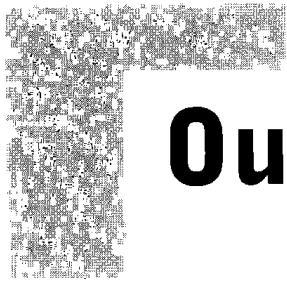


Outdoor Recreation

An Introduction

Ryan Plummer



Outdoor Recreation

An Introduction

Ryan Plummer

First published 2009
by Routledge
270 Madison Ave, New York, NY 10016

Simultaneously published in the UK
by Routledge
2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN

Routledge is an imprint of the Taylor and Francis Group, an informa business

©2009 Ryan Plummer

Typeset in Perpetua and Bell Gothic by Wearset Ltd, Boldon, Tyne and Wear
Printed and bound in Great Britain by CPI Antony Rowe, Chippenham, Wiltshire

All rights reserved. No part of this book may be reprinted or reproduced or utilized in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system, without permission in writing from the publishers.

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

Library of Congress Cataloging in Publication Data

Plummer, Ryan.

Outdoor recreation : an introduction / Ryan Plummer.

p. cm.

1. Outdoor recreation. I. Title.

GV191.6.P59 2008

796.5—dc22

2007051731

ISBN10: 0-415-43040-2 (hbk)

ISBN10: 0-415-43041-0 (pbk)

ISBN10: 0-203-09075-6 (ebk)

ISBN13: 978-0-415-43040-1 (hbk)

ISBN13: 978-0-415-43041-8 (pbk)

ISBN13: 978-0-203-09075-6 (ebk)

Outdoor Recreation

Outdoor Recreation: An Introduction provides students following courses in outdoor recreation, leisure, and environmental studies with a comprehensive and informative overview of this broad and fascinating field.

Covering both theory and practice, and including case studies and examples from around the world, this is the first student text in outdoor recreation to draw on such a diverse range of interdisciplinary approaches and methods. The book introduces students to every key theme in the study of contemporary outdoor recreation, including:

- key concepts and definitions;
- history and development of outdoor leisure;
- management of outdoor recreation;
- development and management of parks, protected areas, and wilderness;
- psychology of the outdoor experience;
- ecology and the natural environment;
- outdoor education and interpretation;
- economics of outdoor recreation;
- outdoor education, leadership, and personal development;
- contemporary issues in, and the future of, outdoor recreation.

Student learning is supported throughout the book with helpful features such as learning objectives, case studies, weblinks, chapter summaries, study questions, and definitions of key terms. Representing a definitive guide to an important and rapidly growing field, this book is essential reading for all students of outdoor recreation, leisure management, tourism, and environmental studies, and will be an important resource for all professionals working in outdoor recreation and leisure.

Ryan Plummer is Associate Professor in the Department of Tourism and Environment at Brock University, Canada.

To Patty—for encouraging my neuroplasticity



Acknowledgments

Many people have generously supported, and contributed to, the development of writing this book. I am fortunate to work in an environment that encourages creativity and embraces initiative. Gratitude is extended to the Department of Tourism and Environment as well as Dean David Siegel at Brock University for their support. Appreciation is also extended to my network of colleagues who enriched ideas contained in these pages through our conversations. More specifically, I would like to thank David Fennell and Cynthia Stacey for frequently discussing many aspects of the manuscript and Reid Kreutzweiser for his written comments on an earlier draft. For their contributions, I also wish to thank: Colleen Beard, Jennifer Fresque, Ann Grimwood, Bryan Grimwood, Emily McIntyre, Mark Montgomery, Karen Natho, Cheryl Plummer, Andrew Spiers, and Nick Pujic.

In terms of making this book a reality, I would like to thank the team at Routledge (Ygraine Cadlock, Samantha Grant, Brian Guerin, and Simon Whitmore) for their masterful command of the publishing process. Guidance from Simon Whitmore is specifically recognized for nurturing the development process.

