

## PREFACE

Systematists have been interested in the reconstruction of evolutionary history for over a century. Many ideas have been presented on ways to infer patterns of phylogeny, but until the 1950s few explicit methods were developed. Within the past 20 years many new ideas and techniques have been formulated for more precise representations of evolutionary history. Particular focus has been placed on the reconstruction of the branching sequences of phylogeny, and the concepts and methods used in such reconstruction have become known as cladistics.

Because of recent interest in cladistics and the many diverse viewpoints that have been developing, we believed it would be useful to organize a conference that would bring workers with different perspectives together. We also hoped to welcome students (and especially young botanists), so that they might become more familiar with the new concepts and methods and apply them to their own research. The conference was held on March 22–28, 1981, at the University of California, Berkeley. Fifteen contributors (see list on p. xi) each gave one lecture in the morning sessions; their papers are presented here. (Vicki A. Funk, Ronald J. McGinley, David B. Wake, and Allan C. Wilson also gave presentations but did not submit contributions to this volume.) The 28 participants (see list on p. 299) in the afternoon sessions worked on their own data sets, which had been processed before they had arrived using several different computer programs for cladistic analysis. This workshop format allowed for more theoretical discussions in the morning and practical experience in the afternoon, providing a broad introduction to cladistic concepts and methods (see reviews of the workshop in *Syst. Bot.* 6:359–372, 1981, and *Syst. Zool.* 30:491–498, 1981).

We acknowledge the excellent help of many people in bringing this collection of papers to final publication. The National Science Foundation (Grant No. DEB-80-09338) provided the financial support that made the workshop possible and allowed for this published review of cladistics. Richard Arnold, Jeanne Bates, Jim Liebherr, John Sorensen, and Robert Zink helped with the processing of participants' data and with logistic arrangements during the workshop. The cooperation of the Computing Center of the University

of California, Berkeley, is also appreciated. We especially thank Richard Jensen for his careful and thorough review of the final manuscript. This book could not have been completed without the constant encouragement, support, and editorial assistance of Vicki Raeburn, Susan Koscielniak, and Amy Fass, to whom we give much credit for the success of this volume.

We hope this book reflects the vitality and exuberance that cladistics has injected into systematic biology. As a community we are not presently undergoing a revolution or conversion, but we are again reevaluating in a healthy fashion old concepts and methods, as we did in the 1960s under the stimulus of phenetics, which has now taken its place among the useful approaches of practicing modern systematists. We believe that cladistics will have a similar positive and lasting effect. We hope that this book is a further step in its development.

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March 1983