

Book reviews

CAYLEY & SON: THE LIFE AND ART OF NEVILLE HENRY CAYLEY & NEVILLE WILLIAM CAYLEY

By Penny Olsen

2013. Published by the National Library of Australia, Canberra, Australia. 227 pp., colour illustrations, black and white illustrations. Hardback, AU\$49.99, ISBN: 9780642277893.

Biographers must believe in their subjects' importance, but Penny Olsen has much on her side in writing about Neville Henry Cayley and his son Neville William. The father established the name in Australian bird art in the 1890s, and his son made it famous with *What Bird is That?*, the first complete continental guide and Australian birders' *vade mecum* for 40 years. No other family so prominently served Australian ornithology, bird study and bird art for so long, and it is difficult to find comparable cases elsewhere. The men deserve attention, and *Cayley & Son* does a valuable service in treating them together. The book has biographical sections on their hardly overlapping careers (Neville William was 17 when his father died), and generous portfolios – 54 pages of the father's work and 43 of the son's – supplemented by illustrations and photographs scattered through the text. The art ranges from paintings of birds in their habitat through field guide illustrations to dust jacket art and ephemera; an inclusive sampling, and the almost square format (pages measure 28 × 23 cm) makes it an attractive volume. Leave it open on the table, please.

Olsen's year-by-year accounts put the Cayleys in the context of their daily lives, giving readers a glimpse into art, bird art, science, conservation and how these changed over the decades. Neville Henry's case almost requires this sort of close study, for he arrived in Melbourne in 1877 without much of a plan except getting ahead, and found his way in colonies with little institutional support for art or science. By 1880 he had a name as an artist, by 1885 as a bird artist and, in 1893, his work was displayed in the New South Wales court at the Chicago World's Fair. By then his reputation stood high enough for someone to put his name on what Olsen delicately termed 'Cayley-inspired watercolours' (p. 36). Fame did not pay the bills, though, and he struggled all his life, accepting various commissions to make ends meet and trading pictures for goods and services. He planned, but could not bring to press, a book of hand-coloured plates of Australian birds, and died not yet 50 years old, having produced, Olsen judged, 'some very fine works', but much that bore the traces of haste and dependence on a few popular themes (p. 42).

Neville William, born in 1886, studied landscape painting before following his father into bird art; but, where his father was an artist who painted birds and joined art societies, he painted birds to serve his interest in natural history and conservation, joined the Royal Australian Ornithologists' Union, and made a career at the intersection of science, art, nature preservation and commercial illustration. Like his father, he projected an ambitious study of Australian birds, reminiscent of the nineteenth century works of John Gould and John James Audubon, but though the world had changed since Neville Henry's day it had not changed enough. Olsen's account (pp. 110–121) of the shifting fortunes of the work offers a mini-lecture on Australian publishing, bird art, national ornithology and conservation. What emerged from the presses was 'a reasonably priced book that would allow [people] to identify the birds that they encountered'. That would seem a

comedown from an expensive art book except that *What Bird is That?* became 'the most popular and persistent bird book ever likely to be produced in Australia, if not the world' (p. 123): one that inspired generations of Australians, introduced thousands of visitors to the wonders of Australia's birds, and built the market for the next generation of field guides. Cayley continued to paint and bring out bird books for another 15 years, shaping Australians' encounters with their land, but the riches, alas, accrued mainly to the nation. He died impoverished, at 64.

