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Floral mimicry

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Abstrak

Mimicry is a classic example of adaptation through natural selection. The traditional focus of mimicry research has been on defense in animals (protective mimicry), but there is now also a highly developed and rapidly growing body of research on floral mimicry in plants. Being literally rooted to one spot, plants generally have to use food bribes to cajole animals into acting as couriers for their pollen. Plants that lack these food rewards often deploy elaborate color and scent signals in order to mimic food sources, oviposition sites, or mating partners of particular animals, and thereby exploit these animals for the purposes of pollination. This book addresses the question of whether the evolutionary and ecological principles that were developed for protective mimicry in animals also apply to floral mimicry in plants. Visual, olfactory, and tactile signals can all be important in floral mimicry systems. The traditional focus has been on visual cues, but there is increasing evidence that some forms of mimicry, notably sexual and oviposition-site mimicry, are largely based on chemical cues. The molecular basis for these signals, their role in cognitive misclassification of flowers by pollinators, and the implications of these signals for plant speciation are among the topics covered in the book. The chapters of this book are designed to highlight particular systems of floral mimicry and to integrate them into the broader theory of mimicry.