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Autore	Patil Ravindra H
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Nota di contenuto	Chapter 1. Morphology, anatomy, taxonomy, physiology, ecology, diversity, habitat and geographical distribution -- Chapter 2. Ethnomedicinal/traditional knowledge and practical uses -- Chapter 3. Phytochemistry -- Chapter 4. Pharmacological activities -- Chapter 5. Commercial natural products: food, pharmaceutical, cosmetic and agrochemicals -- Chapter 6. Biotechnological advances: plant tissue culture and horticulture approaches -- Chapter 7. Callus and suspension culture: extraction, purification and analysis of bioactive -- Chapter 8. Endophytic microorganisms in Apocynaceae plants -- Chapter 9. Conservation of Apocynaceae plants.
Sommario/riassunto	This book provides a concise overview of the Apocynaceae plant family, focusing on its morphology, diversity, ethnopharmacology, phytochemistry, and biological activities. It explores biotechnological advances in large-scale production of therapeutic bioactive compounds and conservation efforts using plant tissue culture. The family Apocynaceae is one of the largest and important families in angiosperm, with several members having medicinal properties used to treat various ailments. Most of them are consumed as food by tribal people, while a few plants are used as a source of poison, insecticides, gum, and many other important products. Members of this family are rich in alkaloids, terpenoids, steroids, flavonoids, glycosides, simple phenols, lactones and hydrocarbons. Other compounds such as sterols, lignans, and sugars have also been systematically studied. Extracts and

isolated compounds from Apocynaceae members exhibit antioxidant, anti-inflammatory, antimicrobial, and cytotoxic activities. Notable plants like *Holarrhena antidysenterica*, *Rauvolfia serpentina*, *Carissa carandas*, and *Tabernaemontana divaricata* have been extensively researched. The family presents a diverse range of bioactive compounds with medicinal and pharmacological properties, holding promise for future applications. The book also covers endophytic microorganisms with their diversity, biological activities in Apocynaceae plants. It also highlights the role of endophytes in conservation of Apocynaceae plants. By identifying existing knowledge gaps, it aims to inspire further research in the field, making it a valuable resource for students and researchers in Life Sciences, agriculture, medicine, and pharmaceutical sciences.
