

### TABLE OF CONTENTS

List of Acronyms and Abbreviations; List of Figures; List of Tables; Notes on Contributors; Preface The Editors; Acknowledgements

### Introduction

1. The World Ocean in Globalisation: Challenges and Responses for the Anthropocene Epoch, *Davor Vidas* and *Peter Johan Schei* 

# Part I: KEY CHALLENGES AND DEVELOPMENTS: SCIENCE, ECONOMIC USES AND LAW

- 2. The Anthropocene Ocean in Its Deep Time Context, *Jan Zalasiewicz* and *Mark Williams*
- 3. Marine Science in the Past 25 Years: Main Findings and Trends, *John Montgomery* and *Lionel Carter*
- 4. The Sea, Science and the Human Dimension, Marie Jacobsson
- 5. Economic Uses of the Oceans and the Impacts on Marine Environments: Past Trends and Challenges Ahead, *Harry N. Scheiber*
- 6. Problems of High Seas Governance, David Freestone

#### Part II: CLIMATE CHANGE AND THE OCEANS

- 7. Impacts of Climate Change on Marine Ecosystems, Yvon Le Maho and Joel Durant
- 8. The Polar Oceans and Climate Change, Olav Orheim
- 9. Climate Change and Arctic Governance: Three Images of a Changing Arctic, *David D. Caron*
- 10. The Climate Regime: Achievements and Challenges, *Steinar Andresen* and *Tora Skodvin*
- 11. Sea-Level Rise and the Law of the Sea: Future Options, Moritaka Hayashi

#### Part III: SUSTAINABILITY OF FISHERIES

- 12. High Seas Fisheries Today: Challenges and Remedies Under the Global Economy, *Nobuyuki Yagi*
- 13. High Seas Fisheries Governance: Prospects and Challenges in the 21st Century, *Kristina M. Gjerde*
- 14. High Seas Fisheries Management: Reflections on Experience with Regional Fisheries Management Organisations in the South Pacific, *Gerard van Bohemen*
- 15. Reducing Seabird Bycatch: From Identifying Problems to Implementing Policy, *Euan Dunn*

## Part IV: GLOBAL MARITIME TRANSPORT: CHALLENGES AND RESPONSES

- 16. Mare Liberum or Mare Restrictum? Challenges for the Maritime Industry, *Eelco Leemans* and *Thomas Rammelt*
- 17. Global Shipping and the Introduction of Alien Invasive Species, *Stephan Gollasch*
- 18. Globalisation and Challenges for the Maritime Arctic, Lawson W. Brigham
- 19. The International Maritime Organization and the Protection of the Marine Environment, *Jean Claude Sainlos*
- 20. Regulatory Layers in Shipping, Henrik Ringbom
- 21. Ballast Water and Alien Species: Regulating Global Transfers and Regional Consequences, *Davor Vidas* and *Maja Markovcic Kostelac*

## Part V: SEAS SURROUNDING EUROPE: REGULATORY RESPONSES TO GLOBAL CHALLENGES

- 22. The European Union and the Challenges of Marine Governance: From Sectoral Response to Integrated Policy? *Robin Churchill*
- 23. Towards Further Reform of the Common Fisheries Policy, David J. Agnew
- 24. The European Union and the Regulation of Underwater Noise Pollution, *Irini Papanicolopulu*
- 25. The Black Sea: Moving Forward, Nilufer Oral
- 26. Baltic Sea Gas Pipeline: International Law for Geostrategic Issues, Hans Corell
- 27. The Mediterranean Response to Global Challenges: Environmental Governance and the Barcelona Convention System, *Evangelos Raftopoulos*

Index of Treaties and Other International Instruments; Subject Index