



Book Review

Tilting at Windmills: The Action Plan for Australian Birds 2020

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CSIRO Publishing
Melbourne, Victoria, Australia
AUD \$150.00 Hardback
ISBN: 9781486311903

Preamble

There are many ways to review a book. The most common of these describes the book's contents, repeating the rationale behind its writing and publication, the intended audience, and concluding with an assessment of the book's merits or otherwise. When a book reports on an issue as critical as the status of Australia's avifauna, more is required. The reviewer should also review and comment on the aims and reasons for undertaking an assessment of status, the process used in making the assessment, and any biases, omissions, and deficiencies in the procedures followed. As a government document, therefore being political, the reviewer is obliged to comment on the value of the report for the long-term conservation of Australia's birds. It is also necessary to recommend ways in which the process and outcomes can be improved. In this review, I have taken the latter approach. Thus, this is a much an 'opinion piece' as a book review.

This is the fourth *Action Plan for Australian Birds* produced by Stephen Garnett and colleagues [Garnett \(1992\)](#), [Garnett and Crowley \(2000\)](#), [Garnett et al. \(2011\)](#). Each reviews the conservation (threatened) status of the indigenous bird taxa of Australia and its territories. I admit to a temptation to simply copying my review of the 2010 Action Plan ([Recher 2012](#)), as my reaction to this latest Action Plan differs little from my reactions to the first three. Nonetheless, Garnett and Baker should be commended for compiling a vast amount of information on Australian birds, holding workshops across Australia, and coordinating the input from more than 300 experts on Australian birds to assess the status of more

than 300 taxa of Australian birds; information that is useful and needed for the conservation of Australia's avifauna.

The conservation status for each taxon (species or subspecies) along with the International Union of Conservation for Nature (IUCN) criteria used to determine that status are presented, and the 2020 status compared to their status in 1990, 2000, and 2010. The certainty of the 2020 status is given along with an explanation of changes in status since 1990. The taxon's status in the 2020 Action Plan is compared to its listing in the IUCN Red List of threatened taxa, whether it is listed on the *Environment Protection and Biodiversity Conservation (EPBC) Act* of Australia, as well as threat listing by states and territories within the taxon's range, and whether there is a Recovery Plan or Conservation Advice for the taxon. Together, these provide a comprehensive summary of the taxon's status and what action, if any, is being taken to manage the taxon. Tables present the eligibility for assessing the status of the taxon of each IUCN category and a summary of the Red List assessment data. These are followed by a list of infraspecific taxa and the taxon's evolutionary uniqueness. Details of the taxon's range, abundance, ecology, monitoring, and threats to its survival are presented. There is then a listing of conservation objectives and actions, the research needed to refine conservation actions and status, and recommendations for management along with a table of 'Threats Assessment,' with each threat to the taxon ranked as low, medium, or high.

Despite the details provided on status, management, and conservation requirements, I continue to have reservations about the approach taken; reservations that include those expressed in my review of the 2010 plan ([Recher 2012](#)).

My principal concern with the 2010 plan was that it was 'reactive' rather than 'proactive'. In other words, the plan emphasised species that were already recognised as threatened

and the reasons for that, but did not consider species likely to become threatened without appropriate conservation intervention. Although accounts are provided for 69 taxa of 'Least Concern,' this is a problem perpetuated in the 2020 Action Plan because the status of Australia's birds is based on the criteria adopted by the IUCN for listing species as Threatened. Listing as threatened under these criteria requires data on population size, geographic range, and rates of decline. This limits consideration of threat to species where such data exist, thereby excluding the majority of Australian birds. It explains why birds of open spaces, such as seabirds, water birds, waders, and iconic and charismatic species, such as parrots and birds of prey, make up 62% of accounts in this 808-page report. These are taxa that tend to be large, easily seen, and easy to identify. Many seabirds, water birds, and waders also aggregate when nesting and in the non-breeding season. Thus, changes in abundance and distribution are easy to monitor. The same applies to taxa restricted to islands. They are birds that receive considerable attention from resource managers, ornithologists, citizen scientists, and conservation biologists. Fifty-seven taxa (18%) in the Action Plan are, or were, restricted to islands, iconic environments on their own. The size of populations of island birds is limited by the size of the island. Populations tend to be small, meaning that island species automatically qualify as Threatened. Additionally, islands are quickly degraded by the arrival of people and the plants and animals that accompany human occupation, comprehensively threatening an island's indigenous biota. Globally, islands have lost more species of birds than anywhere on continents. [Steadman \(2006\)](#) documents the extensive loss of birds on islands following human occupation throughout the Pacific. Today, islands are threatened by global heating and sea level rise, so to see so many island taxa listed as Threatened in the Action Plans is not surprising.

