

PREFACE

Advances in organic chemical theory, in organic synthesis, and in chemical instrumentation have been stimulated by research on natural products throughout the history of modern organic chemistry. Natural products, at first those derived from terrestrial flowering plants, later on, those from microorganisms, were desirable research objectives in their own right because many compounds evoked distinctive physiological responses in mammalian systems. Questions of the biosynthetic origin of these "secondary metabolites" and of their biological role in their host organism or in their ecosystem were addressed much later.

The discovery of the marine flora and fauna by organic chemists had many stimuli, but is due largely to a worldwide interest in ocean exploration and to the popularization of scuba. For many scientists and nonscientists alike, the slogan "drugs from the sea" became synonymous with the study of marine organic chemistry. Yet during the past twenty years researchers in this growing field have covered the entire spectrum of natural product chemistry—structure and activity, ecology, and biosynthesis. But interestingly, the study of marine organic chemistry has not merely been a replay of a distinguished terrestrial record. At least two dimensions have been added. Invertebrate animals, previously neglected as research targets—except for insects—have become recognized as versatile organic chemists or, in some cases, as efficient concentrators of carbon compounds. Secondly, virtually all currently active research groups have an interest in all aspects of marine natural products. This is hardly surprising, since most marine natural products chemists are divers and observe the marine organisms in their natural environment rather than rely on professional collectors. As a result, their research extends to ecological concerns and biosynthetic questions beyond the traditional structure-activity relationships.

This Symposium-in-Print reflects these remarks and thus represents current research in the field. A majority of the papers discuss research on more than one facet of a given topic although a principal focus is evident. The organisms under investigation are predominantly invertebrates, though vertebrates and microalgae are represented. A majority of my colleagues whom I invited to participate accepted the opportunity. I thank all of them for their contributions. If the symposium succeeds in stimulating some of our readers, we will have done our job well.

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