

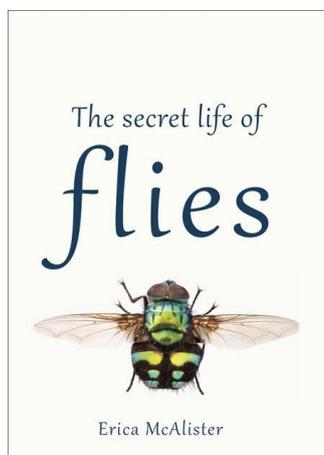
## Some Recent Natural History Publications #25 July 2017

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### *The Secret Life of Flies*

Erica McAlister

CSIRO. 248 pages. RRP \$30



This title template is a popular one at present, but not all the books who use it are as engaging and intriguing as this one. McAlister is the London Natural History Museum's dipterist (ie fly person) so is eminently qualified to write this book; but combine knowledge with passion and eloquence and you've got a real winner! "To me the fly is one of nature's great marvels, and I have been fascinated by them since childhood.... I wasn't immune to the joys of an odd decomposing corpse." And how can you not smile, even if a trifle indulgently, at the description of flies as "the most complex, crucial and highly adaptive creatures on the planet.... without them there would be no life at all. Can we say the same about our own species?". I learnt that there are fly species living beneath the ocean surface around coral atolls. And that there are an estimated 17 million flies for every person on earth (!). Moreover while 160,000 species are known, many times that number (one authority suggests up to five times more) are out there; their fossil history goes back at least 260 million years.

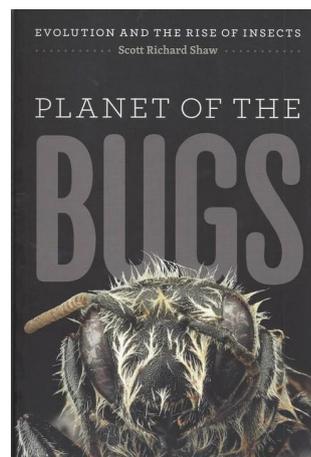
McAlister's museum even has a specimen which is the fly equivalent of Piltdown Man! And all this before I've even left the Introduction... After a chapter on fly larvae (she prefers 'The Immature Ones' to 'Maggots') the chapters each deal with the different diets of various types of flies. My suspicion is that she derived some glee from calling them *The Pollinators*, *The Detritivores*, *The Coprophages*, *The Necrophages*, *The Vegetarians*, *The Fungivores*, *The Predators*, *The Parasites* and *The Sanguivores*. (If you don't recognise any of these words, you might like to look them up for future usage.) McAlister is a consummate storyteller. I learnt of the traditional Sardinian cheese, widely banned because it contains live maggots, which produce a nice soft cheese centre; it is optional whether you eat the maggots with the cheese. The first murder solved with the help of flies was committed 800 years ago. Robber flies are known to have killed and digested hummingbirds! Well, you get the idea. Such a tumble of fascinating stories, all solidly scientifically based and delightfully told, along with excellent photos, makes this one of the natural history books of the year for me so far.

### *Planet of the Bugs*

Scott Richard Shaw.

University of Chicago Press. 240 pages. RRP \$38

This book has actually been out for a couple of years, but I'd missed it until now, and it really is too good to ignore – if you already know of it you can of course skip this! Shaw's a US entomologist who specialises in minute parasitic wasps, and is a passionate and robust protagonist for his generally under-valued field. It's hard not to like his good-humoured exasperation at people who equate 'animal' with 'vertebrate' (eg when discussing stages of evolution of life), and at vertebrate biologists who name biological eras for what the vertebrates were doing, when (in Shaw's opinion) the insects' story was much more significant and interesting. In fact at one point he fantasises about going back to the Devonian and tossing rocks to discourage the amphibians from emerging onto land: "I don't want them interfering with the rest of the story." I like the idea (especially when I read the morning's news these days), but it would of course have meant that this book wouldn't have been written and you wouldn't be reading this. Tricky. The book is huge in scope, though not at all intimidating, covering the origins and continual rise of insects. Many of his topics raise issues that, to my shame, I hadn't considered, including the advantages of being six legged, the evolution of wings (unfortunately, there seems no definitive answer yet to this one), the evolution of complete metamorphosis, and its advantages. He discusses the evolution of wasp stings from ovipositors, and of parasitism on beetle larvae, starting 150 million years ago, and the evolution of social insects. As any good story should be, this one is full of delicious teasers, including the existence of bird lice that only live in pelican pouches, parasitic flies that only live in bat hair and a beetle that only lives in beaver fur. I was reminded that for tens of millions of years the skies were occupied only by flying insects, the largest of which, one of the griffenflies