This study has the virtues of a close focus on its subjects and many examples of their work, but Olsen can offer only glimpses of the Cayleys' place in bird art and even the portfolios make things more difficult for the serious student by relegating the identifying information about the plates to the back matter. Failing time and money for a museum tour of Europe and North America, readers should use the library and the internet to gain perspective. Neville Henry's anthropomorphic paintings, such as the well-known 'Dignity and Impudence' (p. 15), the variously titled ones of a black duck just as it was shot (p. 23) and his still-lives of dead and hanging ducks (pp. 46–47) appear in European and European-influenced art of the era, and Neville William's plates of birds' eggs, species' portraits and field guide illustrations fit their times equally well. Particularly for the younger Cayley, a wider view helps. Olsen can only touch on the complexities and challenges of commercial art, which required not just art, but art that available technology could faithfully and inexpensively reproduce in enormous quantities. Field guide illustrations, which had as well to stress each species' distinctive marks, constituted a form of their own. Olsen mentions some of the issues, noting Cayley's first edition had small images crowded together and that he arranged birds by habitat rather than taxonomy, but placing one of Cayley's plates, say the 'typical plate' reproduced on page 122, alongside Roger Tory Peterson's *A Field Guide to the Birds* (1934, re-issued by Houghton Mifflin after Peterson's death in 1996), shows Cayley's solutions to the field guide's perpetual dilemma: balancing cost against quality. Colour helped the reader, but the cost of these plates could easily drive the book's price too high for a mass market. Given that constraint and the number of species he had to portray, Cayley's crowded plates may well be excused. His arrangement of birds by habitat seems odd now, but the strategy harked back to early guides and still appears in introductory books aimed at readers who can't tell a stork from a crane but do know if they are at the shore or in a swamp. As for what to call the bird, well, that has always been contentious. Guides, particularly early ones, often included several popular names as well as the scientists' 'official' English-language one, and in 1941 Peterson found the problem of subspecies and what to call them so contentious he included a long appendix in his guide to the Western United States to head off criticism. (He was not entirely successful.)

Cayley and Son introduces readers to these men and their work; it should stimulate greater interest in bird art; and it makes an ideal gift for the birder in the family.

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BULLER'S BIRDS OF NEW ZEALAND: THE COMPLETE WORK OF JG KEULEMANS

By Geoff Norman

2012. Published by Te Papa Press, Wellington, New Zealand. 240 pp., 95 colour plates, black and white images. Hardback, NZ\$150, ISBN: 9781877385889.

For more than a century, the ornithological illustrations of John Gerrard Keulemans were widely considered the definitive representations of New Zealand's birdlife. A Dutch illustrator who spent most of his life in England, Keulemans had never seen live specimens of many of the birds that he painted, yet his illustrations for both the first and second editions of Walter Buller's *A History of the Birds of New Zealand* (1873 and 1888) became iconic in New Zealand, gracing postage stamps, stationery, bank notes and many forms of popular imagery.

The new publication *Buller's Birds of New Zealand: the Complete Works of JG Keulemans* celebrates the art of Keulemans by bringing together for the first time the complete set of illustrations from both the first and second editions of Buller's original text. The book is the work of publisher Geoff Norman, who, having discovered the original watercolour proofs for Keulemans' second edition prints at the British Natural History Museum, decided to republish the images in their original form, rather than the more familiar colour lithograph reproductions.

Including a foreword by comedian and self-proclaimed New Zealand-lover, Stephen Fry, and a brief but well-researched introduction written by Norman, *Buller's Birds of New Zealand* comprises a complete set of 95 colour reproductions of Keulemans' prints, uniting the less widely known works from Buller's first edition, with a fresh rendering of the more famous second edition. Each artwork is presented with a short extract from Buller's original text, in which he describes the appearance and behaviour of the birds, and includes anecdotes on his own experiences as a naturalist.

The book's beautiful presentation highlights Keulemans' artistic talents, and the volume will make a worthwhile addition to the collection of anyone with an interest in natural history art. One of Norman's primary motivations behind publishing the work was to reveal the vibrancy and intensity of colour that is found in Keulemans' original proofs, but is missing from the colour lithograph reproductions in Buller's second edition. In his introduction, Norman describes the processes and limitations of colour lithography in the 19th century, comparing the quality of the prints to the original watercolours and the hand-coloured works from the first edition. In the new publication, the quality of the images is clear. Each print appears in its original size and in vibrant colour, allowing the artworks to be appreciated in the manner that was first intended.

It is also wonderful to see the complete works united in one edition. Together the set of prints reveals Keulemans' distinctive illustrative style. Keulemans took care to place his birds against a background of native New Zealand flora, and while his depictions were not particularly animated, they nonetheless captured very natural and lifelike qualities of New Zealand's birds. This is a feat made all the more impressive considering that many of Keulemans' illustrations were based solely on the skins of the birds given to him by Buller, rather than life sightings. Keulemans' depictions of kiwis seem particularly charming compared to those of other artists of the

period, who generally failed to capture the essence of New Zealand's national emblem.

