

Foreword

The proposal to hold BIOMASS (Biological Investigations of Marine Antarctic Systems and Stocks) Colloquium in Tokyo in 1982 which was included in the BIOMASS Meetings in Japan 1982 was ratified at the 16th meeting of SCAR (Scientific Committee for Antarctic Research) which was held at Queenstown (New Zealand) in October 1980 and was in accordance with the recommendation of the BIOMASS timetable of 1977 that a symposium should be held to discuss the results of FIBEX (First International BIOMASS Experiment) and future activities.

The outline programme of this colloquium was formulated as a result of discussions at the FIBEX data interpretation workshop in Hamburg (Federal Republic of Germany) in 1981 and at the advisory group meeting of SIBEX (Second International BIOMASS Experiment) in Cambridge (United Kingdom) in 1982. The general theme of the symposium was to discuss the scientific results of BIOMASS and Southern Ocean studies in general. The colloquium which was convened by Professor NEMOTO of the Ocean Research Institute of the University of Tokyo, was held at the National Institute of Polar Research on 27th and 28th May 1982, and coincided with a meeting of SCAR specialists on Antarctic ecosystems and their living resources and a SCOR/SCAR Workshop on the Enhancement of Interaction between Physical, Chemical and Biological Oceanographers.

About 160 participants from 13 countries, Australia, Chile, Federal Republic of Germany, France, Hong Kong, Japan, New Zealand, People's Republic of China, Poland, South Africa, United Kingdom, U. S. A., U. S. S. R., and a delegate representing the International Whaling Commission attended the meeting.

Sixteen ships from 11 countries, together with scientists from other nations, participated in FIBEX during the 1980/81 summer season in the Antarctic. The mass of data obtained by FIBEX has been analysed and interpreted nationally and internationally through meetings, such as the FIBEX Data Interpretation Workshop and SCAR Working Group of Bird Ecology. The scientific programme of this BIOMASS Colloquium covered broad aspects of BIOMASS studies mainly resulting from FIBEX as outlined below.

1. Primary and secondary production in the Antarctic ecosystem.
2. Biology and energetics of the krill.
3. Organisms of higher trophic levels.
4. Fisheries resources in the Antarctic.
5. FIBEX; multidisciplinary study and the future of BIOMASS.

These topics were successfully covered by the high quality of the invited and contributed papers and by the stimulating discussions which followed. Many of the participating scientists contributed to the poster sessions which were well received. It is

our pleasure to publish the proceedings of this BIOMASS Colloquium and we hope that this volume will contribute significantly to the development of BIOMASS and to biological studies of the Southern Ocean in general.

Takahisa NEMOTO
 Ocean Research Institute,
 University of Tokyo and
 National Institute of Polar Research
 Tatsuhiro MATSUDA
 National Institute of Polar Research