

NEW SPECIES OF FUNGI FROM ILLINOIS

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In spite of the fact that Illinois in the past has been the collecting ground for a number of our most noted mycologists such as Seymour, Earle, Burrill, Waite and Clinton, there are still numerous species of undescribed fungi to be found parasitizing its rich flora. Illinois is on the border line between the hardwood forests of the east and the prairies of the west. To the north are the sand dunes of the lake and swamps of the Kankakee. To the south are the unglaciated hills. To the west we have large areas of river bottom with bluffs and ravines, while in the center is a great level prairie region. Through the central part of the state from north to south runs the broad right of way of the Illinois Central, and along this are many almost undisturbed areas where collecting is especially profitable. The cream has been skimmed from many choice collecting grounds by the industrious older mycologists, but there is little doubt that a systematic search in almost any locality would reveal many new species. As an example of this, I may sight a recent collection of an entirely new rust on *Laportea canadensis* (*Urticastrum divaricatum* Ktze) in a woods near Urbana which has been the favorite collecting ground of Burrill and his students for years. This rust (*Cerotelium dicentrae* Mains & And.) is of especial interest because it served to connect up the *Aecidium* on Dutchmans Breeches (*Aecidium Dicentrae*), a connection which has been puzzling the students of the rusts for many years. In this same woods two of the new species to be described were also found.

The five new species here described represent only a small part of a collection of "unknowns" which have been filed away for future work. The material can be examined only at odd times and it has been my desire to avoid making new species if possible. The recently organized plant disease survey of the state is responsible in part for the presentation of these new species since it was felt that all available material should be placed

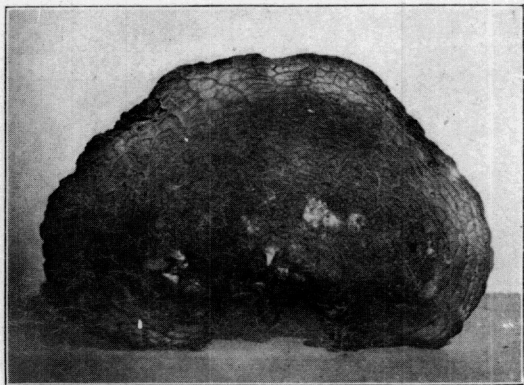


Fig. 1. *Pleurotus subpalmatus*. Dorsal surface.

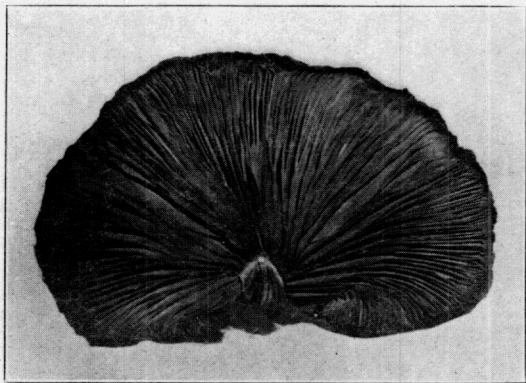


Fig. 2. *Pleurotus subpalmatus*. Ventral surface.

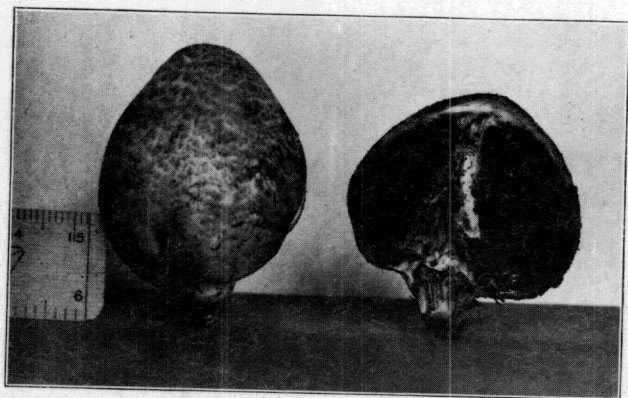


Fig. 3. *Secotium agaricoides*.

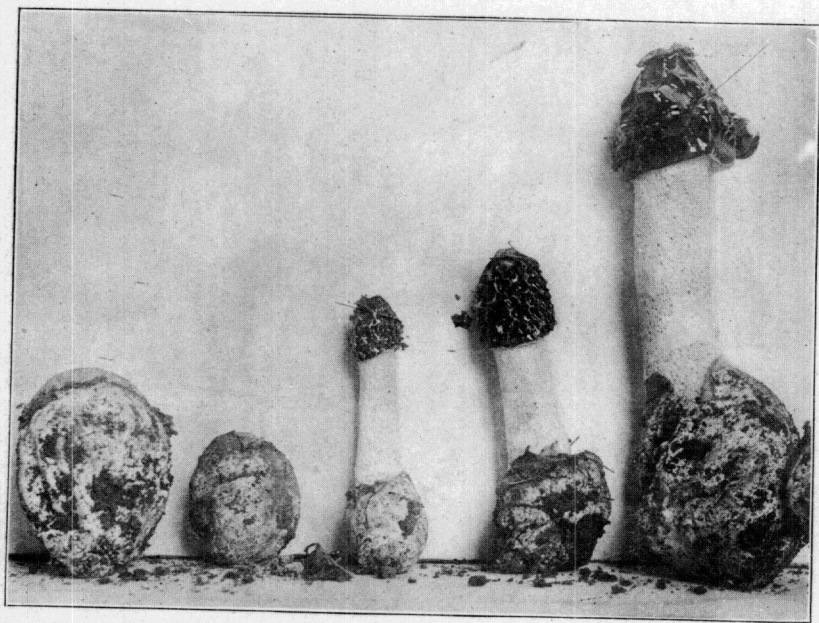


Fig. 4. *Phallus impudicus*.

at their disposal at the earliest possible date. It is hoped that opportunity will be offered in the near future to prepare for publication a larger number of new species.

