

Preface

Malaria control and eradication have achieved noteworthy successes in such diverse areas as Venezuela and Taiwan. However, in many portions of the world malaria control has reached a state of stagnation and even retreat. The reasons are manifold but in the main arise from problems which have been evident in the biology of the parasite and the anopheline vector. The discovery of resistance to drugs and insecticides serves to amplify these problems. Breakdowns of antimalaria programs based on vector control have been especially serious in Africa. It is not always clear why these campaigns fail or what can be done about it now. Prospects for future control may improve provided further research is accomplished.

Over the past few years we have had many stimulating conversations with Dr. Botha de Meillon, who has served to catalyze our ideas in this area. A brief visit to Washington in June 1967 by Professor L. J. Bruce-Chwatt provided additional impetus to analyze the entomological situation in a more systematic manner.

As a means of delineating the present status of the biology and control of malaria vectors and providing a platform for the discussion of areas for further study which may provide practical means of interrupting transmission by controlling or eradicating the vector, a Conference on Anopheline Biology and Malaria Eradication was organized. Dual sponsorship was provided by the U.S. Army Medical Research and Development Command and the Armed Forces Pest Control Board of the Department of Defense.

An agenda was developed covering 7 major points: (1) Global review of malaria control and eradication by attack on the vector, (2) Problems facing vector control, (3) Systematics of malaria vectors, (4) Methodology of control, (5) Application of new procedures to control, (6) Assessment of control, and (7) Recommendations of the conference on anopheline biology and malaria eradication. Most of these areas were subdivided into several specific topics (see Contents). Twenty outstanding authorities were invited to present papers covering various aspects of the agenda. Each participant was asked to prepare a fairly detailed paper covering original observations or synthesis of data with a thorough review of the present status of the specific field surveyed. In addition, it was requested that any limitations that are seen at present for the development of research or specific control measures should be pointed out. Possibilities for malaria control and eradication were to be discussed in length, and future research requirements were to be outlined.

The conference was planned to permit each participant a period of up to 1 hour to present his material. Each presentation was followed by a 30-minute discussion period which was open to the conferees and a small number of invited guests from other governmental agencies, research organizations, and universities. The full papers and discussions have been edited for this publication.

It is hoped that the recommendations which developed from this conference will stimulate further entomological research along those channels which appeared to be most promising to the conferees.

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