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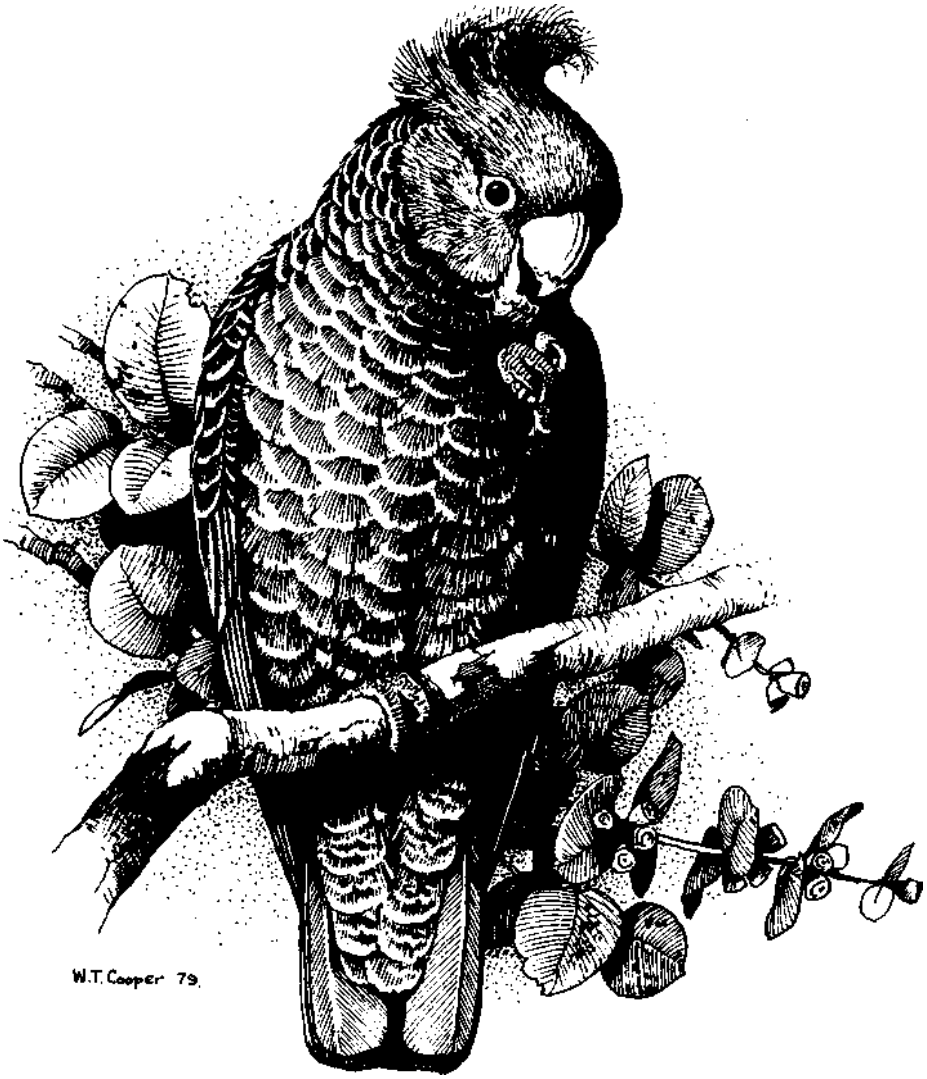

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Annual Subscriptions for 1990 are: Student (under 18 years of age) $7.50; Single $15.00; Family $18.00; Institutions $18.00. All receive one copy of *Canberra Bird Notes*.

BIRDS OF A HORSE-PADDOCK

Hazel Wright and Allan Wright

The grid (No 50) we surveyed for the ACT Bird Atlas included a variety of land types; undulating grazing lands to the north, eucalypt-covered mountains to the south, pine plantations to the west, and the Murrumbidgee River bisecting the whole.

A farmland paddock adjoining the Cotter Road, which forms the north-west corner of the grid, and to which we had unlimited access, was where we did the majority of our survey work throughout the three-year period. It covers an area of approximately 50 ha and is used predominantly for horse agistment. Most of the original tree cover has been cleared, although some older eucalypts still survive, and several large areas have been planted with saplings, many of which are surviving despite the damage caused by the horses. Large seepage areas, two small dams and a creek provide water, although during 1987, after extended dry periods, all but the dams dried up. Soil erosion and damage from horse hooves can be seen in many places.

The area is infested with rabbits *Oryctolagus cuniculus,* and foxes *Vulpes vulpes* are commonly seen. Weeds such as Patterson's Curse *Echium plantagineum,* Briar Bose *Rosa rubiginosa* and various species of thistle proliferate. Common Starlings *Sturnus vulgaris,* House Sparrows *Passer domesticus* and European Goldfinch *Carduelis chloris* are common residents.

This rather unattractive paddock, overlooked by "birdos" who pass by on their way to the Brindabella Ranges and beyond, proved to be a surprisingly rich area. We recorded 112 species of birds in the grid, of which 84 were within the paddock. In addition. 34 species were found breeding and the breeding records of approximately 70 individuals were collected.

Some of the highlights of our three-year relationship with the paddock were:

Three Peaceful Doves *Geopelia placida* were seen in January 1987, and fairly frequent sightings since then suggest there is a small resident flock in the area. Breeding has not yet been verified but four birds were seen in August 1988 in an adjoining grid (No 51).

- Crested Pigeons *Ocyphaps lophotes* were often observed. A long-time resident of "Fairview", a nearby farm, believes these birds have always been present in the area. (1984: *Canberra Bird Notes* 9:93) Numbers seen increased during the period.
- Brown Songlarks *Cinclorhamphus cruralis* arriving in October 1987, and making sufficient noise to deafen us.
- Watching White-throated Gerygones *Gerygone olivacea* and Western Gerygones *G. fusca*, building their intricate nests and both species successfully breeding.
- Seeing Diamond Firetails *Emblema guttata* build their bulky grass nests and producing young, and also several Red-browed Firetails *E. temporalis* successfully breeding.
- Discovering a flock of White-browed Woodswallows *Artamus superciliosus* (possibly as many as 60) one hot afternoon in September 1987.
- Watching a pair of Brown Falcons *Falco berigora*, from nest building to the time their offspring reached independence.
- Finding Brown Goshawks *Accipiter fasciatus* with two nestlings perched in a nest some 15m above the ground.
- Seeing White-winged Trillers *Lalage sueurii* in early September 1987, and following the progress of three different pairs as they built their nests and reared their young.
- Locating five nests of Rufous Whistlers *Pachycephala rufiventris* in one season in the one paddock.
- Having a pair of Wedge-tailed Eagles *Aquila audax* circle so low overhead that we could see every feather of their out-spread win gs.

