Foreword

Conserving Australia's forest fauna: an outsider's perspective

Having read the first edition of the *Conservation of Australia's Forest Fauna* from cover to cover, and having reviewed it—very favourably—for the *Journal of Mammalogy*, I was delighted when editor Dan Lunney asked me to write the foreword for this second edition. My views are those of an American biologist who cut his scientific teeth in north Queensland, but then departed the Antipodes for the rainforests of Amazonia and Central America.

In this new edition—encompassing some sixty chapters—Lunney has outdone himself. He now qualifies, in my view, for the title of "editor extraordinaire," having dedicated himself to the thankless task of cajoling tardy authors, sub-editing countless chapters, forging new syntheses, and grappling with the demands of layout artists and printers—all in the interest of bringing forth a truly first-class compendium of studies on Australia's forest fauna. Few biologists would have the single-minded perseverance to spawn such a large, comprehensive, and exciting book.

And like all good editors, Lunney knows of what he speaks. For each of the last 35 years, for example, he has returned to Nadgee Nature Reserve in New South Wales to census small mammal communities and to evaluate their long-term response to forest regeneration. (How many biologists do *you* know who've conducted 35-year studies?) Hence, Lunney is no mere office boffin, but a bona-fide, muddy-kneed ecologist who's shown extraordinary dedication to his craft.

Conservation of Australia's Forest Fauna, second edition, provides a cutting-edge sample of applied research focused on conserving Australia's unique forest biota. Of course, as has occurred throughout the world, the Australian continent has been drastically altered by human activities—massive forest loss and fragmentation, logging, grazing, altered fire regimes, introductions of myriad exotic species, pollution—and by poorly understood synergisms among these many environmental changes. Global climatic change will further threaten some Australian species, such as the many high-elevation vertebrates, insects and plants that are endemic to the rainforests of north Queensland.

This book addresses virtually all of these threats. A bevy of chapters critically evaluate current land-management regimes, such as intensive forest harvesting for woodchipping and charcoal, habitat fragmentation, and grazing and burning practices in forests. Other chapters highlight the critical role of a landscape perspective in managing wildlife—the importance of buffer strips, faunal corridors, surrounding modified habitats, and off-park conservation in specific management contexts. Yet other chapters focus on particular faunal groups, such as koalas, gliders, quolls, antechinuses, rodents, bats, birds, amphibians, reptiles, and a great diversity of invertebrates. These studies employ a wide range of contemporary approaches—habitat studies, population viability analysis and other demographic models, dietary studies, and analyses of animal-plant interactions—to assess faunal responses to human land uses. Finally, a pair of chapters describes Australia's world-leading work on reforestation and revegetation.

Another theme that permeates the second edition of the *Conservation of Australia's Forest Fauna* is historical—how public perceptions of Australian wildlife have evolved over the last two centuries; how forest policy, legislation and conservation have changed in recent decades; and how structural changes are altering Australia's timber industry in response to domestic pressures and increasing globalisation. This broadens the book's scope and relevance—especially if you want to understand the many pressures on Australian forests, and the hard-won progress following many earlier conservation battles.

As an outsider, I have a few final thoughts about faunal conservation in Australia. First, given its vast size and sparse human populace, it is remarkable that many of Australia's ecosystems have been so thoroughly studied—although innumerable challenges obviously remain, both in terms of gaining further knowledge and in applying this knowledge to real-life ecosystem management. Second, much of Australian conservation research is of a world-class standard—better, perhaps, than some Australian scientists realize. It is surprising to me that even more Australian studies have not appeared in the very best international journals (although an elite cadre of Australian biologists do regularly publish in top venues).

Finally, in the future, perhaps Australian biologists could take a more-leading role in New Guinea, Southeast Asia, and the South Pacific Islands—biologically mega-diverse regions that are direly threatened by rampant forest loss and degradation. Sitting just on Australia's doorstep, many of these countries would benefit enormously from Australian expertise, as has been shown by one of the chapters in this new edition. Australians are doing a superb job of studying their own biota, but they could have an even greater impact by leading conservation research and training among their northern neighbours. If Dan Lunney should ever edit a third edition of this book, perhaps it could be titled *Conserving Australasia's Forest Fauna*, and showcase an even greater global role for Australia's conservation biologists.

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