Keulemans' prints are quite rightly the stars of the show, and for that reason the introductory and accompanying text has been kept to a minimum. The book is much more about art and natural history than the scientific study of ornithology, with Norman's introduction focusing on the history and context of Buller's *A History of the Birds of New Zealand*, and the cultural impact of Keulemans' original works in New Zealand throughout the nineteenth and twentieth centuries. Norman provides a short background on the history of fine bird books in 19th century England, followed by biographies of both Keulemans and Buller.

Norman portrays Keulemans as a well-respected bird illustrator, who despite his good reputation never achieved the fame and prosperity of his contemporaries such as Edward Lear and Joseph Wolf. He also fared less well than Buller, who received many awards and accolades in his lifetime, but has subsequently been a controversial figure.

Norman touches on this controversy by choosing quotes from Buller's original text for their humour or historical interest rather than for detailed scientific information about the species. Modern readers might struggle to comprehend Buller's descriptions of shooting, and in some cases eating, birds that later became endangered or extinct. Equally distasteful are Buller's claims that the effect of extinction is lessened because the place of many lost bird species has been adequately filled by introduced species. Indeed, one quote from Buller reveals his belief in 'an almost universal natural law- that the indigenous forms of animal and vegetable life sooner or later succumb to, and are displaced by, more vigorous forms from without' (p. 125). However, Norman is careful not to demonise Buller, instead painting him as a man of his times, whose belief in the inevitability of the extinction of native species was entirely in keeping with scientific thought in Victorian England.

The effect of European colonisation on native species in New Zealand is a theme that runs throughout the book, and I found it particularly poignant to look at Keulemans' illustrations knowing that many of the species he painted were already either extinct or on the verge of extinction. However, by focussing on the history of Buller's original bird book, and relying exclusively on quotes from Buller in the captions and text alongside each image, the reader is left without any indication of how the fate of the bird species have changed since the 1880s. Norman mentions the rise of the conservation movement in New Zealand, but not what it meant for the individual species in Keulemans' prints.

Buller's original *A History of the Birds of New Zealand* came at a time when natural history publications were hugely popular across Europe, where they were a symbol of the exploration and colonial expansion of the age. Geoff Norman's *Buller's Birds of New Zealand: the Complete Works of JG Keulemans* is a beautiful book that takes us back to that time by celebrating a collection of artworks that helped shape a New Zealand consciousness, while also reflecting on the beauty and uniqueness of some of the species that we have lost.

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BIRDS OF SOUTH ASIA: THE RIPLEY GUIDE (SECOND EDITION)

By Pamela C. Rasmussen and John C. Anderton.
2012. Published by Smithsonian Institution, Washington, DC, USA; Michigan State University, Michigan, USA; and Lynx Edicions, Barcelona, Spain. Vol. 1: 378 pp., Vol. 2: 684 pp., 180 colour plates, maps. Paperback, AU\$98, ISBN: 9788496553859.

The collection of books that describe all the bird species in South Asia has rapidly changed in the past few years, with the publication of the second edition of *Birds of India* (Grimmett *et al.* 2012, Princeton University Press) and *Birds of the Indian Subcontinent: A Field Guide* (Manakadan *et al.* 2012, Bombay Natural History Society), which updates the classic text of Ali and Ripley (1983). Here I report on the 2012, second edition of Rasmussen and Anderton's *Birds of South Asia*, a landmark text first published in 2005. From the book it is difficult to judge how much this edition has changed from the original edition, except for the addition of new appendices summarising species that are treated differently from the last edition, and changes in names. A new preface would have been useful. Hence, here I primarily compare the new edition to its competition. I focus on three aspects that are both innovative and thus controversial: (1) its two volume approach (Volume 1: Field Guide; Volume 2: Attributes and Status), (2) its comprehensive taxonomic re-evaluation and (3) its focus on vocalisations.