The publishers would like to thank the following for permission to reprint their material:

Chapter 1:

Marcus Brunmeier for permission to reprint his photograph as Plate 1.1

Chapter 3:

Michigan Technological University for permission to reprint Peterson, R. O. (figure) "Prey relationship between moose and wolves" in Nebel, B. J. & Wright, R. T. *Environmental Science: The Way the World Works*, (5th ed.), Prentice-Hall, Inc., 1996, p. 87

Springer and *Population and the Environment Journal*, Vol. 21(1) 5–26, 1999, p. 8, Price, D. (figure) "Carrying Capacity Reconsidered" with kind permission from Springer Science and Business Media

Reprinted from *Technological Forecasting and Social Change*, Vol. 52, Marchetti, C., Meyer, P. S. & Ausubel, J. H. (figure) "Human population dynamics revisited with the logistical model: How much can be modeled and predicted?," p. 30, 1996, with permission from Elsevier

Bryan Grimwood for permission to reprint his photograph as Plate 3.1

Emily McIntyre for permission to reprint her photograph as Plate 3.2

ACKNOWLEDGMENTS

Chapter 4:

The McGraw Hill Companies for permission to reprint Edgington, C. J., Hanson, C. R., Edgington, S. R. & Hudson, S. D. (figure) "Maslow's Hierarchy of Needs" *Leisure Programming*, (3rd ed.), 1998, p. 138

Nick Pujic for permission to reprint his photographs as Plate 4.1 and Plate 4.2

Chapter 5:

The McGraw Hill Companies for permission to reprint Howard, D. R. & Crompton, J. L. Financing, (figure) "The Main Arguments Against User Fees" *Managing and Marketing Recreation and Park Resources*, 1980, p. 415

Resources For The Future for permission to reprint Clawson, M. & Knetsch, J. L. (figure) "Schedule of Visits, Costs per Visit and Total Expenditure, Hypothetical Recreation Area" *Economics of Outdoor Recreation* The John Hopkins Press Table, 1966, p. 51

Sagamore Publishing for permission to reprint Cordell, H. K. et al., (table) "Percent and Number of People 16 Years and Older in the U.S. Participating in Land-Resource-Based Outdoor Activities" *Outdoor recreation in American Literature: A national assessment of demand and supply trends*, 1999. p. 223

Sagamore Publishing for permission to reprint Cordell, H. K. et al. (table) "Percent and Number of People 16 Years and Older in the U.S. Participating in Snow- and Ice-Based Outdoor Activities, 1994–95" *Outdoor Recreation in American Literature: A National Assessment of Demand and Supply Trends*, 1999, p. 228

Routledge for permission to reprint Hall, C. M. & Page, S. J. (table) "Positive and Negative Dimensions of the Impacts of Tourism on Host-Communities" *The Geography of Tourism and Recreation: Environment, Place and Space*, 1999, p. 122

Sagamore Publishing for permission to reprint Cordell, H. K. et al. (table) "Land and Water Area Administered by Federal Land-Managing Agencies by Agency and Region" *Outdoor Recreation in American Literature: A National Assessment of Demand and Supply Trends*, 1999, p. 41

Chapter 6:

Fulcrum Publishing Inc for permission to reprint Hendee, J. C., Stankey, G. H. & Lucas, R. C. (figure) "The LAC process provides a framework for prescribing and maintaining acceptable wilderness conditions" *Wilderness Management*, (2nd ed. rev.), 1990, p. 222

Mark Montgomery for permission to reprint his photograph as Plate 6.1

Emily McIntyre for permission to reprint her photograph as Plate 6.2

Recreation Heritage and Wilderness Resources for permission to reprint USDA Forest Service (table) "Appropriate Setting Description for Each of the Six Classes in the Recreational Opportunity Spectrum" *ROS Users Guide*, 1982, in Hammit, W. E. & Cole, D.N. *Wildland Recreation: Ecology and Management*, (2nd ed.), John Wiley and Sons, Inc., 1998, pp. 211–212

Sagamore Publishing for permission to reprint Manning, R. E. (table) "Visitor Experience and resource protection: A framework for managing the carrying capacity for national parks" *Journal of Park and Recreation Administration*, Vol. 19(1) 93–108, 2001, p. 169

