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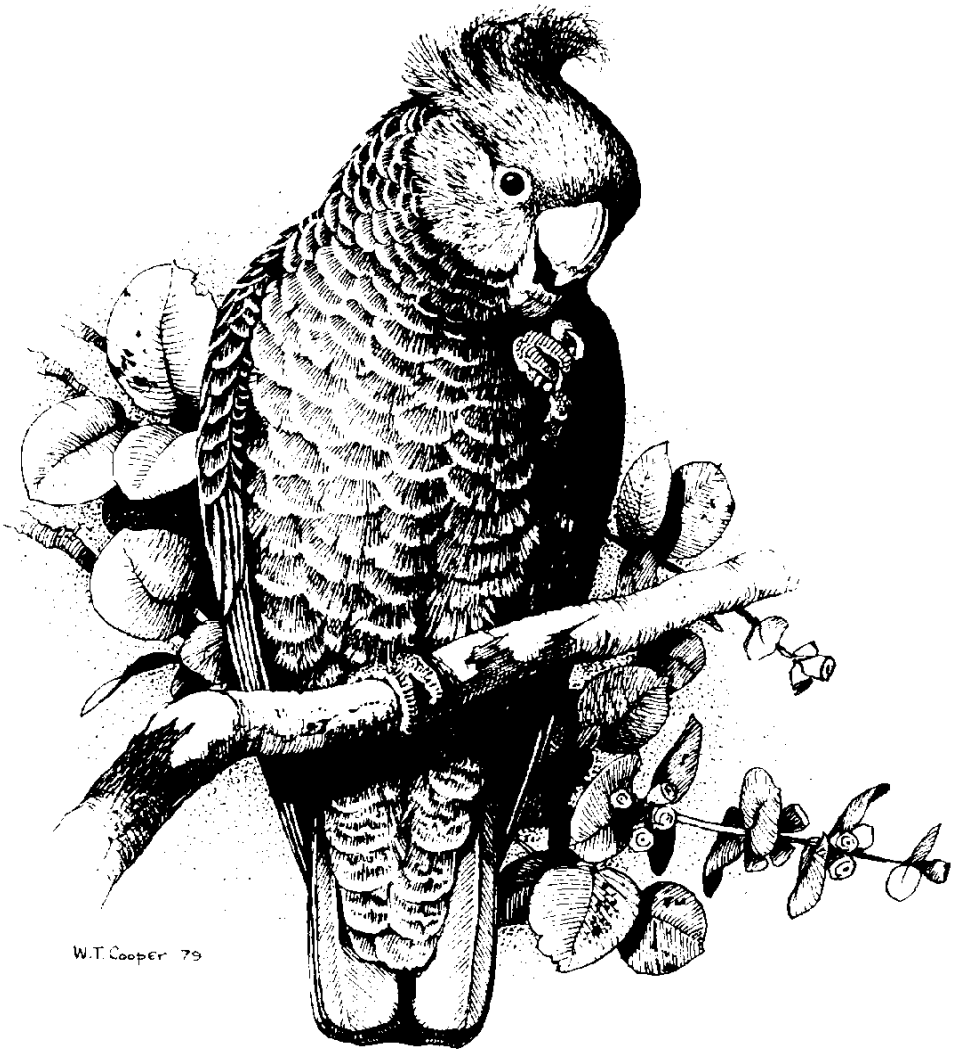

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Unusual bird reports	rarities@canberrabirds.org.au
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Woodland Project	cogwoodland@canberrabirds.org.au

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ARTICLES

PLUMED WHISTLING DUCKS IN THE COG AREA OF INTEREST

MARTIN BUTTERFIELD

101 Whiskers Creek Rd, Carwoola NSW 2620

***Abstract**: The Plumed Whistling Duck (Dendrocygna eytoni) is being more frequently reported in the COG Area of Interest since 2009. This report consolidates the data recorded for the species, noting a number of difficulties experienced in that process. The location, date of sighting and flock size is summarised up to October 2014. It is not possible to suggest what has caused the increased presence of the species in our area but it is tentatively suggested that each year's records relate to a single flock.*

1. Introduction

My first local sighting of Plumed Whistling-Duck (*Dendrocygna eytoni* – hereafter PWD) followed a telephone call on December 31 2009 from David McDonald advising that a flock had been sighted on a small dam on Trucking Yard Lane, Bungendore. I rushed down to photograph the birds and hoped that they would stay there for 24 hours to provide a good start to my Year list for 2010 but this was not the case. However, in recent years the birds have been relatively frequently reported from this dam, and two other easily viewable water bodies in the Bungendore area.

This report summarises the status of the species in the COG Area of Interest (COG AOI), with a hope that this will provide some insights into, or at least provoke thinking about - the reason(s) for their appearance and disappearance.

2. Background

As should always be the case, the starting point for a review of a species status in the ACT (and the AOI) is the book by the late Steve Wilson (Wilson , 1999) He cites the first record for this species as being of "… nine birds which joined the captive study flock at Gungahlin (CSIRO) from 6 to 14 April 1966." He goes on to note the mobility of the species and that "… individuals and small flocks have been seen at Tidbinbilla, Gungahlin (CSIRO) and other places recently."

The distribution of this species in Australia, from 1977 to 1981, is shown in The Atlas of Australian Birds (Blakers et al 1984). The species map from that publication is reproduced as Fig. 1, with an additional 'X' to mark the approximate position of the COG AOI.

This confirms Wilson's comments that the species is outside the range quoted by Blakers *et al.* and (noting the records in the Central and Western deserts) that it is very mobile.

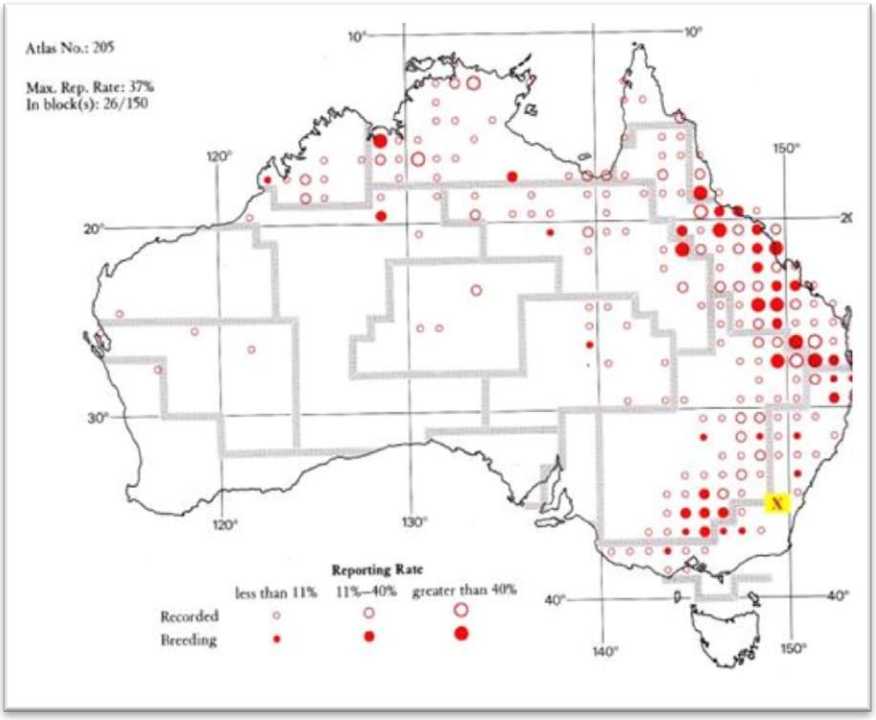


Figure 1. Observations of PWD, from *The Atlas of Australian Birds* (Blakers *et al* 1984).

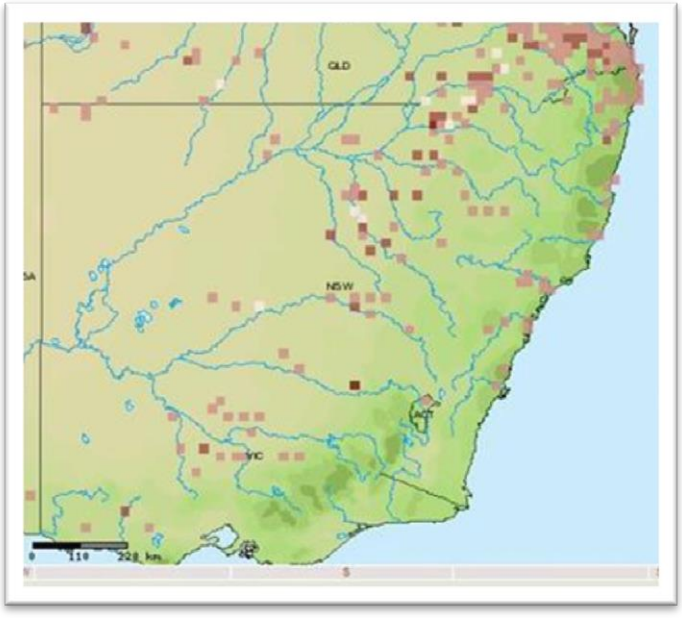


Figure 2. *Birdata* map of PWD occurrenceExamining the distribution map available through Birdata[1] and reproduced in Fig. 2 shows a single cell in the COG AOI marked off: drilling down shows this to be Jerrabomberra Wetlands: surprisingly there are no records marked for the Bungendore area. On 20 October 2014, Birdlife Australia (BLA) contributed

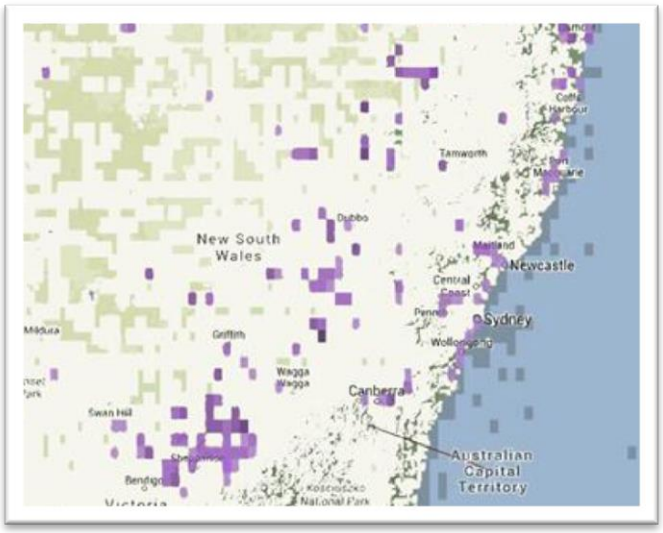
[1] http://www.birddata.com.au/maps.vm

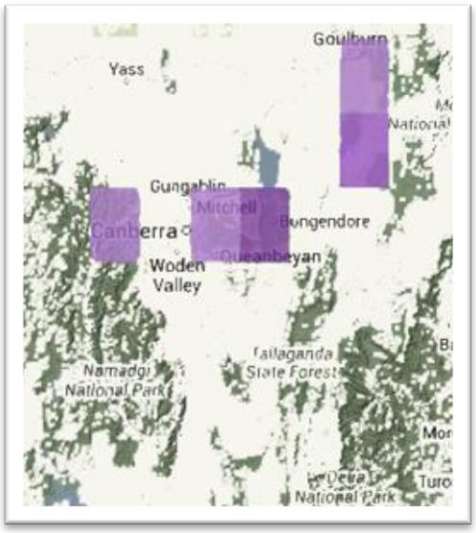
to a general discussion on the birding-aus email discussion group, relating to data not appearing in the maps. In summary this advice stated that:

- the linkage between the main birdata data base (considered to be correct) and the maps published on the Birdata website has malfunctioned; and
- this situation will not be remedied as BLA are focusing attention on a new, improved bird portal.