The first innovation of having separate volumes for the field guide and species attributes radically affects how one can use the book: the field guide goes in the pocket and the attributes volume stays in the backpack, bike, car, or bookshelf, depending on how fastidious you are and how scrapped up you want this paperback edition to be. The flexibility of this approach makes this book stand out, especially in comparison to the unwieldy Grimmett *et al.* (2012). It could only be improved upon by having an electronic application for mobile devices, or a CD, which would allow a more intuitive understanding of the vocalisations – see below. An ideal book would have both notes and vocalisations available to the user in the field through a phone or tablet device, especially for groups of birds like cuckoos where vocalisations can be diagnostic.

The second feature of the book that I focus on here – its taxonomic re-evaluation – is where much of the scientific value of the book resides, and is the result of a great effort by the authors. Some of the new species that the book features are indeed new to science, and Pamela C. Rasmussen herself was often a collaborator in the discoveries, as in the recent description of the Great Nicobar Crane, *Rallina* sp. (Rajeshkumar *et al.* 2012). The 2005 edition additionally reclassified many subspecies as separate species (and this edition has some more proposed changes, though at a smaller scale). For example, in the first edition of their book, Rasmussen and Anderton proposed that Sri Lanka has 33 endemic species, rather than the 26 otherwise confirmed (Kaluthota and Kotagama 2009). These splits have been influential: again focusing on Sri Lanka, the IOC World Bird List accepts all seven new endemic species (Gill and Donsker 2013). Yet some of these splits have been questioned – such as the Afghan Babbler, *Turdoides huttoni* (Collar 2006). Although Rasmussen and Anderton's approach of including such splits in a book is not unique, it is problematic because the bulk of the data that are used to make these decisions cannot be evaluated or subject to peer review. Ultimately, these decisions are very important because they

will guide conservation efforts: taxa may be targeted for conservation if they are classified as a separate species, but not if they are identified as subspecies.

A specific question about Rasmussen and Anderton's approach may be raised in respect to their use of vocalisations as evidence for species' differences. Taxonomic studies must be careful to consider that vocalisations are often learned, and that cultural transmission means that dialects can form between isolated populations (e.g. Marler and Tamura 1964). Scientists have with success used vocal traits to distinguish species in which vocal cues are not learned (Isler *et al.* 1998), but even in these cases the presence of clines of variation could make vocalisations problematic as taxonomic characters. One problematic example is the case of *Dicrurus lophorhinus*, which Rasmussen and Anderton split off from *D. paradiseus*. They write: 'the morphological and possibly vocal distinctness of *D. lophorhinus* suggests specific status.' Yet *D. paradiseus* is extremely vocally plastic and has been shown to learn not only its songs but also its alarm vocalisations (often thought of as innate), since mimicry of other species is often included in alarm vocalisations (Goodale and Kotagama 2006). The very fact that a bird learns and reproduces the sounds of other species makes vocalisations an unreliable criterion on which to base a split. A further caveat is that the audiorecordings used by the authors are not available for public scrutiny (in contrast to museum specimens). Rasmussen and Anderton insist on not using sight records in constructing their list of birds of the area because of possible misidentifications (for an insightful criticism of this approach, see Kennerly 2007). However, recordings are also liable to error, which is why internet databases like *Xeno-canto* specifically seek opinions on the validity of the identification of a recording.

The third feature of *Birds of South Asia* highlighted here, its rich amount of information on vocalisations, included in Volume 2, is especially dear to me as someone interested in bioacoustics, and puts the volume at the forefront of bird research, world-wide. Vocal sections include spectrograms, distinct data on pitch, note length, pause length, etc., with the transcriptions (the written-out descriptions of the sound of a vocalisation, in English) made in an innovative, systematic way that includes information on relative volume and pitch fluctuations. One criticism is that the vocal sections are still full of flowery adjectives, somewhat reminiscent of 19th bird books. What do 'raucous', 'strident', 'drier', 'subdued' mean? – the reader is often sent to the dictionary to look up an adjective, or use their own sense of a word to guess. As the authors mention, and present in a figure on the bottom on page 24 of the second volume, tonality of a vocalisation can usually be seen in the frequency bandwidth and structure of the harmonics. Perhaps in future editions of the guide the authors could use this figure to rigorously define acoustic features, and then stick to these terms in their descriptions of bird vocalisations. Another possible improvement would be to add a quantitative index of the complexity of a species' repertoire, which would allow the readers to evaluate how typical the sounds presented in the spectrogram are for the species.

