

CONTENTS

PREFACE AND ACKNOWLEDGMENTS xi

- 1 The Ecology of Place 1
MARY V. PRICE AND IAN BILLICK

Part 1. The Imprint of Place on Ecology and Ecologists 11 MARY V. PRICE AND IAN BILLICK

- 2 The Role of Place in the History of Ecology 15
SHARON E. KINGSLAND
- 3 Leopold's Legacy: An Ecology of Place 40
DONALD M. WALLER AND SUSAN FLADER

Part 2. The Idiosyncrasy of Place: Challenges and Opportunities 63 IAN BILLICK AND MARY V. PRICE

- 4 Ecological Invariance and the Search for Generality in Ecology 69
H. RONALD PULLIAM AND NICKOLAS M. WASER
- 5 Convergence and Divergence in Mediterranean-Climate Ecosystems:
What We Can Learn by Comparing Similar Places 93
PHILIP W. RUNDEL
- 6 Ecological Insights into the Causes of an Adaptive Radiation from
Long-Term Field Studies of Darwin's Finches 109
PETER R. GRANT AND B. ROSEMARY GRANT
- 7 Individual Fitness, Social Behavior, and Population Dynamics of
Yellow-Bellied Marmots 134
KENNETH B. ARMITAGE

- 8 The Aleutian Archipelago: Addressing the Functional Importance of Carnivory through Variation in Space and Time 155
JAMES A. ESTES

Part 3. Building an Understanding of Place 177

MARY V. PRICE AND IAN BILLICK

- 9 Understanding the Role of Predation in Open Systems: The Value of Place-Based Research 185
BARBARA L. PECKARSKY, J. DAVID ALLAN, ANGUS R. MCINTOSH,
AND BRAD W. TAYLOR
- 10 The Ecology of Place in Oak Forests: Progressive Integration of Pairwise Interactions into Webs 207
RICHARD S. OSTFELD AND CLIVE G. JONES
- 11 A Sense of Place: Tatoosh 229
ROBERT T. PAINE, J. TIMOTHY WOOTTON, AND
CATHERINE A. PFISTER
- 12 The Ecology of Place and Natural Resource Management: Examples from Marine and Terrestrial Ecosystems 251
CHARLES G. CURTIN

Part 4. The Interaction between Local and General Understanding 275

MARY V. PRICE AND IAN BILLICK

- 13 Case Studies and Ecological Understanding 283
CHARLES J. KREBS
- 14 Responsive Science: The Interplay of Theory, Observation, and Experiment in Long-Term, Place-Based Research 303
SVĚTĚLANA M. LOUDA AND LEON G. HIGLEY
- 15 To Know a Tropical Forest: What Mechanisms Maintain High Tree Diversity on Barro Colorado Island, Panama? 327
STEPHEN P. HUBBELL

Part 5. Building the Capacity for Place-Based Research 353

IAN BILLICK AND MARY V. PRICE

- 16 The Model Ecosystem as a Paradigm of Place-Based Research: The Intersection of Geology, Ecology, and Economics at the McLaughlin Reserve 359
PAUL A. AIGNER AND CATHERINE E. KOEHLER

- 17 Managing Place-Based Data: The Rocky Mountain Biological
Laboratory as a Case Study 382
IAN BILLOCK
- 18 Local People, Scientific Inquiry, and the Ecology and Conservation of
Place in Latin America 403
PETER FEINSINGER, SAMARA ÁLVAREZ, GEOVANA CARREÑO,
EDMUNDO RIVERA, ROSA LENY CUELLAR, ANDREW NOSS,
FÉLIX DAZA, MIREIZA FIGUERA, EDITH LANZ, LAINET GARCÍA,
MAIKEL CAÑIZARES, AYLIN ALEGRE, AND ALEJANDRA ROLDÁN
- 19 Concluding Remarks: Taking Advantage of the Power of Place 429
MARY V. PRICE AND IAN BILLOCK

LIST OF CONTRIBUTORS 439

INDEX 443