

Book reviews

THE DINGO DEBATE: ORIGINS, BEHAVIOUR AND CONSERVATION

By Bradley Smith (Ed)

2015. Published by CSIRO Publishing, Melbourne, Victoria, Australia. 321 pp.

Paperback, AU\$39.95, ISBN 9781486300297

The ecological role of dingoes, wild (feral) dogs and their hybrids in the Australian landscape is a subject of intense debate and interest in the scientific literature of late (Wallach *et al.* 2009; Fleming *et al.* 2012; Allen *et al.* 2013, 2015; Hayward and Marlow 2014; Nimmo *et al.* 2015, to list just a few recent papers). This debate has invariably led to the precipitation of two disparate views; (i) that of the dingo as an apex predator with beneficial wildlife management and conservancy effects through mesopredator and large herbivore suppression, or (ii) that of the wild/feral dog as responsible for significant livestock impacts necessitating its ongoing management and control. To that extent the nomenclature chosen by a person (either dingo or wild dog/hybrid) when referring to this large eutherian predator can typically polarise the discussion. Invariably, this apparent dichotomy has seen the position of the dingo/wild dog/hybrid in Australian history, folklore and mainstream culture see-saw between that of unwanted rogue predator to unlikely hero, but seldom anywhere in between. Given that the fervour of discussions within the scientific literature over the role of dingoes/wild dogs in the Australian landscape show no sign of abating, the release of a book titled *The Dingo Debate*, would appear very timely indeed. However, this book does not delve deeply into this ‘hot bed’ of discussion as one might expect from the running title (certainly a mistaken assumption that I made), instead focusing on the attributes that define a ‘true’ dingo. This book, edited (and authored) by Bradley Smith with contributions by Rob Appleby, Chris Johnson, Damian Marrant, Peter Savolainen and Lyn Watson, focuses on the dingo in microscopic detail, and right from the word go, Bradley Smith states his unequivocal support and admiration for the dingo, proclaiming them to be ‘...the king of the Australian bush’.

The first two chapters of this book provide a highly detailed examination of the fundamental aspects of how ‘[d]ingoes are not dogs’, based on their physical, behavioural, genetic and cognitive attributes. This is followed up by chapter 3 which provides an in depth exploration of the origins of dingoes in Australia based on literature pertaining to historical and contemporary investigations, including more recent genetic analyses. The next three chapters focus on human–dingo interactions, with chapter 4 *The role of dingoes in Indigenous Australian lifestyle, culture and spirituality*, providing an excellent in depth description and discussion of an aspect of dingo/wild dog history which is not often explored or described in such detail. In the next two chapters Rob Appleby explores the inevitable negative interactions between dingoes and livestock, and dingoes and humans respectively. However, chapter 5 *Dingo–human conflict: attacks on livestock*, seemingly glosses over some of the more pertinent points of this highly contentious topic, particularly when

compared to chapter 6 *Dingo–human conflict: attacks on humans* which is a comprehensive investigation of a range factors and drivers behind dingo attacks on humans, using Fraser Island as a case study. Chapter 7 reads much like a manual on methods with which to study dingoes, whilst in chapter 8 *An ecological view of the dingo*, Chris Johnson outlines the dynamic interplay of dingoes/wild dogs and suppression of mesopredators in the context of trophic cascades. The following two chapters (9 and 10) provide a detailed investigation by Bradley Smith into the cognitive capabilities of dingoes, via the use of several scientific experiments designed to test the problem solving ability of his test subjects. The final two chapters, co-authored by Bradley Smith, discuss the current and future role(s) of dingo sanctuaries in conserving dingoes and a synopsis of what the future may hold for the dingo respectively.

Of the 12 chapters presented in this book, Bradley Smith is sole or co-author of eight of them, and as such his strong support of dingoes is pervasive throughout much of the book. Indeed, by the time I got to chapters 9 *Dingo intelligence: a dingo’s brain is sharper than its teeth* and 10 *The personality, behaviour and suitability of dingoes as companion animals*, I was sensing a definite degree of peroration regarding the ‘superiority’ of dingoes to that of other members of the *Canis* genera. Whilst this may well be the case, I found that the repetitive nature and presentation of this theme ultimately detracted from many of the informative and favourable aspects of the book. However, I highly commend the final chapter *Forging a new future for the Australian dingo*. By this stage I was unsure as to what to expect, though I am pleased to say that I found it to be resoundingly successful in its balanced perspective and realistic expectations of what can be achieved with regard to the conservation and status of the dingo in contemporary Australia.

