

- Exploring the functional ecology of species interactions. Much of physiological ecology has focused almost exclusively on single individuals, ignoring the physiological consequences created by intraspecific interactions (i.e. density dependence) as well as the effects of other species. In other words, most ecophysiology studies to date have only considered the fundamental niche processes and not the realized niche processes.

In conclusion, both community ecologists and functional ecologists would benefit from paying more attention to each other. Individual work in both fields does heed this call, indeed more often than we can cite. But as a percentage of all work done in community ecology or in functional ecology, work that bridges the two disciplines is still all too rare. Neither will community ecology find all of its answers in functional ecology alone, needing to also look to the fields of behavior and evolutionary ecology for mechanisms. We hope that community and functional ecologists will continue the dialogue found in our letter and that by Kearney and Porter [1].

#### Book Review

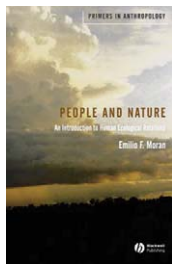
## Thinking anthropologically about nature

**People and Nature: An Introduction to Human Ecological Relations** by Emilio F. Moran.

Blackwell Publishing, 2006. US\$67.95/£50.00 hbk, US\$27.95/£17.99 pbk (218 pages) ISBN 1405105712/1405105720

### Robert M. Pringle

Department of Biological Sciences, Stanford University, Stanford, CA 94305, USA



One important trend in ecology over the past 20 years has been the increasing number of ecologists working at the interface of nature and society. Increasingly, we promise to save biodiversity with our conservation science; salvaging biodiversity, we suggest, will in turn help to preclude impending societal collapse [1]. However, translating science into real, honest-to-goodness conservation is tricky.

Actual conservation is done by complex people who exist in complex places and operate within complex institutions, and simple models of human behavior do not do these intricacies justice. Indeed, the difficulty of navigating cultural diversity is one reason why applied scientists can profit from the work of social anthropologists, human geographers and other social scholars. Nevertheless, there seems to be little in the way of mutual respect between these branches of scholarship, much less of productive collaboration. This is another arena in which we need more capable translators.

Emilio Moran is such a translator (his work spanned natural and social science before it was fashionable to do so), and his book *People and Nature* would be one place to start for scientists curious about what an anthropological

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outlook can offer ecology and its applications. The first in Blackwell's 'Primers in Anthropology' series, *People and Nature* is a whistle-stop tour through not only anthropology, but also ecology, economics, environmental history, geography, psychology and development theory. Moran reviews the evidence for 'our current environmental crisis', discusses various conceptions of human–environment relations, both within the ivory tower and across cultures worldwide, and concludes with his vision for a happier, more sustainable world.

Because of its breadth and its aim at non-specialists, *People and Nature* includes material that will be old news to most professionals (e.g. the litany of anthropogenic environmental problems), as well as simplifications that might irk specialists in a given area (e.g. ecologists might balk at occasional oddities, such as the perplexing claim that tropical moist forests are 'characterized by relatively low animal populations due to the costs of maintaining the complexity of the trophic levels operative'). There are also some interesting omissions. For example, Moran makes only fleeting reference to gender, despite the patent importance of gender relations in structuring human–environment relations and driving population growth in many parts of the world. I would also have been interested to see discussion of the staggering diversity of opinion within anthropology on human–environment issues, and of how the influence of Marxian political

Corresponding author: Pringle, R.M. (pringle@stanford.edu).  
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economy and Foucaultian ideas about power (among others) have prompted many scholars to challenge the conventional wisdom on the causes and even the existence of an environmental crisis (e.g. [2,3]).

Nevertheless, *People and Nature* has something to offer both students and professionals interested in thinking anthropologically about ecology. Perhaps most useful is Moran's recurrent discussion of the difference in scale between environmental problems (global to regional) and their solutions (local to individual). Ecologists work at various scales, from global to local, but embrace a scientific tradition of seeking general explanations for local phenomena. My impression is that this tendency to generalize has often carried over into discussions about the 'correct' way to conserve nature, leading people who have worked in one place and concluded X to argue fruitlessly with people who have worked in another place and concluded Y. But why should we expect the practice of successful conservation, ultimately a social and cultural phenomenon, to proceed identically in any two places? As Moran writes in his preface, 'there are no truly global solutions . . . but rather a diversity of pathways to achieve sustainability'.

We do not have to look far for examples of how global scientific truths are readily reinvented, reinterpreted and repackaged as they are woven into local realities: witness the debates over climate change and energy policy in the USA. Social scholars have long explored this theme (e.g. [4]), and I believe that our grasp of science and policy at home and abroad might be enriched if we made an effort to read and understand some of their work. But we will have to start somewhere, and that is what makes Moran's book, and what I hope will be others like it, valuable.

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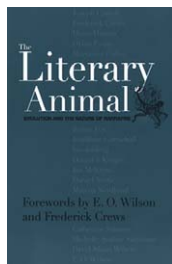
## The human nature of literature

**The Literary Animal: Evolution and the Nature of Narrative** by J. Gotschall, D.S. Wilson.

Northwestern University Press, 2006. £57.50/£21.50 hbk/pbk (375 pages) ISBN 0810122863/0810122871

### David P. Barash

University of Washington, Seattle, WA 98195, USA



While religious zealots have been attempting to mandate the teaching of 'intelligent design' in public schools in the USA, evolutionary scientists have pretty much continued to do what they do best: evolutionary science. Included among its many dimensions are efforts to 'push the envelope,' to see how far evolutionary biology can go in explaining behavior, even complex human social

behavior. Thus, we have evolutionary psychology [1], evolutionary medicine [2], evolutionary anthropology [3], evolutionary political science [4], even evolutionary legal analyses [5] and evolutionary economics [6]. Perhaps, we should also have evolutionary literary criticism.

It is long overdue. When G.G. Simpson famously wrote that 'One hundred years without Darwin is enough,' and Theodosius Dobzhansky observed that 'Nothing in biology makes sense except in the light of evolution,' they were addressing fellow biologists, but might have also been speaking to our colleagues in the humanities. In 1966, a conference was held at Johns Hopkins University on 'The Language of Criticism and the Sciences of Man,' at which

the then unknown Jacques Derrida introduced deconstruction to American shores. 'Theory', as concept-driven literary criticism likes to call itself, captured the humanities, simultaneously becoming a laughing-stock among scientists and the general public, disconnected as these 'theorists' were from reality, including the reality of human nature as well as those 'texts' that they were supposed to elucidate.

Nonetheless, postmodernist puffery reigned for decades, claiming that all is socially constructed and that science is only one of many equally valid 'discourses' concerning the material world. Finally, and, I suspect, not coincidentally, just as this foolishness appears to have largely run its course, literary criticism is beginning to encounter evolutionary biology, and vice versa.

*The Literary Animal* is an edited collection of scholarly articles designed to hasten this encounter. Similar to most such collections, it suffers from its heterogeneity, ranging from a remarkably irrelevant account of personal disillusionment with psychoanalyst Jacques Lacan, to a path-breaking attempt to quantify patriarchal bias in global folk tales, to various, and often repetitive, overviews of how evolutionary science can and should illuminate literature. Apart from a characteristically incisive foreword by E.O. Wilson and an inconclusive effort by David Sloan Wilson to

Corresponding author: Barash, D.P. (dpbarash@u.washington.edu).  
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