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Birds of a feather: a century of austral ornithology

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On this hundredth anniversary of the leading ornithological journal of our region, it is time to celebrate and reflect on our achievements. This special issue of the *Emu* begins with a scene-setting paper that presents an historical perspective on the progress of the journal via a retrospective of twentieth-century concerns and trends and follows with six reviews that look back to past research in a particular field and forward to directions for the 21st century.

The very first issue of the 'magazine' of the newly formed Australasian Ornithologists' Union spanned two years (1901–12). Its objective was stated as: '*The Emu* (with the motto "Birds of a feather") is intended to be "an outward and visible sign" of union, and should prove of value in the good cause. It will provide a recognized means of intercommunication between all interested in ornithology, whatever their branch of that study may be, and afford all an opportunity of recording facts and valuable observations, and of giving publicity to those and their own deductions. Thus bird students will be kept in touch with one another, original study will be aided, and an Australian want supplied.' (Anon. 1901, p. 5). These words may have dated in style but not in sentiment: the journal is still open to all for the common good, including that of the birds.

As Libby Robin (p. 1) points out, this egalitarianism has been both a strength and a weakness. At times the journal may have slipped too far towards the popular to be taken seriously in the critical world of science. In part, this reflected editorial preferences and lack of rigour, but mostly it was an accurate reflection of societal preferences and priorities. The impact of the 'great depression' and two world wars stalled developments in ornithology and limited opportunities for research and publication.

At the beginning of the 20th century, many of our prominent ornithologists were likely to be English-born professionals with a gentlemanly interest in ornithology or wealthy landowners who enjoyed observing birds and sponsored the collection of eggs and birds. Museums focused on collections and questions of classification, both of which often ended up in overseas hands. A handful of European- and American-influenced researchers such as Ernst Mayr (systematics) and, by mid-century, Jock Marshall (bird behaviour), Dom Serventy (seabirds) and Alan Keast (biogeography and evolution), carried out some classic studies. Of these, only Serventy remained based in Australia. Nevertheless, Marshall is legendary for his return to Australia to found the Department of Zoology at Monash University.

At the half-centenary, Dickison (1951) wrote that 'the *Emu* now ranks as one of the foremost ornithological publications in the world', but bemoaned the fact that in 50 volumes of *Emu* there was 'hardly an instance' of an article on life history, the preoccupation of similar US journals of the time. To remedy this, he suggested that photography and field study were 'the most accepted code to gain the best results' (p. 157). Angus Robinson (1945, p. 100) made the same point: 'During the last twenty-five years Australian ornithologists have not kept pace with the rapid advance in certain aspects of field ornithology. We know very little of the social life of birds, and, except for Fleming's paper (1943) on the Silvereye, there has been no substantial article in our journal dealing with territory. That may be due, to a certain extent, to the lack of opportunity to read the great amount of overseas literature bearing on the subject'.

Because Australian passerines sing all year, unlike their Northern Hemisphere counterparts, it was generally held that they had no special territory. Serventy countered that that was because they had long breeding seasons and year-round territories (few migrants). Eleanor Russell takes this further in her recent paper on parental care and, in doing so, presents a case for explanations that encompass the southern perspective (Russell 2000). Too often our wonderfully idiosyncratic bird fauna were fitted to Northern Hemisphere models, their uniqueness further debased by their characterisation as mere colonists from Northern Hemisphere sources. Northern perspectives have long muddied knowledge of the biology of our waterfowl. Richard Kingsford and Ian Norman (p. 47) set the record straight, describing a dynamic system driven by extremes of aridity and flood. Chris Boland and Andrew Cockburn's contribution (p. 9) takes an affectionate look back to document the 'forgetting' of cooperative breeding, reclaiming its discovery for Australia and cautioning that the advancement of science, in particular the development of universal explanations, is handicapped by blinkered Old World–dominated perspectives.

Advancement was also limited by lack of banding studies until, in 1953, Robert Carrick established the Australian Bird Banding Scheme, based at CSIRO. CSIRO was pursuing studies into pests, most of which, like our influences, came from overseas and were here to stay. Then Ian Rowley's seminal study on fairy-wrens combined colour-bands to identify individuals with rigorous science. Its publication, in *Emu* **65**, was a turning point in Australian ornithology. It showed us that bird-watching could be a serious scientific pursuit.

CSIRO Wildlife Research expanded in the late 1960s, into research beyond the rabbit problem. Harry Frith, Robert Carrick and Dom Serventy embraced ecological research, on Malleefowl, ducks and Magpie Geese; magpie territoriality and ibis–locust plague interactions; and muttonbirds, respectively. Scholars and students flushed out of the laboratory and fluttered into the field.

In this migration from laboratory to field, some traditional areas of research, such as physiology, have been neglected. Lee Astheimer and Bill Buttemer (p. 19) remind us of the early research interest in responses to aridity and then show us that modern physiological approaches have much to offer to the understanding of avian life histories.

Women were conspicuous by their absence in the early days, during the formation of the RAOU and in the first volumes of the *Emu*, apart from the occasional mention of a 'few ladies' attending the camp-outs and field days. It was not until the 1960s that women began to take their place beside the men, and brought to ornithology their own sensibility (for example, in recognising that female birds are more than passive participants in nature and that female choice, competition and territoriality are important agents of selection).