There were also disappointments:

- The resident pair of Little Eagles *Hieraaetus morphnoides* deserted the area during the breeding season.
- Seeing Common Mynas *Acridotheres tristis* forcing Eastern Rosellas *Platycercus eximius* out of a nest hollow.

- Finding two Crimson Rosella *P. elegans* nestlings on the ground, probably ousted from their home by the aggressive starlings.
- Seeing the detrimental effects of the horses damaging the bark of many of the trees and this, in association with the damage caused by an infestation of beetles during the summer months, must effect future bird populations.
- The removal, in the middle of the breeding season, of all eucalypt saplings near the large water pipes which pass through the area, resulting in the destruction of many nests.
- The removal of dead trees from the area, depleting still further the number of nest sites.
- Observing through the three-year period the increasing evidence of soil erosion caused by rabbits, horses and the lack of vegetation, particularly in the dry seasons.

On an "after the atlas" visit we found Hooded Robins *Melanodryas cucullata* feeding a dependent fledgling, and White-plumed Honeyeaters *Lichenostomus penicillatus* feeding a very large juvenile Pallid Cuckoo *Cuculus pallidus*.

When we signed up as participants in the Atlas project we were novice birdwatchers and our reports during the first few months reflected our lack of knowledge. With the help of several experienced COG members and the encouragement of McComas Taylor, we were able to complete the task. In doing so we gained an enormous amount of pleasure from the hours spent in the paddock and also learnt a great deal about birds and the environment.

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THE USE OF CLAY IN PREENING BY CURRAWONGS

David Purchase

In response to my note on the use of wet soil in preening by the Pied Currawong *Strepera graculina* (1990, *Canberra Bird Notes* 15: 11) two members, Stephen Debus and Michael Lenz, brought to my attention the following notes that describe all three species of currawongs (Pied Currawong, Black Currawong *S. fuliginosa* and Grey Currawong *S. versicolor)* smearing wet clay on their plumage in a manner similar to that reported by me:

Green, R.H. & Swift, J.W. (1966). Feather painting by Black Currawongs *Emu* 65: 253-254

Hastwell, K. (1985). Observations on the behaviour of currawongs. *Aust. Bird Watcher* 11: 29

Pringle, J.D. (1988). A note on the comfort behaviour of Pied Currawongs. *Aust. Birds* 21: 82

A further note on the subject was published by David Eastman (1990, *Canberra Bird Notes* 15: 37). Has anyone else recorded this behavior in currawongs or other species?

I am grateful to Stephen and Michael for providing me with these references.

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AUSTRALIAN ORNITHOLOGY - PAST, PRESENT AND FUTURE: A CASE FOR TAXONOMIC AND BIOGEOGRAPHIC RESEARCH

Richard Schodde

(This is the edited text of an address given to the Canberra Ornithologists Group by Dr Schodde on 8 August 1990.)

INTRODUCTION

The purpose of this paper is to review Australian ornithology - where is now and where it might be going, or indeed, where it ought to be going. To place its present and future in focus, it is first necessary to recapitulate its history. This might sound like going backwards but it is true that while history cannot predict the future

it does, nevertheless, provide the foundation experience and perspective for planning the future. A large part of this discussion, therefore, is going to be concerned with the past of Australian ornithology, a past of which, I suspect, little is known to many bird-watchers.

So far, Australian ornithology falls into two phases that reflect its development: first an initial exploratory and descriptive phase; and second a biological phase. The exploratory-descriptive phase discovered what birds we had and where they were to be found - and it still isn't finished. The biological phase is concerned with what our birds do and how they fit into nature's niches. It is a phase that is now at its zenith. A third and ultimate phase is the predictive one of establishing why we have the birds that we do and of determining the natural processes that need to be conserved to preserve them. This phase is still in the future because it depends, for effective implementation, on the successful integration of the first two phases.

THE EXPLORATORY AND DESCRIPTIVE PHASE

Exploration and description has reigned for three quarters of Australia's ornithological history, from the late 18th century to the middle of the 20th century. In that period there were no field guides except Cayley's "What Bird is That?" and Leach's "An Australian Bird Book"; and there were only three established autonomous bird societies - the RAOU (Royal Australasian Ornithologists Union), the BOC (Bird Observers Club) and the SAOA (South Australian Ornithological Association). Of these societies, the SAOA was the first formed, just before the turn of the century. It was an era of collection and description of novelties, and its advances came principally from three men, none of them domiciled Australians. They were the Englishmen John Latham and John Gould, and the Australian-born, hut England-domiciled, Gregory McAlister Mathews.

a) John Latham

John Latham was a naturalist medico, as were so many scientists of the times. He was the senior ornithologist in England when Cook's voyages and the First Fleet colony at Port Jackson were sending back the first specimens and drawings of birds from Australia's east coast. Curiously, the very first two of these birds to be formally named, described and illustrated by-passed Latham. The first was the Superb Fairy-wren which was collected in south-east

Tasmania on Cook's third voyage and published by William Ellis, a deck-hand; and the second was the Rainbow Lorikeet which was illustrated by Peter Brown in 1776 and which most historians believe came from Botany Bay on Cook's first voyage but which could have come from the Endeavour River where Cook spent two months repairing his ship. Two species of kookaburras may have been collected on the Endeavour River as well, along with a Red-tailed Black Cockatoo and other species. But not all of these specimens reached England. Joseph Banks, who was responsible for them, was so infatuated with flora that he gave away his bird skins to almost anyone who showed interest in them. At least one of the kookaburras he passed onto a French traveller, Pierre Sonnerat, in Cape Town on the return voyage. Sonnerat published and figured the bird in a greatly embellished account of his travels in New Guinea - and that is how the Laughing Kookaburra came to be misnamed *Dacelo novaeguineae.*