Given the great richness of the information on the section on voice, it is a bit surprising to find all other aspects of bird behaviour – especially habitat affinities (both within natural ecotypes and anthropogenic ones), diet (which is rarely mentioned in the book), and breeding (including nesting behaviour) – all crammed together in a small section in Volume 2 called 'habits'. Beyond academic interest in this information, it is

also helpful for field identification. For example, is a particular species found in a particular habitat? This 'habits' section does not seem to be dealt with in a very systematic way in *Birds of South Asia*; sometimes it includes the different aspects of birds' behaviour discussed above, and sometimes not. Grimmett *et al.* (2012) clearly outclasses Rasmussen and Anderton's approach here in the systematic nature of their treatment, although even that text was limited, and one is often best served by looking at classic texts, both that of Ali and Ripley (1987) and earlier authors.

Ultimately, there is no 'one-stop shopping' when it comes to learning about South Asian birds. Each text needs to be appreciated for its unique strengths, and the *Birds of South Asia* has quite a few such strengths to recommend it.

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- signal, and traits that are independent of phylogeny and hence attributable to adaptation. In particular, this new phylogeny helps explain the surprisingly diverse morphology of reed warblers, which has been little studied. It appears that reed warblers have more precise adaptations to specific habit structures, than was previously thought. For example, the more a species climbs vertically along reed stems to forage, the longer its hind toe, enabling a firm grip. Most intriguing is a study of hand-reared young Moustached Warblers and Eurasian Reed Warblers – two species with contrasting feeding strategies – which reveals that components of their foraging skills are inherently fixed during juvenile development whereas some other behavioural traits are flexible (Raach and Leisler 1989). Explorative foraging behaviour (curiosity) is deeply embedded and is insensitive to any effect derived during the upbringing of the young birds. This ability allows, for example, the moustached warbler to successfully track down immobile and hidden prey enabling them to overwinter in northern frost-free areas and to start their breeding cycle earlier than other species.
- The song of the reed warblers is diverse, and Chapter 7 reveals that song structures are heavily influenced by both phylogeny and life history strategies, but questions still remain. In many species of reed warbler, males use full song to attract females. Males with larger song repertoires sire more viable offspring than males with smaller repertoires, and females in general prefer males with larger repertoires as social and extra-pair partners. As such, male repertoire size is positively correlated with male mating success (Catchpole and Slater 2008). Also intriguing is the finding that males of different facultatively polygynous reed warbler species follow different strategies to attract females. In some species, such as the Great Reed Warbler, males continue singing after pairing to attract

THE REED WARBLERS: DIVERSITY IN A UNIFORM BIRD FAMILY

By Bernd Leisler and Karl Schulze-Hagen

2011. Published by KNNV Publishing, the Netherlands, in cooperation with Max Planck Institute for Ornithology. 320 pp., colour photographs, line drawings, maps. Hardback, €69.95, ISBN: 9789050113915.

The book presents a passionate story about the diversity of behaviours of a fascinating group of birds: little brown jobs, also known as reed warblers. Despite their apparent dullness and similar phenotypes, the reed warblers are one of the most studied of all bird groups. The ~53 living species are widespread across the Old World, live in fairly simple uniform habitats, and are reasonably easy to observe and study. Over the past four decades an immense number of detailed and long-term studies on this group of birds has been carried out, especially by a host of committed amateur ornithologists. The authors of the book, Bernd Leisler and Karl Schulze-Hagen, who themselves have also studied reed warblers in intimate detail, have collated more than 900 published studies, allowing for a thorough investigation of the evolution of different life history strategies in the reed warblers. In 15 chapters, the book presents many aspects of reed warbler biology, including systematics, foraging, their habitats and niches, migration behaviour, breeding biology and behaviour, and diet. Each chapter ends with a clear and concise summary.

The core of the book is presented in Chapter 2, which uses new molecular techniques to describe the evolutionary relationships and diversification of the reed warblers. This well defined phylogeny enables a clearer distinction between traits that contain a phylogenetic

another female; in others, such as the Sedge Warbler, singing ceases after pairing. Why is it that these species have developed different mating strategies? How do male Sedge Warblers attract a secondary female? And can females of this species assess the quality of a male when he is not singing? Another interesting phenomenon is that males of some species alter their song repertoire according to their mate's fertility period and resume full song after clutch completion. It is unclear, however, why males advertise their mate's fertility to neighbouring, and potentially cuckolding, rival males.

