

FOREWORD

This year, John Carroll University celebrates its centennial. As a part of this celebration, each department was invited in 1984 to submit plans for its own centennial observation. The Department of Biology is primarily a teaching department, preparing students for medical, dental and graduate school, and other careers in biology. Research is also encouraged in the liberal arts and Jesuit tradition of the University. Members of the Department, agreeing that one of the measures of our success is the success and productivity of our graduates, proposed to sponsor a symposium of original scientific papers authored by departmental alumni. We also proposed to publish these papers in a respected scientific journal subject to the normal peer-review process. Sources of support for the symposium and for publication costs, and other needs including some travel and housing, were found within the University. The Ohio Academy of Science was asked to entertain the idea of devoting an issue of *The Ohio Journal of Science* to these papers; the Editor of the *Journal* and the Executive Committee of the Academy enthusiastically supported the concept. Response from Biology Department alumni was similarly gratifying. The Biology Department Centennial Symposium, held at John Carroll on 30 May 1986, and this publication are the results.

From the outset it was apparent that this journal issue would be unique. Unlike most symposium issues unified by a single subject, this issue deals with the research of a single group of scientists, graduates of the Department of Biology. The subjects are as diverse as the authors. Over half the latter are faculty members of academic departments of biology, botany, zoology, or medicine; a bit under half are in government positions or the private sector. Papers ranging from marine taxonomy or physiology to coal seam palynology; from Hawaiian forest birds to dental bacterial mutants; from electron microscopy to habitat selection in darters or owls; evolution, neuroscience, and parasitology illustrate remarkable breadth and depth from a relatively small number of graduates of a single department in a small liberal-arts college.

Anyone who has been involved in the planning of a meeting or the preparation of a journal issue is acutely aware of the overworked analogy to the visible tip of an iceberg. Much work and support from many individuals and groups made the Centennial Symposium and the publication you hold possible. A few of these are spe-

cifically recognized here. Early in the planning stage, Andrew M. White agreed to coordinate the plans for the symposium and serve as special editor for this journal issue. He has been responsible for multiple tasks associated with bringing together all of the pieces, calling authors, editors, reviewers, motels and caterers, and seeing that time deadlines were met, plus a considerable amount of preliminary editing. Suzanne L. White ably assisted in manuscript preparation and many other tasks. Our graduates, located in various corners of the country, responded to the invitation to participate with enthusiasm and speed to prepare papers and accelerate turnaround times in their revisions. Current students, faculty, and other graduates supported the symposium by their attendance. Some who submitted papers that did not meet publication deadlines presented these papers as a part of the symposium; some will publish these in subsequent *Journal* issues. The present Editor of *The Ohio Journal of Science*, Thomas E. Wissing, former editor Tim Berra, and Assistant Editor Donna K. Cheshire provided invaluable assistance. Ms. Cheshire not only aided in accelerating various aspects of the publication process to meet time schedules but also provided valuable photographic assistance. A large number of reviewers cooperated in this effort by providing the prompt reviews that were necessary to meet the early publication date.

John Carroll University Historian Donald P. Gavin generously shared his wide knowledge of University history and kindly agreed to provide the sketch of the history of the Department of Biology that follows. Financial support for the Centennial Symposium travel, housing, banquet, and other expenses was provided by the John Carroll University Centennial Committee. Louis G. Pecek, Chairman of the Committee on Research and Service, supported the Symposium concept from its inception and obtained the funds for underwriting publication costs. All of these and the many others who contributed to the success of this event are deserving of sincere thanks.

It is with considerable pride that we in the John Carroll University Department of Biology look back at our history and forward through the work of distinguished graduates such as the authors of the papers that follow.

E. Bruce McLean, Chairperson, Department of Biology, John Carroll University, University Hgts., OH 44118