Latham published two monumental works covering the world's birds known at the time, including all the novelties that were starting to pour in from Australia. These works were his "General Synopsis of Birds", with supplements, from 1781 to 1801 and his "General History of Birds" in 1821. The Linnaean system of binomial scientific nomenclature was only just becoming established at the time, and in his early publications, Latham paid little heed to it, naming most of his new species in English. The result was that they were scooped by the German natural scientist Johann Gmelin who republished them in Latin according to the Linnaean system. This was not cause for England and Germany to go to war, but Latham learnt his lesson and later published in Latin all the new species illustrated by Thomas Watling and his fellow artists from the First Fleet settlement at Port Jackson. Among them were our Wedge-tailed Eagle, Wonga Pigeon, Tawny Frogmouth, Azure Kingfisher, Boobook Owl, Pallid Cuckoo, Superb Lyrebird, Willie Wagtail, Varied Sitella, Yellow-faced Honeyeater, Noisy Miner, Dusk y Wood swallow and Grey Currawong. Unfortunately, ornithological perceptions were fairly vague in those days - the Wed ge-tailed Eagle was described as a vulture; our whistlers as shrikes, warblers and thrushes; and our honeyeaters as bee-eaters and grackles.

n the period between Latham's retirement in the early 1820s and Gould 's rise in the late 1830s and 40s there was a hiatus in attention to Australian birds. The French ornithologists Vieillot, Lesson, and Quoy and Gairmard described a number of new species in sumptuous reports and compendia drawn from French voyages of discovery to the south-west Pacific. The Galah, Thick-billed Grasswren and Black-faced Wood swallow were among them - all

western species because the French were limited mainly to the western and southern coast by English settlement in the east. Robert Brown's collections from Flinders' circumnavigation of Australia and much material from the energetic colonist George Caley - of no relation to the modern Cayleys - also found their way to the museum of the Linnaean Society of London, where N.A. Vigors and T. Horsfield analysed them and published many new species in a large and important paper in the Society's Transactions of 1827. In this paper, the Brown Goshawk, Brown Falcon, Sacred Kingfisher, Blue-winged Kookaburra, Crested Bellbird, Variegated Fairy-wren and a number of thornbills and honeyeaters were formally described for the first time.

b) John Gould

John Gould became the dominant force in Australian ornithology from 1838 until his death in 1881. Gould is widely venerated as the father of Australian ornithology and in his lifetime described about a third (c.160) of our breeding species from every part of the continent. It is important to remember, however, that Gould was second an ornithologist, third an aspiring scientist and member of the Zoological Society of London, but first and foremost a very astute business mart who made his living out of ornithology as a private enterprise. This enterprise, in particular, was the profitable publication of lavishly illustrated folios on the birds from different parts of the world. He quickly appreciated that Australia was still very much ornithological *terra incognita* and full of antipodean curiosities such as emus, black swans, giant kingfishers, brilliant parrots and pheasants that sang; and so he energetically took the opportunity to establish himself as the world's authority on Australian birds. He began to acquire collections of Australian birds from wherever he could, published an illustrated synopsis of Australian birds in 1837-38, visited south-east Australia himself in 1839-40, and then returned to England to produce his monumental ?-volume "Birds of Australia" between 1841 and 1848, plus later supplements. Among the artists he employed to illustrate these folios was Edward Lear, author of the "Book of Nonsense" which includes such well-known poems as The Owl and the Pussy-Cat.

Gould also employed a collector for two visits to Australia in 1839-1841 and again in 1842-1845. This was John Gilbert, an outstanding field ornithologist. On his first visit, Gilbert collected in south-east Australia and at Port Essington in Arnhem Land where he took the first Green Pygmy-Goose known to science. On his second visit, he spent some months revisiting south-west Australia where he found the Noisy Scrub-bird and Western Whipbird. Then he travelled to south-east Queensland, and joined the Leichhardt expedition to be

killed, speared by aborigines, at the foot of Cape York Peninsula. When in south-east Queensland Gilbert discovered the Paradise Parrot. Thrilled with the find, he wrote to Gould, imploring him to name this exquisite parrot after him. Gould, however, dismissed the request, responding that he had already named a whistler after Gilbert and that was enough. It is a matter of record that the name, *Pachycephala gilberti,* for the whistler is now only a synonym of *Pachycephala inornata*. Poor Gilbert.

In 1865, Gould published his last major work on Australian birds, a 2-volume, unillustrated "Handbook to the Birds of Australia". it summarized the information in his earlier folio volumes and was a milestone in presenting comprehensive biological and behavioural information on many species for the first time - his account of the mound-building of the Malleefowl was unsurpassed until Harry Frith's work in the 1950s. The handbook also synthesized Gould's concepts of the different species of Australian birds, of which about 95% were known by then. Gould in fact recognized between 700 and 800 breeding species on the continent, compared to about 460-470 accepted today. This was because Gould interpreted, as species in their own right, the geographical forms that we recognize nowadays as subspecies To him, White-backed and Black-backed Magpies were separate species, and so too the Southern and Yellow Figbirds, and pale inland and dark coastal populations of Boobook Owls. At the time of the rise of Darwinian evolution, with its explanations for geographical variation in birds, Gould remained a creationist, believing in immutability in nature. To him, differences between regional populations of birds were fixed and the populations themselves species.

c) Gregory Mathews

The stage was set for the next step forward in the exploratory phase of Australia's ornithological history; and Gregory McAlister Mathews was the man to make it. However, in the thirty or so years between Gould's retirement and Mathews' advent there was again a hiatus in development. The only initiative of real significance was the establishment of the first reference collections of Australian birds in Australian museums, principally at Sydney under Johann Krefft, E.P. Ramsay and A.J. North, at Melbourne under Frederick McCoy and Baldwin Spencer, and at Adelaide under F.G. Waterhouse and A.H.C. Zietz. This was important to Australian ornithology because it meant that would-be Australian ornithologists had, for the first time, reference material in this country for the study of Australian birds. It needs to he remembered that the basis for every description of male, female and juvenile birds in every manual of Australian birds,

past and present, and for every illustration in every field guide, is a series of reference specimens in a museum. Until now all specimen material of Australian birds had been going back to the "Old Country" and the great museums of Europe. During the 19th century English and other European museums amassed huge collections of Australian birds, most of them poorly labelled and next to useless for the study of geographic variation. There are, for example, about as many specimens of the Helmeted Honeyeater in the British Museum and the natural history museums at Berlin, Leiden, Paris and Vienna as there are alive in Victoria today. The dispersal of Australian collections overseas did not end there. Even America got into the act, the Academy of Natural Sciences at Philadelphia acquired much of Gould's collection when it was sold in 1849.