Chapter 7:

Ann Grimwood for permission to reprint her photograph as Plate 7.1

"Yellowstone to Yukon" by Jeff Gailus was reprinted with permission from *Alternatives*, Vol. 27:4, 2001, www.alternativesjournal.ca, pp. 36–39

Canadian Press for permission to reprint Harrington C., "Elk Out of Bounds on Golf Course" *Victoria Times Colonist*, 11 December, 2000, in Eagles, P. F. J. "Environmental Management" from Dearden, P. & Rollins, R. (Eds.) *Parks and Protected Areas in Canada: Planning and Management*, (2nd ed.), Oxford University Press, 2002, pp. 283–284

Chapter 8:

Mark Montgomery for permission to reprint his photograph as Plate 8.1

Sagamore Publishing for permission to reprint Beck, L. & Cable, T.T. (table) "Principles of Interpretation" *Interpretation for the 21st Century: Fifteen Guiding Principles for Interpreting Nature and Culture*, 2002, p. 31

From "Interpretation and Environmental Education" by Jim Butler and Glen Hvenegaard, in *Parks and protected areas in Canada: Planning and management*, 2nd edition, edited by Philip Dearden and Rick Rollins. Copyright Oxford University Press Canada 2002. Reprinted by permission of the publisher.

Chapter 9:

Dave McCarthy for permission to reprint his photograph as Plate 9.1

Ann Grimwood for permission to reprint her photograph as Plate 9.2

Stephen Finucane for permission to reprint his article "Death on the Water; The Masters knew not what they were doing" as it appeared in *Toronto Star*, 30 June, 2002, p. D15

Chapter 10:

The Easter Seal Society, Ontario and Karen Natho for permission to reprint "Easter Seals Camp Merrywood"

Colleen Beard for permission to reprint "Geocaching"

Allyn & Bacon for permission to reprint Kelly, J. R. & Freysinger, V. J. "Debate: Outdoor Recreation is Antienvironmental" *21st Century Leisure: Current Issues*, 2000, pp. 244–246

Leave No Trace Center for Outdoor Ethics for permission to reprint "The Leave No Trace Principles of Outdoor Ethics," 2004, retrieved June 21 2004 from <http://www.lnt.org/teachingLNT/LNTEnglish.php>



Contents

List of Boxes	viii
List of Plates	ix
List of Figures	x
List of Tables	xii
Acknowledgments	xiii
Introduction	1
1 The Concept and Study of Outdoor Recreation	13
2 Perspectives on the Past	31
3 The Natural Environment and Outdoor Recreation	63
4 Social Psychology and Outdoor Recreation	95
5 Economics and Outdoor Recreation	131
6 Management of Outdoor Recreation	169
7 Parks and Protected Areas	207
8 Outdoor Education and Interpretation	243
9 Adventure Recreation	277
10 Issues in Outdoor Recreation	321
Conclusion	351
<i>Bibliography</i>	355
<i>Index</i>	381



Boxes

1.1 Is Golf Outdoor Recreation?	24–25
3.1 Climate Change and Outdoor Recreation	89–90
7.1 Yellowstone to Yukon Initiative	217–219
7.2 Banff National Park	228–229
8.1 History of Park Interpretation in North America	256–257
9.1 The Timiskaming Tragedy	312–313
10.1 Easter Seals Camp Merrywood	324–325
10.2 Geocaching	332–333
10.3 Debate: Is Outdoor Recreation Anti-Environmental?	341–342
10.4 Leave No Trace Principles	343–344





