

BOOK REVIEWS

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The Wilderness Warrior: Theodore Roosevelt and the Crusade for America

BY DOUGLAS BRINKLEY

xv + 940 pp., 23.6 × 16.5 × 4.6 cm, ISBN 978 0 06 056528 2
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There should be no doubt in anyone's mind, after having read this highly focused monograph on the 26th president of the United States, that Theodore Roosevelt Jr (1858–1919) was one of the two most important leaders the USA has ever had. In a nutshell, it was Abraham Lincoln who emancipated all the people of the USA, and Roosevelt who did the same for all the other living things. Roosevelt was clearly a giant of a man whose numerous diverse accomplishments would amply serve to fill many weighty biographies, and have indeed done so. However, only *The Wilderness Warrior* has dwelt specifically upon Roosevelt's monumental pioneering contributions to environmental conservation and a land ethic.

We humans must share the biosphere with the other living things on Earth in some equitable fashion, doing so both for their inherent good and ours. Here the reader will learn that Roosevelt seems to have been the first individual on Earth with the power to recognize and address this obligation, who then went on to do so. It was he, and essentially he alone, who had the insight and the vision to recognize the moral imperative to set aside substantial areas of diverse habitats so that the plants and animals depending on them would not begin one by one to slip away into oblivion. Roosevelt was convinced that humans had a sacred obligation to protect the Earth's natural wonders and diverse species, and, far ahead of the curve, he further recognized the human need to be able to experience nature in all its grandeur, and thus to have access to the healing powers of the natural world. During his eight years in the White House (1901–1909), he single-handedly (and despite growing opposition, especially from western states) created a staggering *c.* 229 protected areas under a variety of guises, many decades before that became an evident necessity to most ecologists and some humanists. The area under protection added up to *c.* 243 million acres (98 million hectares), thus representing for the USA what in years to come was to become the recommended 10% global aspiration. The USA became the first nation in the world to formally set aside in perpetuity a significant fraction of its territory for nature, a precedent soon followed by Sweden and, subsequently, to an adequate extent by a very slowly growing number of additional countries.

In childhood, Roosevelt had become entranced with the outdoors, becoming a dedicated amateur ornithologist, a drive to observe birds that remained with him throughout life. John James Audubon was one of his models, and he devoured Charles Darwin's *Origin of Species* (with enduring subsequent influence on his thinking). The reader learns that Roosevelt was infuriated by any cruelty to animals, whether domestic or wild. Conversely, he recognized nature's predator/prey relationships and the accompanying violent deaths experienced by the prey animals.

Roosevelt was no vegetarian, but an ardent hunter, who followed a strict code of hunting ethics (noting that hunting deaths were the least violent way for a game animal to die). He vehemently opposed

trapping with steel-jaw traps and such pastimes as cockfighting, encouraged the humane treatment and humane slaughtering of livestock, and supported the establishment of animal humane societies.

The author, a Professor of History at Rice University, has scoured literally tens of thousands of letters and other published and unpublished documents, many not previously combed through by other scholars, his citations alone running to 65 pages of small print. Various chapters cover Roosevelt's incredibly full life, among them describing especially: overcoming his frail childhood; as Governor, reforming the New York Fisheries, Game, & Forest Commission (basing his actions on Vermont's enlightened conservation laws and practices, those in turn, based on George Perkins Marsh's legacy; see pp. 281, 389–390); the progressive reforms he imposed as President upon the Departments of Agriculture and Interior; his several actions to save various species in imminent danger of extinction (at one point dispatching US Marines to safeguard seabirds on Midway atoll); and the virtually extra-legal means to which he had to resort in order to save the Grand Canyon and several other similarly extraordinary sites.

To sum up, the nearly thousand pages of this book are superbly organized into 18 coherent chapters, the writing throughout is clear and for the most part engaging (only occasionally becoming a bit ponderous), the five dozen or so black-and-white illustrations scattered throughout have been well chosen to enrich the text and the 35-page index is adequately comprehensive. This tome is clearly destined to be an enduring classic contribution to the fields of environmental conservation, American history and beyond.

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Systemic Management: Sustainable Human Interactions with Ecosystems and the Biosphere

BY CHARLES W. FOWLER

xiv + 295 pp., 25 × 19 × 2 cm, ISBN 978 0 19 954096 9 hardback,
US\$ 99.00/GB£ 49.95, Oxford, UK: Oxford University Press,
2009

Systemic Management describes a different form of management of ecosystems and the biosphere that goes beyond conventional management techniques. It intends to account for and minimize human abnormality, and thus shift society toward sustainability. In its attempt at this goal, the book begins with an introduction of systemic management based around nine tenets, which include accounting for complexity, avoiding abnormality, being goal oriented and realizing that control over non-humans is impossible, among others. From this base, Fowler discusses how patterns among species, basically graphs of macroecological variables plotted against proportions of species, can be used to detect abnormality. Using examples from the eastern Bering Sea, Fowler shows how these patterns charting human abnormality against other species can help to answer management questions and set goals. The book then goes on to discuss why conventional management (and recent advances in ecosystem management in particular) does not work. It then

contrasts these shortcomings with a more in-depth overview of why systemic management works. The final chapter focuses on the disproportionate impact of humanity on the biosphere and the need to shift management approaches.

