

The spores of the Myxomycetes.—MR. HAROLD WINGATE, referring to the work done by Dr. Rostafinski some years ago upon the spores of the Myxomycetes, and also to the recent paper by Mr. Geo. Massee on the Trichiaceae, made a communication upon some of the results he had obtained from the study of these reproductive bodies.

The speaker observed that for many years the mycologist had been satisfied with the results obtained from the use of lenses from $\frac{1}{4}$ to $\frac{1}{8}$ inch focus in arriving at the morphology of the spores of the fungi, but of late years, in the study of the structural details of the Myxomycetes, the results from the use of a good, high-power immersion lens ($\frac{1}{12}$ to $\frac{1}{18}$ inch focus), have been so astonishing that the careful investigation of this group is now impossible without such a lens.

The speaker for some years had spent considerable time in making accurate drawings of the spores of this group, using a Zeiss water-immersion lens equivalent to $\frac{1}{18}$ inch focus. It was interesting to note that some of the drawings showed a tendency to fall into an artificial series based upon the thickenings of the epispore, commencing with simple structure and by gradual steps ending with a rather complex one.

The drawings were exhibited and the following types might be selected as a series showing this progression:—

1.—The series should begin with a spore absolutely without thickenings, but, with the exception of the spore of an undescribed species, no spore has yet been found in the speaker's collection which would accurately fit this type from the hypercritical standpoint of the present.

2.—Thickenings of the epispore in the shape of isolated faint warts, *Arcyria punicea*, Pers.

3.—Thickenings in the shape of faint, sparsely scattered warts, *Comatricha pulchella*, Bab.

4.—Thickenings in the shape of faint warts somewhat thickly scattered over the surface, *Didymium squamulosum*, A. & S.

5.—Thickenings in the shape of faint warts densely scattered over the surface, *Trichia fragilis*, Sow.

6.—Thickenings in the shape of warts arranged to form a pattern having a reticulate appearance, *Stemonitis fusca*, Roth.

7.—Thickenings in the shape of warts arranged to form a reticulate pattern, the warts confluent at their bases, *Stemonitis dictyospora*, Rki.

8.—Thickenings in the shape of warts which very frequently coalesce to form a delicate fine-meshed net-work over the greater portion of the epispore, the remaining surface with warts and ridges; the outline of the warted portion very irregular, *Trichia scabra*, Rki.

9.—Thickenings in the shape of a delicate fine-meshed net-work covering the greater portion of the epispore.

A.—The portion without the fine net-work having scattered warts and ridges and with an irregular outline, *Tubulina*

cylindrica, Bull., *Lycogala epidendrum*, Buxb., *Dermodium conicum*, Pers.

B.—The portion without the fine net-work having a very wide-meshed net-work and with an irregular outline, *Siphoptychium Casparyi*, Rki., *Tubulina stipitata*, B. & Rav.

10.—Thickenings in the shape of a delicate, fine-meshed net-work covering about two-thirds of the surface, the remaining portion with scattered warts and ridges; the warted portion having the sharp, regular outline of a wide spindle, the ends of the spindle lying at the poles of the sphere, *Enteridium Rozeanum*, Rki.

11.—Thickenings in the shape of a delicate fine-meshed net-work covering about one-half of the surface, the remaining portion with scattered warts and ridges; the warted portion having a sharp, regular, circular outline, *Reticularia Lycoperdon*, Bull.

It will be seen from this series how readily the rather complex sculpturing of numbers 9, 10 and 11 might have had its origin from a simple warted type by the gradual coalescence of the warts in certain directions.

Note on Orthotricha.—MR. HAROLD WINGATE also remarked that in the Journal of Mycology for November, 1886, he had described a new genus of Myxomycetes under the name of *Orthotricha*. In some of the journals which noticed the article the genus was mentioned as *Orthotrichia*, and in Saccardo's Sylloge Fungorum, vol. vii, part i, this error was repeated. It is inferred that it was done in error as no mention is made of any intention to correct the original name. As the original name conflicted with that of a genus of mosses, the speaker had concluded to adopt the orthography as given in Saccardo:—*Orthotrichia* instead of *Orthotricha*.

JULY 16.

MR. CHARLES MORRIS in the chair.

Thirteen persons present.

The following papers were presented for publication:—

“Notes on the food of birds.” By Frank C. Baker.

“A review of the European and American Uranoscopidae or Star-Gazers.” By Philip H. Kirsch.

JULY 23.

MR. CHARLES MORRIS in the chair.

Seven persons present.



Wingate, Harold. 1889. "The Spores of the Myxomycetes." *Proceedings of the Academy of Natural Sciences of Philadelphia* 41, 188–189.

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