While there are preceding definitive works describing the natural history of the dingo in Australia (e.g. Breckwoldt 1988; Corbett 2001), this book is a timely addition to the dingo specific literature, providing a detailed and intimate glimpse into the inner workings of the dingo. Given the current debate over their ecological role and/or function in the Australian landscape, perhaps it has never been such an imperative to have a thorough understanding of the dingo ‘psyche’. As a comprehensive and well referenced source of information regarding dingoes, dingo behaviour, their biology, and cognitive prowess, you can’t go wrong with this book. However, *The Dingo Debate* is much less of a debate and more a detailed statement on the unique attributes and iconic values that dingoes possess. As such, Bradley Smith presents us with a fastidiously well researched and referenced text which leads the reader through a comprehensive reconstruction of what is known regarding dingoes and what sets them apart from other canids.

Peter J. Adams

School of Veterinary and Life Sciences
 Murdoch University, Murdoch WA, Australia

References

- Allen, B. L., Allen, L. R., and Leung, L. K.-P. (2015). Interactions between two naturalised invasive predators in Australia: are feral cats suppressed

- by dingoes? *Biological Invasions* **17**, 761–776. doi:10.1007/S10530-014-0767-1
- Allen, B. L., Fleming, P. J. S., Allen, L. R., Engeman, R. M., Ballard, G., and Leung, L. K. P. (2013). As clear as mud: A critical review of evidence for the ecological roles of Australian dingoes. *Biological Conservation* **159**, 158–174. doi:10.1016/J.BIOCON.2012.12.004
- Breckwoldt, R. (1988). 'A Very Elegant Animal: The Dingo.' (Angus & Robertson: Sydney.)
- Corbett, L. K. (2001). 'The Dingo in Australia and Asia.' (JB Books: Adelaide.)
- Fleming, P. J. S., Allen, B. L., and Ballard, G.-A. (2012). Seven considerations about dingoes as biodiversity engineers: the socioecological niches

- of dogs in Australia. *Australian Mammalogy* **34**, 119–131. doi:10.1071/AM11012
- Hayward, M. W., and Marlow, N. (2014). Will dingoes really conserve wildlife and can our methods tell? *Journal of Applied Ecology* **51**, 835–838. doi:10.1111/1365-2664.12250
- Nimmo, D. G., Watson, S. J., Forsyth, D. M., and Bradshaw, C. J. A. (2015). FORUM: Dingoes can help conserve wildlife and our methods can tell. *Journal of Applied Ecology* **52**, 281–285. doi:10.1111/1365-2664.12369
- Wallach, A. D., Murray, B. R., and O'Neill, A. J. (2009). Can threatened species survive where the top predator is absent? *Biological Conservation* **142**, 43–52. doi:10.1016/J.BIOCON.2008.09.021

CLIMATE CHANGE ADAPTATION PLAN FOR AUSTRALIAN BIRDS

By S. T. Garnett and D. C. Franklin (Eds)
2014. Published by CSIRO Publishing, Melbourne, Australia.
262 pp.
Paperback, AU\$69.95, ISBN 9780643108028

This book provides the first climate change adaptation plan for any faunal group anywhere in the world. It is refreshing to see a country, Australia, leading the world when its conservative government is in denial and was quoted in the media as likening climate change to a science fiction fantasy (Bourke 2014). I am reading this book and writing the review while sitting at a historic hotel where the writers Somerset Maugham and James A Michener wrote, Sir Charles Kingsford Smith 'dropped' in for a drink in 1928, and Queen Elizabeth II waved from the balcony in 1953. I, as they did, am looking at mist enshrouded volcanic rises on the island of Viti Levu, in Fiji. I am listening to the subtle lapping of the Pacific Ocean not more than six metres away and considerably less than a metre below me, though not quite up to the high water mark yet. I cannot help but wonder at the irony of reviewing this first-of-its-kind book on climate change in this place and wonder how much longer before the spot where I am sitting is drowned. Sea-level rise seems suddenly more tactile sitting here and watching the rising tide on the shore of Suva Harbour. There are thousands of Pacific Islands where others sit watching this rising tide uncertain about exactly how far it will climb, but knowing it will climb higher. This book tells us something of the uncertainties about climate change in Australia in relation to its birds. It untangles some of the uncertainties of an uncertain future in a climate-changed world.