Plates

1.1	<i>Why is Kayaking Considered an Outdoor Recreation Activity?</i>	18
3.1	<i>A Free-flowing River is an Example of a Resource Located at the Biophysical or Natural Environment End of the Continuum of Recreational Resources</i>	78
3.2	<i>The Presence of Resource Users, Technological Innovations, and Lack of Alternatives Make Sand Dunes a Recreational Resource for Sandboarding</i>	78
4.1	<i>Environmental Cognition is Concerned with the Perceptions and Meanings of the Environment</i>	117
4.2	<i>Fly-Fishing for Trout Typifies Technique-Setting Specialists Associated with Recreation Specialization</i>	125
6.1	<i>How can Outdoor Recreation Managers Strive to Protect the Natural Environment and Provide Opportunities for Meaningful Experience?</i>	184
6.2	<i>Providing a Rope Bridge is Sometimes the Best Option to Protect the Environment and to Facilitate Travel</i>	185
7.1	<i>Lake Manyara National Park in Tanzania, Africa</i>	234
8.1	<i>Interpreter at King's Canyon, Watarrka National Park, Australia</i>	269
8.2	<i>Traditional Forms of Non-Personal Interpretation</i>	270
9.1	<i>Are These Adventurers Experiencing Flow?</i>	285
9.2	<i>Example of a Ropes Course</i>	295
10.1	<i>Fishing can be Simple and Involve a Limited Amount of Technology</i>	328
10.2	<i>Some Forms of Fishing have been Heavily Influenced by Technology</i>	329



Figures

1.1	Different Forms of Research	4
1.2	An Interdisciplinary Framework of Outdoor Recreation	7
1.1	Multidimensional Definition of Leisure	15
1.2	Phases of the Outdoor Recreation Experience	19
1.3	Inter-Relationships Among Leisure, Recreation, and Tourism	25
3.1	Moose and Wolves at Isle Royale	73
3.2	The Ecological Concept of Carrying Capacity	74
3.3	Human Population Growth	75
3.4	Man, Culture, and Nature	76
3.5	Continuum of Recreational Resources	77
4.1	Maslow's Hierarchy of Needs	100
4.2	Levels of Causality of Leisure Behavior	101
4.3	Seeking and Escaping Dimensions of Leisure Motivation	102
4.4	Model for Recreation Satisfaction	105
4.5	Process of Leisure Socialization	107
4.6	Outdoor Recreation Norm Curve	109
4.7	Leisure Repertoire	111
4.8	Leisure Novelty	111
4.9	General Theory of Motivation	120
4.10	Theory of Planned Behavior	121
4.11	Model of Optimal Experience or Flow	123
4.12	Recreation Specialization	126
5.1	Demand Curves	135
5.2	Percentage of Canadians Participating in Outdoor Activities in Natural Areas in 1996	138
5.3	Consumer Surplus Model	145
5.4	Arguments Against User Fees	150
5.5	Objectives of Pricing in Recreation	151
5.6	Approaches and Methods of Pricing	152
5.7	Spatial Considerations for Expenditures	158
5.8	Outdoor Recreation Service Delivery System	166
6.1	Impacts from Outdoor Recreation	172



6.2	<i>Crowding and Satisfaction</i>	178
6.3	The General Components of Management	183
6.4	Objectives of Outdoor Recreation Management	186
6.5	Outdoor Recreation as a Production Process	187
6.6	Outdoor Recreation Management Framework	189
6.7	Recreation Carrying Capacity	190
6.8	Limits of Acceptable Ecological Change	195
6.9	Limits of Acceptable Change Planning System	196
6.10	Visitor Impact Management	198
6.11	Visitor Activity Management Process	200
7.1	The Relationship Between Wilderness and Civilization	233
7.2	Growth of Parks and Protected Areas Worldwide	236
7.3	Changing Emphasis in Parks Over Time	237
8.1	The Distinction Between Information Assimilation and Experiential Learning	253
8.2	Proactive Experiential Learning	254
8.3	The Communication Process	260
8.4	Steps to Writing a Theme	267
8.5	The Interpretive Model	273
9.1	The Adventure Experience Paradigm	284
9.2	Profile of the Timid Individual	286
9.3	Profile of the Arrogant Individual	287
9.4	Harter's Theory of Competence Motivation	289
9.5	The Adventure Therapy Process	293
9.6	Breaking Through Limits to New Growth	294
9.7	Life Cycle of Groups	298
9.8	Categories of Leadership Theories	304
9.9	Brick Wall Model of Outdoor Leadership	306
9.10	Situational Leadership Model	307
9.11	Outdoor Leadership Development Cycle	308
9.12	Three Theories of Transfer in Adventure Education	310
9.13	Accident Ratio Triangle	314
9.14	Model of Risk-Management Planning	317
10.1	Model of Technological Impacts	331
10.2	Dichotomy of Nature-Based Tourism	335
10.3	The Ecotourism Spectrum	337



