

## NOTES ON A COLLECTION OF MYXOMYCETES FROM SOUTHEASTERN MICHIGAN.\*

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During the autumn of 1932, Mr. Clarence E. Taft, of the Department of Botany, Ohio State University, made a trip through southeastern Michigan, visiting portions of Macomb and Lapeer Counties. Although interested primarily in the collection of algae, he was able to secure nearly a hundred specimens of Myxomycetes or slime molds. Since then it has been the writer's privilege to work over the collection, and this paper is the result. So far as the writer can ascertain, nothing has previously been published on the Myxomycetes of this section of Michigan.

The writer is indebted to Mr. Taft for the large number of specimens, and to Dr. W. G. Stover and Dr. G. W. Blaydes for helpful advice and criticism. Professor T. H. Macbride's "North American Slime Molds" has been followed throughout.

1. **Ceratiomyxa fruticulosa** (Muell.) Macbr. Collected once, in woods north of Noland Lake, Macomb County. Growing on rotted maple wood. Rather common everywhere, according to Mr. Taft's notes.

2. **Fuligo septica** (Linn.) Gmel. This common species was found several times in a woods north of Noland Lake. In most cases the aethalia had been reduced to tatters by weathering. The form *ovata*, with yellowish foamy crust, was the form most frequently collected. On oak.

3. **Didymium melanospermum** (Pers.) Macbr. This beautiful species, with snow white sporangia and short black stalks, was collected once from oak in a woods north of Noland Lake.

4. **Diderma floriforme** (Bull.) Pers. This species, common in the Central States, was found on well decayed oak, in the woods north of Noland Lake. When collected, the sporangia were "closed," but after a few hours, began to burst open, giving to them the customary flower-like appearance.

5. **Stemonitis fusca** (Roth.) Rost. The dusky sporangia of this species were found a number of times in Hamilton's woods, 4 miles northwest of Romeo, Macomb County. On wood of large-toothed aspen.

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6. **Stemonitis virginiensis** Rex. This is believed to be the fourth record for the species in North America. It was collected once from aspen, in Hamilton's woods, northwest of Romeo.

7. **Stemonitis splendens** Rost. Rather common on oak and maple in Lapeer County, 8 miles northwest of Romeo.

8. **Stemonitis smithii** Macbr. The tall, slender, cinnamon-brown sporangia were collected twice from aspen, in Hamilton's woods, 4 miles northwest of Romeo. The sporangia measure up to 7 mm. in height.

9. **Stemonitis herbatica** Peck. A large number of sporangia were found on oak, northwest of Romeo. These specimens are very different from the usual *S. herbatica*. According to Dr. G. W. Martin, of the State University of Iowa, they have been parasitized by a species of *Hyphomyces*. The parasitic fungus completely changes the appearance of the sporangia, causing them to take on a dull black color. Upon examination the spores and capillitium are found to be compacted into a dense mass. This *Hyphomyces* must occur rather generally on *S. herbatica*, as the writer also possesses several parasitized specimens from Ohio.

10. **Cribraria aurantiaca** Schrader. Collected twice from oak in Lapeer County, 8 miles northwest of Romeo.

11. **Lycogala epidendrum** (Buxb.) Fries. This species is common on many kinds of deciduous trees in southeastern Michigan. Specimens were taken from oak in the Harris woods, northwest of Romeo, and from oak and maple in Lapeer County, 8 miles northwest of Romeo.

12. **Arcyria incarnata** Persoon. Rather common on oak in both Macomb and Lapeer Counties. Specimens were collected in a woods north of Noland Lake, in the Harris woods, 3 miles northwest of Romeo, and again in Lapeer County, 8 miles northwest of Romeo. The sporangia are very irregular in shape, departing from the usual cylindrical form. They are weak and procumbent, cling together, and are frequently fused. However, the general color of the sporangia and the characteristics of the capillitium, spores, and stalk serve to place these specimens under *A. incarnata*, Pers.

13. **Arcyria denudata** (Linn.) Sheldon. Undoubtedly the most abundant slime mold of southeastern Michigan. It is to be found everywhere on many kinds of wood. Specimens were found on elm and maple in woods northwest of Romeo, another woods north of Noland Lake, and again in southern Lapeer County. The species also occurred on yellow birch in a cedar swamp 2 miles west of Romeo, on white oak in a forest southwest of Romeo, and in another woods 4 miles southeast of Romeo.

14. **Hemitrichia vesparium** (Batsch.) Macbr. Very common on maple, oak, birch, and other deciduous trees. Sporangia in all stages of formation—the mature plasmodium, fully formed sporangia, and the empty sporangia which resemble miniature "wasp nests," were found. The species was collected from woods northwest and southwest of Romeo, and from southern Lapeer County.

15. **Hemitrichia clavata** (Pers.) Rost. Common to abundant in most of Macomb and Lapeer Counties. On many kinds of wood: oak, aspen, birch, and maple. Collections are from northwest and southwest of Romeo, and southern Lapeer County. Both newly formed and aged sporangia were found.

16. **Hemitrichia stipitata** (Mass.) Macbr. Collected twice; northwest and southwest of Romeo. On aspen and maple. The presence of a complete capillitial net without free ends serves to distinguish this species from *H. clavata*.

17. **Trichia contorta** (Ditm.) Rost. Listed by Macbride as "rare" in North America. A large number of sporangia were collected from a decayed aspen log, lying partially submerged in a pond. Hamilton's woods, 4 miles northwest of Romeo.

18. **Trichia scabra** Rost. Collected once from oak in Harris woods, northwest of Romeo.

19. **Trichia persimilis** Karst. Found once on white oak in woods northwest of Romeo.

20. **Trichia favoginea** (Batsch.) Pers. This beautiful species was taken from oak, northwest of Romeo.

21. **Oligonema flavidum** (Peck.) Mass. On aspen, in Hamilton's woods, northwest of Romeo.

22. **Oligonema nitens** (Lib.) Rost. Taken once in an oak-maple forest southwest of Romeo.

Many of the Myxomycetes listed above are typical autumn species, notably the *Trichias*, *Oligonema flavidum* and *O. nitens*, *Arcyria incarnata*, and *Diderma floriforme*.

On the basis of number of times collected, the most common Myxomycetes of southeastern Michigan would seem to be, in the order named: *Arcyria denudata*, *Hemitrichia vesparium*, *Hemitrichia clavata*, *Lycogala epidendrum*, *Fuligo septica*, *Arcyria incarnata*, and *Ceratiomyxa fruticulosa*.

Of the twenty-two species mentioned, about four or five are particularly noteworthy. *Didymium melanospermum* has seldom been collected in the Central States. This is true also of *Stemonitis virginiensis*, *Stemonitis smithii*, *Cribraria aurantiaca*, and *Trichia contorta*. The writer feels sure that the rich forests of Michigan will ultimately yield many times the number of species listed in this paper.