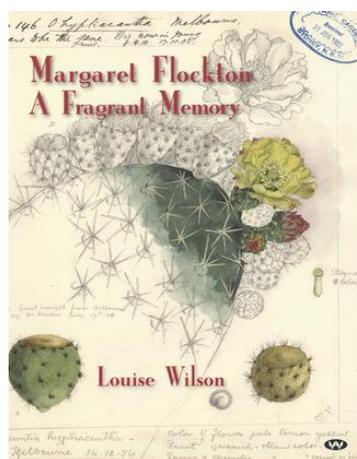


(superficially similar to dragonflies) had a wingspan of 70cm. I learnt that two of the largest families of wasps each has more species than all vertebrates combined; Shaw claims that there may be more wasps even than beetles. He has an often delightfully irreverent turn of phrase, such as the passing reference to “your right hand, that modified fin of a Devonian lungfish”, and chapter sections with titles such as *Adam Ant* (on early insect evolution) and *Killers with Long Faces and a Lot of Nerve* (on scorpionflies). On the other hand I winced a bit at his use of ‘bugs’ instead of ‘insects’, presumably to appear friendly to the lay reader. Much of it is very heavily US-oriented, but I guess you write about what you know (he does spend much of the very last chapter in the Ecuadorian rainforest), and I think he sometimes draws a long bow almost to breaking point. For instance I’m not very convinced about his proposal that stinging and toxic insects might have hastened the end of the dinosaurs, or at the least rendered their last years miserable – why would they have been more vulnerable than modern-day grazing and browsing mammals? Nor could I help raising an eyebrow at the suggestion that had it not been for termites (as a food source), early hominids wouldn’t have bothered to come down out of the trees. However he may well be simply seeking to provoke, and I can’t begrudge him that. This is a great book and I hope you follow it up.

### **Margaret Flockton; a fragrant memory**

Louise Wilson

Wakefield Press. 305 pages. RRP \$50



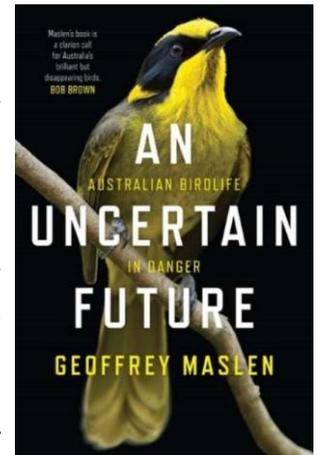
I confess, with some embarrassment, that I was hitherto largely ignorant of the truly beautiful botanical work of this English artist who came to Australia as a young woman and proceeded to make her mark, despite her gender and self-effacing nature. In my own defence however it seems I’m not the only one, as for a long time her work was largely forgotten, though that has recently changed. She left England in 1888, aged 27 and already a qualified art teacher and lithographer, to emigrate with her mother and artist father to join her married sisters in Australia. Initially she worked as a professional lithographer for printing companies in Sydney, before joining her sister Phoebe in Charters Towers – surely a very long way from the England she’d left! Phoebe illustrated geological manuals, while Margaret set up as an art teacher. Back in Sydney she opened a studio and supported herself as an artist; her fame as a painter of Australian wildflowers was established when a tobacco company bought a series for publicity purposes (though she herself strongly disapproved of their product). This brought her to the attention of the great self-taught botanist Joseph Maiden, director of the Sydney Botanic Gardens, and for 25 years from 1901 she worked for him as a botanical illustrator in the herbarium which Maiden inaugurated. This work included the illustrations for his monumental 8-volume *Critical Revision of the Genus Eucalyptus*, and his work on prickly pears. She extended her interest to fungi and lichens, working with Edwin Cheel, appointed for the purpose by Maiden. Maiden named a eucalypt, a wattle and a daisy for her, and Cheel a fungus. Despite her immense output of work, when she was forcibly retired (by reason of age) in 1927, the position of botanical illustrator at the gardens was not filled again until 1980, when the *Flora of NSW* project required it. It is the contention of this book that the better-connected Ellis Rowan, championed by someone with a grudge against Maiden, and against Flockton by association, eclipsed Flockton’s work in the public mind. Flockton died aged 90 in 1953 and was effectively forgotten by the public for another 50 years until the Friends of the Gardens in Sydney instituted an annual, and now prestigious, Margaret Flockton Award for excellence in botanical illustration. These are the bones of the story, but they are greatly fleshed out in this very handsome book. Wilson had a huge advantage in writing it, as the great great niece of Flockton, who she remembers visiting as a small child. Moreover Wilson’s grandmother, Flockton’s niece, was a great repository of family stories, and Wilson has collated many of them from family members to compile this affectionate and detailed biography. There are times when it feels as though the level of detail is actually excessive, but it is not the reviewer’s role to determine how much detail will be of interest to readers. This is a beautiful and richly illustrated tribute to a significant contributor to Australian botanical art, and one who well merits our attention, albeit sadly delayed.