Data provided separately to COG by BLA from the underlying database **does** include some of the records for the Bungendore sites, but it is seen as unlikely that an "ordinary" researcher will attempt to supplement the misleading data shown on the maps. Further discussion of the content of the several databases is given below.

The species map available from eBird[2] gives a broadly similar picture, other than reflecting what is known to be the correct situation for the COGAOI. Figures 3 and 4 show maps from eBird (colours adjusted in Photoshop Elements to emphasise the cells with occurrence(s) of PWD).





Figures 3 and 4. eBird: NSW occurence map for PWD (left); eBird: COG AOI occurrence map for PWD (right).

3. Current Records

It is the firm belief of this author that a single collection agency is essential to avoid data "falling through the cracks" and thus not being available for analysis. While that would be 'unfortunate' for an exercise of this nature, it could be crucial where data used for e. g. a key Environmental Impact Statement omits a high proportion of records due to inertia in birding groups striking and/or implementing an agreement. If a single collection agency existed the data **should** then be provided readily (and frequently) between the data collector and other recognised ornithological groups (including at least those collecting data under the current fragmented schemes).

I have thus decided to devote some space to considering the data available to me in terms of its consistency between data sources and to attempt to identify systemic causes of difference.

[2] http://ebird.org/content/ebird/

I am advised that no-one has done such an analysis before, but see this as simply reflecting my choice of a species with a small, but non trivial, number of records.

3.1 Data sets

Obtaining the most complete set of current records for the COG AOI was somewhat problematic due to the existence of several sets of records compiled under different arrangements.

The situation for the Birdata maps is described above. In theory, there are data exchange arrangements in place so that material collected under Eremaea (or in its updated form "Eremaea ebird" - for simplicity I shall henceforth refer to this as ebird) should pass to Birdlife Australia (for inclusion in Birdata) and thence to COG. The reverse **should** (see comments introducing this section) also apply: it is notable that records for the Bird Observers Club of Australia – now subsumed within BLA – appear in ebird listings, but no records for Birding Australia nor COG or BLA.

Looking at the information available through ebird on 12 June 2014:

- None of this author's reports to COG were included: while this is desirable there is not currently an agreement in place to facilitate this; and
- There were a number of reports of PWD in ebird for the COG AOI not included in a listing from the COG database. While many of these were recent and thus perhaps still 'in transit' some others were more than 12 months old and are probably more properly rated as "missing in action".

Following a query to BLA, raised through COG, a set of the 29 records of PWDs for areas 'close to' Canberra, contained in the BLA database has been provided to this author. Of these records six related to a site near Young and three to a site at Pambula. Both of these are more than 80kms from the closest point of the COG AOI. Several records in the COG dataset for sites around Lake Burley Griffin in 1998 do not appear in the listing, but possibly predate the data exchange agreement between COG and BLA. One record in the BLA set, with a source code Eremaea, is not in the COG set, nor in an eBird listing for that site and date. I have ignored it from the following analysis – as it has no bird count it is of limited value.

For this study I have clerically added to my study file the records on eBird not included in the set available in the COG dataset. I have also added the original record described in Wilson (although it predates the existence of the COG database – and nearly predates COG itself). I have not added in the other records for Tidbinbilla and CSIRO Gungahlin described in Wilson's note since although they would appear to have been in the mid 1990s (*vide* his use of the word 'recently') none of the scientists or rangers at those locations provided records to COG (nor, presumably, Birds Australia).

Appendix 1 is a listing of the key details of the 51 records I have used in this study.

I would also note that for this exercise there are only a few sets of records (COG, BLA and eBird) likely to be of interest (although there might be relevant records in the Atlas of Living Australia, Atlas of NSW Wildlife and the material held by the NSW Bird Atlassers). If looking at a wider area it is possible that the problem of data inconsistencies could become far more difficult if there are a greater number of groups recording data and not exchanging

their data. If a more common species were the topic attempting to match records without omission or duplication would also be far more difficult.

3.2 Other unreported data

As well as the information covered in the previous section a number of residents in the Carwoola area, with a passing - rather than obsessive – interest in birds, have passed on to me information about the ducks being observed on Darmody's Dam on Trucking Yard Lane or the Bungendore Sewage Works. (Where the numbers appeared significant, or there had been a long gap in my personal reports, I either submitted reports annotated as being on behalf of the observers or went and checked the birds myself.)

Obviously there is still plenty of scope for other unreported data, but that is unavoidable.

3.3. Duplicated records

The recent discussion of ebird and BLA records on birding-aus also included some commentary on the issue of duplicated records, where several observers put in records of the same sighting. This certainly has the potential to bias analysis towards situations where several observers are present at the same time. For this exercise I have defined a duplicated record as being one where the site, date and number of birds reported are identical. (In a couple of cases the numbers reported differ by 1 and could be considered duplicates affected by a small counting error but such nuances do not affect the overall narrative of this report and the simplest rule is followed.)

The duplicated records are included in Appendix 1 with an appropriate annotation. The analysis in the following section only includes one example of each duplicated record. Deleting duplicate records had a marked effect on the average number of birds reported in 2012 where removing 4 apparently duplicate records of 32 birds dropped the average for the year from 19 to 13.

4. Summary of observations

The catalyst for this report was my view that PWD has gone from being a "drop everything to tick this bird" rarity to being a candidate for dropping off the unusual birds list (if indeed it hasn't already done so). That being the case I intend to examine aspects of the reported occurrence of the species.

Note that the analysis which follows is based upon 43 records (excluding the duplicates).

4.1. Location of sites

After a small amount of editing to obtain consistent names (e. g. "Kelly's Swamp Fyshwick" and "Kellys Swamp Jerrabomberra Wetlands" are, for the illustrative purposes of this article, clearly the same place) 16 sites were identified. (For clarity of presentation where minor differences in geocoordinates were evident these were also changed to a consistent value selected by me.) Their locations are shown in Figure 5 (blue icons are sites with low numbers of records; larger pink icons are the more frequently reported sites).

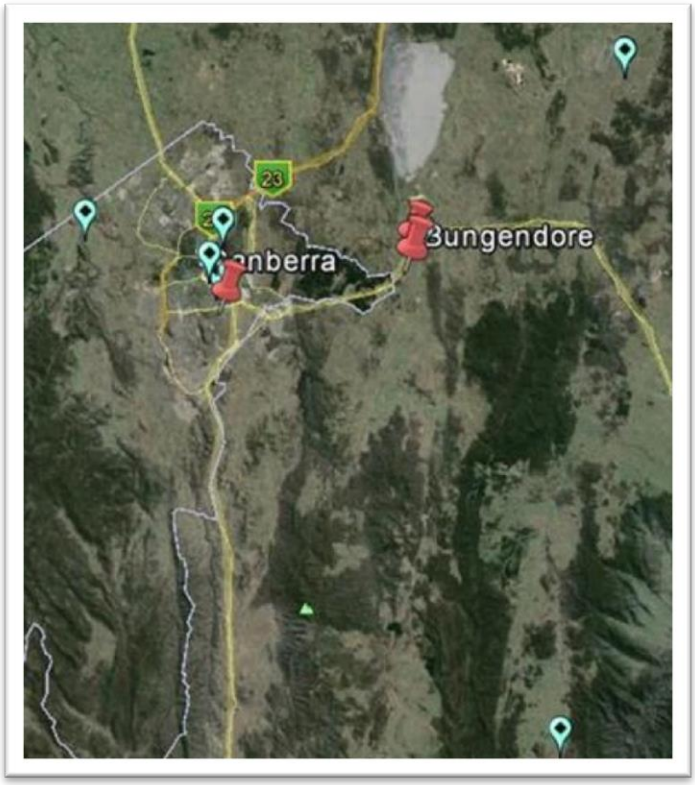


Figure 3: Location of sites for the PWD.

4.2. Habitat at Sites

The author has observed this duck at the three sites with many reports (noting that the 500m site around Trucking Yard Lane can include both Darmody's Dam, itself adjacent to the Lane and the nearby Bungendore Meadow Dam off Hoskinstown Rd). The habitats at the three sites are quite different:

1. The paddocks off Trucking Yard Lane are holding paddocks for cattle going to slaughter. They are close grazed, and the cattle receive supplementary feed. Both dams have bare earth banks on which the ducks roost when not walking around in the paddocks.
2. At Bungendore Sewage Works the ducks are usually seen roosting on bare gravel/rock banks between the ponds.
3. Kelly's Swamp contains a number of habitat types. The author observed the ducks there in a narrow strip of low grass between the open water and reeds/tussocks approximately 1m high.

The habitat described in point 1 above most closely resembles the 'preferred' habitat reported by Marchant and Higgins (1990). At the Bungendore Sewage Works the birds can only use the banks as roosting areas and must feed elsewhere. A local resident reported to me on one occasion that the ducks flew into the Sewage Works from the west, implying that they were feeding in the paddocks to the North of the Kings Highway and to the west of the Works.
In all cases the water bodies are quite small which is stated in HANZAB to be the preferred site for this species. This preference may explain why the ducks have not been reported from

the nearby Lake George and only twice from the Morass, or its vicinity, adjacent to Lake Bathurst.

4.3. Number of reports per year and month

The overall pattern of reports is summarised in Table 1.

Table 1. Yearly and seasonal occurrence of the PWD in the COG AOI.

