

Book review

The flight of the huia. By Kerry Jayne Wilson. Published in 2004 by Canterbury University Press.

“The flight of the huia” sits rather uneasily on the fence between a scholarly scientific work and a book of popular science. I read a great many “popular science” books, and I feel that, in this field, “Huia” doesn’t quite make the grade. While the subject matter is intrinsically fascinating, its presentation is jerky rather than flowing, and the placement of material seems out of place at times. Rather than a book to be read in one or two sittings, I found it to be one to read in small chunks, or to consult for specific nuggets of information. My feeling is that it fits the niche of accessible reference book more than that of a volume of popular science writing.

The text is marred in places by errors of spelling and presentation that should really have been picked up at the editorial stage. One or two of these are quite glaring; for example, a pie chart of the composition of the tuatara’s diet has three of its segments each labelled as contributing 54% of the total. “Cambian” for the plant tissue “cambium”, and “Diapsads” for “Diapsids”, the group of reptiles including dinosaurs and birds, also caught my attention. Some ideas could be expressed more clearly, with a few more background details helpful to general readers. For example, Wilson states that the view that birds “first evolved and then radiated [in the Northern Hemisphere] some time after the Cretaceous-Tertiary mass extinction event” (p. 55) has changed only recently, with help from molecular biology. Yet it has been known since *Archaeopteryx* was recognised as a bird, in the 1860s, that birds evolved in the Jurassic; and recent fossil finds, especially from China, have highlighted the relatively high level of diversity in this class. The contribution of molecular biology has been to (1) show just how early the *modern* birds (the Neornithes—as opposed to the Enantiornithes, which included *Archaeopteryx*) began to diversify, and (2), as Wilson demonstrates, to place their origins firmly in the Southern Hemisphere.

“Huia” succeeds rather better as a scholarly scientific work. Wilson has successfully accomplished the huge task of pulling together a wealth of information on New Zealand’s vanishing—and vanished—species and ecosystems from a wide range of sources. New Zealand is often regarded as a relict of the ancient supercontinent Gondwanaland, and this book begins by clearly establishing our biological links with this distant past. It also makes a strong case for the need for continued taxonomic and phylogenetic studies of our fauna and flora, pointing out that the outcomes of such research inform modern conservation biology. In addition, Wilson provides a timely reminder that, while so much effort and publicity is spent on the “iconic” species, taxa such as frogs and the fascinatingly diverse skinks and geckos are largely out of the public eye. While much of the book’s focus is on terrestrial and fresh-water species, marine birds and mammals are not forgotten.

Wilson is forceful in making a point that cannot be emphasised enough: we face a biodiversity crisis, the “Sixth Extinction” of Leakey and others, and to deal with it we must know both what makes species go extinct, and how to predict likely future victims. (The late Stephen Jay Gould would have disagreed here, stating that many extinctions are the result of contingent events which cannot be predicted.) Wilson makes the distinction between local and global extinction events, a point that is important in setting conservation priorities. Of the animal species dying out in the current mass extinction, many will be invertebrates, and Wilson reminds us of the sad fact that the majority of these species will disappear without our even knowing they existed: a silent dying, “unnoticed and unlamented”.

Wilson also clearly links our biodiversity crisis to human actions rather than to wider environmental change. Mass die-offs of endemic animals (and, less well-documented, of plants) have accompanied human expansion from Eurasia into Australia, America, and the Pacific, and New Zealand is one of the best-documented examples of this process. Many of New Zealand’s endangered and extinct species shared

a suite of characteristics that made them highly susceptible to the threats posed by humans and their mammalian fellow-travellers. The book explains why our animals were so vulnerable and why, with so many of them gone, our forests also face threats to their survival beyond the obvious ones associated with forestry. The significant impact of the ill-advised attempts—and the regrettable successes—at acclimatisation of exotic species is clearly explained, before Wilson goes on to document the history of attempts at species conservation in New Zealand, from the early and groundbreaking attempts of T. H. Potts and Richard Henry to the very recent development of the “mainland islands” concept.

The last chapter, entitled “Seeking solutions”, begins with a reminder that there is no happy ending to the tale of ecological woes that followed human discovery and settlement of New Zealand. While we have more vertebrate species present now than at first settlement, many of them are cosmopolitan tramps such as sparrows and starlings, while the birds that have gone were generally endemic and are currently endangered, or lost forever. However, recognition of this tragedy has spurred the development of conservation programmes tailored for New Zealand, including a much-needed trend from the conservation of single species to the management of whole ecosystems; a more interventionist approach

that includes both captive breeding (black stilt and takahe) and intensive management of wild populations (kakapo and black robin); the management of offshore and “mainland” islands; and the increasing importance of molecular biology techniques applied to managing endangered populations. Wilson provides a concise overview of these developments, before asking us to consider how we should set future conservation priorities. The role of education in achieving attitudinal change is a key factor here: as Wilson says, “[people] only conserve what they value.” This book, with its broad historical overview complemented by detailed examples and discussion will, I hope, go some way to supporting this change.

The appendices include a checklist for all the animal species known to have existed in New Zealand since the end of the Pleistocene ice ages, together with their conservation status, and there are excellent notes for each chapter that link to an extensive reference list, a plus for any reader wishing to delve into the scientific literature for further information on a particular topic.

ALISON CAMPBELL
Department of Biological Sciences
University of Waikato
Hamilton