There are also mainland bird species occurring in restricted habitats, such as heathlands and isolated mountain ranges, with limited population sizes, such as scrub-birds (Atrichornithidae), grass wrens (Maluridae), and bristlebirds (Dasyornithidae). These figure prominently on threatened species lists and in the Action Plan for the same reasons as island birds.

The necessary data to assess status, even using expert opinion, as was done for the 2020 Action Plan, mean accounts of most Australian birds are inevitably limited in number simply because the data needed do not exist. In fairness to the authors of the 2020 Action Plan, deciding on the status of taxa, least of all, every Australian taxon, is an implausible challenge no matter how many 'experts' are asked for assessments. Apart from studies of a few populations, I am not aware of any terrestrial avian taxa in Australia whose abundances are monitored on a spatial

scale and over enough time to document long-term changes in status. Bird Australia's Atlas program ([Blakers et al. 1984](#); [Barrett et al. 2003](#)) and 20-min counts of a two-hectare area ([Loyn 1986](#); [Birdlife Australia 2015](#)) rely on citizen scientists and, without large sample sizes, habitat measurements, and repeated visits, lack the necessary scientific rigour to measure changes in species' abundances over time. Yet these programs receive considerable research funding denied to conservation biologists capable of carrying the studies to completion through analysis and publication of results.

Unfortunately, this version of the Action Plan differs from earlier plans in the adoption of 'ultrataxon' to describe taxa that include subspecies, while not excluding monotypic species. The ultrataxon concept was introduced by [Schodde and Mason \(1999\)](#) as their unit of adaptation and evolution and to raise the awareness level of subspecies for conservation ([Recher 2001](#)). It is used in this way in the 2020 Action Plan, but seems an unnecessary complication given that subspecies have been treated separately since the first Action Plan. The 2020 plan reviews the status of 316 of the 1276 ultrataxa currently recognised in Australia. Of the 316,¹ 184 are Threatened, two of which are possibly Extinct. Thirty-one taxa are listed as extinct. Accounts are also provided for 34 near Threatened taxa and 69 of Least Concern ([Table 1](#)). The remaining 960 taxa are considered of 'Least Concern'. By way of comparison, the 2010 plan reported 1266 taxa as occurring or having occurred in Australia of which 148 were Threatened, and 27 considered extinct ([Table 1](#)). Allowing for the ever-changing nomenclature of Australian birds ([Recher 2017](#)) and differences between the two reports on how to assess the status of taxa, there appears to have been little change in the status of Australian birds over the past four decades ([Table 1](#)).

Comparing the four Action Plans ([Table 1](#)), it could be concluded that there has been little change in the status of Australia's birds in the past 40 years; this is not how I describe the status of the Australian avifauna. In 1999, I wrote that Australia had already lost a considerable proportion of its avian diversity and meaning that half of Australia's terrestrial bird species would be 'ecologically extinct' by 2050 ([Recher 1999](#)). Ecological extinction means that their numbers are too low for species to contribute to the functions and processes of the ecosystems in which they survive. In other words, the losses predicted will be comprehensive, regional, and expressed as the loss of populations, including distinctive taxa, such as subspecies. Surviving populations would be reduced in numbers and genetic variety and unable to function as viable members of the ecological community. This is 'ecological extinction.' As a result, processes such as pollination, insectivory, and seed dispersal, which involve birds, will become increasingly

¹My arithmetic comes to 318, but then I was never much good at arithmetic.

Table 1. Number of taxa and status for Australian birds, including exotic species and vagrants, as listed in the four Action Plans.

Year	No. taxa ^A	Threatened ^B	Extinct	Critically Endangered	Endangered	Vulnerable	Near Threatened	Insufficiently known	Least Concern
1992	1074	127 (11.8%)	23	XX ^C	26	40	32	29	XX ^C
2000	1375	155 (11.3%)	25	32	41	82	81	XX ^C	1114
2010	1266	148 (11.7%)	27	20	60	68	63	XX ^C	1028
2020	1276	184 (14.4%)	31	21	76	87	34	XX ^C	1061

Numbers should be used cautiously, as changes in the definition of what a taxon is and nomenclature, affect the numbers given in the different publications.

