

Contents

<i>List of contributors</i>	xv
<i>Preface</i>	xxvi
Introduction: environmental studies past, present and future	1
<i>Noel Castree, Mike Hulme and James D. Proctor</i>	
Part 1 Classic concepts	5
Editorial introduction	6
1.1 Adaptation	8
<i>Marcus Taylor</i>	
1.2 Bioregionalism	13
<i>Richard Evanoff</i>	
1.3 Conservation	17
<i>Chris Sandbrook</i>	
1.4 Desertification	22
<i>Diana K. Davis</i>	
1.5 Environment	27
<i>Sverker Sörlin</i>	
1.6 Ecosystems	33
<i>Erle C. Ellis</i>	
1.7 Environmental catastrophe	39
<i>Giovanni Bettini</i>	

1.8 Ecological footprint	43
<i>William Rees</i>	
1.9 The environmental Kuznets curve	49
<i>David I. Stern</i>	
1.10 Gaia	55
<i>Karen Litfin</i>	
1.11 The Jevons Paradox	60
<i>John M. Polimeni and Raluca I. Iorgulescu</i>	
1.12 Nature	66
<i>R. Bruce Hull</i>	
1.13 One world	72
<i>Volker M. Welter</i>	
1.14 Overpopulation	76
<i>Eric D. Carter</i>	
1.15 Precaution	81
<i>Tim O'Riordan and Rupert Read</i>	
1.16 Risk	86
<i>Susan L. Cutter</i>	
1.17 Resilience	90
<i>Jeremy Walker and Melinda Cooper</i>	
1.18 The resource curse	95
<i>Michael J. Watts</i>	
1.19 Scarcity and environmental limits	100
<i>Sara Nelson</i>	
1.20 Stewardship	106
<i>Willis Jenkins</i>	
1.21 Sustainable development	110
<i>Mark Whitehead</i>	
1.22 The tragedy of the commons	115
<i>Kevin Ells</i>	
1.23 Uncertainty	120
<i>Andy Stirling</i>	
1.24 Vulnerability	127
<i>Morgan Scoville-Simonds and Karen O'Brien</i>	
1.25 Wilderness	136
<i>Phillip Vannini</i>	

Part 2 Contemporary concepts	141
Editorial introduction	142
2.1 The Anthropocene <i>Mark A. Maslin</i>	144
2.2 Biopolitics <i>Kevin Grove</i>	152
2.3 Biosecurity <i>Steve Hinchliffe</i>	158
2.4 Corporate environmental responsibility <i>Christopher Wright</i>	163
2.5 The Earth System <i>Clive Hamilton</i>	169
2.6 Ecosystem services <i>Daniel Chiu Suarez and Jessica Dempsey</i>	173
2.7 Environmental governance <i>Susan Baker</i>	179
2.8 Green democracy <i>Amanda Machin</i>	184
2.9 Environmental security <i>Jon Barnett</i>	188
2.10 Food systems <i>Michael Carolan</i>	192
2.11 Green economy <i>Les Levidow</i>	199
2.12 Green governmentality <i>Stephanie Rutherford</i>	205
2.13 Hybridity <i>Jacques Pollini</i>	209
2.14 Land grabbing <i>Ian Scoones</i>	214
2.15 Metabolic rift <i>Richard York</i>	219
2.16 Offsetting <i>Heather Lovell</i>	223
2.17 Peak oil <i>Michael Lynch</i>	228

2.18 Planetary boundaries	232
<i>Katherine Richardson</i>	
2.19 Post-environmentalism	238
<i>Christopher Buck</i>	
2.20 The social construction of nature	243
<i>Michael Ekers</i>	
2.21 Symbolic environmental politics	249
<i>Megan Barry and Ingolfur Blühdorn</i>	
2.22 Tipping points	254
<i>Chris Russell</i>	
2.23 Wicked environmental problems	258
<i>Michael Thompson</i>	
 Part 3 Classic approaches	 263
Editorial introduction	264
3.1 Cultural theory	266
<i>Åsa Boholm</i>	
3.2 Ecotheology	271
<i>Anne Marie Dalton</i>	
3.3 Environmental anthropology	275
<i>Laura Rival</i>	
3.4 Environmental economics	281
<i>Wim Carton</i>	
3.5 Ecofeminism	286
<i>Greta Gaard</i>	
3.6 Environmental ethics	291
<i>Ben A. Minteer</i>	
3.7 Environmental geography	298
<i>John G. Hintz</i>	
3.8 Environmental health	302
<i>Brian King</i>	
3.9 Environmental history	306
<i>Stephen Mosley</i>	
3.10 Environmental modelling	310
<i>Mark Mulligan</i>	

