

REVIEW

W. TROLL & F. WEBERLING: Infloreszenzuntersuchungen an monotelen Familien. Gustav Fischer, Stuttgart, New York, 1989, vii + 490 pp., 373 figs. Hardback. Price DM 178.00. ISBN 3-437-30599-9.

This book was composed after a manuscript left by W. Troll of his work *Die Infloreszenzen II*, part III, chapter 5, Fischer, Jena, 1969. Part I was published in 1964, part II in 1969. Weberling elaborated and updated this manuscript, describing examples of monotelic families, in the style of W. Troll. Together the three books – all wrapped in orange covers – represent a standard work consisting of more than 1700 pages and 1436 figures. The figures are combinations of photographs of living plants, explanatory drawings, and schemes. The drawings especially show good old handwork.

Because 20–25 years after the first two volumes this third book will tend to lead its own life, Weberling has included a recapitulation of the principles of polytelic and monotelic inflorescences. There is also a welcome glossary, established in cooperation with D. Müller-Doblies, in which as a surprise the English translations of the terms are also given. Remarkably, the definitions are not in every case identical to those in the glossary of Weberling's book *Morphology of the flowers and inflorescences*.

It is the credo of the authors that a comparative morphological elaboration enables a better systematic evaluation, especially in monographical work on plant families. Nineteen monotelic families are treated, most of them without arboreal representatives. A publication on the latter is intended. No summary is presented of the systematic distribution of the Angiosperm families as regards their type of inflorescence, thus also precluding an idea on how far the investigations on this subject have proceeded.

Apart from its broad systematic basis, Troll's methodology is distinguished by the consideration of the entire flowering region of each species, which is also viewed in connection with the growth form. Convincing examples are *Silene*, *Parnassia*, and *Mesembryanthemum*.

For each family the basic types of inflorescences, often thyrsoïdal systems, are reported, followed by the derivative tendencies, often leading to 'incomplete' inflorescences. Here an important constancy is evident per family, e.g. in the Gentianaceae as against the Menyanthaceae, or per group of genera within a family, as e.g. in the Vitaceae. In quite some families a transition toward polytely seems possible at the end of developing tendencies, e.g. in the Saxifragaceae, the Gentianaceae, and in the genus *Buddleja*.

Unfortunately, the ontogenetic processes which are involved in the derivative developments of the inflorescence types are in many cases not made clear. Sometimes examples are given, see *Medinilla magnifica* (p. 367). I think comparative ontogenetic investigations are indicated, especially if relations between monotelic and polytelic types must be found out.

Some families and genera are treated in Weberling's book 'Morphology of flowers and inflorescences', for instance the very instructive Caprifoliaceae.

The terminology of the inflorescences according to Troll and collaborators is difficult to handle and has not come in general use. A classical background is needed. It is not readily comprehensible why monotelic basic types and their derivatives should be named ...oid, thereby indicating the polytelic constructions which they resemble. Yet, after a struggle through the two books here reviewed, an affiliated botanist may communicate with the specialists with some success.

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