During the hiatus between Gould and Mathews, the first two important manuals of Australian birds by Australian ornithologists appeared. They were A.J. North's "Nests and Eggs of Birds found breeding in Australia and Tasmania" from Sydney, and A.J. Campbell's "Nests and Eggs of Australian birds" from Melbourne. They marked the beginning of Sydney-Melbourne rivalry in Australian ornithology; yet they paled against the contributions from Gregory McAlister Mathews.

Mathews has been the most prolific publisher on Australian birds and probably will remain so for all time. Born in central New South Wales and untrained in science, he married into the squattocracy, made a small fortune on the stock market and promptly retired to England at the ripe age of 30 to indulge his abiding hobby, Australian birds. Mathews was an armchair ornithologist in the classic mould and an indefatigable book-worm. He came to ornithology at a time when the study of geographical variation and the recognition of regional subspecies was becoming a focal point, and he devoted the rest of his life - the whole first half of this century - to describing subspecies from all parts of Australia and nearby islands. To support his task, he amassed all the literature on Australian birds and ornithology that he could find, corresponded with, and paid, Australian ornithologists and collectors everywhere for specimens of Australian birds, and hired the Australian naturalist, Torn Iredale, to serve as his secretary and amanuensis.

What was Mathews' legacy? In his lifetime, he produced a 12-volume lavishly illustrated folio "The Birds of Australia" which was far larger than Gould's and wrote four major checklists of the birds of Australia and surrounding regions down to the level of subspecies and their distribution. He also sent countless papers and notes to the *Emu, Ibis* and *Bulletin of the B.O.C.,* and published his own five-

volume journal, the A*ustral Avian Record*, in which almost all papers were written by himself. Other contributions were just as significant hut less tangible. Through his gathering of literature, he put together the most comprehensive library of Australian ornithology ever collected. His specimen collection, too, taken from all quarters of the continent, became far the most comprehensive in existence. Its data were good, and the localities on the specimens precise, so making it an invaluable tool for assessing geographical variation and regional subspecies among Australian birds.

The real value of Mathews' enterprise for ornithology in Australia was, however, mixed. Through his diligence as a bibliographer and reference hunter, he sorted out the tangled scientific nomenclature of Australian birds in a way that had never been done before. Most of his decisions stand to this day, not only at a national but also international level. His magnificent library was also acquired by the Australian Government and is housed as a separate unit in the Australian National Library in Canberra.

That is where I believe the gains end. His great collection of specimens, which was first offered for sale to the Australian Government, at a cheap price and refused, became incorporated with Walter Rothschild's vast world collection of birds at Tring in England; and there begins a tale of private scandal. Sir Walter Rothschild was one of the Rothschild family of European bankers and used his wealth to attempt to amass the finest collection of birds in the world for his museum. In the 1930s he got into a muddle over his taxes and mistress, but rather than confess his failings to the rest of his family, he sought, to cover up pecuniary shortages by selling his collections. Philanthropic Americans were prompt to accommodate him in support of their own growing institutions; and Harry Payne Whitney, who sponsored the American South Sea Expeditions, bought the Rothschild bird collections lock, stock and barrel for the American Museum of Natural History at New York. At the time, Mathews' collection was housed at. Tring and to his consternation it got caught up in the transaction. But a deal was a deal. and access to yet another very large and important reference collection of Australian birds became denied to ornithologists in Australia. If the collection had remained with Mathews, it is quite possible that he would have passed it, on free, together with his library, to the Australian government.

Mathews' other effect on Australian ornithology - his idiosyncratic taxonomy - was even more disturbing. Mathews was a so-called "splitter" (a person who breaks regional populations of birds into as many different taxonomic components as possible). But

this was only partly true. Mathews understood well the principles of geographic variation and the fact that the same species could be represented by different-looking forms in different regions. In all of his lists he shows that he had a sound concept of the biological species; and the species that he accepted are far more concordant with those that we recognize today than, for example, those given in the 1926 RAOU checklist.

Nevertheless Mathews was a splitter at the generic and subspecies level where his work was disastrous. At the generic level, he had no concept of the role of phylogeny and evolution, and that genera were clusters of species of common origin. So he pigeon-holed species after species in its own genus. For example, the Yellow Wattlebird was put in one genus, the Red Wattlebird in another, and Little Wattlebird in a third. At the subspecies level, he was downright irresponsible. To encourage Australian workers to send him specimens, he would name every specimen coming in from new areas as new subspecies, without comparing them adequately with others from elsewhere to see if they really were different. Very often the new subspecies would be named after the collector, the collector's wife, or the collector's off-spring. This created taxonomic mayhem in Australian ornithology, and still remains a major area for clearing up.

Mathews' death in 1949 closed the exploratory - descriptive phase in Australian ornithology. It was an era which had as its common thread the collection of novel Australian birds and their eggs, and their simple classification to species. During the last 50 years of this phase, the RAOU was formed, the *Emu* came into publication, and its pages came to be filled with papers on the birds found in various regions. But the basic descriptive thrust of Australian ornithology did not change. Private collections flourished and H.L. White, a wealthy grazier from Belltrees, NSW, sponsored expeditions to amass the second largest collections of Australian birds and their eggs ever. These he donated to the Museum of Victoria, to keep them out of A.J. North's hands in Sydney and thereby fuelling Melbourne-Sydney rivalry. The centring of the RAOU in Melbourne added to this rivalry as well. The papers on regional ornithology in the *Emu* came mostly from collectors reporting their observations on birds made in the course of their collecting activities. The annual RAOU camp-outs were instituted but became little more than a venue for collectors to get together to continue their hobby. Beyond that, the RAOU had only one project, the production of checklists of Australian birds, again classificatory in bent.