^AIncludes extinct taxa. Note that the definition of a taxon has changed between reports.

^BIncludes critically endangered, endangered, vulnerable, and insufficiently known; excludes extinct taxa.

^CCategory was not used this year.

dysfunctional. I include taxa, such as Noisy *Manorina melanocephala* and Bell *M. melanophrys* Miners, and urban commensals, such as Sulphur-crested Cockatoo *Cacatua galerita*, Galah *Eolophus roseicapillus*, and Pied Currawong *Strepera gracula*, that have increased in abundance and distribution as also being ecologically dysfunctional and therefore adversely affecting ecological processes, including the survival of other species. In a sense, these increasers are as much of conservation concern as species decreasing in numbers and should be listed in any report of Australia's threatened birds, despite not being threatened. As expressed by Lunney (2017a, 2017b), failure to consider non-threatened species 'hinders the conservation of biodiversity in the broadest sense' (Lunney 2017a).

Regrettably, the Commonwealth Minister for the Environment is only required under the provisions of the *EPBC Act* to maintain a list of threatened species based on their risk of extinction (Auditor-General 2022). The objective of the Action Plans for Australian Birds is to provide such a list. Thus, the wider consideration of species at risk of being threatened regardless of current abundance or those that have increased in abundance falls outside the Act's requirements. This significantly reduces the value of the efforts made in producing Action Plans and the *EPBC Act* should be revised to expand their scope and objectives. This would increase the value of Action Plans for the conservation of species in the long-term. Lunney *et al.* (2004) expressed similar concerns with the listing of species as threatened under the *NSW Threatened Species Conservation Act* 1995.

Ecologically extinct birds may also be 'evolutionarily extinct,' as they may lack the genetic variety necessary to adapt and evolve particularly with the rapid changes in regional climates currently experienced with global heating. Ability to adapt to these changes is compromised by the extensive, on-going land-clearing and habitat fragmentation on the Australian continent, which limits the ability of even mobile biota, such as birds, to move regionally as habitats and food resources change in distribution.

I see no reason to change my 1999 prediction except to bring it forward in time. Where I live and where I do fieldwork, I see fewer birds and fewer species every year.

Entire guilds of birds, such as nectar feeders and ground-dwelling birds, are in decline, but their losses in numbers are not documented or even noticed by many in our society bar a few birdwatchers and conservation scientists. Although my observations are easily dismissed as 'anecdotal', they are based on 50 or more years of observation and therefore merit the same attention as the report by Valentine (2004) on the demise of the mass migrations of the Brown Awl *Badamia exclamationis* (a moth; Lepidoptera), which he based on long-term observations of those migrations and their decline with the clearing of the awl's Brigalow *Acacia harpophylla* breeding habitat in Queensland; Valentine documented the extinction of an ecological phenomenon. Something similar is now occurring with the iconic Bogong Moth *Agrotis infusa* driven in this case by reduced rainfall associated with climate change (https://en.wikipedia.org/wiki/Bogong_moth, accessed 16 March 2022). There is no reason not to expect Australian birds to be similarly affected (Hoffmann *et al.* 2019). I have long associated the decline of White-throated Warblers *Gerygone olivacea* and Rufous Whistlers *Pachycephala rufiventris* (<http://canberrabirds.org.au/our-birds/canberra-garden-birds/whistlers-shrike-thrush/rufous-whistler/>, accessed 16 March 2022) with the clearing of Brigalow and loss of critical wintering areas. Ford (2013) expressed concern over the decline of migratory birds within Australia and globally. He pointed out that migrants receive less attention than sedentary species as their movements over long distances make it less likely that they will evolve 'restricted range endemics.' Therefore migratory species, apart from seabirds and waders, have not received the same conservation attention as more localised and sedentary terrestrial species for the simple reason they do not meet the IUCN criteria for being listed as 'Threatened'.