In writing this book for scientists and practitioners, Fowler does a commendable job in showing how empirical patterns can be used as a diagnostic tool. Repeatedly, examples provide a means to demonstrate how basic operational-level managerial questions, like setting limits on fishing catch or harvesting quotas on flora/fauna, can be addressed using patterns, what Fowler sees as the Monte Carlo simulations run in the natural world. Another strong suit of the book is the critique of the shortcomings in conventional management. This provides a wonderful assessment of many current management practices and their inherent problems. Ultimately, the shortcomings of conventional management and the frequent human abnormalities discerned through patterns highlight the challenges of achieving any semblance of sustainability given current human population levels and resource usage.

In spite of these strong points, three serious shortfalls in the book temper my enthusiasm for a positive recommendation. These emerge early on in discussions of the differences between conventional and systemic management in the opening pages. Fowler takes the position that in moving the input of stakeholders from processing data to defining the management questions, as displayed in Figure 1.1, politics is mitigated. On p. 214, Fowler revisits this point and states that ‘people will learn that the effects of politics largely disappear other than as starting points for asking the right questions’. This misunderstands governance and the policy process, which demonstrates that governance is not a linear process but one that is reiterative with multiple feedback loops as more data are gathered. On the whole, Fowler fails to understand political decision-making. Second, this position privileges the role of science as unbiased and apolitical. It does this at the expense of indigenous knowledge and at the expense of values beyond the realm of science. Some of the ‘solutions’ based on patterns result in contentious, value-laden conclusions which stem, in part, from the specific types of questions that are being asked. To pretend that politics and subjectivity are removed by scientific methodology is myopic. Nor does it account for cases where scientific studies result in conflicting results or unclear outcomes. Again, political decision-making is not removed from the process, as many critiques on adaptive management have likewise concluded. Finally, while using patterns comparing humans with other species to assess the resultant abnormalities provides a beneficial marker for humanity’s place in the biosphere, it also neglects to account for human exceptionalism. I do not use this phrase to place humanity beyond the pale. I commiserate with many of the Fowlers’s positions. However, it is problematic to rely on humans’ outlier position on a species distribution curve when so many features of the human species are already several standard deviations removed from other species, including intelligence, language and communication capabilities, technological advances and so on. With this background, is outlier status so unexpected? I do not mean to negate the role of patterns or to discount the abnormality of the human species entirely; however, it begs the question as to how far the use of patterns can go in supplying management answers, particularly when the answers (population reduction, reduced resource usage, minimal energy usage) are so politically contentious.

In summary, I applaud Fowler’s efforts to respond to the shortcomings of conventional management and I agree with the need

to return the human species to the analysis of the biosphere. I only regret that the role of governance is misunderstood.

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Ecosystem-Based Management for the Oceans

EDITED BY KAREN MCLEOD AND HEATHER LESLIE

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 paperback, US\$ 45.00, Washington, DC, USA/London, UK:
 Island Press, 2009

This book helpfully defines ecosystem based management (EBM) as ‘an integrated approach to management that considers the entire ecosystem, including humans. [Its goal] is to maintain an ecosystem in a healthy, productive and resilient condition so it can provide the services humans want and need’. Given the current level of interest in such integrated approaches ‘a comprehensive synthesis of the considerable knowledge needed to implement EBM’ is certainly necessary, and something which this book aims to provide. The contents reflect the interdisciplinary nature of this knowledge with three main sections covering: (1) the main ecological, sociological and economic concepts underlying EBM; (2) ways of using these concepts in practice; and (3) examples of the partial implementation of EBM. There are also opening and closing sections where the appropriate introduction and conclusions (‘Why EBM?’ and ‘Ways forward’) are accompanied by the very practical ‘What do managers need?’ and the less practical ‘Toward a new ethic for the oceans’. The material is extensively illustrated in black and white, with summary boxes and tables.

The book is generally well-informed and extensive in its coverage. Nonetheless it falls short of being comprehensive, as evidenced by the fact that the narrower sub-topic of ‘The ecosystem approach to fisheries’ merits a whole volume (Bianchi & Skjoldal 2009). The book does not fully reflect the global nature of its subject. The expertise and the case studies which it draws on come ‘particularly but not exclusively from the coasts and oceans of North America, to offer lessons broadly applicable around the world’. This approach misses the benefits of a two-way exchange. For example, national attempts to implement the EU’s Marine Strategy Directive (briefly covered in chapter 16) such as the UK’s Marine Bill (not mentioned) provide examples of legislative instruments which aim to resolve some of the problems created by the complex patchwork of separately-managed human activities and interacting layers of geographically-constrained legislation that affect coastal marine ecosystems, such as Puget Sound (chapter 12). This is perhaps an appropriate point to comment that statements like ‘some 279 Member States [support the EU’s Marine Strategy]’ are unlikely to be accurate.

The book’s aims include ‘address[ing] the key challenges facing scientists and managers’. It is a survey of current status and future challenges rather than a technical handbook. This current status can be summarized as a solid foundation of background knowledge and justification and a pressing need to move ahead