What payoff did all this endeavour have for the development of Australian ornithology? Unfortunately rather little. First it made potential contributions to only a fairly narrow field: taxonomy, speciation, evolution and biogeography. And even there its contributions were limited. The largest and most comprehensive collections that could form the basis for such research were overseas and unavailable. Those in Australia were less than comprehensive, patchy in representation, and, often because of faulty and inexperienced curation at Australian museums, were too imprecise in locality and sex data. Although not useless, they were inadequate for comprehensive taxonomic and biogeographic research on the Australian bird fauna, the only areas that they could support.

THE BIOLOGICAL PHASE

This self-centred bottleneck could not continue, and Australian ornithology responded by pushing it aside in the 1950s to expand into other areas of bird study, thereby ushering in the second and current biological phase. The change had three catalysts: the conservation movement, CSIRO's Wildlife Survey Section (now the Division of Wildlife and Ecology) under F.N. Ratcliffe, and expansion by Universities into the fields of animal behaviour and ecology. The conservation movement fired community interest in natural history, which in turn fired interest in bird watching. And out of bird watching grew the many regional bird societies that we have in Australia today. Nearly all of them, and their journals, started up in the 1950s and 1960s. Field guides and illustrated bird books of one kind or another began to flood the markets to fulfil the needs of bird watchers. And that most extreme birdwatcher of all was spawned: the twitcher.

At a professional level, the then CSIRO Wildlife Survey Section founded the Australian Bird-Banding Scheme in 1953 and commenced general life history and ecological studies on species of game, pest and endangered birds. Centres for bird behaviour and ecology were established in various universities, notably at Monash, Adelaide, Brisbane and Armidale, sparked by the appointment of new lecturers. Most of this academic influx came from England, a country which a century before was assiduously collecting the fauna of its colonies. Now, its empire gone and the distribution of its own bird fauna known, its ornithologists turned themselves to address problems of bird ecology and aspects of bird behaviour. Their students who came to Australia as teachers espoused such research as the only way to go. It was a call that fell on receptive ears in Australia, bolstering as it did the ways and means of conserving our bird life. The *Emu* and other bird journals came to be dominated with papers on such

subjects. Seeing the trend, the RAOU was not slow to respond. From the late 1970s into the 80s it sponsored the Atlas of Australian Birds, set up bird observatories around the country, and began to publish a series of biographical studies on rare and endangered birds aimed at their conservation. What a refreshing change from the RAOU activities of the 1920s and 30s.

But is this the only way for Australian ornithology to go? In my view, not quite. It is still not broad enough. It must also maintain taxonomic and biogeographic research into the Australian bird fauna.

THE FUTURE

At present, taxonomy and biogeography have become very much the Cinderella of Australian ornithology. Allen Keast and the famous German-American evolutionist, Ernst Mayr, provided synthetic assessments of origins and speciation in our birds in the 1950s and 60s. Ironically, they were based largely on Australian bird collections in America, not Australia. Since then, Julian Ford, the great American ornithologist Charles Sibley, Les Christidis and myself have made further contributions, aided by new techniques in molecular and biochemical analysis. But little has been satisfactorily completed. It is very much a matter of too few professional researchers working on too large a problem with too few resources. The Australian National Wildlife Collection that I curate at the CSIRO is working to make good the gaps in Australia's reference collections of birds for research purposes but progress is slow and few other museums are operating in this way.

As the situation stands in Australian bird taxonomy and biogeography we still have no comprehensive catalogue of the genetically distinct regional populations or races or subspecies of Australian birds, let alone know where each occurs or how distinct they are from one another or their relatives overseas. This information is basic to the comprehensive conservation of Australia's bird life; to conserve what there is, it is first necessary to know what there is to conserve. Let me give a simple example from a rare and noteworthy bird, the Western Whipbird.

The recent. discovery of two very different forms of the Western Whipbird in south-west Australia puts a completely new complexion on an earlier RAOU study and its recommendations for the conservation of that species. Because the study was not based on any taxonomic homework, it paid attention to the status of only one of the forms. Instead of being left with the comforting belief that

the conservation of the whipbird is broadly under control there, we now have to consider going back and searching the far south-west coast for the possibly extinct form and of checking the identity of the population at Two Peoples Bay and perhaps at the Stirling Ranges.

Such a taxonomic study shows how important it is for conservation to focus on genetically distinct regional populations, not just species. For that is what conserving biodiversity is really about. At the moment conservation in Australia is concerned with species. But if a taxonomist lumps the Eastern, Pale-headed and Northern Rosellas into one species, called the White-cheeked Rosella, we are hardly conserving that species if we protect it in reserves that cover only the range of, say, the eastern form in south-east Australia. The objective should be to conserve all components: the two races of the Northern Rosella, the two of the Pale-headed and the three of the Eastern. Why is there little focussing at that level yet? This is simply because there is no comprehensive national catalogue of bird forms to subspecies. When at last there is - and it will come - Australian ornithology will be able to continue its development in a balanced way.

POSTSCRIPT

Following this address the important question was asked: how can "amateurs" or "the bird watcher in the street" contribute to determining the "genetically distinct" elements in Australian birds? In reply I asked members simply to support those professionals working in the area. In retrospect, the answer was not good enough. Amateurs and bird watchers can make a valuable contribution towards determining what genetic units we have in our bird fauna. They can, once the traits of basic subspecies, races, or "genetic units", have been established in the forthcoming volumes of the "Catalogue of the Fauna of Australia: *Ayes",* go forth and smarten up their identification techniques and record the distributions of these forms, their precise geographical limits, and intergrade zones. This is a challenge to non-professional ornithology in Australia; and its results will be of great benefit to our understanding of ornithology in Australia and to the conservation of our birds.

Richard Schodde, 30 Bamford Street, HUGHES ACT 2605

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REVIEW

The Beginner's Guide to Australian Birds. by Rosemary Balmford. (1990). Penguin Books. Melbourne. Pp 268. $12.99

This book was first published in a hard cover by Collins in 1980 with the title "Learning about Australian Birds" and was designed to answer the many questions posed by beginners in birdwatching. It drew from the knowledge of birdwatchers and ornithologists from the RAOU and other groups concerned with the study of birds in Australia.