The lead editor and author of this book, Stephen Garnett, a research professor at Charles Darwin University, has co-written three action plans for Australia's threatened birds. These texts have been accepted as the defining sources in their time, only being replaced by the later versions. The co-editor and author Don Franklin is an ornithologist, plant ecologist and biogeographer. He has studied relationships between climate change and plants and worked with threatened birds in northern and southern Australia. Both are appropriately qualified to stand as editors and authors of this work. The authors of the individual sections are given as Stephen Garnett, Chris Pavey, Glenn Ehmke, Jeremy VanDerWal, Lauren Hodgson and Donald Franklin;

others names can be found in the acknowledgements of those who helped bring the book to fruition. Names such as Hugh Ford and Lynda Chambers Andrew Burbidge, Leo Joseph, Penny Olsen, Mike Weston, Nicholas Carlile and David Priddel highlight the wealth of ornithological knowledge that was drawn upon and contributed to the production of this book.

This publication outlines the nature of the threats posed by climate change for the birds most likely affected and provides suggestions on what might be done in response along with approximate costs. The aims of this book were to identify bird taxa most threatened by climate change, an action that complements the Action Plan for Australian Birds 2010 (by Garnett *et al.*, 2011). More specifically the intent is to: (i) highlight some taxa requiring a more detailed consideration; (ii) more generally highlight the nature of risks to birds and other biodiversity and (iii) provide recommendations for management of the most threatened individual taxa. Note: the authors stress that they do not aim to provide a definitive list of all taxa at risk.

The book opens with a relevant introduction, *An Uncertain Future* and this point needed to be addressed at the start. Not that human induced climate change is uncertain, but that many uncertainties about the distribution and effects of climate change exist, which are then confounded by existing threats to taxa. After the introduction this book is structured with four self-contained sections, which have different authors and their own references. These sections explore the background on the *exposure, sensitivity and vulnerability of Australian birds to climate change* and on *Conserving Australian bird populations in the face of climate change*. These four sections are followed by the individual accounts with a preamble the *Adaptation profiles for Australian birds that are highly sensitive and highly exposed*. This layout with self-contained units gives a clear indication of the authors of each section yet does not cause unnecessary repetition. Stephen Garnett and Don Franklin are co-authors on each section. The 59 species accounts begin on page 81 and fill most of the remaining 180 pages. This structure allows the reader to choose to read the background information about Australian birds and climate change or jump straight to the species accounts and to the taxa of interest. However, fully understanding the recommendations for individual taxa is dependent on understanding what is in the opening sections.

My version of the book was in paperback, but there are pdf and epub versions available. Other than the sections discussed above there are a contents and an index, which are tidy and easy

to scan through quickly. The index carries some useful annotations with some taxa divided into their geographical components. There is a foreword written by Paul Sullivan the CEO of Birdlife Australia; an Acknowledgements page, which provides information on the many others that helped produce the text; and a tabulated appendix giving a relative rank (very high/high/medium/low) for 555 taxa, which are considered highly exposed to and/or sensitive to climate change. The primary audience for this book must surely be conservation professionals (conservation biologists, managers, planners and administrators); it is a must for biological libraries while some students and teachers both secondary and tertiary could benefit from reading it.

My first thought when this book arrived on my desk was: it's too soon! The predictions around climate change are too unsettled and too varied. There are not enough data or there are no data at all on how climate change will affect each of the subspecies and too many species have ranges that encompass vast tracts of Australia and thus a large variation of predicted effects. However, the introduction immediately settled my angst stating, 'A climate change world contains much uncertainty...' The authors then go on at length and in detail to link what is known about climate change to what is known about the birds; they do this over the next 80 pages with citations and references at the end of each section. But, this is not to say that all uncertainty is unravelled it is merely somewhat smoothed. This book also adds to what is understood about threatened birds in the Action Plan for Australian Birds 2010 (Garnett *et al.* 2011) by, as the editors put it, "our analysis complements... by incorporating climate change as an additional stressor".

Without doubt one of the most valuable facets of the book is that it collates so much pertinent data regarding the birds and climate change into one place. An immediate flow-on effect will be attempts to more clearly understand the fates of the taxa, a significant benefit to the fields of ornithology and ecology. Another bonus is the addition of costings—how much will it cost to undertake the suggested actions for each taxon. No doubt the cost is relevant to someone. One stated objective of the book was to point out the *nature* of the threats to the avifauna and this has been achieved in the four explanatory sections and the preamble that lead into the recommendations for the individual taxa. The audience that will most likely gain immediate benefit from this text will be those associated with any planning involving any bird taxa listed in its pages. Students and supervisors will gain background on understanding how climate changes might or does influence biota. However, the dense text, at 262 pages is 261 pages too long for conservative politicians in denial of climate change.

