

# Climate Change and Microbial Ecology

Current Research and Future Trends

Edited by

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Caister Academic Press  
Norfolk, UK

[www.caister.com](http://www.caister.com)

British Library Cataloguing-in-Publication Data  
A catalogue record for this book is available from the British Library

ISBN: 978-1-910190-31-9 (paperback)

ISBN: 978-1-910190-32-6 (ebook)

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# Preface

When I was asked by the publisher some time ago, whether I was willing to edit a book on *Climate Change and Microbial Ecology*, I agreed because I felt that it was timely to have a comprehensive overview on the advancements in this field. I thought that it was appropriate to summarize the current knowledge on how the microorganisms on earth are affected by global climate change and vice versa how they themselves affect the development of global climate change, by viewing from the perspective of the different groups of microorganisms like bacteria including cyanobacteria, fungi, and protozoa, also viruses, as well as by looking in detail on the different ecosystems on earth like oceans, inland waters with rivers, lakes, and groundwater, and soil. Thus I am happy that a broad range of renowned scientists provided their expertise demonstrating not only the actual status but also the imminent need to increase our knowledge on the role of microbial communities with respect to global climate change.

The reader will observe that the style of the chapters is not always consistent between the different authors. Some of the chapters are short and concentrated, whereas other chapters go into great detail. However, I decided the differences to be maintained in order to allow the authors to present

these review papers using their personal preferences. Unfortunately, there are a few gaps in this book, which prohibits the presentation of a complete suite of the major aspects within the general topic of “Climate Change and Microbial Ecology”, mainly because the manuscripts from a few authors were not received within an acceptable time frame.

Nevertheless, I am convinced that the list of contributions to this book covers most of the important areas from the book’s title *Climate Change and Microbial Ecology: Current Research and Future Trends* and that the volume will be helpful not only for every microbial ecologist from the PhD student to the experienced scientist, but also for every one interested in the field of global climate change.

Finally, I would like to express my thanks to all the authors for their kind cooperation. They did a great job in presenting a timely overview on topics of climate change and microbial ecology in their special fields of expertise. I am also indebted to Dr Thomas Horvath (University of Koblenz-Landau, Landau, Germany) who improved some manuscripts prepared by authors who were not native English speakers, and also to the publisher who was especially patient with the many delays occurring through the preparation of this volume.

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