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The Ferns (Filicales)

*Treated Comparatively with a
View to their Natural Classification*

VOLUME 2:
THE EUSPORANGIATAE AND OTHER
RELATIVELY PRIMITIVE FERNS

F. O. BOWER



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Royal Ferns (*Osmunda Regalis* L.) in the Kibble House, Botanic Garden, Glasgow

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THE FERNS (FILICALES)

TREATED COMPARATIVELY WITH A VIEW
TO THEIR NATURAL CLASSIFICATION

VOLUME II
THE EUSPORANGIATAE AND OTHER
RELATIVELY PRIMITIVE FERNS

BY
F. O. BOWER, Sc.D., LL.D., F.R.S.

EMERITUS PROFESSOR OF BOTANY
IN THE UNIVERSITY OF GLASGOW

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PROLOGUE TO VOLUME II

ἔστην θεατής, πύργον εὐαγῆ λαβών.
 ὄρω δὲ φῦλα τρία τριῶν στρατευμάτων.

EURIPIDES, *Suppliants* 653-4.

“On a far-looking tower I stood to watch,
 And three tribes I beheld, of war-bands three.”

Way's translation, 1912.

IN offering this Second Volume on the Ferns, the author may fitly quote these words of the messenger in the Greek Play. By establishment of the twelve criteria of comparison detailed in the first Volume we have taken our place upon a tower of vision. Thence we may now witness the phyletic advance. As the armies in the play were seen to be formed in three distinct columns, each moving independently, so also the three main phyla of Ferns, which our comparative study will disclose, may be held to have progressed independently in their evolutionary march, their separate movements being discernible by the observer from his point of vantage. It is immaterial that on both sides of our comparison the number is three. Later writers on Ferns may recognise some different number. The point is that each phylum takes its own course: in fact the evolutionary movements are polyphyletic.

An impressive feature that will emerge from further phases of this study of Ferns is that the lines of development, previously distinct, converged in character as their evolution progressed. Their constituent genera and species thus assumed features so similar that it may often baffle the student to trace their phyletic origin. As in the battle, graphically described by the messenger in the play, the several columns finally merged in an inextricable mêlée, so in the later phases of the evolution of Ferns it becomes difficult or even impossible to segregate completely the several phyla of descent according to their detailed features. But this problem of convergent evolution will be reserved for later treatment: the present Volume deals with the evolutionary progressions of earlier geological time.

The author desires to acknowledge with gratitude the continued assistance given by the Carnegie Trustees, in the form of a grant towards the cost of illustration of this Volume. By such means they promote the advancement of science in a most practical way.

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