Month/Year	1966	1998	2008	2009	2010	2011	2012	2013	2014
Jan		2	1			1	1		4
Feb					1				2
Mar		4					1	1	2
Apr	1	1							4
May									
June									
Jul									
Aug									
Sept									1
Oct		1				3	4	2	
Nov								2	
Dec				2			1	1	

Following the initial report from CSIRO in 1966 there were several reports in 1998 and then none until 2008 when a report was received via Birds Australia of the presence of the species in unstated numbers at Krawaree (to the east of Tallaganda). Since then at least one report has been received each year.

As a number of experienced birders regularly visit or pass by the major areas (Kelly's Swamp and the two sites in Bungendore) it is considered that the periods of sustained absence are times when the species is absent, rather than them merely not being reported.

In the period October 2011 to 2013 there seems a clear seasonal pattern with the birds absent in the months May to October. In September 2014 a flock of 13 birds was observed at the Bungendore Meadows dam element of the Trucking Yard Lane site (but have not been seen since in several visits by this author at least).

- The information about timing of breeding given by Marchant and Higgins (1990) suggests the nearest breeding areas (Macquarie Marshes) are active in Spring when the birds begin to appear here. Thus it doesn't seem that this presence/absence is related to dispersion from or migration towards breeding grounds.
- In terms of rainfall recorded at our home in Carwoola the period in question includes:
  - very heavy rainfall (November 2010 to March 2011 and February – March 2012);
  - very low rainfall (March 2013 to January 2014); and
  - "normal" rainfall for the remaining 18 months.

  I am thus reluctant to attribute the change to local weather conditions. I do not have the information to hand to comment on the possibility of weather patterns elsewhere in the range of the ducks as explaining the change.

- As far as I can determine there has been no change to management practices at the holding paddocks or the sewage works which might explain the sudden attractiveness of the sites to this species.

My main conclusion is that data available to me is currently insufficient to understand this change in behaviour. However it is worth restating that the species is known to be very mobile. A brief review of the ebird distribution maps for the period October to December shows relatively few records in NSW. Reports are clustered around the Finley to Corowa area near the River Murray and the breeding territory of the Macquarie Marshes.

4.4. Interaction with other species

Time available has not permitted me to do a rigorous analysis of other species seen with the PWD but the following anecdotes are offered based on the author's observations.

- The Bungendore Sewage works is usually very well endowed with a wide range of waterbirds either on the ponds or loafing on the banks.
- Darmody's Dam on Trucking Yard Lane is usually occupied by large numbers of Grey Teal (*Anas gracilis*) and Pacific Black Duck (*Anas supersiliosa*) but these do not graze often on grass where the PWD are usually seen.
- Bungendore Meadows Dam is notable for large numbers (up to 80 at times) of Australian Shelduck (*Tadorna tadornoides*) which, like the PWD, graze the surrounding paddock. Although more difficult to see the water surface in this dam good numbers of the two species from Darmody's Dam are also seen here.

4.5. Number of birds per report

Table 2 summarises the number of birds per flock by year.

Table 2. Number of flocks and number of birds per flock of the PWD in the COG AOI.

Year	Number of flocks[3]	Number of birds per flock		
		Minimum	Average	Maximum
1966	1	9	9.00	9
1998	8	1	1.00	1
2008	1	na	na	na
2009	2	14	14.25	14.5
2010	1	2	2.00	2
2011	4	16	24.00	28
2012	7	8	13.43	32
2013	6	13	18.83	25
2014	13	1	19.69	36

The distribution of flock size for those sites with <u>*more than one*</u> reported flock are shown in Table. 3.

[3] Excluding duplicate records

Table 3. Flock sizes of the PWD at main locations in the COG AOI.

Location	Flock size					
	1-5	6-15	16-30	31+	Avg	SD
Bungendore Sewage Works	2	2	3	3	20.6	12
Dickson Wetlands			3		27	1
Kelly's Swamp, Fyshwick	1		2	1	16	12
Morass	1		1		9	na
Trucking Yard Lane dam, Bungendore		8	3	1	16	8

There is no significant difference between the average flock sizes reported at each site.

4.6. How many flocks in a year?

Without daily (or indeed more frequent) monitoring it is impossible to make quantitative statements about the behaviour of the ducks and thus whether it is elements of the same flock being reported as they move around or if there are a number of flocks in the area being seen at different times. However the following qualitative comments are offered to stimulate debate.

- 1998: One bird appears to have 'hung around' various water ways close to Lake Burley Griffin from January to October.
- Late 2009- early 2011: About 15 birds reported infrequently in the Bungendore-Lake Bathurst area.
- October 2011 – March 2012: About 30 birds infrequently in North Canberra and Kelly's Swamp.
- October 2012 – March 2013: 9-16 birds reported infrequently from several sites in central COG AOI.
- October 2013 – December 2013: Up to 25 birds reported from Trucking Yard Lane
- January – March 2014: Up to 36 birds at the Bungendore sewage works.
- April 2014: A variable number of birds reported at both sites in Bungendore – but never at both sites on the same day (although both usually checked at the same time by this author at least).

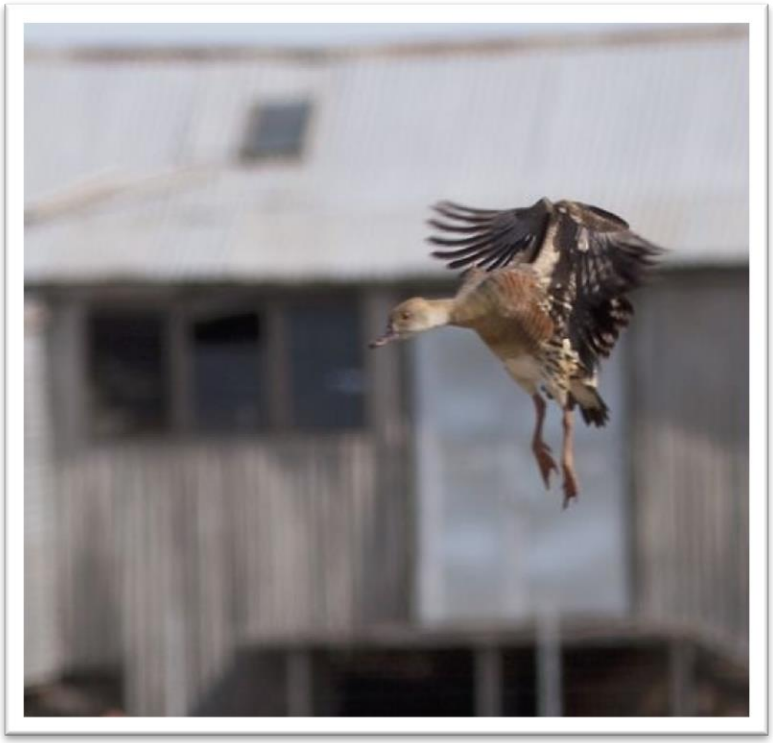
My view, from this listing, is that there tends to be one group of birds in the central COG AOI at any one time. However they tend to be observed att the water bodies where they rest in the daylight hours, and at any one time members of the flock may be feeding, or resting, in other locations. It is noted that there are many small water-bodies in the vicinity of Bungendore which might be attractive to the birds and few of which are clearly visible from roads.

5. Conclusion

It is clear that reports of the PWD in the COG AOI have increased in the last few years.

It was difficult to bring the data which does exist together and there are clearly major problems in assembling a full set of data. It was possible in this case only because of the limited (and known to this author) data sets available. Establishing data exchange – and/or common collection processes -arrangements to ensure that there is a single authoritative and comprehensive database of bird records, made readily available to researchers, should be a high priority.

PWD appear to frequent a small number of localities in the COG AOI and it may be that a single flock arrives each year moving between suitable sites within the locality. Obviously there is much work that could be done to explore details of the species movements around the area. The data should then be provided frequently between the data collector and other recognised ornithological groups.



Plumed Whistling Duck (The late *Kim Mackenzie*)

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Marchant, S., and Higgins, P. J. (Co-ords.) (1990) *Handbook of Australian, New Zealand and Antarctic birds.* Vol 1B, Oxford University Press, Melbourne.

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Accepted 7 November 2014

Appendix : List of PWD records sorted by date.

ID	Location	Date	No. seen	Dupli-cate?
51	CSIRO Crace	14/04/1966	9	No
10	Commonwealth Park	07/01/1998	1	No
11	Nerang Pool, Commonwealth Park	09/01/1998	1	No
12	Lake Burley Griffin, Kingston	09/03/1998	1	No
13	Jerrabomberra Creek	19/03/1998	1	No
16	Mouth of Jerrabomberra Creek	21/03/1998	1	No
48	Kelly's Swamp, Fyshwick	22/03/1998	1	No
14	Kingston foreshore	23/04/1998	1	No
15	Jerrabomberra Wetlands	22/10/1998	1	No
1	Krawarree	01/01/2008		No
35	Trucking Yard Lane dam, Bungendore	31/12/2009	14	No
17	Trucking Yard Lane dam, Bungendore	31/12/2009	15	No
25	Lake Bathurst Southern Morass	22/02/2010	2	No
34	Morass	16/01/2011	16	No
2	Dickson Wetlands	01/10/2011	26	No
3	Dickson Wetlands	17/10/2011	28	No
18	Dickson Wetlands	17/10/2011	26	No
6	Kelly's Swamp, Fyshwick	06/01/2012	32	Yes
4	Kelly's Swamp, Fyshwick	06/01/2012	31	No
22	Kelly's Swamp, Fyshwick	06/01/2012	32	Yes
19	Kelly's Swamp, Fyshwick	06/01/2012	32	Yes
5	Kelly's Swamp, Fyshwick	06/01/2012	32	No
7	Kelly's Swamp, Fyshwick	11/03/2012	16	No
8	Kelly's Swamp, Fyshwick	11/03/2012	16	Yes
26	Trucking Yard Lane dam, Bungendore	24/10/2012	8	No
21	Trucking Yard Lane dam, Bungendore	24/10/2012	9	No
20	Trucking Yard Lane dam, Bungendore	25/10/2012	9	No
9	Bungendore	25/10/2012	9	No
49	Urriara Crossing	26/12/2012	12	No
47	Kelly's Swamp, Fyshwick	11/03/2013	16	No
46	Kelly's Swamp, Fyshwick	11/03/2013	16	Yes
23	Trucking Yard Lane dam, Bungendore	02/10/2013	13	Yes
36	Trucking Yard Lane dam, Bungendore	02/10/2013	13	No
24	Trucking Yard Lane dam, Bungendore	05/10/2013	25	No
27	Trucking Yard Lane dam, Bungendore	16/11/2013	15	No
28	Trucking Yard Lane dam, Bungendore	23/11/2013	22	No
29	Trucking Yard Lane dam, Bungendore	05/12/2013	22	No
45	Bungendore Sewage Works	12/01/2014	1	No
30	Bungendore Sewage Works	13/01/2014	12	No

