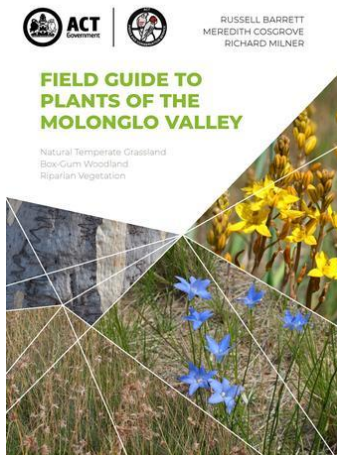


Some Recent Natural History Publications #27 February 2019

Field Guide to Plants of the Molonglo Valley

Russell Barrett, Meredith Cosgrove, Richard Milner

ACT Government, Parks and Conservation Service. 410 pages. RRP \$45



This book continues a rich tradition of ACT modern plant field guides, including volumes on grassland and woodland flora, and Meredith Cosgrove's near-definitive territory-wide guide to native plants. Unlike the previous guides this one seems to have been entirely published by the ACT Parks and Conservation Service, to their credit. It comes at a time when the urban development focus in the ACT has turned strongly (though not solely) to the hitherto undeveloped Molonglo Valley and hinterlands in Canberra's central west, including a massive and environmentally controversial private enterprise. The Molonglo is an essential part of Canberra and the northern ACT. It rises to the east near Captains Flat, was brutally abused by heavy metal mining in its immediate headwaters in decades past, was interrupted by the building of Scrivener Dam in 1963 to form the Canberra-defining Lake Burley Griffin, and ends its journey in the Murrumbidgee near the western border of the ACT with NSW. The catchment of this book coincides with the last part of its journey, downstream of Scrivener Dam.

Very sensibly the format of the book follows closely that developed by Cosgrove in her own guide, though unlike that work this one (again sensibly) includes exotic species. There is a page per species, with generally 4-6 photos of various key features, and information on habit, height, flowering and fruiting times, 'key ID', occurrence (ie how common), habitat, Aboriginal uses and notes, which include a range of useful information. It offers species numbers elsewhere in Australia and the rest of the world, lists other ACT species and at the bottom of the page is a series of scales, mostly life size, of leaf, flower and fruit dimensions. Overall this is a remarkable amount of information for a field guide page! There is also a good glossary including illustrations of various leaf and flower parts and types. There is a basic tabular key to families at the start, with flower colours (13, all illustrated as background) down the side and simple flower form (petal number or shape) along the top. After that you're on your own if you're starting from scratch, as species are listed alphabetically by family and genus; this isn't a criticism, as any approach has its strengths and weaknesses.

The only relevant omission I can see is an inexplicable failure to introduce the authors; I see that as both a courtesy and useful information for the reader as to the credentials of the authors which qualify them to write such a book. We already know Cosgrove (ANU) from her earlier excellent work and I am deducing from a bit of basic research that Barrett is from the Australian National Herbarium and Milner is Molonglo River Reserve Ecologist with the Parks and Conservation Service. The book is excellent and highly recommended (I haven't field tested it, but see nothing to make me doubt its usefulness) but this small discourtesy on the part of the publishers jars a bit.

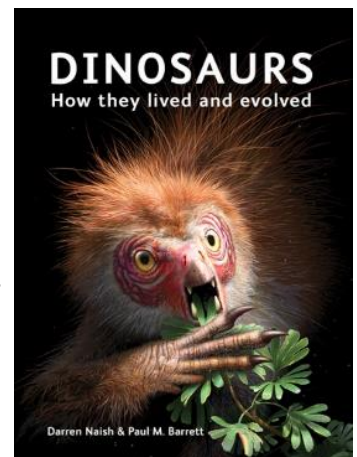
Dinosaurs; how they lived and evolved

Darren Naish and Paul Barrett

CSIRO. 224 pages. RRP \$30

How I'd have loved this book when I was young, fascinated by dinosaurs, but with Disney's stereotyped dinosaurs in the awful death march in *Fantasia* as my only concept of how they might have seemed in real life. How things have changed and this book beautifully encapsulates the magnitude of those changes. (I should clarify my first sentence though; this is not a children's book, though I was a somewhat strange boy who would have devoured it anyway, perhaps avoiding the tougher bits.) The cover alone is a great start. The animal, *Tianyulong confuciusi*, from China during the Jurassic, is alive!