## **An Uncertain Future; Australian birdlife in danger**

Geoffrey Maslen

Hardie Grant. 234 pages. RRP \$40

I confess that when I read the first words of the introduction, which proclaim that “birds are the closest we have to angels on this planet” (and which turn out to be from a poem) I was tempted to stop there, but fortunately I persevered and this theme was not continued. The book is an accessible read but it’s a bit of a bumpy ride, in that it tends to jump from topic to topic with not many segues. The title is an enticing hook, but it doesn’t really reflect the focus of the book, which is a broader sweep across some randomly selected contemporary research into Australian birds, which of course includes studies on habitat loss and population declines. Maslen has a passion for birds, and indeed this passion seemingly outweighs his bird knowledge, but this is not a problem as he’s a journalist (formerly education editor for *The Age*) and his task here is to tell the stories that researchers provide him with. He has certainly sought out some of the key players in this field, notably teams led by Darryl Jones and Jane Hughes at Griffith University, and Michael Clarke at La Trobe. I do find it curious though that none of the researchers involved in world-leading ornithological research at the Australian National University were by Maslen tapped for this book, but I guess you can only fit so much into one book. The first couple of chapters in the book, and the last couple, address the undoubtedly worrying issue of population declines, especially with regard to seabirds and temperate woodland species; quite properly Maslen spotlights shameful recent legislation changes in Queensland and New South Wales that have accelerated vegetation clearance at a time when we should be reversing the trend. Given the pre-eminent importance of the subject in any discussion of conservation, I am somewhat surprised that there is no account of the important research being done on the various impacts of climate change on arid land birds in particular, especially that steered for some years now by the ANU’s Janet Gardner. (Though CSIRO’s 2014 *Climate Change Adaptation Plan for Australian Birds* is mentioned and Maslen certainly acknowledges the importance of the issue).



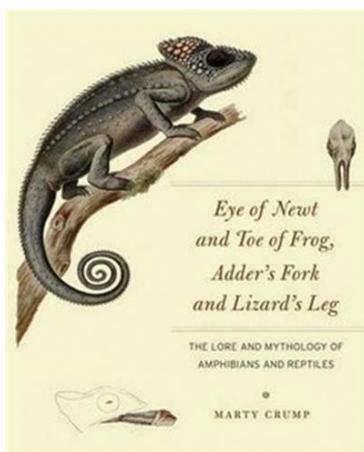
Somewhat worryingly to me, is that right at the start of the book he asserts that since 1788 22 Australian bird species have become extinct “although the true figure is certainly much greater”. This is a very significant claim – it can only mean that there were many bird species that were eliminated without being described, unless he’s implying some sort of cover-up – and has to be supported by evidence, but none is offered. In fact my own calculations (based on the authoritative list provided by Christidis and Boles) suggest the figure should be 16 and, significantly, 15 of those were from Lord Howe and Norfolk Islands. Of course this is 16 too many, and I have expressed elsewhere my own anger and sorrow at that tragedy, but the issue is too real and important to risk losing credibility by exaggerating and making unsubstantiated claims. The truth is quite bad enough!