Appendix 1 continued

ID	Location	Date	No. seen	Dupli-cate?
44	Bungendore Sewage Works	23/01/2014	13	No
43	Bungendore Sewage Works	30/01/2014	30	No
42	Bungendore Sewage Works	24/02/2014	31	No
41	Bungendore Sewage Works	26/02/2014	33	No
40	Bungendore Sewage Works	01/03/2014	36	No
39	Bungendore Sewage Works	02/03/2014	22	No
33	Trucking Yard Lane dam, Bungendore	02/04/2014	5	No
32	Trucking Yard Lane dam, Bungendore	09/04/2014	32	No
37	Bungendore Sewage Works	13/04/2014	4	Yes
31	Bungendore Sewage Works	13/04/2014	4	No
38	Bungendore Sewage Works	14/04/2014	24	No
52	Trucking Yard Lane dam, Bungendore	14/09/2014	13	No

Plumed Whistling Ducks at the Bungendore Trucking Yard Lane (*Martin Butterfield*)

FLAME ROBINS BREEDING IN BROWN PLUMAGE AT CAMPBELL PARK IN 2014, AND AN ANALYSIS OF THEIR PERI-URBAN BREEDING RECORDS IN CANBERRA

JACK HOLLAND

8 Chauvel Circle Chapman ACT 2611

Abstract: *This article describes a Flame Robin breeding event at Campbell Park in peri-urban Canberra during the spring of 2014. This was successful in that two chicks were fledged with at least one surviving for a number of days, as witnessed by a number of observers, It was remarkable as both parents were in brown plumage, but even more significant was that it is the first recorded breeding of this species so close to urban Canberra for sixteen years.*

1. Introduction

Every year I note in my monthly column in the Gang-gang entitled *What to watch out for this month* that, after spending autumn and winter in peri-urban Canberra, Flame Robins leave in late winter/early spring to go to the mountains to breed.

It was therefore a great surprise to me when Elizabeth Compston posted a message on the COG chat line on 3 October 2014 that, amongst other breeding at Campbell Park, she had observed a Flame Robin nest in a tree near the (Owlet) Nightjar. Elizabeth noted that there were two females, or a female and juvenile, entering and leaving nest, but there was no sign of the male. Later that day Elizabeth posted a "confession" that she "only found the robin's nest because Robin Eckermann told me approximately where it was, and he had been told by Lindell (Emerton), so it was her find first. I watched the birds for 15-20 minutes until I saw one go into the nest."

2. Establishing the species breeding

That evening I e-mailed both Elizabeth and Lindell to alert them what a significant find this Flame Robin nest was, a rare case of this species breeding close to suburban Canberra. I noted that it is generally considered that they move into the mountains to breed, and a look at the last three Annual Bird Reports in CBN confirmed this, with only between 3 to 6 breeding records each year, all well away from Canberra.

Lindell responded by attaching the only photo she had managed of the Flame Robin at the nest. She indicated she had found the nest on 6 September when she caught a glimpse of a bird flying into it and disappearing very quickly. She watched for a while but it wouldn't come out and it wasn't until 28 September when she photographed it (Figure 1). My immediate reaction to this photo was an immature female Scarlet Robin based on the relatively large size of the white noseband/forehead patch and the orange-reddish wash to the throat.

When I raised this with Lindell she forwarded a photo taken of the bird that was hanging around the tree perhaps 'feathering' its nest on the 6 September. Unfortunately the white patch on the bird in this new photo was obscured by the nesting material, but the quite white wing bars and blackish wings were clear, which again cast some doubt in my mind on the

identification. She also noted that week and just before she had seen a couple of "female" Flame Robins out there - no males, and a pair of Scarlet Robins.

Further correspondence with Lindell, including a phone call when she was at the nest site, convinced me that I should meet with her and Elizabeth at Campbell Park the following morning, Sunday 5 October. She subsequently forwarded a photo of the feeding bird on the fence, which had a clear white patch above the bill and white wing bars in blackish wings, plus an orange-reddish wash on the throat (Figure 2). By this stage I was pretty convinced it was a Flame Robin, including that HANZAB (Higgins and Peter, 2002) suggests that the female Scarlet Robin attains its adult plumage pretty early, so would be unlikely to breed in immature plumage.

My research had also shown the site chosen was typical for a Flame Robin though Scarlet Robins also sometimes use loose bark or a tree cavity. The best description of the nest I found was in Michael Morecombe's Field Guide to Australian Birds, p398 (Morecombe, 2000).

3. Confirmation of species and fledging

We arrived there at the same time as Geoffrey Dabb, and he agreed to accompany us. A number of others, including Robin Eckermann, also joined in. On arriving I was surprised how small the strip of bark was that had torn away from the trunk (see Figure 1) with the nest built behind it. However, it was clear that there were two brown birds feeding either at the nest (mainly by the one that we thought distinguishable as a probable immature male by its darker wings and tail) or one fledgling (found by Bill Compston) already about 10 metres away.

Geoffrey later E-mailed me that he visited late the same afternoon and the second fledgling had left the nest and was being fed by apparently just the one adult (the paler one!). The following day Darryl Beaumont and Gail Neumann posted on the COG chat line "Yesterday afternoon at Campbell Park for about 20 minutes we watched two brown Flame Robins and a recent fledgling. At least one bird was feeding the fledgling. We could not ascertain whether both birds fed the fledgling."

On 8 October Elizabeth Compston posted that she'd seen the Flame Robin chick flying well in vicinity of nest tree and towards the horse gate. The following day Con Boekel posted that he'd seen an adult 'brown' Flame Robin feed a dependent young around midday about 100 m from the nest site. The other adult 'brown' Flame Robin was around but did not feed the chick. Only one chick was observed. These are the last recorded sightings that I'm aware of this breeding event.

Given the unusual nature of this finding I e-mailed Steve Wallace for information from the COG data base on Flame Robin breeding in the ACT. Steve responded that he was already aware of this event as Christine D had found the nest and eggs first (Christine later clarified that she'd been pointed out the nest by Lindell on the day she first saw it). Steve had a video of it taken on 22 September including of very young birds being fed. He planned to show at the COG meeting on 8 October, but unfortunately a broken projection system meant this couldn't happen (parts of it were later shown at the 12 November meeting).

Steve forwarded an edited version of it, in which one of the brown birds, which Steve had identified as the male, had a reddish wash around the throat. Brief views also showed a largish white spot above the bill.

4. Related Flame Robin observations at Campbell Park including previous breeding events

On 5 October after having seen Lindell there Con Boekel e-mailed me with an image of a female with nesting material in her beak. He indicated this was taken at Campbell Park on 25 August 2014. At that time he found a pair of Flames (one a coloured male, the other a brown bird) building in Campbell Park. They also carried out a routine of what looked to be hopping sideways while facing each on the ground, with the male, from time to time, squatting on the ground. Con noted that this nesting attempt was abandoned.

On 5 October 2014, also in Campbell Park, Con saw a male Flame Robin feed something to a begging plain brown bird. Con's view based on a second image provided was that the latter looked to be a female rather than a juvenile. Given that the two with the nest near the Owlet Nightjar tree were plain brown birds, Con concluded that would make two and possibly three breeding attempts by Flame Robins in Campbell Park this year.

Table 1. Sequence of observations at Campbell Park related to the Flame Robin successful breeding event

Date	Observer/Medium	Comment
13 July	Terry Munro/ COG chat line	20 Flame Robins in the paddock off the Eastern Track
19 July	Con Boekel/ COG chat line	Still many Flame Robins present mostly at the northern end
3 August	Steve Holliday/ Eremaea Ebird	10+ birds including 3 or 4 coloured males in adjacent paddocks, at least 10 more seen in woodland.
25 August	Con Boekel/personal communication	Normal pair of Flame Robins nest building - attempt abandoned
6 September	Lindell Emerton/personal communication	Found nest when she glimpsed bird flying into it and disappearing very quickly – pointed it out to Christine D
22 September	Steve Wallace/personal communication	Made a video of "male" and "female" birds as well as of the very young chicks.
28 September	Lindell Emerton/personal communication	Photographed bird at nest for the first time
3 October	Elizabeth Compston/ COG chat line	First public notice of breeding event
4-5 October	Various people (see text)	Parents seen feeding chicks at nest, one had fledged am on 5 October
5 October	Con Boekel/personal communication	Male Flame Robin seen feeding plain brown one, possibly a female
5 October (pm)	Geoffrey Dabb/personal communication	Second chick had fledged
8 & 9 October	Elizabeth Compston/ Con Boekel COG chat line	Last reports of a single fledgling, including being fed by one parent
2 November	Peter Milburn, Kim and Geoff Lamour/ Eremaea Ebird	Last record of a single Flame Robin at Campbell Park

Con also reminded me that there were significant numbers of Flame Robins overwintering in Campbell Park and the adjacent paddock in 2014. Examination of the COG chat line records as well as the Eremaea ebird database indicates that there were between 20-25 birds of this species recorded at Campbell Park during July/early August. The latter contains records of Flame Robins there up to early November, but doesn't appear to include any notes on breeding.

Michael Lenz also posted on 5 October that quite a good number of years ago a pair of Flame Robins, consisting of two brown birds, was also observed to be nesting in the Campbell Park area. They managed to raise one young (this would appear to be the 1988 record – see Table 1 below). He noted (as had Geoffrey Dabb) that HANZAB (Higgins and Peter, 2002) does mention brown males involved in breeding. Michael later e-mailed me privately that on his woodland survey on 28 September 2014 he had a female Flame Robin much further N to the current nest site, but the bird gave no indication that it was nesting or even had a partner.

Table 1 summarises the sequence of observations/events recorded above.

5. Discussion of the significance of the breeding event

The breeding event described above seems remarkable on two counts, 1. It is of a pair of brown birds; and perhaps more importantly, 2. It is much closer to urban Canberra than the recent experience.

5.1 Breeding in brown plumage

The first is the less significant of the two. As noted above HANZAB (Higgins and Peter, 2002) says males do sometimes breed in immature plumage. There is also sometimes a second immature stage so a brown male could be towards the end of its second year. Acquisition of adult plumage said to be variable. However, clearly identifying which of the two birds was the male or the female has proven more difficult for me.