The authors are British palaeontologists who have done a remarkable job of synthesising recent research into how dinosaurs lived and evolved, and making it accessible and real for laypeople. This is greatly assisted by being lavishly illustrated throughout (I was tempted to call them photographs, so convincing are the paintings) and, unlike earlier attempts based mainly on speculation to reconstruct dinosaurs, these arresting works are based on real



knowledge and a confidence that this probably was what they looked like and did. They are dramatic – blood sprays from the head of a huge reeling air-borne carnivorous *Ceratosaurus* from a blow from the huge spiked tail of an angry *Stegosaurus*, scales fly from a savagely shaken lizard about to be swallowed by a *Sinosauropteryx*. Moreover the striped brown and white tail and face patterning of *Sinosauropteryx* is not a guess – from melanosomes recovered from fossilised filaments, and by comparison with those of modern birds, we are increasingly able to ‘see’ dinosaurs as they really appeared. We have previously been able to indulge in informed speculation as to what different dinosaurs ate, based on teeth and limbs, but now we have a growing trove of fossilised stomach contents, especially of carnivores (with meals comprising fish, reptiles, mammals and other dinosaurs) and coprolites (fossilised droppings).

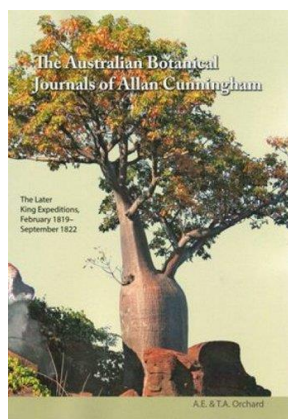
After early chapters on dinosaur evolution and diversity, and detailed anatomy (and *nothing* in this book is dry!), there is a rivetting one on ecology and behaviour, where the detective work is almost as intriguing as the animals. Inevitably a whole chapter is devoted to ‘our’ dinosaurs, the ones that didn’t die – the birds, and particularly their origins. This one has always fascinated me. And finally of course the Great Extinction, and the authors leave little room for doubt about the meteor as the smoking gun, though other factors, notably mass volcanism in India, almost certainly contributed, and there is evidence that there had already been a decline in diversity in some groups in some places, leaving them vulnerable.

There is so much in this book that I’m tempted to tell too much of it. Far better that you do yourself a favour and immerse yourself in it, and its wonderful graphics, for yourself. If you too wished there was something like this around when you were younger, the good news is that it’s not too late!

***The Australian Botanical Journals of Allan Cunningham*
*The later King expeditions February 1819 – September 1822***

AE and TA Orchard

Privately published. 431 pages. RRP \$64



Allan Cunningham has always interested and impressed me as a thoroughly professional botanist and explorer, by land and sea, fascinated by everything around him, unassuming and uncomplaining. Briefly, for those unfamiliar with him, he was sent by Banks, aged just 23, to collect for him initially in Brazil, then on to Australia where he arrived in 1816. He collected inland with Oxley, walking back across the Blue Mountains so his horse could carry the plants. He sailed on a series of exploratory expeditions with Phillip Parker King around the north and north-west coasts, and later undertook a series of inland exploratory journeys to northern NSW to the Darling Downs and Brisbane. He retired to work on his collections in England, but returned to take up the position of Colonial Botanist in 1837; he died of consumption soon afterwards. He always kept a thorough journal and it is surprising that it had never until the advent of the Orchards been reproduced in full (though to be fair large extracts have been published, omitting mostly details of botanical collections). Tony and Tessa Orchard are retired professional botanists, now in

