



# Ostrich

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## Why Birds Matter: Avian Ecological Function and Ecosystem Services

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## Book Review

# Why Birds Matter: Avian Ecological Function and Ecosystem Services

Edited by Çağan H Şekercioğlu, Daniel G Wenny and Christopher J Whelan

2016, The University of Chicago Press, Chicago 60637, USA

387 pages, softcover, hardcover and E-book, photographs

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There is only one reason you need to give to a non-ornithologist as to why birds matter: they keep spider numbers down (Gunnarsson 2007; Rogers et al. 2012). As for birdwatchers and ornithologists: they probably have as many reasons as to why birds matter as there are birdwatchers and ornithologists. This book provides many concrete examples of why birds matter.

The tone of the book is summed up in the statement of the preface: 'The contributions that birds and other taxa make to human well-being are profound; they deserve recognition by policy makers and the public at large.' That is to say, the focus is mostly on the positive aspects of bird ecology. Instead of just one paragraph on birds as pests, a parallel book could easily be written on the problems birds cause; but this is very much a conservation-driven book: all chapters hint somewhere at the threats and changes that birds and wildlife have to deal with due to humans and their activities.

There are 12 chapters written as citeable book sections from several experienced ornithologists and experts, and are useful reviews on their topics. Keywords in the titles of 10 of the chapters sum up the main ecological functions of birds: their role in trophic cascades, pollination, seed dispersal, water plant dispersal, nutrient cycles, their roles as scavengers, ecosystem engineers and how they support human well-being.

The first chapter, written by the editors, sets the scene, gives definitions, and some historical context.

The second chapter, 'Why birds matter economically: values, markets and policies' (Johnson and Hackett 2016), was not easy reading. By chapter four I was more into my comfort zone: 'Pollination by birds' (Anderson et al. 2016). It was certainly encouraging to see the contribution of African-based research on this topic (Geerts et al. 2012; Turner et al. 2012). While birds are generally considered a distant second to insects in terms of pollination importance, it was interesting to learn that they are generally more effective, and likely more important than previously thought.

Dispersal of seeds or plants is one of the most important ecological functions of birds. In chapter five, 'Seed dispersal by fruit-eating birds' (Wenny et al. 2016), we learn that some level of frugivory has been observed in 4 000 species, i.e. 40% of the world's birds. Likewise, birds are very

important dispersers of water plants – chapter six (Green et al. 2016) is full of examples from Europe and North America. If research from Africa was generally overlooked or if this is a field that has simply not been fully explored on the continent, I was not too sure.

In terms of human health, arguably the role of birds as scavengers makes this group of birds the most important (DeVault et al. 2016). The loss of vultures in Asia has been linked to increased levels of feral dogs and rats, linked to rabies and the bubonic plague. The costs of control of these disease vectors, as well as removal of animal carcasses is huge. Certainly, the world has a long way to go to remedying the public misconceptions of this very important and most endangered group of birds: vulture populations are being hit from every angle – poison, starvation, persecution, intolerance to diclofenac, and wind turbines.

Almost certainly there will be few who read this book cover to cover. However, I am very sure this book will be heavily cited in many scientific funding proposals and by conservation biologists based purely on the title. Certainly, this book neatly captures the citation niche needed to back up the statement '...birds' ecological roles, and therefore ecosystem services, are critical to the health of many ecosystems and to human well-being' (Whelan et al. 2016).

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