3.11 Environmental sociology	315
<i>Riley E. Dunlap</i>	
3.12 Environmental politics	321
<i>Shannon O'Lear</i>	
3.13 Design, emotion, sustainability	325
<i>Jonathan Chapman</i>	
3.14 Environmental law	329
<i>David Delaney</i>	
3.15 Environmental management	333
<i>Chris Barrow</i>	
3.16 Environmental philosophy	337
<i>Ned Hettinger</i>	
3.17 Environmental planning	343
<i>Iain White</i>	
3.18 Environmental psychology	347
<i>Patrick Devine-Wright</i>	
3.19 Natural hazards research	352
<i>Greg Bankoff</i>	
3.20 Science and technology studies	356
<i>Sergio Sismondo</i>	
3.21 Social ecology	360
<i>Stephen M. Wheeler</i>	
Part 4 Contemporary approaches	365
Editorial introduction	366
4.1 Animal studies	368
<i>Jody Emel and Ilanah Taves</i>	
4.2 Business studies and the environment	373
<i>Martina K. Linmenluecke and Tom Smith</i>	
4.3 Environmentalism and creative writing	379
<i>Richard Kerridge</i>	
4.4 Ecocriticism	383
<i>Greg Garrard</i>	
4.5 Ecological Marxism	388
<i>Alf Hornborg</i>	

4.6 Ecopoetry	393
<i>Samantha Walton</i>	
4.7 Earth System Science	399
<i>Noel Castree</i>	
4.8 Energy studies	409
<i>Benjamin K. Sovacool and Michael Jefferson</i>	
4.9 Environmental discourse analysis	414
<i>Adrian Peace</i>	
4.10 Environmental humanities	418
<i>Thom van Dooren</i>	
4.11 Environmental image analysis	423
<i>Sidney I. Dobrin</i>	
4.12 Environmental political economy	430
<i>Jennifer Clapp</i>	
4.13 Environmental political theory	435
<i>John M. Meyer</i>	
4.14 Political ecology	439
<i>Simon Batterbury</i>	
4.15 Post-normal science	443
<i>Silvio Funtowicz and Jerome Ravetz</i>	
4.16 Queer ecology	448
<i>Nicole Seymour</i>	
4.17 Resilience science	454
<i>Manjana Milkoreit</i>	
4.18 Sustainability science	460
<i>Thaddeus R. Miller</i>	
4.19 Vulnerability science	465
<i>Thomas Webler</i>	
4.20 Urban ecology	471
<i>Robert A. Francis</i>	
 Part 5 Key topics: environmental challenges and changes	 477
Editorial introduction	478
5.1 Anthropogenic climate change	479
<i>Alice Larkin</i>	

5.2 Agro-food systems	486
<i>Colin Sage</i>	
5.3 Biofuels	491
<i>Vaclav Smil</i>	
5.4 Carbon budgets	495
<i>Róisín Moriarty</i>	
5.5 Fire	502
<i>Joshua Whittaker</i>	
5.6 Fisheries	507
<i>Charles Mather</i>	
5.7 Forest resources	511
<i>William Nikolakis and Harry W. Nelson</i>	
5.8 Floods	517
<i>Gemma Carr, Alberto Viglione and Magdalena Rogger</i>	
5.9 Glaciers	524
<i>Jorge Daniel Taillant</i>	
5.10 Land degradation and restoration	535
<i>Ilan Chabay</i>	
5.11 Mining and the environment	541
<i>R. Anthony Hodge</i>	
5.12 Oceans: climate change, marine ecosystems and fisheries	548
<i>Yoshitaka Ota and William W. L. Cheung</i>	
5.13 The commons	553
<i>Fikret Berkes</i>	
5.14 Transportation systems	558
<i>Tim Schwanen</i>	
5.15 Volcanoes	564
<i>Susanna F. Jenkins and Sarah K. Brown</i>	
5.16 Water resources	572
<i>Joseph Holden</i>	
Part 6 Key topics: human responses to environmental change	579
Editorial introduction	580
6.1 Corporate environmental responsibility	581
<i>Tomas Frederiksen</i>	