Figure 1 - Flame Robin at nest (*Lindell Emerton*)

Figure 2 - One of the Flame Robin parents involved in feeding at the nest (*Lindell Emerton*)

Geoffrey Dabb took some photos on 5 October of which one showed a bird with a very clear orange-reddish wash on the throat but hardly any white spot (perhaps obscured by the prey, see Figure 3), unlike the first photo Lindell sent me (see Figure 1) and which was also briefly visible on Steve Wallace's video (see above). From these photos it was also harder to see the difference in the darker wings and tail plus whitish wing bars between the two birds than it appeared to be when we were out in the field. So using the wing and wing bar colour to distinguish between the female and immature male seems unreliable. I also found it very hard to pick up the orange-reddish throat wash in the field compared with on the photos, though it is variable across a range of these.

HANZAB (Higgins and Peter, 2002) is also rather confusing as it indicates in the FIELD IDENTIFICATION text (p666) that the first (and second) immature male and female are inseparable from the adult female in the field, but then the plate opposite p640 shows the immature male with a browner wings than the adult, but with a slightly larger white spot above the bill and a more orange-reddish throat. However, later under AGEING AND SEXING (p681) HANZAB indicates the presence of orange wash to underparts cannot be used to separate sexes, as this is sometimes present in adult females as well as immature males.

Interestingly both Morecombe and HANZAB indicate that only the female of both species build and brood, though the latter indicates that the male will feed the female away from the nest for the Scarlet (though sometimes on), whereas the female Flame Robin is fed on the nest. However, both male and female will feed young, particularly after the first few days. Unfortunately none of the photos or other information made available to me seems helpful for use in distinguishing the male and female in this breeding event.

Figure 3 - Different photo of a Flame Robin parent involved in feeding (*Geoffrey Dab*b).

5.2 Peri-urban breeding records from Canberra

The more remarkable is examination of the COG database records of Flame Robins breeding close to Canberra. Steve Wallace originally forwarded me the complete set of 112 breeding records from which he then was able to provide me with the 17 records close to Canberra (only 11 if we consider the 1984 records from "Arawang" via Kambah as a single record/breeding event) shown in Table 2. What is even more remarkable is that all bar one (1998) are from the 1980s, quite a few predating the ACT Atlas (McComas Taylor and Canberra Ornithologists Group, 1992) for which data collection commenced on 1 September 1986.

The data are certainly worth commenting on, in particular those from Ross Bennett, who seems to have been the only one who has provided close to a full breeding cycle from 4 September to 23 October 1984 with three chicks successfully fledged. These are from where I recall he was living at the time, the property "Arawang" which is about 1 km W of Mt Arawang on the SE end of Cooleman Ridge and in the same grid cell (I 15) that I've been living since 1975. While I'm not sure exactly where he obtained this record, Google Earth shows this area is a relatively open/cleared one (it is unlikely to have changed much in the past 30 years). He only put in a single record the following year (this nest failed according to the 1985-1986 ABR), but his other record of a nest and eggs in the adjacent grid cell J 15 on 1 October 1988 at "Mt Taylor NE Pearce" has a similar timing and appears the most "urban" record if you define this as closest to housing/built up areas.

Table 2. The 11 breeding events of Flame Robins close to Canberra as recorded in the COG database.

Grid No.	Date	Location	Observer	Breeding Code*
I14	06 Oct 87	Molonglo/Stromlo	Malcolm Fyfe	ny
	07 Oct 88	as above	Malcolm Fyfe	dy
	08 Nov 88	as above	Malcolm Fyfe	ny
I15	04 Sep 84	"Arawang" via Kambah	Ross Bennett	n
	11 Sep 84	as above	Ross Bennett	n
	18 Sep 84	as above	Ross Bennett	n
	25 Sep 84	as above	Ross Bennett	n
	09 Oct 84	as above	Ross Bennett	dy (3)
	16 Oct 84	as above	Ross Bennett	dy (3)
	23 Oct 84	as above	Ross Bennet	dy (3)
	09 Oct 85	as above	Ross Bennett	n
	01 Oct 88	Cooleman Ridge	John Bissett	ny
J15	01 Oct 88	Mt Taylor, NE Pearce	Ross Bennett	ne
K16	29 Sep 85	Tuggeranong Creek, Site 9	Robert Bell	ny
L 13	15 Oct 88	Mt Ainslie East	Michael Lenz	dy (1)
	21 Oct 98	as above	Michael Lenz	dy (1)
L14	24 Sep 89	Jerrabomberra Wetlands	McComas Taylor	ne

*Breeding codes: n = nest: ne =nest with eggs; ny = nest with young; dy = dependent young

Possible similar situations are John Bissett's record of a nest with young on Cooleman Ridge, also in grid cell I 15 and W of Mt Arawang (which is on the W edge of grid cell J15), or McComas Taylor's nest with eggs at the Jerrabomberra Wetlands. Geoffrey Dabb (personal communication) tells me that he recorded a pair of Flame Robins (red-breasted male) that attempted to nest on Mt Mugga (on the E or Mugga Lane side) about 1998. This would also be close to suburbia and is a second record for the 1990s. The nest was abandoned quite early.

It is unclear to me how close to surburbia Robert Bell's record of "ny" in K16 was. It is labelled as site 9 on Tuggeranong Creek though I can't recall either this observer or this site when I was conducting surveys of the now Lake Tuggeranong area (Holland, 1985). My article makes it clear that in mid 1985, apart from the Silt Trap, Lake Tuggeranong and its associated retention ponds had not yet been built, as would still have been the case in late September 1985 when the breeding event was recorded. I suspect these may have been other more formal surveys conducted before Lake Tuggeranong and these retention ponds were built.

Further grid cell K16 seems to be incorrect, as it was either J16 if it was N of what is now the Edward Way Bridge, or J17 if it was in the remaining bit of Lake Tuggeranong before the Silt Trap or where Tuggeranong Creek turns E up to what is now the in-flow for Isabella Pond. It was possibly K17 which is up stream of Isabella Pond, though much of this area may already have been suburbia as Wikipedia tells me that the suburb of Monash, on the N side of Tuggeranong Creek in J17 was first settled in 1978, and that Isabella Plains on the S side was gazetted in 1975, and then also likely to have been developed 10 years later.

On the other hand Malcolm Fyfe's records of 3 apparent separate breeding observations (ny/dy) were from the pine forests SW of Coppins Crossing, which are now being developed but at the time was well away from built up areas. Finally Michael Lenz's two separate records of dependent young at Mt Ainslie are almost exactly 10 years apart, one of which was of two brown birds (probably the 1988 one in the Campbell Park area - see above) are the closest to the site of the 2014 breeding record, it seems 26 year apart!

The timing of these records is also interesting, the latest being nest with young on 8 November 1998 but all others in September but mainly October. This is similar to the one described above and may explain why we've never observed either robin species at Campbell Park during 11 years of nest workshops as these are always held in mid November.

6. Conclusion

It is remarkable how what started off as a note containing only a few paragraphs grew significantly as more information came to hand and the importance of the breeding event described above became clearer. It is unclear why this species would breed again in peri-urban Canberra after an apparent absence of 16 years. Given the number of people who bird watch at Campbell Park, and who witnessed this event, it seems unlikely that breeding attempts there in the intervening years would have been overlooked.

Acknowledgements

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NOTES

OBSERVATIONS ON AN INFLUX OF MUSK LORIKEETS (*Glossopsitta concinna*) INTO TWO WODEN VALLEY SUBURBS IN JUNE-AUGUST 2014

JOHN LEONARD

calyptorhynchus@gmail.com

Musk Lorikeets are a very occasional visitor to the ACT, with only 15 records between 1981-2013 from the COG database as extracted by Steve Wallace. However, there was an influx into southern Canberra during autumn and winter 2014.

Musk Lorikeets were first observed this year in Wanniassa in March, and were still being recorded in early September.

These observations relate to the other area that Musk Lorikeets were observed in by the author and others—the suburbs of Hughes and Deakin. In what follows the author's observations are reported unless otherwise specified.

Hughes

Musk Lorikeets were first observed in Hughes 10 June, flying across Kent Street near Hughes Oval (-35.3318, 149.0894). Another observer confirmed them feeding in one large *Eucalyptus meliodora* and nearby *Eucalyptus cinerea* at that site the next day.

Interestingly this site was host to Swift Parrots in the winter of 2011, feeding in the *Eucalyptus cinerea* (Mark Allen's observations).

Musk Lorikeets continued to be observed feeding at that site regularly until 30 June, during this period they were also observed several times flying over the author's house in Jensen Street, Hughes, approximately 300 meters away.

Observations from this site:

- Musk Lorikeets were observed at all times of day from 08:00 to 17:00, though never present for long stretches.
- They were feeding in much undeveloped blossom at first (at the beginning of the period it was not even obvious that the trees were flowering).
- Towards the end of the period Rainbow Lorikeets (*Trichoglossus haematodus*) were also present, and they continued to be observed at that site into July. They appeared when the blossoms were more fully developed and persisted longer. [Rainbow Lorikeets have become increasingly common in this area in recent years.]
- No antagonistic interactions were observed between Musk Lorikeets and Rainbow Lorikeets though antagonistic relations were observed between Lorikeets of both species and Noisy Miners (*Manorina melanocephala*) and Red Wattlebirds (*Anthochaera carunculata*).
- The Musk Lorikeets appeared to travel in pairs, as they were always observed in multiples of 2, up to a maximum of 8 birds. The usual number present at this site was 4.

- The Musk Lorikeets appeared to travel to and from the site from various directions; they were observed flying off due east, north-east and south-east, and arriving from due east and south-east. Wanniassa is to the south-east and only 15 minutes or so flight time so these birds could have been the same birds as observed in Wanniassa.

Deakin

After the last Hughes feeding tree sighting Musk Lorikeets continued to be seen or heard every few days in Jensen Street. On 16 July they were observed in flowering Mugga Ironbarks (*Eucalyptus sideroxylon*) at the north end of Alfred Deakin High School Tennis Courts off Kent Street (-35.3232, 149.0970).

They were observed at this spot on the next three days at various times of day (the photo accompanying was taken at the time). Other observers observed them up until 29 July. At this spot the maximum number recorded at any one time was 6.

Observations from this site:

- In contrast to the Hughes feeding site, the blossoms here were already very well developed by 16 July and the Musk Lorikeets were already sharing the site with Rainbow Lorikeets, with no antagonistic relations; Rainbow Lorikeets were always present with the Musk Lorikeets during observations.
- At one point the feeding Lorikeets were startled and flew off in a flock together consisting of 2 Musk Lorikeets and 4 Rainbow Lorikeets. After circling the trees several times they returned to feeding.
- As at the Hughes site there were antagonistic relations between Lorikeets of both species and Red Wattlebirds and Noisy Miners.
- Musk Lorikeets were not observed either arriving at or leaving this site.
- At this site one observer noted mutual preening between two Musk Lorikeets.

