

# **CHAPTERS IN MODERN BOTANY**

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Chapters in modern botany by Patrick Geddes

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**PATRICK GEDDES**

**CHAPTERS IN  
MODERN BOTANY**



*UNIVERSITY EXTENSION MANUALS*  
*EDITED BY PROFESSOR KNIGHT*

*Clara E. Cummings*

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CHAPTERS IN MODERN BOTANY

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*This Series is primarily designed to aid the University Extension Movement throughout Great Britain and America, and to supply the need so widely felt by students, of Text-books for study and reference, in connection with the authorised Courses of Lectures. Volumes dealing with separate sections of Literature, Science, Philosophy, History, and Art have been assigned to representative literary men, to University Professors, or to extension Lecturers connected with Oxford, Cambridge, London, and the Universities of Scotland and Ireland.*

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*The Manuals are also intended to be contributions to the Literature of the Subjects with which they respectively deal, quite apart from University Extension; and some of them will be found to meet a general rather than a special want.*





A TROPICAL FOREST. (See Chaps. I., and VIII.)



Chapters  
in  
Modern Botany

BY PATRICK GEDDES

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## PREFACE

THIS little book makes no attempt to condense a survey of its science; even within the fields through which it passes it seeks only to be suggestive, not exhaustive; its chapters have actually grown out of the syllabus and notes of University Extension Lectures, with their necessary limitations. In matter and form its appeal is to the general reader; yet, in method and spirit, to the student also,—in some measure even to the teacher. In botany, as in other studies, educational methods alter with the times. In the Linnean period the "best botanist was he who knew the most plants," however little of each; while a later and still dominant school has founded upon Cuvier a type-system which makes him know much,—but of few. Hence the student has come no longer to load his vasculum and memory in a single vacation, with all things from the cedar to the hyssop; but, seeing that cedar and hyssop have been selected as types by the highest authority, scrutinises these, and these only, for his term. Analysis is great, and the anatomist is its prophet; yet such Elementary Biology is but Necrology, its so-called "life-histories" being but histories of form.

It is the misfortune of biology that Darwin was not a teacher. It is no easy matter for us professors, trained

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