CONTENTS

Preface ix
Contributing Authors xiii

Section One: Foundations for Global Science Literacy 1

1 Evolution of Global Science Literacy as a curriculum construct - Victor J. Mayer and Akira Tokuyama 3

2 A case history of science and science education policies - Victor J. Mayer and Rosanne W. Fortner 25

3 The philosophy of science and Global Science Literacy. - Victor J. Mayer and Yoshisuke Kumano 37

Section Two: Appropriate Learning Environments 51

4 The 'explanatory stories' approach to a curriculum for Global Science Literacy - Chris King 53

5 Cooperative learning: A basic instructional methodology for Global Science Literacy - Rosanne W. Fortner 79

6 Using the Internet in Earth Systems courses - William Slattery, Victor J. Mayer and E. Barbara Klemm 93

7 Development of Charles Darwin as an Earth-systems scientist: A field experience - David B. Thompson 109

8 A student conducted Earth systems field investigation - Hiroshi Shimono and Masakazu Goto 129

9 Using historical events to develop ethical and aesthetic attitudes - Fernando Lillo and Jose Lillo 137
Section Three: Issues in Structuring Curriculum

11  An Earth Systems curriculum development model - Nir Orion  
12  Enabling Global Science Literacy for all - E. Barbara Klemm  
13  Developing the concept of deep time - Roger David Trend  
14  How a Japanese science teacher integrates field activities into his curriculum - Masakazu Goto  
15  The potential role for Global Science Literacy in Japanese secondary schools - Victor J. Mayer, Hiroshi Shimono, Masakazu Goto and Yoshisuke Kumano

Index
Global Science Literacy
Mayer, V.J. (Ed.)
2002, XIV, 242 p., Hardcover