The new edition is in soft cover and the text does not seem to have been changed much from the first. It is still an excellent book. The thirteen chapters range widely in those areas that are likely to interest birdwatchers, e.g. expeditions and holidays, studying birds in the field, fossil birds, and looking after sick and injured birds. It seems that every possible area of interest has been covered. A comprehensive further reading list is included for those who wish to pursue more specific objectives. The line drawings by Rhyllis Plant add meaning to the text e.g. Fig. 15 shows a specimen page for field notes and Fig. 17 shows how to remove a small passerine from a mist net.

For the beginner trying to identify birds, Chapter Two provides many ideas. These include tips for choosing the most appropriate bird **books and what to look for** when buying binoculars. It gives some field characteristics of birds but directs the reader to the field guides that are available. Chapter Three gives advice on planting trees and shrubs that will attract birds to your garden and specifications for nesting boxes that will encourage hole-nesting birds to breed.

Balmford has another purpose which adds backbone to this book. It is to take the reader from beyond observing, to questioning, to searching for answers, and then recording the discoveries made in a way that will be useful to others. Chapter Five examines behaviour eg. methods of finding food, reactions to predators, the reasons for fighting-off other birds, courtship rituals, and roosting. The important point is stressed that you need to continue to keep watching what birds are actually doing and to keep a record of it. In my case I was initially only concerned with atlassing - ticking birds in a list and posting in the results. I never stopped to observe or think about what the birds were doing, or why. Balmford uses the example of Reta Vellenga studying Satin

Bowerbirds in her garden in the Blue Mountains as a model of what can be achieved in your own backyard.

Banding and marking are dealt with in Chapter Eight. It explains how it is done and what kinds of information can be obtained. This process can become an "indispensable tool of bird study".

T found Chapter Ten very useful as it explained how to do your own research project. Balmford encourages this by stating that "innumerable problems in ornithology can be tackled by the average amateur without scientific training, but with a scientific attitude". She is also quite practical in advising to keep your project simple, low cost and close to your own home. Chapter Eleven is probably the most, difficult chapter as it looks at the thorny issue of naming and classification which many of us find vexing, but perseverance should be rewarded. The point about what you can do is reiterated. "WE are now in a period when the field work of the amateur observer can and will be used in the classification of Australian birds".

There is a great deal more to this book than can be discussed in a short review. However, I feel its great value lies in the fact that it can be revisited and dipped into many times and rewards obtained.

Bill Graham

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LETTERS TO THE EDITOR

EXOTIC BIRDS

29 May 1990

I am writing in response to your request for comments about the effects of exotic birds on native species.

Between 1979 and 1987 we lived in Eltham, a north-eastern suburb of Melbourne. It used to be a bush area but during our stay there most of the bush was cleared for housing. The birdlife changed dramatically and, by the time we (thankfully) returned to Canberra, the robins, wrens, thornbills etc had been replaced by Common Starlings, Common Mynas and House Sparrows. During this period I noted two examples of exotic birds having a harmful effect on native species.

1. In 1982 a pair of Grey Shrike Thrushes built a nest on a second-storey window-sill of our house. I saw them harassed at least twice by Common Mynas while incubating the eggs, hut fortunately they raised two out of the three young. In 1983 it was different. The mynas frequently harassed the thrushes throughout, the nesting season. The thrushes withstood this and they hardly ever left the nest unattended. However, when the young were newly hatched, I found them dead on the ground under the nest and the mynas were in the immediate vicinity of the nest. I realise that this is circumstantial evidence but no other birds ever showed interest in the nest and cats etc could not reach it.

2. Each year that we were in Eltham, Welcome Swallows nested either under the eaves or in the car-port of our house. It was made impossible for them in the first year by House Sparrows which took the lining from the nest. If the swallows, by changing the nest site, managed to get to the egg-laying stage, the sparrows would throw the eggs of the nest. I saw this happen.

Since I have been in Canberra it seems to me that the problem is less with Pied Currawongs and more with cats. One local cat alone has, in the last six months, brought from the bush one young Sacred Kingfisher, one White's Thrush and one Stubble Quail as well as lizards. I'm sure that's not all it has caught.

Susan Webb, 17 Araba Street, ARANDA ACT 2614

or

FLIP SIDE(S)

12 June 1990

Having just spent several days clearing some of the leaves from my garden (I compost), I have been forced to consider what we might call the flip side(s) of what we do (what COG encourages us to do), to attract birds, native birds, to our gardens.

I came to a bare block, surrounded by other bare blocks and having a bare-block avifauna. Developments nearby suggested that the bare block could be turned into both a garden and native bird habitat.

Accordingly, once my daughter's infant needs for space, sandpit and the rest were done with, habitat-planting started.

There was an implied contract between me and the birds: I would provide food, water, shelter, nest sites; they, colour, movement, song.

Twenty and more years on, although the avifauna is more extensive and varied, I am by no means sure that I did the right thing.

To begin with, there are the leaves and troubles with tree roots in the drainage system.

Worse, every year I have to weed out whole plantations of seedlings from every berry-bearing bush and shrub in the ACT flora. Were my trees to disappear, their location, even the layout of their branches, could be reconstructed from the lines of seedlings situated below where birds had sat to complete their digestive processes.

Worse still, bird _habitat creates micro-climates in which insects flourish. Our early dreams of *alfresco* eating were shattered by droves of nibblers, biters and positive piercers. Picking vegetables means bumps, lumps and itches. Raspberries have been known to rot on the cane because no one is game to pick them.

I do not suggest that our gardens be made bird-unfriendly - that would be an over-reaction - but, seriously, does any member know how to introduce birds, native or not, to toilet-training, or where I can get insect-repellent (ecologically safe, of course) in bulk and cheap.

