *Glyceria septentrionalis* Hitchc., Steuben County, August, 1928. Weatherwax. I. U. 4928.
- Diatrype albopruinosa* (Schw.) Cke. On twigs of deciduous wood, Clay County, May 19, 1928. Shaw. I. U. 4923.
- Diatrype corniculata* Ehrb. On *Fraxinus*, Clay County, May 5, 1928. Shaw. I. U. 4903.
- Diatrype stigma* Hoff. On *Quercus velutina*, Clay County, May 5, 1928. Shaw. I. U. 4904.
- Dothiorella fraxinicola*. On *Fraxinus americana* L., Clay County, May 5, 1928. Shaw. I. U. 4913.
- Dothiorella quercina* (C. & Ell.) Sacc. On dead twigs of *Quercus*, Clay County, April 29, 1928. Shaw. I. U. 4893.
- Eutypella glandulosa* (Cke.) E. & E. On twigs of *Ailanthus glandulosa* Desf., Clay County, April 29, 1928. Shaw. I. U. 4892. Corresponds well with the descriptions. We find the asci 25 to 30 by 7 to 10 microns with the p. sp. about one-half the length, and the spores 4 to 5 microns and much curved.
- Exoascus deformans* (Berk.) Fekl. On peach, Clay County, May 20, 1928. Shaw. I. U. 4906.
- Hypoxyylon annulatum* (Schw.) Mont. On decorticated wood of *Quercus*, Clay County, May 19, 1928. Shaw. I. U. 4922. Also on dead wood of *Quercus alba* L., Monroe County, January 12, 1928. Amidei. I. U. 4866.
- Hypoxyylon coccineum* Bull. On dead branches of *Quercus rubra* L., Hamilton County, September 8, 1909. Pickett. I. U. 4837.
- Hypoxyylon effusum* Nke. On log of *Ulmus*, Clay County, May 5, 1928. Shaw. I. U. 4896.
- Hypoxyylon marginatum* (Schw.) Berk. On old decorticated wood, Clay County, May 19, 1928. Shaw. I. U. 4921.
- Hysteriographium Mori* (Schw.) Rehm. On dead decorticated *Ulmus*, Monroe County, April 29, 1928. Lockwood. I. U. 4889. On wood of *Quercus*, May 19, 1928. Shaw. I. U. 4912.
- Massaria epileuca* B. & C. On twigs of *Morus alba* L. var. *pendula* Dipp., Monroe County, May, 1928. I. U. 4897. This species has been reported from New Jersey and Pennsylvania by Ellis and Everhart on *Morus alba* L. (N. A. P. p. 402).
- Ophiobolus anguillides* (Cke.) Sacc. On dead stems of *Ambrosia trifida* L., May, 1927, Monroe County. The resemblance of the spores to that of a serpent is most striking, especially in fresh specimens. The likeness is particularly shown in the curving and in the longer, enlarged, slightly darker cell at the curved end, with a drop of mucilaginous matter hanging to it. The asci are 85 to 127 by 9 to 12 microns and the spores 110 to 125 by 3 to 4.

- Patellia sanguinea* (Pers.) Rehm. (*Tapesia sanguinea* Fckl.). On *Sassafras officinale* Nees. Between dry splinters of the wood, some four feet above ground. In woods, Monroe County, April 19, 1928. I. U. 4886. Very typical of description.
- Plowrightia morbosa* (Schw.) Sacc. On limbs of blue plum, Clay County, May 20, 1928. Shaw. I. U. 4900.
- Rosellinia mutans* (C. & P.) Sacc. On old wood of *Ulmus*, Posey County, May 12, 1928. Shaw. I. U. 4898.
- Sarcoscypha floccosa* Schw. On buried dead twigs of *Juglans*, Monroe County. I. U. 4871.

