

Foreword and Acknowledgments

One of the prime objectives of the Lake Malawi/Nyasa Biodiversity Conservation Project has been to acquire a better understanding of the structure and functioning of this unique ecosystem. This understanding is prerequisite to wise management of fisheries resources and conservation of biodiversity. It includes knowledge of the diversity of organisms (particularly fish) within the lake, the distribution of this diversity, fish productivity, and how diversity and productivity are affected by the physical and chemical environment. The latter concern – physical and chemical processes in Lake Malawi/Nyasa and their relationships with the biota – has been the focus of the water quality/limnology research program carried out within this project. This research has addressed general limnological processes in Lake Malawi/Nyasa, as well as the specific question of how human activities are impacting the lake's chemical, physical and biological qualities.

The implementation of an extensive, lake-wide limnological research program has relied on the assistance and cooperation of a large number of individuals and organizations. Within the project, in addition to the scientists whose names appear in the following pages of this report, there have been a number of individuals who have made large contributions to the implementation of the various research programs. These include Captain Mark Day and the crew of the research vessel, *Usipa*, who put in many hours of ship time and went to great lengths to accommodate the needs of research scientists. Elias Mnenula put in many long days as operator of the outboard engine boats, and tolerated hot, cold and wet conditions without complaint.

Logistic support and day to day management of a project of this nature are a challenge, and we are grateful for all the services provided by the Senga Bay staff, including the grounds keepers, drivers, and administrative staff. The project manager, Dr. A. Ribbink, shouldered the task of coordinating the multiple aspects of the project, including environmental education, capacity building, and research, in addition to arranging the many meetings and conferences with other organizations. We are grateful for the many hours he invested in holding this all together.

Without doubt, this work would have not been possible without the assistance of two Canadian aquatic science institutions – the Freshwater Institute in Winnipeg, and the National Water Research Institute in Burlington. Many of the chemical analyses reported here were provided by the chemistry laboratory at the Freshwater Institute, under the direction of M. Stainton. L. Hendzel not only contributed to the research program, but he also provided continuous assistance in the acquisition of reagents and equipment, and with the repair of instruments. Our ability to maintain an intensive research and monitoring program, despite frequent equipment failure and breakdown, is largely due to Mr. Hendzel's help. Mr. S. Smith of the National Water Research Institute also provided much assistance with regard to logistic needs, and his seemingly endless energy resources were put to good use in the deployment and retrieval of the thermistor and sediment trap moorings.

Much of the nearshore limnological research was done near Maleri Islands, and we are grateful to the Department of National Parks and Wildlife for granting permission to work and collect algal samples in this area. The Water Department provided valuable river discharge data for many Malawi tributaries.

Mr. Dandaula and Mr. Kandonyo of the Malawi Meteorology Department took an active interest in the project, and we are very grateful for the assistance that they and Mr. Banda of the Salima Meteorology station provided.

Finally, we wish to thank Likoma Secondary School for allowing us install a weather station on their grounds, and Mr. A. Chiliro for maintaining the station. We also thank Malawi Lake Services for permission to install a weather station at the Chilumba port.

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