The organisation of the book into explanatory sections before the recommendations for individual taxa lends itself to its end use as a searchable tool, but it also allows it to be read as a text that will explain some the uncertainties of climate change. Alas, I wonder how long it will stay up-to-date given the ever-improving predictions coming from climate scientists and the emerging data on the response by birds to climate change. To this end I would like to have seen this presented in an online and updatable format rather than a book.

The level of research in this book is high. The editors and authors and those others listed in the acknowledgements are a litany of the right authors and reviewers. The reference lists at the end of each section are appropriate for primary research and the review of pertinent primary research. I had no complaints with the writing style and layout of the information, although I am frustrated by having page numbers left off the first page of each section for stylistic reasons. The level of writing is appropriate for conservation professionals, planners and tertiary students. I note that Hugh Ford is credited with reading and commenting on the whole publication.

The quality of supplementary material, for example, the maps is very high. The editors accord thanks to Glenn Ehmke who collated exhaustive data to subspecies (apparently not done before) and produced all the high-quality maps. Many figures presented are in colour improving their presentation and readability, although red and green bar graphs will provide difficulties for the large number of red-green colour blind readers. The front cover has a picture of a Hooded Plover *Thinornis rubricollis*, which purportedly may have to move its nests higher up the beach to avoid sea-level rises.

On the whole this publication is of a very high academic standard. It deals with the uncertainty around the ever-improving predictions well and explains how and why this is done. It is the first book of its kind and is therefore difficult to compare with other texts. To my mind it maintains the high standard that the senior author has set with the various Action Plans for Australian birds. The team putting it together is extensive and must include many more than could be acknowledged. The very great necessity of using subspecies has added credibility to the results. Given the greatly varied impacts that climate change brings to the large and geographically-varied Australian continent and the burgeoning data on responses of the bird taxa, I suspect that this book's dominance will be short-lived. It is nevertheless an important document and must be used now for decisions that must be made now. I recommend this book to conservation researchers, planners, and administrators. I would also suggest that it would be useful to lobbyists and advocacy groups. Finally it must be said that politicians must scan it to find out what will happen to the birds and the climate in their constituencies, they may also note the recommendations for the actions that must be taken to either ameliorate or avoid adverse impacts. I hope they do read it, but I doubt they will.

Graham R. Fulton

School of Veterinary and Life Sciences,
Murdoch University, South Street Murdoch,
Western Australia, 6150

References

- Bourke, L. 2014. LNP backbencher George Christensen likens climate change to science fiction film plot. ABC News Online <http://www.abc.net.au/news/2014-07-09/backbencher-likens-climate-change-to-science-fiction-film-plot/5583734> (viewed July 9, 2014.)
- Garnett, S., Szabo, J., and Dutton, G. 2011. The Action Plan for Australian Birds 2010. CSIRO Publishing, Melbourne.

THE VIEW FROM LAZY POINT: AN UNNATURAL YEAR IN A NATURAL WORLD

By C. Safina

2011. Picador, New York. 401 pp.

Price US\$18.00, ISBN 9781250002716

I was initially encouraged to read this book by Professor J. E. N. 'Charlie' Veron, who, I had just blasted with some notes from my data and quotes from senior ornithologists on the demise of eastern-Australian honeyeaters that had once migrated in uncountable numbers. In return he asked if I had read *The View from Lazy Point* and stated, 'If not you must.' Now I have and my review follows.

The author of this book, Carl Safina, has PhD in Ecology from Rutgers University. He is the founding president of The Safina Centre (formerly Blue Ocean Institute) at Stony Brook University, where he also co-chairs the University's Centre for Communicating Science. He has authored five other books about how the ocean is changing and ~200 scientific and popular publications. He has won awards for his writing: this publication, *The View from Lazy Point*, won the 2012 Orion Award (an award presented annually, by Orion Magazine, for books that deepen the reader's connection to the natural world).

This book presents a year in the life of Carl Safina as he moves about the area around his home at Lazy Point, Long Island. He paints a quite detailed picture. His imagery is expanded with explanations of the ecology and other sciences involved in what he sees. These thoughts are then juxtaposed with the changes brought about by human impact and climate change, which have occurred around his Lazy Point locality in Long Island Sound and globally. These are in turn juxtaposed with quotes and thoughts from an impressively broad range of academics and classic literature: quotes and thoughts as varied as general thoughts from Albert Einstein, warnings from the economist John Stuart Mill and Thomas Malthus's deep concerns about geometric population growth. The chapters of the book are given as months of the year (plus some travel adventures) taking us through the seasons, but the depth of additional material almost overwhelms this structure. The months give the author a narrative direction and a stopping point after one year.

