

PREFACE

I REGRET that pressure of other work has prevented the completion of this Volume within a reasonable time since the publication of Volume I. Had Volume II been written ten years ago, the discoveries made in the course of the last decade would have given an out-of-date character to much of the subject-matter. It is more especially in regard to the Ferns and the extinct members of the Gymnosperms that our outlook has been materially altered by recent contributions to Palaeobotany. It is, however, some satisfaction to be able to add that recent progress has been relatively slight in that part of the subject dealt with in the first volume.

The original intention was to complete the whole work in two volumes. Soon after the second volume was begun, it became evident that the remaining divisions of the plant-kingdom could not be included within the compass of a single volume. I decided, therefore, to take the consequences of having embarked on too ambitious a plan of treatment, and to preserve uniformity of proportion by reserving the seed-bearing plants for a third volume. The third volume will include the Pteridosperms, other than those briefly described in the final chapter of the present volume, and other classes of Gymnosperms. I propose also to devote such space as is available within the limits of a text-book to the neglected subject of the geographical distribution of plants at different

stages in the history of the earth. It is my intention to complete Volume III with as little delay as possible. As I have written elsewhere, the past history of the Flowering plants needs special treatment, and anything more than a mere compilation can be adequately attempted only after considerable research and with the assistance of botanists possessing a special knowledge of different families of Angiosperms. The need of a critical examination of available data in regard to the geological history of this dominant group will not be lost sight of.

I am well aware that while certain genera have received an undue share of attention in the present volume, others have been ignored or treated with scant consideration. For this inconsistency I have no excuse to offer, beyond the statement that the subject is a large one, and selection is necessary even though the work consists of three volumes.

The publication in 1909 of a collection of excellent photographs of Palaeozoic Plants, with brief descriptive notes, by Mr Newell Arber, as one of a series of popular "Nature Books," bears striking testimony to the remarkable spread of interest in the study of the vegetation of the past, which is one of the outstanding features in the recent history of botanical science.

In the list of illustrations I have mentioned the source of all figures which have been previously published. I would, however, supplement the statement of fact with an expression of thanks to corporate bodies and to individuals who have allowed me to make use of blocks, drawings, or photographs.

I wish to thank my colleague, Mr A. G. Tansley, for placing at my disposal several blocks originally published in the pages of the *New Phytologist*. To Professor Bertrand of Lille and to his son Dr Paul Bertrand I am indebted for several prints and

descriptive notes of specimens in their possession. My friends Dr Nathorst of Stockholm and Dr Zeiller of Paris have generously responded to my requests for information on various points. I wish especially to thank Dr Kidston for several excellent prints of specimens in his collection and for the loan of sections. I have profited by more than one examination of his splendid collection at Stirling. Professor Weiss has generously allowed me to borrow sections from the Manchester University collections, more especially several which have been reproduced in the chapter devoted to the genus *Lepidodendron*. To Professor F. W. Oliver my thanks are due for the loan of sections from the collection under his charge at University College. I have pleasure also in thanking Dr Scott, not only for lending me sections of a *Lepidodendron* and for allowing me to use some drawings of *Miadesmia* originally made by Mrs Scott for reproduction in his invaluable book, *Studies in Fossil Botany*, but for kindly undertaking the laborious task of reading the proofs of this volume. It would be unfair to express my gratitude to Dr Scott for many helpful suggestions and criticisms, without explicitly stating that thanks to a friend for reading proofs must not be interpreted as an attempt to claim his support for all statements or views expressed. The General Editor of the Series, Mr A. E. Shipley, has also kindly read the proofs. I am under obligations also for assistance of various kinds to Prof. Thomas of Auckland, New Zealand, to Mr Boodle of Kew, to Mr D. M. S. Watson of Manchester, to Mr T. G. Hill of University College, and to Mr Gordon of Emmanuel College, Cambridge. I am indebted to the kind offices of Miss M. C. Knowles for the photograph of the specimen of *Archaeopteris hibernica* in the Irish National Museum, Dublin, reproduced on page 561.

Many of the illustrations are reproduced from drawings by my wife: those made from the actual specimens are distinguished by the addition of the initials M. S. I am grateful to her also for some improvements in the letter-press. For the drawings made from sections and for some of the outline sketches I am responsible. I have availed myself freely of the facilities afforded by Professor McKenny Hughes in the Sedgwick Museum of Geology for the examination of specimens under the charge of Mr Newell Arber, the University Demonstrator in Palaeobotany. It is a pleasure to add that, as on former occasions, I am indebted to the vigilance of the Readers of the University Press for the detection of several errors which escaped my notice in the revision of the proofs.

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