During later August Musk Lorikeets continued to be heard or seen flying by every few days in Jensen Street.

Hughes again

At around 07:30 on 29 August 2014 (a cold, misty morning) 4 Musk Lorikeets were observed seemingly waking up from roosting (preening and flying about calling) at dead standing tree in a plantation of Tasmanian Blue Gum (*Eucalyptus globulus*) on the ridge between Carruthers Street and Millen Place, Hughes (approx. -35.3281, 149.0934).

The fact that this site is equidistant (approx. 700 m) from both previously mentioned sites is probably a coincidence, although the fact Musk Lorikeets were observed flying by every few days in Jensen Street from June to late August might indicate that this was a regular roosting spot.

General Conclusions

- A flock of 8 or more Musk Lorikeets were present in the Hughes/Deakin area from June to August 2014.
- They utilised two known feeding sites in the area and probably others.
- Both the sites discussed here consisted mainly of planted eucalypts, indicating the importance of planted nectariferous trees for native birds in Canberra urban areas.

- These individuals may have been the same birds as observed in Wanniassa in the same period.
- During observations in this area in this period no antagonistic relations were observed with the more common and resident Rainbow Lorikeets.
- There was no obvious reason why 2014 should host an influx of Musk Lorikeets into the ACT, other than that the past four years had seen above average rainfall for coastal areas and Musk Lorikeets may have had good breeding success, leading to roving flocks searching for new flowering outside their usual range. It is noteworthy in this regard that of the 15 records from 1981-2013 in the COG database, the month with the greatest number of sightings should be May (late autumn), suggesting a couple of previous post-breeding dispersal events to the ACT.

Observers

This paper details the author's own observations supplemented by those of Mark Allen, Andrew Cadogan-Cowper, Ace Frawley, Sandra Henderson, Nick Payne and Kevin Windle. All conclusions are the author's, not those of the other observers.

Accepted 25 September 2014

Musk Lorikeet feeding in an Ironbark (*John Leonard*)

LITTLE PIED CORMORANT ATTEMPTS TO DEFEND FEEDING SPACE FROM LITTLE BLACK CORMORANT

The late TONY HOWARD AND ISOBEL CRAWFORD

POB 6031, O'Connor, ACT 2602

A Little Pied Cormorant (*Microcarbo melanoleucos*) is an almost daily visitor to the newly constructed wetland in Dickson. It appears to find food very readily. It is not resident and in the late afternoon flies to the west or nor-west, presumably to a roost. On 2 August 2014, we walked around the wetland from 15:30 to 15:50 hours. We observed the cormorant take two fish, each large enough to cause some difficulty in swallowing. After this, it perched on a low branch over the water, its abdomen noticeably distended. It then swam purposefully towards a pair of Pacific Black Duck (*Anas superciliosa*) loafing near the shore, inducing each to move away.

Soon afterwards a Little Black Cormorant (*Phalacrocorax sulcirostris*) landed on the water. This species is an occasional visitor to the wetland. The LPC responded immediately and flew just above the water directly towards the LBC, landing within a metre of it. The LBC then dived. When it surfaced, the LPC flew towards it again. The LBC dived again, and the sequence was repeated perhaps a dozen times. Several times the LPC, instead of flying, swam under water towards the LBC.

Eventually the LBC took off, to be chased by the LPC. They circled the wetland repeatedly. The LBC appeared to fly slightly faster, and would glide briefly, whereupon the LPC would catch up. A sound of either bill clacking or wing clapping was heard a few times. At one point the LBC made a steep dive to within a metre of the water and the LPC followed. Then the chase resumed.

Finally the birds landed on the water. Now the LPC pursued the LBC by swimming underwater, but this occurred only a few times before the chase was given up, and each bird went to different sections of the wetland to feed.

Accepted 7 September 2014

Little Pied Cormorant (*Graham Stephinson*) [left] and Little Black Cormorant (*Julian Robinson*) [right].

A RECORD OF A SQUARTE-TAILED KITE, AND A POSSIBLE SOOTY OWL, IN COG's AREA OF INTEREST

MARK CLAYTON

81 Maribyrnong Avenue, Kaleen, ACT, 2617

On October 27, 1990, Richard Allen (RA), Chris Davey (CD), Paul Mahoney (PM) and the author (MC), drove from Canberra to Lowden Forest Park in Tallaganda State Forest planning a route and checking bird species along the way for a twitchathon type event to be held the next day. We had decided to camp overnight at Lowden Forest Park and use it as the starting point for the mornings "twitch". The vegetation of the area is tall moist forest dominated by *Eucalyptus fastigata, E. obliqua* and a gum species, probably *E. dalrympleana* with a low understory of various *Acacia* species and, along the wetter gullies, fern species. Co-ordinates for the site are -35.5068 and 149.6029 and the COG grid square is W19.

Sometime just after dawn we were all standing in a slightly clearer patch of forest near Lowden Forest Park listening to, and ticking off, the calls of the local bird species when our attention was drawn to a large raptor slowly circling over the forest canopy. The bird emerged into an open area and circled us for about thirty seconds at a height of about 20 metres. We had excellent views of the bird's almost white face, chestnut breast with dark streaking, long narrow wings, again with chestnut underneath and the very prominent long "fingers" of the outer primaries. The inner primaries and secondaries were dark tipped and there appeared to be dark banding along the inner length of the primaries and secondaries. The tail was relatively short compared to the wing length, was slightly forked and had what appeared to be a darker terminal band. The bird was quickly identified as a Square-tailed Kite, *Lophoictinia isura* by both PM and MC.

CD had not seen this species prior to the Tallaganda bird. RA had only seen it once previously, at the Glenelg River in Victoria, just prior to this record. PM was very familiar with the species while growing up in the Brisbane area in Queensland while MC had recorded the species along the east coast of Australia during CSIRO surveys and had actually found the species nesting in Coolangubra State Forest , partly now National Park, east of Bombala (CSIRO unpublished data). Unfortunately this nest was destroyed when the area was clear-felled for conversion to *Pinus radiata* plantations. A large chick in the nest was found but was far too rotten to save as a museum specimen. Subsequently MC located another nest a year or so later not far from the original site and in a reserved area but has no idea if it ever fledged young.

The Square-tailed Kite is a regular spring - autumn migrant along the coast to the east of the ACT. It has been recorded further Inland at Jindalee State Forest (now National Park), and MC and others recorded it at Currawinya National Park in south-western Queensland in 2011. There was a recent (2014) possible record of the species near Collector in NSW (Canberra Birds Chatline).

In the early morning pre-dawn of Sunday October 28, a loud piercing "falling bomb" call independently woke up RA, PM and MC. The call was obviously that of a Sooty Owl, *Tyto tenebricosa,* and was repeated several times. RA recalls hearing the call once, while PM and MC both heard it at least twice. The call was not mistaken for the very squeaky water wheel that was present at the site. MC has had extensive experience with the call of this species

having regularly recorded it during surveys undertaken while working for CSIRO in forests along the east coast of Australia (CSIRO unpublished data). He had been able, on occasions, to call up the species by imitating its call in several places near Batemans Bay. As with the Square-tailed Kite, PM is very familiar with the owl's call from his time as a youth growing up in Queensland, while RA has heard the call several times in the forests north of Batemans Bay. CD did not hear the bird at all.

There have been two previous records of Sooty Owls in COG's Area of Interest; both were not endorsed by COG's Rarities Committee. The first was on October 12, 1987 at Moonlight Hollow Road. It was seen by a group of people but only the face, described as "very dark". The committee could not rule out a dark morph Masked Owl, *T. novaehollandiae*. The second record was on November 21, 1987 on Naas Road, just north of Apollo Road. As with our record the bird was "heard only" and was not endorsed on the grounds of a lack of delay between calls and the observer's lack of experience with the species. (B. Allan pers. com.).
Our records were only recently presented to COG's Rarities Panel, in November 2014. The record of the Square-tailed Kite has been accepted but the Sooty Owl has not been endorsed as it was based solely on a call and not a physical sighting, and a similar descending call from the Satin Bowerbird, *Ptilonorhynchus violaceus,* was not ruled out in the submission. All who heard the call are familiar with the call of the bowerbird. At least two of the observers are very familiar with the call of the owl species and are in no doubt that this is the species that was heard.

Also of interest was a Pied Butcherbird, *Cracticus nigrogularis*, seen in a paddock along Hoskinstown Road. This record would possibly be one of the earliest records of the species in COG's Area of Interest. It too was not reported at the time and is a long way to the east of where the species in now being seen locally.

I thank Martin Butterfield for providing the co-ordinates and grid number following a request made by MC on the COG Chat line.

Square-tailed Kite (*Leo Berzin*)

COLUMNIST'S CORNER

Those uniform English names: a good idea at the time

The 50 years of COG's existence has seen some progress in settling the perennial issue of English names for birds, but resolution is far away. We can now say that attempts at **world-wide uniformity have been less than successful, and, indeed, have created confusions of their** own. The confusion now extends to usage within Australia.

The RAOU committee responsible for many of our present English names began work in 1975, and put forward the following as a guiding rule: the name most widely or authoritatively used internationally is preferable. That committee's recommendations were aired in 1978. However it was not until 1994 that a slightly modified version was issued with the authority of the RAOU.

The intervening consultation process was directed mainly to accommodating preferences of Australian birdwatchers. As it happened, that period saw the appearance of the first international checklists with English names. Those of Michael Walters, and Howard & Moore, both appeared in 1980. A little earlier in North America, the PhD thesis of James Clements had been published as an international checklist with its own choices of English names.

In 1990 the International Council for Bird Preservation (now Birdlife International – 'BLI') published a world checklist with English names, adopting initially that of Howard & Moore.

Then, after the RAOU 1994 list, came the report, in 2006, of the group established by the International Ornithologists' Committee (as it was) to adopt 'a standardized system of English names' for world-wide use.

The present position is that there are at least 5 authoritative sets of world lists available on different websites, each being continually updated as to taxonomy, and with occasional revisions of the English names offered. These exist alongside the various national lists, each subject to revision by respective national authorities.

What then of the 'official' Australian names promulgated by RAOU (now Birdlife Australia – 'BLA')? The current list, described as the 'Working List of Australian Birds', may be found on the BLA website. There is a heading *How are our common (English) names decided?* The answer given points to the1978 RAOU report, and states, unsurprisingly since this is entirely due to inertia by BLA itself, 'bird names have remained relatively stable ever since'.