The detail in the story is that of the biology Carl Safina sees in his local environs around Lazy Point and in his wanderings, which are described in a context of a changing world. This is largely, but not entirely, a marine perspective. He also describes the birds in their life-and-death struggles and the smaller invertebrates that the fish feed on and their relationship to the climate and changing seasons. It is a lot of material, which at times seems overwhelming; and I wondered as I read was it too much detail? In fairness to the author, the world is full of detail and the story of human impact on that detail is exceedingly full. I gradually came around to enjoying this over-abundant information as I saw leads and ideas for my own writing. Overall the book is 401 pages, which includes an index and a useful reference section. The text also attempts frequent stylistic forays into artistic expressions through creative metaphors, similes and poignant phrases. No doubt these are the parts of the book that

have led some reviewers to call Safina a modern day Thoreau: I cannot agree—Henry David Thoreau stands alone, particularly with *Walden; or, Life in the Woods* (Thoreau 1854). Such a comparison is analogous to comparing Richard Dawkins to William Shakespeare—completely overdrawn! Nonetheless, the art mixed with science helps the book to convey its messages with greater emphasis.

Structurally the book opens with a short biography on the author, a list of contents and a useful prelude that casually points to what can be expected in both writing style and content. The references, acknowledgements and an index close out the book. The index seems computer generated as is the trend: for example the word government with a lower case g has four entries and a note to 'see democracy', while the unspecified word 'forests' scores 17 entries; on the plus side other more specific words can be found.

This book is pitched at a wide audience; from the general readership, to those who watch Carl on television and may be familiar with his personality, to an academic audience that will nod and sigh in agreement. However, there is enough detail in the book to interest professional biologists/ecologists both marine and terrestrial. Since there are pertinent discussions on how changing the world affects food-chains and food that humans consume. It will be useful for economists to read it and get an idea of how badly they are managing the planet.

One of the strengths of this book is the positivity that exudes from the author. "The future is by no means doomed. I'm continually struck by how much beauty and vitality the world still holds." This is from the first page of reading in the prelude. I am encouraged and must agree there is beauty in my world too as I count birds and watch them interact with their prey and each other. What at first I thought was a weakness became a strength as I kept reading. This is the abundant detail. Biology is full of detail naturally, thus to paint anything like the full picture—a lot of detail is required. Two more obvious strengths of the book are the author's voice and knowledge. His voice is casual yet professionally informed; his style of writing brings the reader intimately into his journey and his knowledge. This knowledge is something that can only be drawn from a life-time as an academic who connects with other academics. There is a lot in this book and if it was not friendly to read I might have put it down—I kept reading.

In terms of aiding the discipline, if I imagine this book read by a young postgraduate student embarking on a career in marine or terrestrial biology, I am confident it will paint them an encouraging picture of how they might one day look back into their own career. It will no doubt encourage some while warning others of the damage we do to the planet. It is not a text book and does not unequivocally fill any educational, research or professional functions. This is not to say it does not have academic value. It is enjoyable to read and may enthuse academics. In particular, I enjoyed passages that looked back into the author's past and compared the state of frogs or food-chains to the present. It made me think of my own examples of processes and organisms that I have watched over time.

It has a scholarly base acquired from a great deal of learning and personal research with the bulk of the text seemingly taken from memory. However, there are clearly sections that have been fact-checked and referenced carefully. The level of

research that has gone into the book is needed in the sense that the book is a summary on the effects of overpopulation and over-exploitation, by humans, on the environment. It is merely centred at a 'field-site', but not confined to it.

There is a small amount of supplementary material with occasional sketches through the book, these are without legends, but are discussed in the adjacent text. There are maps of the sites the author visits and discusses such as: Lazy Point, Long Island; the Belize Reef in the Caribbean Sea; and King George Island at the tip of the Antarctic Peninsula. The sketches and the maps are useful and informative, and add enough detail for those that want it.

There must be many books similar to this one, but I cannot recall any of them going into as much detail and doing it on such

a personal level. I would recommend this book to general readers who want to get a clearer grasp on the ecology of our planet and the costs of over-exploitation. Oddly enough I would recommend it for the same reasons to professional ecologists and to see how they might put their own books together.

Graham R. Fulton

School of Veterinary and Life Sciences,
Murdoch University, South Street
Murdoch WA 6150, Australia

Reference

Thoreau, H. D. 1854. *Walden; or, Life in the Woods*. Ticknor and Fields, Boston.