Doug Ross, 64 Sprent Street, NARRABUNDAH ACT 2604

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OUT AND ABOUT

Tibicen

In the last issue of *Canberra Bird Notes* I mentioned that some of the best, wilderness areas are owned by the Department of Defence. An example of the importance of these areas in the local context was recently outlined in an article in the *Canberra Times.* According to Rodney Falconer, the Director of the Conservation Council of the South-East and Canberra, the ACT has two endangered animal species, one is the Pink-tailed Legless Lizard and the other is the moth *Synemon plana.* The moth has as its main local stronghold the wallaby grass in the Belconnen naval communications station. Elsewhere in the ACT this wallaby grass, which seems necessary for the moth's survival, has been largely wiped out by introduced grasses and the spread of suburbia. If the naval station is relocated, the wallaby grass will no doubt disappear under houses and lawns, and so will the moth. This reinforces my views of the conservation value of land under the control of the Department of Defence.

Most bird watchers understand the link between habitat and the presence or absence of a particular species. On land this environmental link is obvious and is shown by the variation in type and height of ground cover. At sea this link is less obvious as all salt water appears the same in whichever part of the sea it occurs. However, it is not. An interesting article in the May .1990 issue of *Corella* explains how areas of ocean differ in terms of temperature, density, nutrients, light and productivity. The article is called "The Nature of Seas" and helps in understanding how marine habitat (i.e. sea. conditions) defines seabird distribution.

A good example of how the habitat of the sea affects the distribution of seabirds is the Wandering Albatross *Diomedea exulans*. A study carried out by Pierre Jouventin and Henri Weimershirch, which was reported in *Nature* 343: 746-8 (22 February 1990), revealed that the albatross could have evolved only in southern oceans. The study used satellite-tracked radio-telemetry and showed that the birds relied heavily on wind-assistance for their foraging trips and the only place where winds blow constantly is in the southern oceans. It was found that birds could travel up to 900 km a day at speeds of up to 80 km per hour. Details of this study were reprinted in the Melbourne *Sunday Age* on 14 March 1990, which in itself is good in presenting the results of research to the public. Unfortunately the article mentioned that the birds travel 9000 km per day, which leaves the readers with the thought of albatrosses travelling at an average of 375 km per hour! It is a shame that newspapers do not check articles before publishing them.

One of the most contentious issues in bird watching generally is the naming of birds, whether it is the "English" or the "scientific" name under discussion. It has always been a mystery why the eminently suitable names suggested by me have not been accepted without hesitation. Further, I find it difficult to comprehend that when I wish to make changes to present nomenclature because it is obviously wrong, others (e.g. editors) keep insisting that I stick to agreed and published standards. Why can't they trust me to know what is best? However, one of the perennial discussion topics when bird watchers get together for a cup of tea or a cleansing ale was, is, and ever will be the subject of names. All the above is preamble to the fact that I recently found in a hook ("The Voyage of the Scotia" by R.A. Rudmose Brown, J.H.H. Pirie and R.C. Mossman (Blackwood, Edinburgh 1906)) reference to a night-heron as a Quawk. Anybody who has disturbed a night-heron will understand the onomatopoeia of the word and its resultant aptness for the species. Having always thought that night-heron was a rather cumbersome name, I think the name Quawk ought to be resurrected - Nankeen Quawk trips nicely off the tongue. Surely this time people will agree with me?

Also in the above book it mentions the explorers collecting several thousand penguin eggs in an afternoon, burying 2000 in a pit for later consumption and blowing hundreds for transmission to museums.

The Kakapo *Strigops habroptilus* is unique to New Zealand and is one of the world's most unusual parrots being nocturnal and flightless, a

true "kinoi" parrot. There are only 43 birds left of which 14 are females with the last successful breeding record being nine years ago.

In the early 1980s the last survivors were moved 1100 km from Stewart Island (off the southern tip of South Island) to Little Barrier Island (off the northeast coast of North Island). The reason for the move was to provide a cat-free environment since cats had begun to kill the adult birds. This move was engineered by the New Zealand Department of Conservation as a last ditch attempt to save the species.

The Department are now treating the survival of the Kakapo as a priority and have launched a five-year recovery plan.

The New Scientist of 10 March 1990 gives more details of the Kakapo and reveals that the first egg has been laid at the new location. let us hope that further eggs are laid and the Kakapo comes back from the brink of extinction.

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RARITIES PANEL NEWS

This list is longer than usual as it contains some records which came to light during the preparation of the 1988-89 Annual Bird Report. These late records include sightings of Pectoral Sandpipers *Calidris melanotos,* Common Koels *Eudynamys scolopacea* and a good series of records of the Brown Quail *Coturnix australis.* The list also includes sightings from the Waterbird Survey during 1989-90. An interesting sighting in this period was the Australasian Bittern *Botaurus poiciloptilus.*

The highlights of the more recent records include a Blackfaced Monarch *Monarcha melanopsis,* a late record of a Regent Honeyeater *Xanthomyza phrygia* and a Little Friarbird *Philemon citreogularis.* The sighting of a free-flying group of Little Corellas *Cacatua • sanguinea* at the Mugga Lane Zoo could eventually lead to breeding records of this species in the local area. The sighting in Parkes on 3 August 1990 of three Long-billed Corellas *C tenuirostris* and two Little Corellas is also worthy of note.

RARITIES PANEL ENDORSED LIST No 27

Category 3

Intermediate Egret
2;17 May 89;N.Luff;Lake Ginninderra
9;22 Oct 89;M.Lenz;East Basin Lake Bathurst

Australasian Bittern
3;17 Dec 89;M.Lenz;Lake George North
5;7 Jan 90; M.Lenz: Lake George North
1;25 Feb 90;M.Lenz;Lake George North

Glossy Ibis
3;7 Jan 90;M.Lenz;Lake George North

Freckled Duck
1;21 Jan-25 Mar 90;M.Lenz;Lake Bathurst
14;19 Feb 89;M.Lenz;Lake Bathurst
6;29 Mar 89;M.Lenz;Lake George
11;Apr 90;M.Lenz;Lake George North

