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Descrizione fisica	1 online resource (XVII, 413 p. 38 illus., 24 illus. in color.)
Disciplina	571.82
Soggetti	Plant physiology Botanical chemistry Plants - Development Agriculture Plant Physiology Plant Biochemistry Plant Development
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Nota di contenuto	Chapter 1: Reproductive Ecology of Flowering Plants: An Introduction -- Chapter 2: Climate Change and Vegetation Phenology -- Chapter 3: The Pistil: Structure in Relation to its Function -- Chapter 4: Pollen-Pistil Interaction and Fertilization -- Chapter 5: Olfactory Cues as Functional Traits in Plant Reproduction -- Chapter 6: A Snapshot of Evolutionary History of Floral Nectaries across Angiosperm Lineages -- Chapter 7: Floral Symmetry – What it is, How it Forms, and Why it Varies -- Chapter 8: Resource Allocation in Flowering Plants: Concept and Implications -- Chapter 9: Dynamics of Eco-evolutionary Forces in Shaping Dioecy -- Chapter 10: Secondary Pollen Presentation in Flowering Plants -- Chapter 11: Outbreeding in Angiosperms: Floral Architecture and Sexuality -- Chapter 12: Sexual Selection in Angiosperms: Paradox Re-visited -- Chapter 13: Role of Apomixis in Perpetuation of Flowering Plants: Ecological Perspective -- Chapter 14: Biotic Seed Dispersal Mechanisms Of Tropical Rain Forests – Bats, Fishes And Migratory Birds -- Chapter 15: (Trans)gene Flow: Mechanisms, Biosafety Concerns and Mitigation for Containment --

Chapter 16: 'Global Pollinator Crisis' and its Impact on Crop Productivity and Sustenance of Plant Diversity.

Sommario/riassunto

Sexual reproduction is the predominant mode of perpetuation for flowering plant species. Investigating the reproductive strategies of plants has grown to become a vast area of research and, in crop plants, covers events from flowering to fruit and seed development; in wild species, it extends up to seed dispersal and seedling recruitment. Thus, reproduction determines the extent of yield in crop plants and, in wild plants, also determines the efficacy of recruiting new adults to the population, making this field important both from fundamental and applied plant biology perspectives. Moreover, in light of the growing concerns regarding food and nutritional security for the growing population and preserving biological diversity, reproductive biology of flowering plants has acquired special significance. Extensive studies on various facets of reproduction are being carried out around the world. However, these studies are scattered across research journals and reviews from diverse areas of biology. The present volume covers the whole spectrum of reproductive ecology, from phenology and floral biology, to sexuality and pollination biology/ecology including floral rewards, breeding systems, apomixis and seed dispersal. In turn, transgene flow, its biosafety and mitigation approaches, and the 'global pollinator crisis', which has become a major international concern in light of the urgent need to sustain crop yield and biodiversity, are discussed in detail. Given its scope, the book offers a valuable resource for students, teachers and researchers of botany, zoology, ecology, agriculture and forestry, as well as conservation biologists.