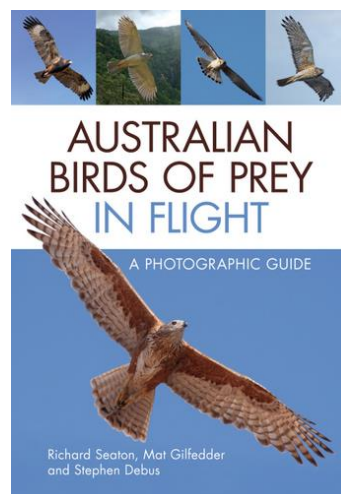
Canberra, who have worked in state and national herbaria and universities; Tony spent some time editing the *Flora of Australia* and was the Australian Botanical Liaison Officer at Kew Gardens in 2008 (among many other accomplishments by both of them). They have devoted their retirement, it seems, to raising Cunningham’s profile – a laudable aim indeed. This is so far their *fifth* book on him, and they have apparently not finished yet! It is the second of their transcription, with minor commentary at the beginning of chapters, of his botanical journals. In addition to covering the last three King voyages, he recorded his doings in between voyages, albeit not generally at a daily level. Quite a bit of it comprises detailed botanical records of collections, on which the Orchards comment in terms of translating to modern taxonomy, and providing links to the herbarium specimens of his collections – scientifically valuable but of limited interest to most of us, though it doesn’t intrude. Most however comprises incisive observations of interactions with Aboriginal people (Cunningham is always respectful) and the Macassan trepang traders, geography and geology, animals and side-trips to Timor and Mauritius to resupply. The authors have inserted the full stops and capitals that Cunningham seemingly found limited use for, but have otherwise left his presentation intact, including numerous curious abbreviations such as specⁿ and sev^l (you’ll work it out!). Perhaps not for everyone, but if you have an interest in Australia’s botanical and exploring history, and the admirable Cunningham in particular, this one might just be worth your attention. I think the authors are doing a major service to Australian biological history, and thus to all of us.

(One minor point did strike me – a quite presentable and totally recognisable painting by King of a Rainbow Bee-eater, a familiar bird, is tentatively captioned ‘might be a Varied Honeyeater’, which it clearly isn’t. Presumably they didn’t consult on this, and the Acknowledgements don’t mention an editor, which might be a pitfall of self-publishing.)

Australian Birds of Prey in Flight; a photographic guide

Richard Seaton, Mat Gilfedder and Stephen Debus
CSIRO. 144 pages. RRP \$40

This is an interesting idea, to assist with the identification of hawks, eagles and falcons overhead, which inexperienced observers can find vexing. (Well to be fair, we have all been at least slightly vexed from time to time!) The authors are well-qualified, though perhaps many readers will only be familiar with Debus' work. Interestingly, people know of him primarily because of his *Birds of Prey of Australia, a field guide*, 1997, revised in 2012, which immediately invites the question 'how is this guide an improvement on the older, and very good, one'? The short answer is that I'm not sure that it is, but there always seems to be room for another field guide, as CSIRO's recent triumph with their new *Australian Field Guide* to all Australian birds underlined. Moreover the introduction describes this volume as designed to complement Debus' earlier work, which explains the minimal text. As the title tells us, it relies entirely on photos, as the earlier Debus guide mostly did. I remain to be convinced that photographs really work consistently in a field guide, given the ability of an artist to present subjects in identical poses and light for comparison, but the cost factor here is substantial – good artists don't come cheap, and neither should they.