Tables

1.1 A Synthesis of Outdoor Recreation Definitions	20–23
3.1 ORRRC Land Classification	80
4.1 Four Levels or Hierarchies of Demand for Outdoor Recreation	103
5.1 Demand as a Schedule of Visits, Costs per Visit, and Total Expenditure, Hypothetical Recreation Area	134
5.2 Percent and Number of People 16 Years and Older in the US Participating in Land-Resource-Based Outdoor Activities, 1994–1995	140
5.3 Percent and Number of People 16 Years and Older in the US Participating in Water-Resource-Based Outdoor Activities, 1994–1995	141
5.4 Percent and Number of People 16 Years and Older in the US Participating in Snow- and Ice-Based Outdoor Activities, 1994–1995	142
5.5 Positive and Negative Dimensions of the Impacts of Tourism on Host Communities	155–156
5.6 Land and Water Area Administered by Federal Land-Managing Agencies by Agency and Region, 1995	160
5.7 Key Features of the Leisure Services Delivery System	167
6.1 Appropriate Setting Descriptions for Each of the Six Classes in the Recreational Opportunity Spectrum	193
6.2 Nine Steps of VERP	201
7.1 Contents of a National Park Management Plan	220
7.2 Administrative Evaluation Criteria	223
7.3 IUCNs Category System for National Parks and Protected Areas	235
8.1 Piaget's Stages of Cognitive Development	250
8.2 Differences Between Captive and Non-Captive Audiences	261
8.3 Organizations Providing Interpretive Services in North America	264
8.4 Principles of Interpretation	266
9.1 Stages of Group Development	297
9.2 Advantages and Disadvantages of Decision-Making Methods	302–303
10.1 Categories of Technological Effects and Implications for Backcountry Recreation	330





Introduction



OBJECTIVES

This chapter will:

- introduce the importance of outdoor recreation;
- explain why outdoor recreation is at a critical juncture;
- articulate the rationale of this book;
- develop an interdisciplinary framework for outdoor recreation;
- present the structure of this book.

INTRODUCTION

The subject of outdoor recreation is immensely important. Outdoor recreation has shaped the human–environment relationship throughout history and is an engrained part of many cultures. The popularity of outdoor recreation activities is undeniable as participation rates continue to increase and new forms of activities are developed. Popular media has heightened awareness and hyped outdoor related activities through television programs such as *Survivor* and *The Amazing Race*. As a form of human behavior, outdoor recreation is free time activity that occurs in the outdoors and embraces the interaction of people with the natural environment. A diverse array of benefits is realized from outdoor recreation. Individuals may derive personal meaning from these experiences and achieve a state of “flow” or oneness. Relationships among friends and family may be strengthened and enriched. Society and community may benefit as activities contribute towards the process of socialization and as individuals transfer lessons learned to their “everyday” lives and enhance their functioning in society. The economic implications from this “industry” are substantive and accompanied by a complex network of service providers.

At the same time, outdoor recreation is at a particularly critical juncture. All outdoor recreation activities have an impact on the natural environment. These impacts are often magnified by the fact that participants travel to the activity site and that some of these

INTRODUCTION

areas are ecologically sensitive. The Intergovernmental Panel on Climate Change (IPCC) recently released their fourth assessment on climate change. Scientists from around the world concur that system warming is now unequivocal and very likely (more than a 90% chance) due to anthropogenic activities (IPCC, 2007). Implications of environmental change on outdoor recreation demonstrate the complexity of the issue as opportunities may disappear, shift, or emerge. The possibility of outdoor recreation being anti-environmental has become a point of debate (Kelly & Freysinger, 2000). Ethical concerns have prompted considerable attention as to how we should behave in the out-of-doors. Serious questions are also being asked about the morality of consumptive outdoor recreation activities such as fishing and hunting. The very essence or meaning of outdoor recreation appears to be at stake as technology pervades wilderness and the demarcation between foundational categories (e.g., indoors vs. outdoors; real vs. reality; humans vs. machines) blurs (Ryan, 2002).