Whistling Kite
1;5 Oct 88;C.Davey;Ginninderra Falls
1;19 Feb 89;M.Lenz;Lake Bathurst
2;29 Mar 89;M.Lenz;Lake George
2;23 Apr 89;M.Lenz;Lake George
1;25 Sep 89;M.Lenz;Lake Bathurst
1;25 Sep 89;M.Lenz;Lake George
1;14 Oct 89; M.Lenz; Campbell Park
1;22 Oct 89;M.Lenz;Lake Bathurst
1;17 Jan 90;P.Veerman;Lake George Nortb
2;21 Jan 90;M.Lenz;Lake George
1;14 Feb 90; P.Veerman; Kambah
1;18 Mar 90;M.Lenz;Mt Ainslie Garbage Hopper
2;25 Mar 90;M.Lenz;Lake Bathurst
3;8 Apr 90;M.Lenz;Lake George
1;22 Apr 90;M.Lenz;Lake George
1;5 May 90;P.Veerman;M'bidgee,S of Kambah Pool
2;20 May 90;M.Lenz;Lake George
2;16 Jun 90; G&R.Elliott; Brooklands Rd Grid H11

Grey Goshawk
1;16 Jun 89;J. Bissett;Jerrabomberra Wetlands
1;27 May 90;R.Parnell;Acton

White-bellied Sea-Eagle
1;23 Apr 89;M.Lenz;Lake George
2;21 May 89;M.Lenz;Lake George
1Im; 23 Jul 89;M.Lenz;Lake Bathurst
2;19 Nov 89;M.Lenz;Lake Bathurst
1;21 Jan 90;M.Lenz;Lake George
1;8 Apr 90;M.Lenz;Lake George

1;20 May 90;M.Lenz;Lake George

Spotted Harrier

1Im;19 March 89;M.Lenz;Lake George South

Brown Quail

1;12 Nov 88; B.Allan; Lake Ginninderra
1;18 Dec 88;M.Taylor;Tharwa Rd,near Lanyon
1;3 Jan 89;G.Guy;Mt Taylor North
3Ad,5-7Jv;30 May 89;C.Bowman;Uni of Canberra
8;24 Jun 90;J.Holland;Bonython

Lesser Golden Plover

10;25 Sep-19 Nov 89;M.Lenz;Lake Bathurst
29;26 Feb 90; M.Lenz;Lake Bathurst
28;25 Mar 90; M.Lenz; Lake Bathurst

Red-necked Avocet

33;21 Aug 88;M.Lenz;Lake Bathurst
13;29 Mar 89;M.Lenz;Lake George
1;21 Jan 90;M.Lenz;Lake George North

Greenshank

1;25 Sep 89;M.Lenz;Lake Bathurst

Bar-tailed Godwit

2;22 Oct 89; M.Lenz; East Basin Lake Bathurst

Pectoral Sandpiper

1;22 Jan 89;M.Lenz;Lake Bathurst
4;19 Feb 89;M.Lenz;Lake Bathurst

Peaceful Dove

5;18 Aug 87; D.McDonald; Kirawin Hs
1;16 Jul 88; A.Wright; Atlas Grid 50
1;13 Aug 88;H.Wright;Atlas Grid 50
1;26 Feb 89;A.Wright;Atlas Grid 50

Common Koel

1M;1 Nov 88;G.Guy;Mt Taylor Pearce
1M;1 Jan 89;G.Guy;Mt Taylor Pearce
'IMO Jan 89; P.Roberts; Fadden

Pink Robin

1M;27 Apr 90; D.Purchase;
Melba 1M;29 Jul
90;J.Gleeson;Evatt

Red-capped Robin

1M;Aug 88;J.Morse;Tharwa

Black-faced Monarch

1.Jv:20 Apr 90; D.Purchase; Melba

Little Friarbird

1;5 May 90; B.Allan; Page

Regent Honeyeater

1;20 Apr 90;H.Possingham;Acton

Possible Escapees

Long-billed Corella

1;27 Jul 90; D.McDonald; Parkes

3;3 Aug 90; D.McDonald; Parkes

Little Corella

c10;7 Jan 90;H.Possingham;Mugga Lane Zoo

2;3 Aug 90; D.McDonald; Parkes

1;11 Aug 90;B.Lepschi;Weston

Rainbow Lorikeet

1;1.8 Jun 88;M.Fyfe;Weetangera

2;17 Nov 88;K.Hahne;Aranda

2;18-25 Dec 88;K.Hahne;Aranda

2;26-31 Mar 89;K.Hahne;Aranda

Cockatiel

1;9 Apr 90; P.Veerman; Curtin

FOR SALE

The following are available from Canberra Ornithologists Group, PO Box 301, CIVIC SQUARE ACT 2608:

A POCKET LIST OF AUSTRALIAN BIRDS Price 50c

This booklet lists the names of all bird species recorded in Australia. Alongside the names are ten columns that can be used to tally the species seen in different localities or on different days. It greatly simplifies the recording of field lists.

A FIELD LIST OF THE BIRDS OF CANBERRA AND DISTRICT Price $3

This booklet lists the bird species found in the Canberra region with indications of the frequency of occurrence, time of breeding, preferred habitat, localities where they may be found, and nest details. It is designed to provide supplementary local detail to larger publications which need to be consulted for identification.

BI. SONGS OF CANBERRA Price $10

This cassette contains recordings of the songs and calls of 73 birds that are commonly heard in Canberra gardens and parks. The majority have been recorded in Canberra or the surrounding area. Seasonal variation in songs have been included where appropriate.

GARDEN BIRD SURVEY CHART Price 50c

This is the means of contributing to our Garden Bird Survey and keeping track of what happens in your area.

ACT BIRDWATCHERS HOTLINE Telephone 247 5530

An up-to-date five minute recorded message with interesting news such as returning migrants, rarities, meetings, outings, and bargains for birdwatchers in Canberra. Twenty-four hour service up-dated every Sunday.

Canberra Bird Notes is published quarterly by the Canberra Ornithologists Group. Contributions are welcome. These should fit into one of the following categories: major articles (up to about 3000 words); short notes and "Odd Obs" (up to about 300 words); reviews of books and articles (up to about 500 words); and where to watch birds (up to about 800 words). The articles and notes should cover matters of the distribution, identification, and behaviour of birds in the Canberra region (i.e. New South Wales coast north to Jervis Bay, and west to the Riverina). Contributions can be sent to the editors c/o David Purchase, 5 Orchard Place, Melba, ACT 2615 (Tel 258 2757).

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