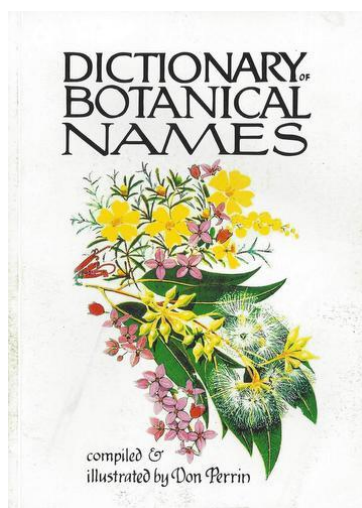


Each species gets four pages, starting with a two-page spread of 3-5 photos overlaid on a photo of a typical habitat, intended to illustrate the effect of distance and different lighting on how a bird appears. There is another page of 6 photos, representing 'six standardised angles'; it's a nice idea but of course it's never possible to get photos of different birds at just the same angles and lights. Finally a page of text, with Overview, 'Confusion species' (though not many hints as to how to avoid confusion), Key Identification Points (which could perhaps have been reinforced by direct reference to the photos) and notes on age and sex. Finally there is a section on Species Comparisons, comprising two columns of black and white photos per page, one species per column from varying perspectives, with similar perspectives across the row, and some helpful annotations. I actually feel that the Debus 2012 approach to this was more useful, with paintings of each species from below cut in half and paired with the other half of a series of similar species. Ultimately it's up to you; it may well be that time spent studying the plates would indeed improve our identification skills, but I've not yet had it for long enough. If you're interested it's at least worth a look.

Dictionary of Botanical Names

Don Perrin

JT Press. 208 pages. RRP \$29.95

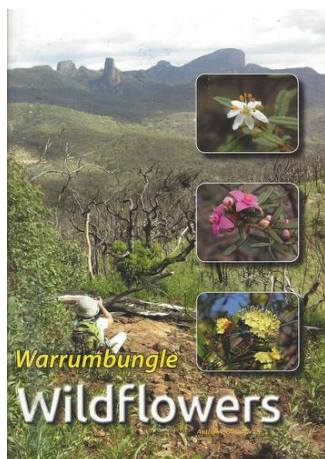


This is actually an update – and a significant one – of a book first released in 1988. This edition contains 1,000 names which were not in the original edition, which in itself represents a considerable achievement. There are several such dictionaries of biological names, including botanical ones, but this has the advantage to us of being Australia-focused (though not exclusively). Perrin was involved in native plant growing and educating in the Blue Mountains and more recently in south Queensland, and his dictionary refers particularly to Australian genera and families; sometimes for a species name he refers us to an Australian example of its use. Entries are brief, of necessity, but long enough to explain the different components of a name and (usually) whether they are Greek or Latin in origin. Where a name is biographical he gives us a one sentence synopsis of the subject, with dates, which enables us to investigate further if we so desire. There is no help with pronunciations, but that's a big ask and such dictionaries rarely attempt to do so. If you don't have one you could do a lot worse than buying this work. Perrin sadly died just after this edition appeared; this is a worthy memorial to him though.

Warrumbungle Wildflowers

Anthony O'Halloran

Bilby Blooms. 62 pages. RRP \$22



O'Halloran lives south of Coonabarabran, in Binnaway, pretty much in sight of the wonderfully rugged volcanic Warrumbungle National Park. This little field guide is in part a celebration of the slow recovery (slowed by follow-up heavy rains and subsequent drought) from the massive fires of 2013, which burnt 90% of the park. We get a brief introduction to the park and even more briefly to some of the key walks, but after that we don't get a word beyond a name per plant – just a photo per species, six to a page, with a brief guide to peak flowering months. No mention of families, or habitats, or identification hints. The order is strictly alphabetical, no grouping by family or colour etc. The photos are adequate and I assume the identifications are accurate. It would be of some use to a walker with a casual interest in plants, but could have been so much more.

Ian Fraser is a Canberra-based professional naturalist and writer who is the author of eight books on local natural history, most recently Birds in their Habitats, journeys with a naturalist, CSIRO Publishing 2018. 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; in 2006 he was awarded the Australian Natural History Medallion and in 2018 an OAM for 'services to conservation and the environment'. 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.

calochilus51@internode.on.net