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Titolo	The Gentianaceae - Volume 1: Characterization and Ecology // edited by Jan J. Rybczycki, Michael R. Davey, Anna Mikua
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Nota di bibliografia	Includes bibliographical references and indexes.
Nota di contenuto	Morphological Characteristics of the Family Gentianaceae -- Classification and Evolution of the Family Gentianaceae -- A Monographic Revision of the Neotropical Genus <i>Macroparpea</i> (Gentianaceae) in Ecuador -- A Review of Taxonomy and Distribution of the Gentianaceae in the Ukraine -- Distribution, Ecology and Some Taxonomical Notes of Genera <i>Gentiana</i> L. and <i>Gentianella</i> Moench (Gentianaceae) in the Balkans -- Biochemical and Morphological Determination of Flower Color in Gentianaceae -- Karyology of European Species of Genus <i>Gentiana</i> L -- 21st Century Centauries – An Updated Review on <i>Centaureum Hill</i> and Allies (Gentianaceae) -- Genes

Expressed in the Overwinter Buds of Gentian (*Gentiana* spp.): Application to Taxonomic, Phylogenetic and Phylogeographical Analyses -- *Exacum bicolor* Roxb. an Exquisite, Under Exploited Wild Ornamental -- Indian *Swertia* from Eastern Himalaya: Strategies of Conservation and Biotechnological Improvements -- The Role of Arbuscular Mycorrhiza in the Growth and Development of Plants in the Family Gentianaceae.

Sommario/riassunto

This is the first of two volumes on Gentianaceae. Comprising twelve chapters, it centres upon the characterization and ecology of Gentianaceae worldwide, with emphasis on the application of molecular and cytological approaches in relation to taxonomy. The first three chapters consider the classification of the family and review the advances in research since the earlier revision published in 2002, which resulted in the reclassification of some plants and the naming of new genera. The next chapter provides the most comprehensive report to date of the systematics of South American Neotropical woody Gentians. Other reviews include details of the Gentianaceae in Eastern Europe. The key biochemical steps that result in the diversity of Gentian flower colors, the cytology of European species and an historical account of the importance of Gentians in herbal medicines are also covered. Furthermore, an analysis of gene expression in overwintering buds is presented, discussing several aspects of plant taxonomy, phenotypic characteristics, phylogeography and pedigree. Two contributions highlight the importance of Gentians in India, and the last chapter presents evidence for the importance of Glomeromycota in developing arbuscular mycorrhizal associations with the roots of Gentians. This volume provides the basis for the biotechnological approaches that are considered in the companion book *The Gentianaceae – Volume 2: Biotechnology and Applications*.