Septoria Collinsiae n. sp. Spots numerous, large 2-10 mm., single or confluent, often involving entire leaf, grayish white, suborbicular. Pycnidia strictly epiphyllous, acicular, straight or slightly curved 1-3 septate 2.5-3x25-50 microns. Mostly 3x30-40 microns.

The spore measurements agree closely with those of *S. Scrophulariae* Pk. but the character of the spots and the distribution and number of the pycnidia is quite different in the two species. *S. Scrophulariae* is a very common parasite on species of *Scrophularia* in this locality.

On *Collinsia verna* Nutt. Brownfield Woods near Urbana, Illinois, May 18, 1919, May 10, 1920, April 25, 1921.

Type No. 4723, Herbarium Illinois Plant Disease Survey.

This leaf spot was so abundant that it caused the death of large patches of the host. It is strange that this serious disease has escaped the attention of collectors in this region.

Septoria septentrionalis n. sp. Spots numerous, small, indefinite, often confluent, brown, later with white indefinite centers. Pycnidia epiphyllous rarely amphigenous, few, scattered, brown, thin walled, 60-80 microns. Pycnospores very short for this genus, narrowly fusoid, straight or slightly curved, ends blunt, 1 septate or continuous 2.5-3.5x15-25 microns. Differing from *S. ranuncularum* Lev. *S. Ficariae* Desm. *S. polaris* Karst., *S. Ranunculi* Westv. *S. ficarioides* Peck, in the small size of spores and character of leaf spots. Not to be confused with *Ascochyta infuscans* E. and E. on *Ranunculus abortivus* which has thicker and somewhat shorter spores. It approaches *S. polaris* more closely than any other species described on Ranunculaceous posts.

On lower leaves of *Ranunculus septentrionalis* Poir., near Urbana, Illinois, (Brownfield woods) April 21, 1921.

Type specimen No. 4725, Herbarium Illinois Plant Disease Survey. This leaf spot was rather rare in the locality where it was collected although the host plant was fairly abundant. A critical study of the Septorias on *Ranunculus* is needed.

Gloeosporium Impatiensis n. sp. Spots numerous, large (3-15 mm.) circular or more often irregular, rusty brown with red to purple border on upper surface, grayish beneath; acervuli numerous, small, pulvinate, or elongate and large along prominent veins, pink to white, hypophyllous; spores oblong-ovate, 3.5-5x15-23 microns, contents granular, basidia very short or absent.

On *Impatiens biflora*. Urbana, Illinois (Brownfield Woods). August 19, 1921.

Type specimen No. 4722, Illinois Plant Disease Survey Herbarium.

This spot has appeared annually during the past three years in the regions where it was first collected. It seems to cause considerable injury to the host. It is also common about Crawfordsville, Indiana, where it was collected by H. B. Dorner, September 23, 1907, and was later observed by the writer in a number of localities in Montgomery County, Indiana. The collection by H. B. Dorner is labelled "*Impatiens aurea*", (*I. pallida* Nutt.), but it is probable that this is a mistake since *I. biflora* is by far the more common species about Crawfordsville. The collection by Dorner is No. 4721 of the Illinois Plant Disease Survey Herbarium.

Phyllosticta Rafinesquii n. sp. Spots few, mostly on lower leaves, 2-5 mm., circular, light brown with small definite gray center. Pycnidia, few, scattered on spots on living leaves, but more numerous on dead leaves, Epiphyllous, black (brown under microscope with cells of neck much darker), flask shaped, 120-175 microns with neck 50-60 microns. Pycnosporos oblong, 1-3 guttulate, 3-4 x 10-14 microns. Differs from *Phyllosticta Violae* Desm. in larger size of spores and pycnidia and in the character of the spots.

On *Viola Rafinesquii* Green, Anna, Illinois, April 23, 1921.

Type specimen No. 4724, Herbarium Illinois Plant Disease Survey.

Although the host plant occurs over large areas in the region where this disease was collected, the spots are rare and easily overlooked. Where they occur the dead or dying leaves on the lower part of the stem yield abundant pycnidia.

Ascochyta Rhodotypi n. sp. Spots definite, large, angular and irregular, white with narrow dark red edge; sometimes involving large areas on the leaf when the red borders are much broader and more irregular. Pycnidia scattered, few, amphigenous 140-180 microns with distinct papillate ostioles. Cells of pycnidial wall large, light brown. Pycnosporos hyaline, uniseptate, oblong, ends rounded, slightly constricted at septa, straight, 3-4 x 11-15 microns.

On leaves of *Rhodotypos kerrioides* University Campus, Urbana, Illinois, July 15, 1919 and September 10, 1919.

Type specimen No. 4726, Illinois Plant Disease Survey Herbarium.

Few diseased leaves were found on any bush, but the disease appears each year on the same branches. Three clumps of bushes have been watched and the disease has appeared in a mild form on these three successive summers.