

## Preface

# CYCLOPS dedicated volume

The CYCLOPS programme was a European Framework 5 project aimed to further our understanding of phosphorus cycling in the Eastern Mediterranean, one of the largest phosphorus-limited bodies of water in the world. The core of this project was a Lagrangian P-addition experiment, the first ever carried out anywhere in the world in which a nutrient other than iron was added. This dedicated volume of Deep Sea Research is the compendium of papers from that experiment together with several other papers which present associated studies carried out as part of the CYCLOPS programme.

The first two papers (Krom et al., 2005a; Zodiatis et al., 2005) set the background chemical and physical information for the Cyprus eddy where the addition experiment was carried out. Law et al. (2005) describe the operational details of the phosphorus and tracer ( $SF_6$ ) addition and the information that provides the physical constraints of the Lagrangian addition.

The next group of papers describes the biological responses induced by the phosphate addition. Flaten et al. (2005) present the observed changes in P cycling parameters determined in the patch of P-enriched water in comparison with adjacent unenriched (control) location. Psarra et al. (2005) present the responses in the phytoplankton community, Pitta et al. (2005) concentrate on the heterotrophic community including the bacteria and the micrograzers, Pasternak et al. (2005) describe the changes in the mesozooplankton community. Groom et al. (2005) present remote sensing data collected at the time of the P-addition experiment in comparison with other times and interpreted these data in view of the conditions during the addition experiment.

Zohary et al. (2005) and Herut et al. (2005) present data from microcosm experiments con-

ducted on-board during the P-addition cruises involving the addition of nutrients (N, P, both) and Saharan dust, respectively. These experiments added additional dimensions to the Lagrangian experiment, to which only P was added, and contributed to our ability to interpret the results of the Lagrangian experiment. Kress et al. (2005) present the results of the preliminary microcosm experiment, conducted in Haifa before the Lagrangian experiments, in which the response of the microbial community in coastal water to nutrient addition was studied and compared to the response of the offshore system. Carbo et al. (2005) present data on the effect of Saharan dust on the offshore ecosystem showing that dust cannot explain the unusual N:P ratio observed in this system. They also describe the differences in nutrient inputs caused by Saharan dust storms and ‘normal’ background input.

Finally, Thingstad (2005) synthesizes all the data of the project in a modified model of the pelagic microbial community. Krom et al. (2005b) present a synthesis of the entire CYCLOPS programme, summarizing all the data generated including chemical data not presented elsewhere in the volume, and discuss the implications of these results for biogeochemical processes in the Eastern Mediterranean.

This project was funded by the EU through project EVK3-CT-1999-00009 “CYCLOPS”. We would like to thank our project managers in Brussels, Dr. Elisabeth Lipiatou and Mrs. Cathy Eccles, for the help they gave throughout the running of this project. Dr. Yuval Cohen (Director General) and several of the staff of the National Institute of Oceanography, Haifa, Israel, helped greatly in the organisation of the first CYCLOPS workshop and the running of the Haifa microcosm

experiment. We wish to thank the crew of R.V. *Aegaeo* for endurance and assistance, particularly the captain and first officer, Konstantinos Chandros and Theodoros Kanakaris for their enduring patience and the ships bosun Vassilis Panagioto-poulos who was consistently interested in what we were doing. The 2nd cruise upon which most of this project was based took place from Limassol. We would like to thank Mr. Gabriel Gabrielides (DMFR director) and various members of his staff who participated in the work in Limassol port before the beginning of the cruise. Additional colleagues who helped in various specific parts of the project are individually acknowledged at the end of the manuscripts whose work they helped. We

would also like to acknowledge the excellent job carried out by a number of reviewers without whose time and efforts, this volume would not have been possible.

This volume is dedicated to Ingegjerd, Mary, Olivia and the other wives, husbands, and partners for their enduring good humour and patience while we headed off for ‘arduous’ cruises in the Eastern Mediterranean.

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