6.2 Ecological modernisation	586
<i>Giorel Curran</i>	
6.3 Ecotourism	591
<i>Robert Fletcher</i>	
6.4 Ecological restoration	595
<i>Matthias Gross</i>	
6.5 Environmentalism	599
<i>Marco Armiero</i>	
6.6 Environmental art	604
<i>Harriet Hawkins and Anja Kanngieser</i>	
6.7 Environmental fiction	611
<i>Joni Adamson</i>	
6.8 Environmental celebrity	616
<i>Mike Goodman</i>	
6.9 Environmental certification and standards	620
<i>Brooke Lahnenman</i>	
6.10 Environmental insecurity	625
<i>Peter Hough</i>	
6.11 Environmental (in)justice	629
<i>David Schlosberg</i>	
6.12 Environmental education	635
<i>Sarah Burch</i>	
6.13 Environmental markets	640
<i>John O'Neill</i>	
6.14 Environmental metaphor	645
<i>Brendon M. H. Larson</i>	
6.15 Environmental migrants and refugees	649
<i>Romain Felli</i>	
6.16 Environment and the news media	654
<i>Anders Hansen</i>	
6.17 Environment and popular culture	660
<i>Alison Anderson</i>	
6.18 Environmental policy	665
<i>James Palmer</i>	
6.19 Environmental values	670
<i>Alan Holland</i>	

6.20 Environmental science and public policy	674
<i>Maria Carmen Lemos and Katherine Browne</i>	
6.21 Geoengineering	679
<i>Jack Stilgoe</i>	
6.22 Green consumption	684
<i>Ivan R. Scales</i>	
6.23 Greenwashing	689
<i>Frances Bowen</i>	
6.24 Green technology	694
<i>James Meadowcroft</i>	
6.25 Indigenous territorial rights	698
<i>Philippe Hanna and Frank Vanclay</i>	
6.26 Indigenous knowledge systems	703
<i>Deborah MacGregor</i>	
6.27 Institutions and natural resource management	710
<i>Tim Forsyth</i>	
6.28 Privatizing environmental assets	714
<i>Wim Carton</i>	
6.29 Sustainability transitions	719
<i>Frank W. Geels</i>	
6.30 The Sustainable Development Goals	725
<i>David Griggs</i>	
 Part 7 Key debates	 733
Editorial introduction	734
7.1 Anthropocentrism	735
<i>Eileen Crist</i>	
7.2 Biology and culture	740
<i>Maurizio Meloni</i>	
7.3 Environmental science and politics	744
<i>Tim Forsyth</i>	
7.4 Environmental behaviour change	748
<i>Stewart Barr</i>	
7.5 Environmental citizenship	754
<i>Bronwyn Hayward</i>	

7.6 Environmental conservation and restoration	758
<i>Jamie Lorimer</i>	
7.7 Environment and economy	763
<i>Richard B. Norgaard</i>	
7.8 Expert and lay environmental knowledges	767
<i>Carol Morris</i>	
7.9 Gender and environment	772
<i>Sherilyn MacGregor</i>	
7.10 Interdisciplinary environmental inquiry	776
<i>Lauren Rickards</i>	
7.11 Multi-level environmental governance	783
<i>Andrew Jordan and David Benson</i>	
7.12 International environmental institutions	788
<i>Frank Biermann</i>	
7.13 Markets and governments in environmental policy	793
<i>Edward B. Barbier</i>	
7.14 Nature and nurture	798
<i>Peter J. Taylor</i>	
7.15 Population numbers and global demography	803
<i>Stephen G. Warren</i>	
7.16 Public engagement with environmental science	809
<i>Helen Pallett</i>	
7.17 Race, nature and society	814
<i>Peter Wade</i>	
7.18 Representation and reality	819
<i>Zoë Sofoulis</i>	
7.19 Rewilding	824
<i>Steve Carver</i>	
Index	831