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Fungi

Dame Helen Gwynne-Vaughan (1879–1967) was a prominent British mycologist, specialising in the sexual process of fungi. In 1909 she was appointed Head of the Department of Botany at Birkbeck College, becoming Professor of Botany when Birkbeck College joined the University of London in 1920. This volume was first published in 1922 as part of the Cambridge Botanical Handbooks series. The introduction provides a detailed description of the structure, sexual reproduction, parasitism and symbiosis of all fungi, with subsequent chapters describing fully the morphology and reproduction of genera within the phylum ascomycetes and the orders ustilaginales and uredinales on which Gwynne–Vaughan based her research. Illustrations and a bibliography accompany each chapter. This volume provides an insight into the study of mycology in the early twentieth century, before technological advances in the field of cytology revolutionised the discipline.

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Fungi

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Edited by A. C. SEWARD and A. G. TANSLEY

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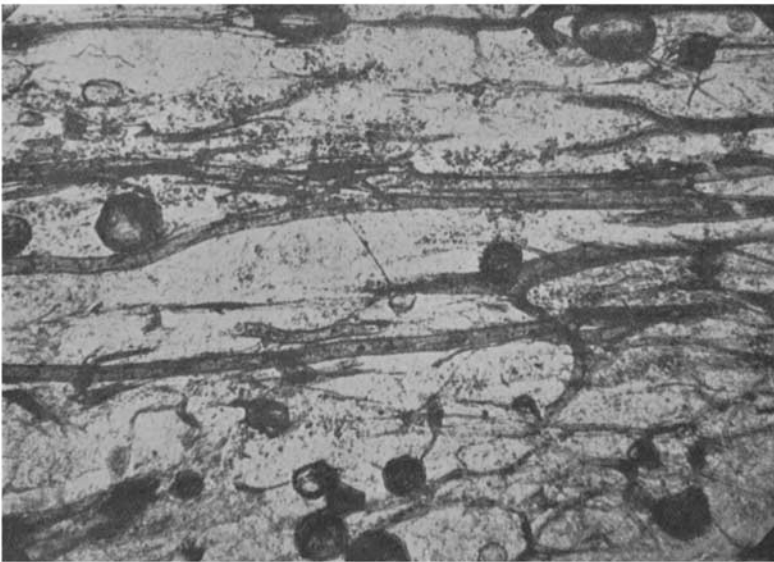
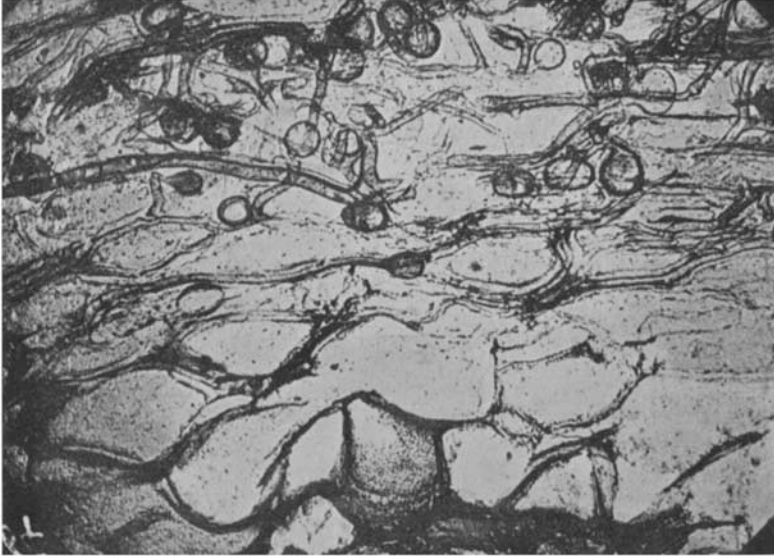
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PALEOMYCES ASTEROXYLI

from the Old Red Sandstone, Muir of Rhynie, Aberdeenshire, $\times 100$; after
Kidston and Lang

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FUNGI
ASCOMYCETES, USTILAGINALES,
UREDINALES

BY

DAME HELEN GWYNNE-VAUGHAN,
(FORMERLY H. C. I. FRASER)
D.B.E., LL.D., D.Sc., F.L.S.
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AND
HEAD OF THE DEPARTMENT OF BOTANY, BIRKBECK COLLEGE

CAMBRIDGE
AT THE UNIVERSITY PRESS
1922

PREFACE

IT is impossible to study the Fungi without being impressed by the undiminished value of much of the older work, and especially of that of de Bary, or without recognizing the soundness of his general and very many of his particular conclusions in the light of subsequent investigation. While I have tried to give something approaching adequate references to recent literature, I have thought it superfluous to name the more general works of those earlier authors who are quoted in de Bary's *Comparative Morphology of the Fungi, Mycetozoa and Bacteria* and elsewhere. By such investigations the foundations of modern mycology have been laid and their discoveries have passed into the groundwork of our knowledge.

The intention of the following pages is to present the fungus as a living individual: the scope is mainly morphological, but, in dealing with objects so minute, morphology passes insensibly into cytology. The introduction deals with fungi in general; the special part of this volume is limited to the consideration of the Ascomycetes, Ustilaginales and Uredinales. The manuscript was completed early in 1917, but an endeavour has been made to bring it up to date.

The majority of the illustrations are drawn from published researches, and I have to thank those authors who have given me permission to copy their figures. Illustrations, the source of which is not stated, are original. In the case of original figures the magnification and the authority for the species are given; this has also been done in other cases whenever the information was available.

I am grateful to many past and present students for specimens and information; to Miss W. Page for figure 112; to Miss H. Tayler for reading proofs; to Mr Charles Dobb for valuable help in the preparation of figures; to Mr E. S. Salmon for advice on the section dealing with specialization of parasitism; and especially to my friends Miss E. J. Welsford and Mr J. Ramsbottom for assistance in a number of ways.

The earlier written parts of the book, and consequently the whole, owe much to the unflinching interest and wise criticism of my husband.

H. C. I. GWYNNE-VAUGHAN.

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