The following statement is given on BLA English names policy:
'While the preservation of our long established bird names puts us at odds with some global lists, Birdlife Australia believes it is important to maintain consistency in our bird names, given the huge social capital built up over many decades by research and conservation programs'. Hang on a minute! That is the point of view that might reasonably have been acted on in 1975. It is now an oddly conservative names policy in a different world.

'Long-established' is a strange adjective, given the novelty of the many names adopted only 20 years ago in pursuit of the now-abandoned quest for international consistency which introduced us to 'Masked Lapwing' and 'Gerygone', not to mention 'Black-Cockatoo'.

It might have been more realistic to say: 'The people who were annoyed when we changed the names in 1994 will be even more annoyed if we change them again, so we won't'.

The BLA policy might be contrasted with that of the British Ornithologists' Union which has adopted the IOC names at the 'international level' and in most publications but in its official UK list gives both the IOC name and a distinctly non-international 'vernacular' name (eg 'Knot', 'Kingfisher', 'Kestrel' – and the old 'Goosander' instead of 'Red-breasted Merganser'). The Royal Society for the Protection of Birds also uses unembroidered homely names, no doubt with an eye to maintaining social capital.

In their origin, many of the BLA English names were prescribed and lacked a good basis in ordinary usage. When they were followed it was because editors required it, and it was generally in the absence of an alternative with a respectable basis. Now, in light of the growing use of world lists giving alternative names for several Australian birds, the BLA names are likely to lose their authority, and be subject to more frequent departures.

The BLA list persists with 'Common Greenfinch' (although 'European Greenfinch' was recommended in 1978, and is the name used in current international lists). The widely used recording and data system 'eBird', managed by the Cornell Lab of Ornithology, uses and updates the Clements taxonomy. For English names the user is offered a choice of six regional vocabularies, and can choose English (Australia) as a preference. Even with that choice, a data search will not recognise 'Common Greenfinch', 'European Greenfinch' being Australian English, apparently.

BLA has an 'English Names Committee' although it has had little work given the BLA no-change names policy. In a general discussion of the current state of affairs one member drew attention to three postings to Birdline Victoria over two days in December 2013 which used three different names to report appearances of the koel: Common Koel, Eastern Koel, Australian Koel - while a fourth English name ('Pacific Koel') was given in the IOC list.

In part, that confusion concerned a taxonomic issue. In eBird ('English (Australia)') the BLA 'Eastern Koel' is not recognised because eBird's 'Australian Koel' is a separate species. There is no taxonomic issue with 'Australian Painted Snipe' though, but you will not find that in eBird (English (Australia)). You will not find it, either, in the Internet Bird Collection (a creation of the Handbook of the Birds of the World, with which the BLI list has now been aligned). 'Australian Painted-snipe' is now in general international use.

To suggest there is 'huge social capital' in retaining 'Australian Painted Snipe' and 'Common Goldfinch' is absurd.

In the world of checklists the recent uniting of the Handbook and BirdLife International to produce a new one is a significant development which will no doubt be influential. In the recently published Vol. 1 ('Non-passerines') there is a long introduction on 'species-level taxonomy at the global scale'. There is a relatively brief reference to English names, the main point, for present purposes, being on the notorious hyphen issue.

That troublesome issue has been previously discussed in this column: see Canberra Bird Notes 34:2, June 2009 and 36:2, June 2011. The announced policy of HBW/BLI will be 'irrespective of relationships [to] hyphenate compound generic names with the second element of the name in lower case'. Thus we would be back to 'Black-cockatoo' and 'Whistling-duck'. It would follow that, even if BLA does not change course, 'Black-cockatoo' would not be 'incorrect'. It would only represent a different preference or style. After all, BirdLife Australia declares itself to be the 'Australian partner of the BirdLife International global partnership'.

We shall have to wait for HBW/BLI's Vol. 2 to see what happens to 'Jacky Winter'. At present that is what appears in HBW, IOC and English (Australia) in eBird. However it is 'Jacky-winter' in the eBird English used in the United States and United Kingdom, and in the current BLI list. Perhaps Jacky-winter is more convenient for the alphabetical index-maker. That is, without the hyphen you might have to look under 'Winter, Jacky'.

I acknowledge the encouragement of my colleague, T. javanica, who has graciously tolerated this trespass into his cyberspace domain.

Stentoreus

Birding in Cyberspace, Canberra Style

Do you call yourself a **citizen scientist**? Perhaps not, but if you contribute data to COG's database, or perhaps to Eremaea eBird or to Birdlife Australia's Birdata, you certainly are a citizen scientist. A couple of months ago someone drew the attention of CanberraBirds subscribers to an article, published in the open access international refereed journal PLoS ONE, that explored the degree to which ornithological data collected by citizen scientists contributed to knowledge in that discipline.

The authors '…examined the contribution of citizen science to a review paper by ornithologists in which they formulated ten central claims about the impact of climate change on avian migration. Citizen science was never explicitly mentioned in the review article…We found that papers based on citizen science constituted between 24 and 77% of the references backing each claim, with no evidence of a mistrust of claims that relied heavily on citizen-science data.' The authors concluded that the significance of citizen science to global ornithological research is not sufficiently understood and acknowledged, and urged researchers to use the keyword 'citizen science' in academic papers that use data collected by non-professionals. (See Cooper, C, Shirk, J & Zuckerberg, B 2014, 'The invisible prevalence of citizen science in global research: migratory birds and climate change', *PLoS ONE*, vol. 9, no. 9, p. e106508, http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0106508.)

Although a theme of this column is that it is best for readers to be out and about getting exercise and enjoying birds in the field, opportunities exist to engage in citizen science projects related to birds while at your computer. A particularly prominent resource in this regard is **Zooniverse** https://www.zooniverse.org/. Zooniverse is 'real science online'. It is an online portal for scientific projects '…that use the efforts and ability of volunteers to help scientists and researchers deal with the flood of data that confronts them'. At the time of writing, a project to which cyberspace birders are contributing is focused on penguins:

'Monitor Penguins in Remote Regions': Scientists have travelled to some of the coldest areas on the planet to learn more about penguin populations. Help annotate their images of wildlife in Antarctica and the Southern Ocean.' Your columnist has derived much pleasure from assisting the scientists by doing just that: annotating photographs of penguins taken with their remote cameras. For many of the projects, special expertise is not needed, just an interest in contributing to ornithological science.

Closer to home, **FeralScan** is a citizen science project to which we can all contribute online. It is an initiative of the Invasive Animals Cooperative Research Centre and provides opportunities for people to map feral animals in their local area. The feral animals include rabbits, wild dogs, foxes, cane toads, mice, camels, goats, deer, and fish. To this may be added two bird species, namely the Common Myna and the Common Starling. (Interestingly, feral horses seemed not to be included.)

The MynaScan component is online at http://www.feralscan.org.au/mynascan/ . There we read that 'MynaScan is a new community website that allows you to map myna bird sightings, myna damage and control activities associated with myna's (*sic*) in your area. Anyone can use the MynaScan website anywhere in Australia. The MynaScan website can be used to assist communities, local government, and pest controllers to control myna birds and reduce the damage/problems they cause. MynaScan is a free mapping service that you can use to help with myna bird control in your local area'. It provides an opportunity for us to 'Record and view all your records of Myna birds, their damage and control activities all in the one place'.

Still on the topic of citizen science, did you participate in the first **Bathing Birds Survey** conducted during the winter 2014? Whether you did or not, you may be interested in the report on the survey that was released in September: http://tinyurl.com/pyd93qd . The report was prepared by Dr Gráinne Cleary, Citizen Science Ecologist for the National Parks Association of NSW in partnership with Dr Holly Parsons, Birds in Backyards Program Manager for BirdLife Australia and Dr Adrian Davis, Honorary Associate at the University of Sydney. They report that 'Our Bathing Birds study kicked off on the 27th of June and ran until the 27th of July 2014. We had 1,105 citizen scientists recording birds at birdbaths from all over Australia, submitting a total of 11,668 surveys! That's represents 226 species of birds and more than 47,000 individual sightings.'

From the Australian Capital Territory during the survey month 25 participants (citizen scientists) submitted 330 survey reports. We are further advised that 'The most abundant bird species were Australian Magpies appearing in over 17% of surveys followed by 2 common urban birds; the Red Wattlebird (a type of honeyeater) and Magpie-lark, both appearing in just over 12% of surveys. In the ACT we see the Crested Pigeon (a native pigeon as opposed to the doves we have also seen in some birdbaths) pop up in the top 10 – occurring in 4.5% of surveys, along with only 2 small native birds, the Eastern Spinebill…and the Grey Fantail.'

The next phase of the Survey runs from 23 January to 23 February. Details will be provided, closer to the date, online at http://root.ala.org.au/bdrs-core/npansw/home.htm .

In recent months we have seen the launch of the excellent website of the **Jerrabomberra Wetlands** http://www.jerrabomberrawetlands.org/. It describes the reserve and identifies the various partners working to preserve, enhance and promote it, including the Canberra Ornithologists Group. The site includes a fine photo gallery and has a major focus on letting

visitors know 'What's new' at the reserve. This includes activities of the Friends of Jerrabomberra Wetlands and activities for the public at large. Details of the Plan of Management and of the role of the Jerrabomberra Wetlands Management Committee are provided. The site explains that the vision for the wetlands is 'A diverse and dynamic floodplain landscape and wetland resource, inspiring the community to enjoy and appreciate its natural and cultural values and to participate actively in its care and management'. Perhaps I did not search thoroughly enough, but I was not able to locate a bird list for the reserve on their website which, if it really is not there, seems an unfortunate omission that could be readily remedied using the Canberra Ornithologists Group's wonderful data resources.

How is this for a headline: **'A half a billion biodiversity records'**. Yes, that was a 22 August 2014 announcement from the eBird developers at the Cornell Lab of Ornithology: http://tinyurl.com/ocf2c4l . They wrote 'Recently, eBird updated the data we share and publish through the Global Biodiversity Facility (GBIF), an international infrastructure that provides open access to biodiversity data. One result of this refresh is that data accessible through GBIF's network now exceeds 500 million records—a true milestone for access to biodiversity information'. eBird now contains more than 200 million records, more than 14.5 million hours have been volunteered by eBird contributors to collect bird observations and, to date, over 120 peer-reviewed publications have used eBird data. They advise that there have been over 6,500 data requests in the last 18 months and yes, the data are freely available to download. Increasingly, Australian birders are using this as the main place to submit their data, largely using the Eremaea eBird portal http://ebird.org/content/australia/, because it is so easy to use and because you can so readily access your own data and see what others have submitted with respect to localities of interest.