The future value of outdoor recreation is contingent upon successfully negotiating the contemporary situation. Meeting these dynamic challenges requires an appreciation of our rich outdoor recreation heritage, understanding of fundamental concepts, and willingness to pursue innovative research. It necessitates taking an interdisciplinary perspective to highlight interconnections, realize complexities, and capture holistic qualities. Most importantly, the prospects for outdoor recreation hinge on the engagement of people in the process of transformative change.

RATIONALE FOR THE BOOK

This book aims to introduce students to the subject of outdoor recreation. In endeavoring to reveal the considerable breadth of information associated with the subject matter a conscientious effort was made to revisit many of the classic and timeless works that have shaped our field. Attention was also directed to a diverse array of contemporary information such as peer-reviewed articles, synthesis monographs, technical reports and websites. Notwithstanding the difficulties of communicating “experiential” elements via print medium, frequent examples are utilized throughout the book to enhance understanding of both theoretical and practical considerations.

College and university students are primarily the intended audience of this book. Therefore, it also conveys the potential depth of knowledge associated with outdoor recreation. Scholarly inquiries across a number of research traditions are therefore presented throughout the book. Evidence from inquiries is used to support central concepts, raise methodological considerations, and enhance understanding of the phenomenon. In this regard, the book is a precursor to avenues of future study.

As a textbook, this work strives to synthesize existing material and effectively communicate it to learners. Innovation comes from the interdisciplinary perspective employed as a means of integrating information and structuring this volume. More importantly, it offers a novel and logical way to systematically think about outdoor recreation. The approach also gives further evidence that the study of outdoor recreation has indeed “come of age.”

Achieving the intent outlined above will be accomplished by:

- introducing concepts fundamental to the study of outdoor recreation;
- exploring the context which has shaped both practice and study;
- examining influences from various disciplines which contribute to understanding the phenomena of outdoor recreation;
- describing the breadth of outdoor recreation research and practice; and,
- critically examining emerging issues facing people interested in outdoor recreation.

AN INTERDISCIPLINARY PERSPECTIVE ON OUTDOOR RECREATION

As an area of study outdoor recreation has come of age (Manning, 1999). Maturation is evidenced by increasing theoretical contributions as well as the identified need to employ an interdisciplinary approach (Manning, 1999; Wall, 1989). When considering undertaking interdisciplinary inquiry individuals require comprehension and appreciation of what interdisciplinary research entails as well as an understanding of core concepts, research themes, and basic questions associated with the area of study (Mitchell, 1989). Therefore, this prologue to interdisciplinary inquiry is an appropriate starting point for readers as the remainder of the book addresses the core concepts and research themes associated with outdoor recreation.

Brewer explains that:

interdisciplinarity generally refers to the appropriate combination of knowledge from many different specialties—especially as a means to shed new light on actual problems. In notably effective efforts, the combination of disciplines adds value: the total is more interesting than the sum of the individual contributions or parts.

(1999, p. 328)

The concept of interdisciplinary inquiry is distinguished from other forms of research in Figure I.1. Jantsch stresses that:

Only with inter- and trans-disciplinarity the science/innovation system becomes alive; in the sense that disciplinary contents, structures, and interfaces change continuously through co-ordination geared to the pursuit of a common system purpose. *Inter- and trans-disciplinarity thus become the key notion for a systems approach to science, education and innovation.*

(1972, p. 224)

Many potential benefits may be realized through interdisciplinary research. This approach is particularly well suited to outdoor recreation because it focuses on solving problems that fail to adhere or “fit” into a discipline (Brewer, 1999; Manning, 1999; Savory, 1988). Jantsch (1972) recognizes the merits of such an approach in light of complexity, dynamic systems and uncertainty. These characteristics are commonly found in the realm of environmental studies with which outdoor recreation is often concerned.