## FUNGI IMPERFECTI.

## SPHAEROPSIDALES.

- Ascochyta graminicola* Sacc. On leaves and sheathes of *Triticum vulgare* Vill., Monroe County, July, 1927. I. U. 4853. Spores, 10 to 20 microns in length.
- Coniothyrium concentricum* (Desm.) Sacc. On leaves of *Yucca filamentosa* L., Clay County, April 29, 1928. Shaw. I. U. 4890. Our spores measure about one micron more in diameter than in recorded descriptions, and are only a few guttulate.
- Myxosporium nitidum* B. & C. On twigs of *Cornus alternifolia* L. In ravine north of Bloomington, Monroe County, January 14, 1928. Amidei. The yellowish orange color of the twigs is characteristic of the effect of this species.
- Phyllosticta Catalpae* E. & M. On leaves of *Catalpa speciosa* War-der., Monroe County, October 26, 1926. Eaton. I. U. 4875.
- Phyllosticta Juglandis* (D. C.) Sacc. On living leaves of *Juglans regia* L., Monroe County (I. U. Campus), October 25, 1927. I. U. 4855. Our pycnidia are about 70 microns in diameter, with distinct pores, abundant oval hyaline spores which average about 3 by 5 microns, and are not guttulate. The description of *P. juglandina* Sacc. very nearly corresponds to that of *P. Juglandis* (D. C.) Sacc., a slight spore difference being noted. These trees, now some 15 years old, were grown from seeds gathered in this country. Hence we might infer that we have here a new species or that these trees have become infected from some heretofore unnoticed fungus present on one of our native species. The recorded description of the fungus is fair only.
- Phyllosticta limitata* Pk. On leaves of apple (var. Transparent), Monroe County, 1927. I. U. 4836.
- Septoria sambucina* Pk. On leaves of *Sambucus canadensis* L., east part of campus, October 25, 1928. I. U. 4936. Also on south campus, August 4, 1927. I. U. 4808. Without doubt the species described by Peck (28 Rep. of the St. Mus. N. Y. 1874) from Buffalo, N. Y. We add here a redescription. Spots 1 to 10 mm., sometimes circular, but more often limited by veins making them semi-circular or irregular, pale ashen with a broad, purplish-brown border, beneath a greenish brown. (The older spots are inhabited by various fungi, which, late in the

season, extend the spot, changing its size, color, etc. Among these fungi are a species of *Botrytis* with simple conidiophores, an *Alternaria*, and a *Cladosporium*.) The pycnidia are numerous, amphigenous, but chiefly epiphyllous, often occurring in patches over the spots, 50 to 125 microns in diameter, in surface view appearing darker around the pore due to its protruding. The pore is circular, oval, somewhat irregular or slightly torn in age, very distinct and from 15 to 65 microns in diameter. The spores are very slender, 25 to 50 by 1 to 2 microns, obsoletely septate, variously bent and curved, mostly slightly enlarged at one end, hyaline and very numerous.

*Sphaeropsis ulmicola* E. & E. On bark of dead twigs of *Ulmus* species (probably *Ulmus americana* L.), Vigo County, May 6, 1928. Shaw. I. U. 4895. The spores average slightly smaller than in published descriptions. The bases of the pycnidia are applanate or truncate as described for *S. Ulmi* Karst.

#### MELANCONIALES.

*Colletotrichum lagenarium* (Pass.) Ell. & Hals. On watermelon (*Citrullus vulgaris* Schrad.), Owen County, September, 1925. I. U. 4864.

*Gloeosporium Caryae* Ell. & Dear. On leaves of *Carya alba* (L.) K. Koch, campus I. U., September, 1928. I. U. 4925. Leaf injury caused by this fungus is very severe each year. The large spots spread over entire leaflets.

*Gloeosporium Fagi* (Desm.) E. & E. On living leaves of *Fagus ferruginea* Ait., Monroe County, July 7, 1924. I. U. 4126. This fungus was of considerable note in 1924.

