

THE FAMILIES
AND GENERA
OF VASCULAR PLANTS

Edited by K. Kubitzki



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The Families and Genera of Vascular Plants

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II *Flowering Plants · Dicotyledons* *Magnoliid, Hamamelid and Caryophyllid Families*

Volume Editors:

K. Kubitzki, J. G. Rohwer, and V. Bittrich

With 141 Figures

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Preface

This volume – the first of this series dealing with angiosperms – comprises the treatments of 73 families, representing three major blocks of the dicotyledons: magnoliids, centrosperms, and hamamelids. These blocks are generally recognized as subclasses in modern textbooks and works of reference. We consider them a convenient means for structuring the hundreds of dicotyledon families, but are far from taking them at face value for biological, let alone monophyletic entities.

Angiosperm taxa above the rank of family are little consolidated, as is easily seen when comparing various modern classifications. Genera and families, in contrast, are comparatively stable units – and they are important in practical terms. The genus is the taxon most frequently recognized as a distinct entity even by the layman, and generic names provide the key to all information available about plants. The family is, as a rule, homogeneous enough to conveniently summarize biological information, yet comprehensive enough to avoid excessive redundancy. The emphasis in this series is, therefore, primarily on families and genera.

Our knowledge of the order of living things has widened gradually over time, from the pre-Darwinian era to the present. Most families and genera were recognized and described long before the majority of their members were known. They have grown through the association of plants with similar characteristics. Explicit taxonomic methodologies have undergone a substantial development only in the last decades, and today a strictly formalized phylogenetic approach is widely considered to produce the most meaningful results. Unfortunately, however, only a minor fraction of the vascular plants to date have been studied by such methods, whose application eventually may lead to changes in the circumscription of genera and even families.

Recently, the analysis of the hereditary material itself has become a powerful tool for testing proposed relationships, and in subsequent volumes of this series molecular data will certainly be of increasing importance. It is unlikely, however, that it would have been possible to acquire an accurate view of the basic structure of living things by relying on molecular data alone. Conventionally based classifications have therefore been, and for practical reasons will continue to be, indispensable: they provide the basic scheme of reference without which no meaningful systematic questions could be asked, and without which no identification of plants would be possible, with the obvious consequences for information retrieval and the repeatability of observations and experiments.

The treatments presented in this volume attempt to reflect the present state of the art. The long preparation time of such a book makes it inevitable that some accounts of groups that are being actively studied may be outdated by the time they appear. Many contributions are based on novel, original work that have led to revised classifications. I would like to express my warmest thanks to all contributors whose cooperation, understanding, and patience have made the present volume possible. Furthermore, my thanks are extended to my co-editors for sharing the task of preparing and – where necessary – writing this volume with me. Over several years Dr. J. Rohwer has offered his advice in nearly all matters concerning the contents and presentation of the volume. Dr. V. Bittrich was most helpful in revising the manuscripts of the Caryophyllales families and in preparing an overview of this order. Drs. V. Bittrich, J. Rohwer, and C. Todzia are also thanked for preparing the family treatments of the Caryophyllaceae, Moraceae, and Ulmaceae, respectively, when such treatments were not received from specialists of these families. Dr. H.-H. Poppendieck is thanked for his valuable advice during the preparation of the volume. Various contributions were prepared with support from the Volkswagenstiftung received through the Joachim Jungius-Gesellschaft der Wissenschaften e. V. Hamburg, for which I am most grateful.

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Hamburg, Summer 1993

K. KUBITZKI

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