The middle chapters mostly deal with research on familiar species and groups such as lyrebirds, magpies and corvids (plus chooks, somewhat unexpectedly, though I suppose they are now quintessentially Australian!), and problematic invasive native species such as miners and Rainbow Lorikeets. I think those two chapters are particularly important, as the issue of natives as problems to be managed is a vexed one which requires more education. Overall any book which adds to public knowledge of Australian birds, especially with a conservation perspective, must be welcomed.

## **Eye of Newt and Toe of Frog, Adder’s Fork and Lizard’s Leg; the lore and mythology of amphibians and reptiles**

Marty Crump

University of Chicago Press. 320 pages. RRP \$65



Seriously, who could go past a title like that? And how did she persuade her publisher to allow her 109 characters in the title to play with?! Whatever arguments she used were justified; this is a great read. However, despite Crump’s lifelong devotion to herpetology as a professional in US universities, and despite the plethora of gorgeous reptile and frog photos studding the book, this is not really a book about the animals. The subtitle says it all actually – it is a fascinating compendium of the myriad ways in which humanity has anthropomorphised, sanctified and demonised reptiles and frogs and incorporated them into our folklore over the ages. There is an early chapter on the different ways in which people have responded to snakes, and it is interesting that there are as many examples of snakes

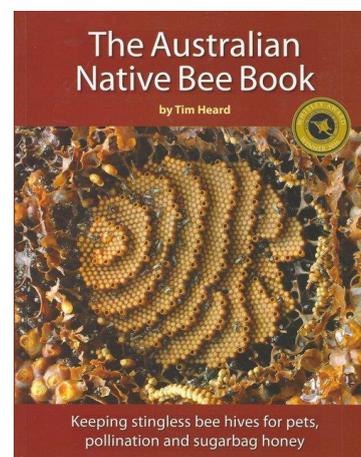
being 'good' as there are of the opposite beliefs (or prejudices) – neither response having much to do with the animals themselves of course. There's a chapter on snakes, frogs and stories about rain, and another on the same animals and reincarnation. There's one on reptile and frog characters in folklore as tricksters and jokers (frog-princes fit in here) and one on beliefs relating to sexual prowess. She devotes a chapter to reptiles and amphibians being used in folk medicine (certainly not good for them!) and one on witchcraft and magic. Crump illustrates all these with stories from around the world; she's been collecting them for decades. She relates hours spent in the 1960s in underground university library stacks, making notes to transfer to file boxes (she couldn't afford the photocopy fees), in time that she should really have been spending on something else, such as studying chemistry. Throughout the book she scatters quotes, often illuminating, from two very different people – her colleague and mentor, the late Archie Carr, and her four year-old grand-daughter. She concludes with a 'patchwork' chapter on topics ranging from snakes as weapons and security systems, reptiles and amphibians in music, art, modern medicine and food and as pets, and finally one on their conservation, stressing the eternal problems of persuading people to protect animals that are not furry and cuddly and charismatic. The journey through this book is an amazing one, and well worth the time. Definitely a present for the person in your life with this, admittedly somewhat esoteric, combination of interests!