*Marsonia ochroleuca* (B. & C.) Humph. On leaves of *Quercus texana* Buckley (*Q. Schneckii* Britt.), Posey County, September, 1927. Shaw. I. U. 4894. This is apparently a new host for this fungus, previously confined, so far as I am able to learn, to *Castanea dentata* (Marsh) Borkh.

*Pestalozzia Guepinia* Desm. On leaves of cultivated Rhododendron, Monroe County, January 10, 1928. Amadei. I. U. 4869.

#### HYPHOMYCETES.

*Cercospora Apii* Fresen. In market, common on *Apium graveolens* L. I. U. 4878.

*Cercospora cercidicola* Ell. On leaves of *Cercis canadensis* L., Clark County, August 14, 1923. I. U. 4911.

*Cercospora Heucherae* Ell. & Mart. On lower leaves (apparently those of last year) of *Heuchera americana* L., Cass County, May 18, 1928. I. U. 4908. Very common in deep ravines. Material very fine. Agrees well indeed. The conidiophores here are mostly epiphyllous. The spores given as 25 to 50 by 3 microns, are here about 25 to 150 by 3, and few to many septate. The spores and conidiophores on the upper surface of the leaf under a good hand lens appear like star-shaped hairs.

- Cercospora physalicola* Ell. & Barth. On leaves of *Physalis*, Deekard Creek, Monroe County, September 30, 1923. I. U. 3987. The outstanding characteristics of these specimens are the definite spots and the long lash-like spores, tapering above, many being as much as 150 microns long and multi-septate, some folding near the middle on drying. Agrees well except that our spores are often multi-septate rather than 4 to 6-septate as described.
- Ovularia obliqua* (Cke.) Oud. On leaves of *Rumex crispus* L., Clay County, May 19, 1928. Shaw. I. U. 4916.
- Ramularia dubia* Riess. On leaves of *Chenopodium album* L., near campus, Monroe County, September 24, 1928. I. U. 4941. Very abundant. The redescription given in Proc. Ind. Acad. Sci., 1925, p. 236, for specimens from Shelby County applies equally well to these specimens.
- Ramularia Taraxici* Karst. On *Taraxicum officinale* Weber. Campus, October 15, 1927. I. U. 4845. Spots as in description, but up to 1 cm. Spores 1-celled, becoming 1 to 2-septate, cylindrical, sometimes broader at one end or narrowed at middle, often in chains, 15 to 35 by 2 to 4 microns.

## SOME NEW SPECIES OF FUNGI.

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### CERCOSPORA CYNOGLOSSI *sp. nov.*

Spots numerous, greenish-purple above, mouse colored below, becoming brown above and greenish-brown below when dried, circular or oval, from a few mm. to 2 or 3 cm. in diameter, but average about 1 cm. Conidiophores tufted, 25 to 150 by 2.5 to 4 microns, reddish-brown, tips pale and somewhat wavy due to spore attachment. Spores 6 to 8 on each conidiophore, hyaline, straight, or variously bent or curved, 3 to 10-septate, 40 to 155 by 2.5 to 4 microns (average about 65 to 70 in length).

On living leaves of *Cynoglossum officinale* L., Showers' Farm, Monroe County, Indiana, August 25, 1920. I. U. Myc. Herb. 3815; Deekard Creek, Monroe County, Indiana, September 30, 1923. I. U. Myc. Herb. 3984.

### CERCOSPORA ROSAE *sp. nov.*

Spots 1 to 5 mm. (average 2 to 3 mm.), circular, oval, or angular, somewhat limited by veins, amphigenous, above purplish-black, becoming brown in center, with broad purplish-black margin, the purple disappearing with age, circular or irregular, below olive-brown to hair-brown. Conidiophores for the most part epiphyllous, few, in tufts from tuberculate bases as much as 25 microns broad, upright, straight, or sometimes wavy above, 60 to 100 by 4 to 6 microns, for the most part continuous.