

Preface

Content: This textbook starts at the level of the cell and molecular aspects of plant responses to the environment, which is never stress free. Building on this molecular ecophysiology, the organisation and regulation of metabolism of whole plants will be described from an autecological perspective. In the following parts, this book deals with the interactions with other organisms at the level of the ecosystem. Finally, geographical and long-term conditions for the expansion and dynamics of plant populations and species on earth are discussed. The book closes with the element cycles on earth and thus stresses the influence of man on original, so-called natural ecosystems.

As the book covers several different conceptual levels, many aspects and facts will be illuminated from very different viewpoints: the cell, the plant, the ecosystem, the zones of distribution and earth as a whole. Thus, the authors have tried to fully consider the enormous width and complexity of plant ecology.

The reader: The textbook is aimed at advanced students and their teachers. Knowledge in various disciplines of natural sciences is expected, from molecular biology to the earth sciences. The authors have tried to recommend textbooks and articles from the relevant literature in each chapter. This "further reading" is intended to deepen the relevant knowledge and to help develop an understanding in relation to neighbouring fields. Additionally, basic knowledge is revisited in concise box-type texts. Conceptual knowledge is abstracted and strengthened in extensive summaries at the end of each section.

Thanks: Writing this textbook has been a pleasure, but has also cost the authors much of the one commodity which they lack most: time. A great deal of what could and should have been done was left by the wayside. We therefore ask all those whom we did not give enough of our time to make allowances, in particular our as-

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The authors hope for a good reception of *Plant Ecology* by interested readers and welcome constructive criticism in the knowledge that the writing of a textbook about plant ecology in its entirety is an almost insurmountable task.

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