

Preface

"Nectar is the drink of the gods"... since the time of Homer (the *Iliad*, 800 BC), nectar has been known as a unique biological fluid with mystical properties; yet it is only now that the true chemistry of nectar is being defined. Nectar is a complex biochemical milieu offering much more than sugars to visiting pollinators. Its consumption is central to one of two types of plant-animal interaction that have contributed so much to global biodiversity: herbivory and pollination. All types of plants, regardless of their position on the evolutionary scale, are eaten by herbivorous animals. Nectar, however, is the product of a mutualism in which animals consume nectar and are involuntarily responsible for the transport of pollen or, in some cases, for plant defence. The presence of nectaries, in either reproductive or vegetative parts of a plant, symbolizes that plant's benevolent relationship with animals.

Nectaries are interesting not only for our knowledge of plant biology, but also because they are involved in the pollination of many edible and rare plants, thus having huge economic and ecological importance. About a third of our food may be derived from bee-pollinated crops. In addition, nectar is the raw material of honey. Other than bees, nectar is food for an enormous variety of insects, a tenth of all bird species, and some mammals; when nectar is not an animal's main food, it often provides an energy drink. Nectar biology has many overlapping facets, evident in the chapters that follow: botany, chemistry, zoology, and ecology.

The stimulus for this volume was the meeting of a group of nectar biologists in Italy, at the first international conference dedicated exclusively to nectar and nectaries. The meeting was held in Montalcino, Tuscany, in May