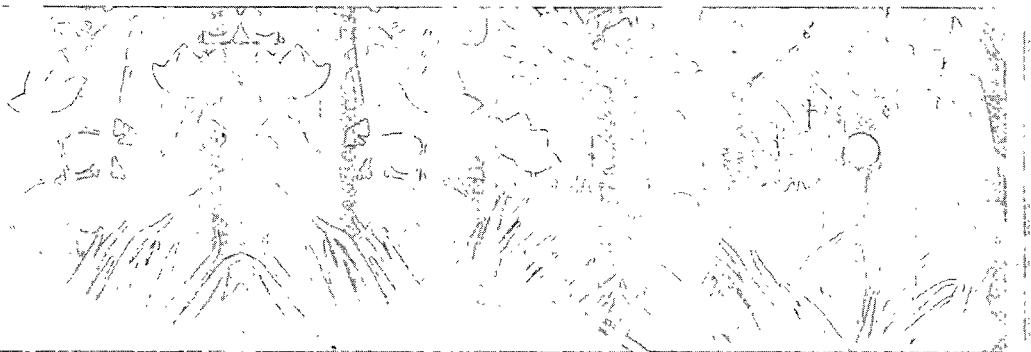


The SAGE
Handbook of
Biogeography



Edited by
Andrew C. Millington,
Mark A. Blumler
and Udo Schickhoff

 **SAGE**

Los Angeles | London | New Delhi
Singapore | Washington DC

Contents

Acknowledgements	ix
List of Contributors	xi
Foreword	xxi
1 Situating Contemporary Biogeography <i>Andrew C. Millington, Mark A. Blumler, and Udo Schickhoff</i>	1
SECTION I REVISITING THEORIES AND CONCEPTS	19
2 History of Biogeographical Thought <i>Mark A. Blumler, Anthony Cole, John Flenley, and Udo Schickhoff</i>	23
3 Diversity Theories <i>Duane A. Griffin</i>	43
4 Theory in Landscape Ecology and Its Relevance to Biogeography <i>John A. Kupfer</i>	57
5 Classification of Biogeographical and Ecological Phenomena <i>Angelika Schwabe and Anselm Kratochwil</i>	75
6 The Expanding Role of Phylogeography <i>Brett R. Riddle</i>	99
7 The Biogeographical Importance of Pleistocene Refugia <i>Katherine J. Willis, Shonil A. Bhagwat, and Mary E. Edwards</i>	118
SECTION II EXPLAINING DISTRIBUTIONS, GRADIENTS, AND DISTURBANCES	137
8 Biogeographical Distributions: The Role of Past Environments, Physical Factors, and Biotic Interactions <i>Udo Schickhoff</i>	141
9 Biodiversity Gradients <i>Jens Mutke</i>	170
10 Explaining Biogeographical Distributions and Gradients: Floral and Faunal Responses to Natural Disturbances <i>Anke V. Jentsch and Carl Beierkuhnlein</i>	191
11 Fire and Ecosystem Function <i>Neal J. Enright</i>	212

12	Species Response to Contemporary Climate Change <i>Tim H. Sparks, Annette Menzel, Josep Peñuelas, and Piotr Tryjanowski</i>	231
SECTION III RECONSIDERING BIOMES AND ECOSYSTEMS		243
13	Ecosystem Dynamics of Subpolar and Polar Regions <i>Ingo Möller and Dietbert Thannheiser</i>	247
14	Forest Ecosystem Structure and Disturbance Dynamics across the Circumboreal Forest <i>Daniel Kneeshaw, Yves Bergeron, and Timo Kuuluvainen</i>	263
15	The Ecosystem Dynamics of Tropical Savannas <i>Jayalaxshmi Mistry</i>	281
16	Tropical Forests: Biogeography and Biodiversity <i>Kenneth R. Young</i>	303
17	Dynamics of Mountain Ecosystems <i>Udo Schickhoff</i>	313
18	Biogeography of Agricultural Environments <i>Chris Stoate</i>	338
19	The Biogeography of Built Environments <i>Claire Freeman</i>	357
SECTION IV UTILIZING MAPPING AND MODELLING		373
20	Remote Sensing for Mapping Biogeographical Distributions: Actualities and Potentials <i>Giles M. Foody and Andrew C. Millington</i>	377
21	Remote Sensing for Modeling Biogeographic Features and Processes <i>Joanne M. Nightingale, Stuart R. Phinn, and Michael J. Hill</i>	394
22	Characterizing Spatial Pattern in Biogeographical Data <i>Thomas P. Albright, Monica G. Turner, and Jeffrey Cardille</i>	419
23	Predictive Modeling of Biogeographical Phenomena <i>Niall G. Burnside and Stephen Waite</i>	435
24	Simulation <i>George P. Malanson</i>	454
25	Biocomplexity <i>Stephen J. Walsh, George P. Malanson, Joseph P. Messina, Daniel G. Brown, and Carlos F. Mena</i>	469
SECTION V LINKING BIOGEOGRAPHY AND SOCIETY		489
26	Ethnobotany <i>Robert Voeks</i>	493
27	Invasive Species, in Geographical Perspective <i>Mark A. Blumler</i>	510

28	Bioindicators for Ecological and Environmental Monitoring <i>Yordan Uzunov</i>	528
29	Historical Biogeography as a Basis for the Conservation of Dynamic Ecosystems <i>Rob Marchant and David M. Taylor</i>	544
30	Habitat Approaches to Nature Conservation <i>Geoffrey Hugh Griffiths and Ioannis Vogiatzakis</i>	562
31	Species Approaches to Conservation in Biogeography <i>Patrick E. Osborne and Pedro J. Leitão</i>	572
	Index	587