The beauty and accessibility of birds, their interesting habits and importance as products or pests, have long attracted amateur and professional scientists as well as bird watchers. More than any branch of zoology, ornithology depends on this participation. Atlases are the perfect example. Birds Australia's two bird atlases (1977–81 and 1998–2001) are the basis of Peter Griffioen and Mike Clarke's analysis of large-scale bird movements (p. 97), a contested and poorly understood area of Australian ornithology.

The question of bird movements was raised in the earliest *Emu*, one of several recurring themes across the century. Notes discuss birds returning in spring (Kendall) and migration of swifts and snipe (Campbell; Le Souëf). Chas Hamilton added to the debate on whether Musk Ducks fly. Like many, he had believed that they were capable of making only short flights. Then a friend shot one flying high and fast, mistaking it for a Black Duck. Richard Kingsford and Ian Norman would hardly be surprised.

In Volume 1, Le Souëf also puzzles over moult, a subject that is still as full of mystery today (see Astheimer and Buttemer, p. 19). Two papers concern pest species. 'Orchardist' argues that it is man that has upset the balance and proposes three classes of pest birds: '*first*, the birds which are antagonistic to man's interests at particular seasons of the year ... but these birds, it must be admitted, more than compensate for their bad behaviors by keeping in check insects which would otherwise certainly be the greater evil; *secondly*, birds which are content to serve the public good without taking or requiring any compensation; *thirdly*, those with no good intentions, giving no obvious compensation.' Magpies belonged to the first class, Kookaburras to the third. In their contribution to this centenary issue, Mary Bomford and Ron Sinclair (p. 29) make a more sophisticated assessment of Australia's difficult bird pest problems.

In the second volume, A. J. Campbell reports on the various Acts passed to protect birds in the last years of the 19th century and calls for improvement, including uniformity among the States in the protection of birds, something that remains as sensible and unachievable as it was then (although the *Environment Protection and Biodiversity Conservation Act* 1999 goes some way towards overarching protection). He argued that the protection of seabirds whose 'habitat extends over the greater part of ... two or three oceans' was 'a waste of legislation'. Captain Allen reports on an albatross that became entangled in the patent log line and had to be hauled aboard to be rescued and another that struck the fore rigging and fell to the poop deck. Such happenings are the concern of Barry Baker and colleague's contribution on some of our beleaguered procellariforms (p. 71). More than any other of our birds, these link us with the rest of the world. They are no respecters of international boundaries and are unbowed by distance.

Echoes of the controversy and confusion surrounding cooperative breeding outlined in Andrew Boland and Chris Cockburn's paper (p. 9) can be found in a short extract from *Avicultural Magazine* in the second *Emu*. It was thought that *Malurus cyaneus* might be polygamous 'an opinion which has been formed by many ornithologists from the fact that in the wild state each male is usually accompanied by a small flock of females'. Reginald Phillips discounted the proposition, offering as evidence the observation of the breeding pair and extra female in his aviary in England that 'their persecutions and her loneliness' led to her unease.

Of course, constructing these recurrent themes may be disingenuous. There can be no doubt that austral ornithology has come a long way. Oology and harvesting of other kinds are no longer major issues. More recent volumes of *Emu* have well and truly made up for the earlier paucity of natural history articles. New techniques, statistics, models, molecular tools, video, telemetry and the like, have revolutionised the science, and access to global knowledge has never been easier.

Arguably, we still suffer a little from that dogged old stalker, the cultural cringe, which would have us avoid anything that smacks of academia. In general, *Emu* has contained little contribution to theory and some of the 'traditional' fields, such as physiology and anatomy, are not well represented. Papers on the newish disciplines of behavioural ecology and molecular taxonomy and ecology are only just beginning to appear. The nexus between research and conservation remains problematic and must now also integrate social science to facilitate the achievement of desirable conservation outcomes. Can *Emu* accommodate it all?

In the past, *Emu* has been a major repository for important papers on New Guinea, New Zealand, Antarctica, Wallacia, and the Pacific and subantarctic islands as well as Australia. A challenge for the future is to renew this engagement of a wider regional (Austral) involvement in the journal.

Libby Robin (p. 1) rightly notes that one of the journal's strengths is its long history. Of the numerous anecdotes, bird lists and observations that *Emu* contains, many can never be repeated. Yellowing snapshots in the ornithologists' family album, they are essential fodder for the likes of the 'Handbook of Australian, New Zealand and Antarctic Birds' (HANZAB), and a baseline for future comparison. They provide a sometimes quaint, occasionally surprising, often enlightening record of what we have lost, what we have changed, what is and what has been forgotten.

Congratulations to the past editors, 18 in all, plus those who assisted them as editors and reviewers. They laboured, unsalaried, to carve a niche and build a strong reputation for the *Emu*. Particular mention should be made of the immediate past editor, Ian Rowley (1990–2000), who navigated the journal through perilous times as well as being a significant long-term contributor to the journal and to Australian and international ornithology. Welcome to the new guard, CSIRO's David Morton, backed by an Editorial Advisory Committee of Birds Australia members with a wide range of research interests and expertise.

Special thanks to the contributors who, given the eleventh-hour decision to pull together a centenary issue, put in a mighty effort to produce the papers, and to the Australian National University (ANU Publications Committee), for providing some extra funding. Lastly, comments by Henry Nix and Andrew Cockburn improved this editorial.

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