Bounds *et al.* (2021) recorded significant declines in 32 species of woodland birds including 16 considered common in the Australian Capital Territory (ACT) between 1998 and 2019, but none of the latter are listed as Threatened in the 2020 Action Plan. They are not listed because they remain common, but their decline in the ACT should be recognised as a warning of longer-term continental declines. Taking a proactive approach in assessing the status of

Australian birds would identify these species and many others as 'Under Threat' and likely to become 'Threatened' requiring immediate conservation management.

Bounds *et al.* (2021) are not alone in documenting the decline of Australia's small terrestrial birds. As early as 1980, Ford and Howe (1980) described the decline of birds in the Mt Lofty Ranges, South Australia. They predicted future declines, including extinction, an idea that became known as the 'extinction debt' (Hanski and Ovaskainen 2002; Kuussaari *et al.* 2009). Since 1980, species declines of terrestrial birds have been documented in western (Smith *et al.* 1994) and north-eastern (Debus *et al.* 2006) New South Wales, south-western Australia (Saunders and Ingram 1995), north-eastern Victoria (Bennett and Ford 1997), and Tasmania (Bain *et al.* 2020). Despite the evidence of continent-wide declines of the Australian avifauna, it is not represented by the Threatened species lists in the Action Plans. The losses go further than southern Australia.

Recher and Lim (1990) prophetically predicted that the declines of birds in southern Australia would be repeated in northern Australia. Such declines have now been documented for Queensland and the Northern Territory (Franklin 1999; Woinarski and Catterall 2004; Franklin *et al.* 2005; Hannah *et al.* 2007; Walter and Walter 2007; Perry *et al.* 2011; Noske and Briggs 2021), while continuing in southern Australia (Saunders and Ingram 1995; Egan *et al.* 1997; Gosper and Holmes 2002; Recher 2004, 2022; Szabo *et al.* 2011; Bounds *et al.* 2021). There are other reports of the continuing decline of the Australian avifauna making it difficult to conclude that there has been little change in the status of Australian birds over the past 40 years as implicit in *The Action Plan for Australian Birds 2020*.

For me, the declines are real and alarming; we are entering another Silent Spring (Carson 1962) without the songs of birds to awaken us. The failure of the consecutive Action Plans to pick up these declines is a consequence of adhering to the IUCN's criteria for listing birds as threatened; the Action Plans needed to take a more proactive approach in assessing status. I have no doubt that Action Plans are constrained by politics and the reluctance of Australian governments to accept that they have failed to protect Australia's biodiversity. Conservation biologists need to take a more proactive stance in documenting the decline of Australia's biodiversity. Although some do so (Baker *et al.* 2019; Geyle *et al.* 2018; Hoffmann *et al.* 2019; Bayraktarov *et al.* 2021), there needs to be wider advocacy for biodiversity conservation (Recher 2019) and different approaches to assessing and presenting the status of species (Noss *et al.* 2021).

Even conservation biologists seem not to recognise or admit the severity of the problem. If they did, they would advocate for action to end land clearing and the growth of Australia's population to prevent further losses to the continent's biodiversity (Recher 2019; Saunders 2019). Failing to do so makes conservation biology a clone of the

climate change debate and the scientists involved there, who continue to express uncertainty using 'likely', 'very likely' and 'virtually certain' in reporting the causes and consequences of global heating (IPCC 2021; https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM_final.pdf, accessed 13 March 2022). While the scientific community may understand the limits to scientific data, politicians and decision makers do not, with the consequence that the 'uncertainty' expressed in climate change reports means to decision makers that action on climate change is not yet necessary. Comments from climatologists that there is still a 'window of opportunity' or that 'we have 10 years to act' to avoid the worst consequences of global heating (Editorial 2014, <https://doi.org/10.1038/nclimate2464>, accessed 13 March 2022) only provide an excuse not to act. The problem is that many species remain abundant and therefore fail to meet the criteria set by the IUCN to be listed as Threatened or Endangered. As with global heating, the failure to be proactive in listing species as Threatened gives policymakers the excuse for not taking action to conserve Australia's flora and fauna. Honeyeaters (Meliphagidae) are a good example. I have studied honeyeaters since 1967 and their numbers on my original study sites in the Brisbane Water National Park, and where I live north of Sydney on the Hawkesbury River, numbers have declined from tens of thousands to thousands or hundreds. The mass migrations I used to see passing over the river in autumn have gone, with only a few small flocks noted in recent years. Even when these observations are brought to the attention of conservation scientists and resource managers the response is always the same; 'honeyeaters are common, there is no problem.' I first encountered this response when in 1970, I suggested to the New South Wales National Parks and Wildlife Service that the Regent Honeyeater *Anthochaera phrygia* was in trouble and had declined significantly. I could not prove it, but I did not find the numbers that were supposed to occur around Sydney when nectar was abundant (Hindwood and McGill 1958; A. Keast, pers. comm.). I suggested it was important to set up a captive breeding program while there were still birds that could be taken from the wild for breeding. The response was that the honeyeater was abundant and there was no need for conservation action. The Regent Honeyeater is now listed as 'Critically Endangered' with fewer than 250 birds in the wild. Being proactive and acting earlier may have prevented the species' decline to near extinction.