The reed warblers have been investigated with respect to the benefits gained by females through their choice of social or extra-pair males with more elaborate songs, as is discussed in Chapters 7 and 10. In general, the benefits gained by a female from an extra-pair relationship are assumed to be indirect (i.e. genetic), because an extra-pair male plays no role in raising the young. Support for this hypothesis comes from the Great Reed Warbler, in which females engage in extra-pair fertilisations with males that sing highly variable song, and post-fledging survival of offspring was positively correlated with the repertoire size of the genetic father (Hasselquist *et al.* 1996). Thus, by soliciting copulations from attractive males, females may achieve genetic benefits. However, the results of these studies could be more critically interpreted at times. For example, the better performance of extra-pair young might be solely accounted for by non-genetic effects if eggs fertilised by extra-pair males are laid and hatched earlier, giving these young a head start in life. Additionally, females may gain direct benefits by being allowed to forage on the extra-pair male's territory. Furthermore, it remains puzzling that females of some species, such as the Sedge Warbler engage in extra-pair copulations with males with smaller song repertoires than their social mates (Marshall *et al.* 2007). One possibility, which needs further investigation, is that other performance-related traits are more powerful indicators of male quality than song repertoire size.

The book has several excellent chapters on the reproductive biology of reed warblers. These chapters include a thorough description of the co-evolutionary arms race between reed warblers and the brood parasite the Common Cuckoo, detailing the reed warbler's ground-breaking defence mechanisms and the cuckoo's subsequent evolution of improved trickery. Intriguingly, several reed warbler species have their own cuckoo gens: a female cuckoo line specialised in laying eggs that specifically resemble the distinctive eggs of a particular host species. One of the great evolutionary puzzles is why some hosts, such as reed warblers, have developed fine-tuned discrimination mechanisms to detect the eggs of parasitic birds, but do not discriminate against cuckoo chicks.

The book finishes with detailed chapters on migration strategies, which highlight conservation issues. Most continental species are migratory, making a long journey twice per year between their winter quarters and their breeding ranges. Global climatic change threatens the ability of certain species of migratory reed warblers, especially extreme long-distance migrants such as Icterine Warblers, to synchronise hatching to periods of peak prey abundance. In the face of increasingly early spring weather, the inability of reed warblers to arrive at the breeding grounds in time to match the earlier prey

availability, means that warblers suffer a lowered reproductive success. Furthermore, long dry periods of drought and overgrazing in the wintering grounds cause higher winter mortality in continental species. However, some species also benefit from climate change. For example, Eurasian Reed Warblers, which arrive up to 3 weeks earlier than 40 years ago, have been able to increase their reproductive success thanks to earlier vegetation growth and higher food abundance throughout their entire breeding period.

A real bonus is the last chapter of this book. It describes the ecological equivalent passerine bird species found in the reed swamps of the New World, which resemble the reed warblers not only in behaviour but also in their convergent traits and adaptations.

With enthusiasm and skill, the authors have done an admirable job of collating the literature and other information available on reed warblers world-wide. Their synthesis provides intimate and detailed insights into the research and natural history of reed warblers across all breeding and wintering sites, ranging from north to south and including remote oceanic islands. One should not be surprised to realise that most, if not all, topics one can think of have been discussed, even including, where necessary, relevant research on other species. The content and presentation of the book is excellent; especially the beautiful illustrations by David Quinn. The book will likely revive interest in these 'dull' little brown birds and remind readers that, as noted by the authors, reed warblers are remarkably rewarding study subjects, which have been the focus of many ecological, behavioural and evolutionary studies. The authors state that the book can be regarded as a progress report on the current state of warbler research and that much more remains to be discovered. Ultimately, all scientists and naturalists, not just ornithologists, will develop a new appreciation for a variety of contemporary themes in ecology and evolution by reading this book. It is obvious why this book won the BB/BTO Best Bird Book of the Year 2012.

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