***The Australian Native Bee Book; keeping stingless bee hives for pets, pollination and sugarbag honey***

Tim Heard

Sugarbag Bees. 246 pages. RRP \$35

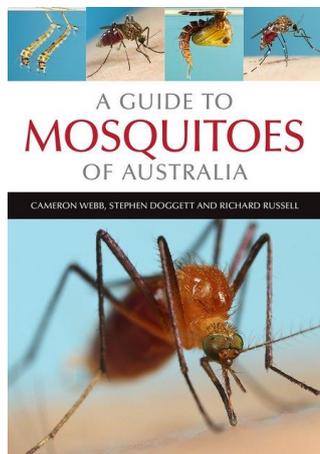
There has been something of a burst of interest in native bees in recent times, reflected in books about them and a burgeoning enthusiasm for 'bee hotels' to house solitary bees. I claim no expertise in the field, but this book seems to be a good one, and its author comes recommended. Heard was a CSIRO research entomologist and now runs Sugarbag Bees, a company entirely devoted to encouraging native bee hives. It also published this book, which helps explain how he got away with the unusually discursive sub-title. The first hundred pages are devoted to comprehensive and well-written information on bees, especially the Australian native species and, even if you have no intention of keeping any of them, you may consider the book worthwhile for this alone. The pages are almost A4 size, so there's a lot of information in 100 of them, and they come lavishly illustrated with beautiful photos. There are also a couple of chapters at the end on the role and significance of native bees in pollination. The rest is devoted to the establishment and maintenance of native bee hive colonies; only you know if that is of interest to you, but the fact that it was awarded a Whitley Certificate last year by the Royal Zoological Society of NSW suggests that, if you are interested, this book might well be a good choice.



***A Guide to Mosquitoes of Australia***

Cameron Webb, Stephen Doggett and Richard Russell.

CSIRO. 204 pages. RRP \$49.95



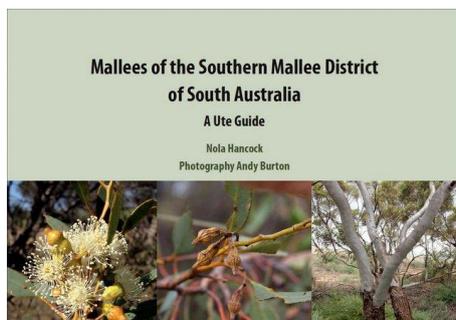
In recent times CSIRO has made a major – and ongoing – contribution to filling the gaping holes in accessible literature relating to invertebrates with their *Australian Natural History* series, though they seem to have dropped the label. (Fortunately they're not the only publisher waving this flag; I note that half of the reviews in this issue relate to invertebrates.) Books on specific groups of insects (unless they're obvious and 'popular' ones such as butterflies, cicadas or dragonflies for instance) are unlikely to be of broad interest, but are nonetheless important, and I applaud CSIRO's continuing willingness to produce titles which are never going to make them a big return. The authors collectively have decades of experience in mosquito management, including the challenges posed by climate change, and insect-transmitted disease. Doggett is a brilliant entomological photographer, and his work is well-represented here. There are chapters on, as you'd expect, biology and habitats, public health, controlling mozzies around the house and personal protection measures. This last chapter, albeit brief, will probably be of most interest to most people; it is comprehensive and includes a useful *Ten tips for choosing and using repellants*. In particular full coverage is essential, so bands and patches are of no help; electronic devices and phone apps are likewise of no demonstrated benefit. Perhaps less

expected is a chapter on *How to collect, rear and photograph mosquitoes!* The remainder of the book is a guide to around 100 of the most commonly encountered and/or interesting species, a page or more on each. As the authors say, “Mosquitoes will always be part of the Australian summer. Regardless of time and money spent, it would be impossible to completely eradicate mosquitoes from our back yard. We need to learn to live with them in the same way we live with bushfires, floods and other environmental hazards, by taking the appropriate precautions.” I doubt that I’ve persuaded anyone to buy the book, but you do need to know it’s out there...

### ***Mallees of the Southern Mallee District of South Australia; a ute guide***

Nola Hancock

Roseville. 51 pages. RRP \$22

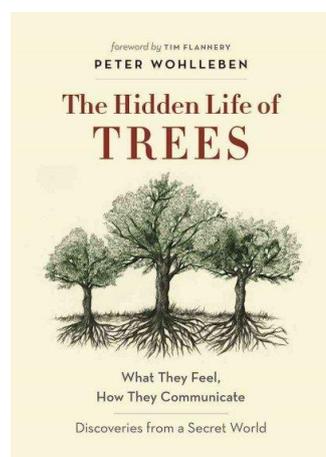


This is really only a book for those who live or work in the area, south of the Murray in South Australia. It's a field guide and a good one, on robust, apparently water-proofed paper, to mallee eucalypt species of the area. There are more general guides available to casual visitors, but if you are or know someone to whom the book is relevant, it is worth the money.