I encountered similar reactions with the Koala *Phascolarctos cinereus* when in the early 1990s I supported Koala protection societies in their efforts to get the koala listed as Endangered. It was listed as Vulnerable in 1992 under the first threatened species legislation in NSW, the *Endangered Fauna (Interim Protection) Act 1991* (Lunney *et al.* 1995). My position met with ridicule and assertions in many quarters that the Koala was not threatened, although by 1990, it was clear to those studying Koalas that the

species was in trouble and legislative action was needed (Lunney *et al.* 1990). At that time, the Koala was not threatened under Commonwealth legislation, but my position was proactive, not reactive. I supported the Koala's listing as Endangered because it was obvious, to me anyway, that its habitats in south-eastern Queensland and north-eastern New South Wales were being eaten up by human population growth, residential development, and land clearing. In 2012, the Koala, now a conservation icon, was listed as Vulnerable under the *EPBC Act*, and in 2022 was listed as Endangered. It should be considered 'Critically Endangered,' as nothing will stop the irreversible loss of its habitats by logging, land clearing, and residential development, as well as increased predation by domestic dogs and cars, now compounded by climate change. How do I know? I know because I have seen and experienced it before in both Australia and North America; understanding the destruction of the world of nature is not rocket science, but if we want to protect Australia's birds and other biota than we need to accept the reality of human impacts and act proactively. Unfortunately the 2020 Action Plan for Australia's is reactive, not proactive.

The *Action Plan for Australian Birds 2020* is a comprehensive assessment of the status of Australian bird taxa, but there are changes I would like to see in the next assessment. Although summarised taxon by taxon, a chapter in which changes in species status, threatening processes, and conservation and research initiatives since the 1992 status report were summarised would be helpful. Such a chapter could be published separately to reach as wide an audience as possible; few people will spend AUD150 to buy a copy of the Action Plan, much less work their way through all 808 pages. Similarly, an analysis of threats, including of climate change, their geographical distribution, and the intensity of these threats would assist in the development of conservation plans for species not yet threatened. Proactively, it would be helpful to list those species of 'Least Concern' most likely to become Threatened (Lunney *et al.* 2004), as it would have been with the Koala and Regent Honeyeater, along with recommendations on how to avoid their decline. I would like to see consideration given to listing taxa that have benefitted from European colonisation of Australia, their distributions, and abundances along with the threats they pose to other species (Saunders and Ingram 1995). In many ways, an increase in abundance and distribution is as important to assessing the status of Australia's avifauna as are declines. No doubt the authors of the 2020 report are already over committed, but there is no reason for others not to notice these suggestions. After all, much of the demanding work has already been done by Garnett and colleagues.

Despite my misgivings, the 2020 Action Plan is an important document and belongs in university and conservation agency libraries as a reference point for the State of Australia's birds in 2020. It is a benchmark against

which the ongoing decline in the Australian avifauna can be measured, and used to assist better conservation outcomes than we have seen in the four decades since the first Action Plan was published.

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Data availability. No data are available beyond what is included in the manuscript.

Conflicts of interest. The author declares no conflicts of interest.

Declaration of funding. No funding was received for this review.

Acknowledgements. CSIRO Publishing graciously provided a copy of the 2020 Action Plan for review. Ian Abbott, Kate Bryant, Hugh Ford, Pat Hutchings, Dan Lunney, and Denis Saunders reviewed and commented on an early version of the manuscript allowing me to improve it. I appreciate their comments and corrections, but the opinions expressed in the review are not necessarily theirs.