

GLOEOSPORIUM HYSTERIOIDEUM DEAR. & BARTH.— A LEAF DISEASE OF ACER SACCHARUM MARSH.

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This species recently described by Dearness in *Mycologia*, Vol. 16, p. 167, (1924), under the title "New and Noteworthy Fungi", has been under our observation since 1920. His type material came from the vicinity of Cincinnati, Ohio, and was collected in September, 1922. While it is of interest as a new species, it is of equal interest as a defoliating fungus, particularly in seasons of great moisture and on younger trees. Those trees up to 50 feet in height are most affected. Our observations have been confined, in the main, to many hard maple trees located in a deep hollow in a practically untouched forest in southern Indiana. By August the spots are quite large and some defoliation sets in, even in dry seasons. In 1920, a wet season, there was almost complete defoliation whereas in 1922, a comparatively dry year, spotting was severe but the injury much less.

The spots on the leaves in 1922 were entirely different from those on leaves in 1920. In fact, they were quite definite, had broad yellow borders, became quite pale in the center, and did not spread to more than three centimeters in diameter. The unusually dry season at the time of spot development, in 1922, doubtless produced a slower and more definite growth of the spots. The difference in this case was so marked that an ordinary examination of the affected leaves of the two seasons, would suggest two entirely different fungi as the cause.

The following is our original description of this most interesting species, written in 1923, and unpublished. While the published description is one of unusual clearness, our observations during three seasons led us to incorporate some additional data.

Description: *Spots* amphigenous, distinct, without a margin, reddish-brown, circular to irregular, one-half to one cm., finally coalescing and spreading over the entire leaf, in some seasons the spots are much more regular, circular in outline with broad yellow margins becoming paler in the center, 3 cm. in diameter, and while coalescing, they do not destroy the entire leaf; *acervuli* distinct, epiphyllous, numerous, 25 to 500 microns in diameter, averaging about 100, covered at first by the darkened cuticle, later rupturing it and continuing to spread circularly or irregularly; *spores* scarce, 12 to 15 by 15 to 20 microns, hyaline, pyriform, conoidal, ovate, or almost spherical; secondary spores abundant, hyaline, oblong, bacteria-like, very small, $\frac{1}{2}$ to $2\frac{1}{2}$ by 5 to 10 microns. On living leaves of *Acer saccharum* Marsh., Borden, Clark County, Indiana, September 10, 1920. Number 3,827. October 20, 1922. 3,936. August 14, 1923. 4,089.

If the spores be examined after August, scarcely a trace of the larger ones (pynospores) can be found. The smaller, bacterium-like ones are exceedingly numerous after that time. These are the so-called

spermatia or bacillar conidia. This condition is similar if not identical to that described in *Guignardia Aesculi* (Pk.) V. B. Stewart ("The Leaf Blotch of Horse-chestnut", *Phytopathology*, Vol. 6. pp. 5 to 19). It is also very unusual that the smaller spores should measure slightly larger (1 to $2\frac{1}{2}$ by 5 to 10 microns) in 1922 than those of 1920 which were $\frac{1}{2}$ to 1 by 5 to 6 microns. This may indicate a condition similar to that in leaves of *Aesculus* where Stewart describes two sizes of spermatia. This point was not determined.

INDIANA FUNGI—IX.

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The fungi herein reported, are either new to the state, or to the county, or are on hosts not before reported, or are those that exhibit characteristics not before described so far as we have been able to learn. In a few cases, entire descriptions have been newly written. The season of 1925 was not ideal for the development of leaf spot fungi, which are usually members of the Imperfect group. Apparently, the unusual and continued dry weather during spring prevented the growth of these fungi at a time when they ordinarily begin to develop. Certain diseases, as the sycamore anthracnose, which has been gradually increasing in severity for a number of years, were scarcely noticeable in the vicinity of Bloomington.

PHYCOMYCETES.

Plasmopara viticola (B. & C.) Berl. & DeToni. "White Rot of Grapes." On living leaves, stems, berries, and berry stalks of fall blue grapes, Monroe County, August 5, 1924, J. M. V. 4026. Appeared early in July and began to rot the berries badly when about half grown.

BASIDIOMYCETES.

USTILAGINALES.

Sorosporium Syntherismae (Pk.) Farl. On *Panicum dichotomiflorum* Michx., Monroe County, September 25, 1925, Riecken 4980.

Sphacelotheca Sorghi (Link) Clinton. On Kaffir corn, Shelby County, September 1, 1925, Hawkins 4087.

UREDINALES.

Dicaeoma Rhamni (Pers.) Kuntze. (*Puccinia coronata* Cda.) On leaves of *Rhamnus cathartica* L., Monroe County, June 27, 1924, Blaydes 4016. Same, May 19, 1925, J. M. V. 4099.

POLYPORACEAE.

Boletus mutabilis Morg. Open woods, Monroe County, July 15, 1925, J. M. V. 4073. In open blue grass lawn, October 19, 1925, 4084.