### ***The Hidden Life of Trees; what they feel, how they communicate***

Peter Wohlleben

Black Inc. 271 pages. RRP \$30



I've been hearing about this book for a while, and how it's made some ripples in the international book market pond. I had some qualms about the title – it was a bit too reminiscent of the 1970s fruit-looper of *The Secret Life of Plants*, which portrayed plants as sentient and even somehow supernatural – but on the other hand I am a big fan of Daniel Chamovitz's 2012 *What a Plant Knows; a field guide to the senses*. Moreover Wohlleben is a trained forester who came to believe that there has to be a better way to manage forests. On balance I was prepared to like this book, and wanted to. However, I'm afraid I can't, and I hope that doesn't cost me any friendships among its undoubted fans.

Part of the problem might be in the translation, which was clearly done for a folksy North American audience – there are innumerable references to plants as “little guys”, “rascals”, “Spruce and Co.”, “buddies”, “critters” – but I think the underlying anthropomorphism is too pervasive to be just a product of the translator. Lest you think I might be being a bit precious here, let me offer you this from the very first chapter: “Two real friends take care that the branches that

are facing toward the other are not too thick. Those who want to avoid each other, therefore, only form strong crowns to the outside, in the direction of trees they are not friends with. Such couples are so closely linked through their roots that they often die together.” Seed setting is described as “tree love”. We read of trees “screaming out a dire warning” to their neighbours regarding water shortages, though we don't read what the point of such a scream might be. He asserts, as ever without support, that “a break in its bark, then, is at least as uncomfortable for a tree as a wound in our skin is for us”. I'm not a purist about anthropomorphism; through my life I've enjoyed authors from Kipling to Ernest Thomson Seton to William Horwood, but they wrote novels and didn't claim to be science. There's some fascinating material in this book, but I learnt very little that I hadn't already read, and much more convincingly, from Chamovitz five years ago. Part of the problem is that Wohlleben writes in an enthusiastic stream-of-consciousness that mixes things he's read with his own thoughts, without indicating the boundaries. Additionally, a couple of times when he did offer references I checked them to get more information, and wasn't at all convinced that the papers said what he claims they do. We read regularly that “scientists have determined”, without being told who and how.

The book badly needed a disciplined editor to nudge Wohlleben into organising his thoughts into coherent sections, and eliminating the ubiquitous repetitions, so that each chapter is more than just a thought

bubble.

Such editor really ought to have done some fact-checking too. There are some serious and obvious errors here. For instance he asserts that “a fifth of all plant and animal species – that’s about 6000 of the species we know about – depend on dead wood”. Only 30,000 plant and animal species known on earth? There are more than ten times that many beetles alone!! Did he mean just in his forest? As usual, no reference to help us. And without supporting data, I am simply unwilling to accept the remarkable statement that “individual beeches growing in a stand... are as far apart genetically as species of animals”.

It’s not a difficult read, which may be part of its appeal, so by all means give it a go if you so desire. But my strong recommendation is to first read *What a Plant Knows*, so you’ve a basis for comparison. There is so much excellent and exciting science writing out there that we don’t need to make stuff up.

*Ian Fraser is a Canberra-based professional naturalist and writer who is the author of eight books on local natural history, most recently Australian Bird Names, a complete guide, CSIRO Publishing 2013, with Jeannie Gray (another title on birds is one the way).*

*He ran the educational Environment Tours nature-based tours program from 1984 to 2015 and was the voice of natural history on local ABC radio for 24 years. The ABC in 2004 produced a four-CD set of his ‘Around the Bush Capital’ series. In 2001 he won the Australian Plants Award, Australian Native Plants Association, professional category and in 2006 he was awarded the Australian Natural History Medallion. In 2012 he launched the natural history blog ‘Ian Fraser, Talking Naturally’, at*

*<http://ianfrasertalkingnaturally.blogspot.com.au/> He claims no expertise and has no natural history favourites – except for birds and orchids...*

*This periodic review is emailed free on request, in order to help anyone interested in Australian natural history to keep up with the burgeoning literature. Previous issues available at <http://www.botanicalbookshop.com.au/page/ianfraserreviews.aspx>*

*for which my thanks to Tom Butts of the Botanical Bookshop.*

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