Is a Laughing Kookaburra or a laughing kookaburra? If you are an Australian birdwatcher, and follow the approach promulgated by Birdlife Australia http://www.birdlife.org.au/conservation/science/taxonomy , you follow complex, difficult to remember sets of rules about **the capitalisation of the common names for Australian birds**. If you are a biologist interested in, say, mammals or insects or virtually any other life form, you would be surprised to find that birds' common names are capitalised. (Of course, Birdlife Australia is no exception, as the International Ornithologists Union and most national birding organisations capitalise bird names.) Why am I raising this old issue now, you wonder? It is because the online encyclopaedia Wikipedia has stopped capitalising bird names excepting for those parts of the names that are proper nouns, for example Lewin's honeyeater or Cape Barren goose. Wikipedia's new guidelines are at http://en.wikipedia.org/wiki/Wikipedia:WikiProject_Birds and the topic is discussed in some detail at http://penelopedia.blogspot.com.au/2010/12/bird-names-to-capitalize-or-not.html .

It is interesting to note that many Australian writers, including some of our leading biologists, do not capitalise bird names. Your columnist is currently reading Tim Low's recently-published book *Where song began: Australia's birds and how they changed the world*. In that book, Low does not capitalise bird species' names.

Finally, just in case you are user of an iPhone or iPad and missed the announcement back in July, the terrific **Questabird game app is now available for iOS** as well as for Android: http://www.questabird.com/ . The Questabird initiative is supported by the Canberra Ornithologists Group, as well as a number of other organisations. It is a wonderful free tool for getting young people involved in birding, and all the data collected through the game is

contributed to the Atlas of Living Australia, making the game a significant citizen science project.

T. Javanica

This column is available online at http://canberrabirds.org.au/publications/canberra-bird-notes/. There you can access the web sites mentioned here by clicking on the hyperlinks.

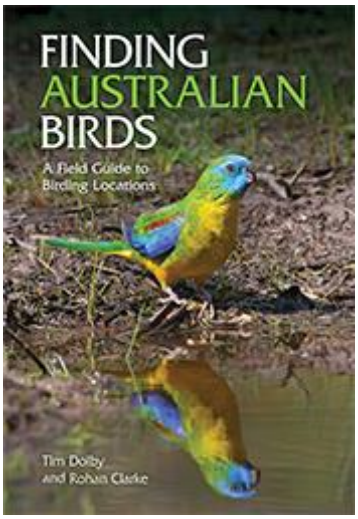
Details on how to subscribe to *Birding-Aus*, the Australian birding email discussion list, are on the web at http://www.birding-aus.org/ . A comprehensive searchable archive of the messages that have been posted to the list is at http://bioacoustics.cse.unsw.edu.au/archives/html/birding-aus.

To join the *CanberraBirds* email discussion list, send an email message with the word 'subscribe' in the subject line to canberrabirds-subscribe@canberrabirds.org.au. The list's searchable archive is at http://bioacoustics.cse.unsw.edu.au/archives/html/canberrabirds.

BOOK REVIEWS

***Finding Australian Birds: A Field Guide to Birding Locations*.** By **Tim Dolby and Rohan Clarke.** CSIRO Publishing, Collingwood, 2014, ISBN 9780643097667, 624pp., Softcover, AU $49.95

Reviewed by JACK HOLLAND, Chapman ACT



My first reaction when I was approached to review this new book was, is there still a place for such a book in the modern era of computers and the Internet? It also took me back to 1988 (when the latter was not yet available) when I reviewed what was then one of the first of this kind of book, **Where to find Birds in Australia** by **John Bransbury** (CBN 13 (4), pp123-124), and also at the same time the slightly earlier and vastly different **The Great Australian Bird Finder** by **Michael Morecombe** (CBN, 13 (4) pp124-125). While the former still seems to be available through used book sources the latter seems much more difficult to obtain, possibly due to the criticisms I highlighted such as its large size and in fact being 3 books in one (I note it was already out of print when I reviewed it!).

What surprised me even further is that it's by the same publisher as the recently revised 2011 edition of the 1994 book by the former COG members, widely known as Thomas & Thomas (now **The Complete Guide to Finding the Birds of Australia, Second Edition** by **Richard Thomas, Sarah Thomas, David Andrew and Alan McBride**), in particular the relatively close publication dates and similar retail price. CSIRO Publishing certainly seems to think there is still a market for two such competing books.

The new book comprises of a small but very important 12 page Introduction which explains how the book has been set up and how to use it. This is followed by chapters on all States and Territories (the ACT being included in NSW), then the offshore islands and territories, the last-named comprising over 40 pages, including those expected such as Norfolk, Lord Howe, Christmas and the Cocos Keeling as well as the Ashmore Reef, but also those islands of the Northern Torres Strait and Macquarie and Heard Island. This part comprises of close to 500 pages, so it certainly is comprehensive in its coverage.

This is followed by an over 80 pages Annotated bird list of Australia and its Territories, including over 5 pages of Vagrants at the end. Then there is just over a page of Further reading (neither of the above Bransbury or Thomas and Thomas books are included!), two pages of Useful resources, contacts and bird watching groups (COG's details are listed), an Index of common bird names (which refers largely back to the Annotated Bird list but is in alphabetical rather than taxonomic order) and finally an Index of place names where you can find out if the spot you're planning to visit is covered in the book.

While brief, the Introduction clearly outlines the readership which the book tries to target, ranging from those who are simply interested in the birds in their local area, to the dedicated birder with specific targets in mind. However, early on the text importantly makes clear that use of the book should be done in conjunction with one of the excellent Australian Bird Field

Guides, as while the text is amply laced with photos, these are not explicitly there for species' identification purposes.

The Introduction then explains that there are two core sections in the book, the first being the Chapters on the States, Territories and islands. These are further divided into **regional overviews** at the start of each region (each State/Territory is divided up into a number of these regions reflecting that a bird's preferred habitat and presence is not linked to State/Territory borders) providing the reader with what to expect in the region, its climate and conditions, including the best seasons in which to visit, plus importantly suggested itineraries to ensure that the reader is able to maximise the possibility to see the range of species on offer in the region, as summarised in the **Birding Highlights** that follow.

The second core section of the book is said to be the bird finding guide acting "as a cross reference tool, linking individual species with specific sites mentioned in the text." The utility of this seems to me to be much less obvious, but it appears to refer to the comparatively smaller Annotated bird list mentioned above where each species, except for the very common ones, are followed by a list of places where you might find them, including in some cases the likelihood of encountering them (based on labelling them common, moderately common, uncommon or rare, which is always very subjective in my experience) plus typical habitats. However, it does indicate that Booderee National Park is a place to see the Square-tailed Kite, making my recent sighting of one at Jervis Bay less remarkable.

The book coverage is certainly comprehensive, certainly much better than uneven coverage of the early Bransbury book, my main criticism of it in 1988. This does make it quite large and heavy. To test the usefulness of the information I did a retrospective of a couple of recent trips including to Broome where I took in a couple of days at the Broome Bird Observatory (BBO), as well as a full day with a local guide during which time I saw over 120 species. As might be expected given its international reputation coverage of Broome is excellent, and I would clearly have benefitted from reading it before I went. While the BBO web site which I accessed before I went is very good, you do have to look at a number of different screens to get the total picture compared with the nice compact information over several pages in the book (doesn't that show my age!).

Likewise if I had consulted this book before I went on a non-birding visit to Bruny Island earlier this year I might have made more of my limited opportunities to see some birds. A Google search on the Internet now doesn't reveal any readily obtainable information on exactly where to find all 13 of Tasmania's endemic species there. Perth, which I regularly visit to see family gets a good even coverage without the overkill featured in the original Bransbury. Newhaven Station also gets a good coverage, with a very useful map, at least for initial planning.

It is clearly not possible to cover every area, but the coverage certainly gives the flavour of each region. So if the specific spot you are visiting is not listed, it's probably best to try to obtain the information on the Internet, or better still try to engage a local expert. You can't expect to just rock up and see a particular species, with the book making it clear in its page or so on Deniliquin that the only real option to see a Plains Wanderer is by participating in a tour run by the local guide Phil Maher who, as COG members know, will take you out at night, Hatari style with spotlights. Likewise without a local guide I doubt whether I would have been able to find Kidney Beans on Roebuck Plains from the general directions in the

book. This is a series of drying out lakes on the floodplain, which yielded the highest number and most interesting species on my recent trip to Broome.

The Introduction also contains a very useful few pages on seasonal variation that affects bird watching opportunities in Australia. This is important not only just for the different climates of the various seasons, but especially the chances to see birds, particularly in the inland, depend on how dry it is. One of my best birding experiences was a trip to the Gibson Desert (not mentioned in this book probably due to its general inaccessibility) a few months after a cyclone had gone through shortly after a big fire with the airstrip adjacent to our campsite still flooded. Birds were literally everywhere, due to a big build up post breeding in the recovering landscape. This contrasted with a later trip on a very dry Canning Stock Route where the main feature was the daily movement of woodswallows overhead, presumably headed for where conditions were better.

Likewise the COG trip to Newhaven in 2002 was very successful (Grey Honeyeater in the campsite, and Rufous-crowned Emu-Wrens seen from the toilet!) as things were still drying out compared with the following year under drought conditions when birds were very scarce indeed. Even the non-birding camping trip I did in the Kimberley this August was at a time when things had dried out enough so that very few birds of any kind were seen while driving, the highlight being a single Australian Bustard on the side of the road. Even the camp sites were relatively quiet, with easily the best birding experience being when we got to the waters of Parry Lagoons Nature Reserve. While this is mentioned it's interesting that the book covers only four other areas of the many attractions we visited on or off the Gibb River Road, of which we visited only one! Again I would have definitely benefitted from either having had consulted this book beforehand, or better still carried it with me. Then I would have known that the walk I did along the track to the Mitchell Falls is one of the best places to see the Black Grasswren, and probably would have made a better effort to try and locate it.

Despite the above comments, it isn't clear to me what sets it apart or gives it the edge over Bransbury or Thomas and Thomas. The one review I read beforehand claimed it is due to the less bird focussed approach with more emphasis on bird habitat, but this isn't immediately obvious to me. My copy of the Bransbury vanished long ago in the Canberra fires, and I've never actually felt the need to obtain a copy of either edition of the latter, perhaps because of the perception that my active twitching days are well past. However, to allow at least a brief comparison Barbara Allan kindly loaned me her copies of the first edition of both books.

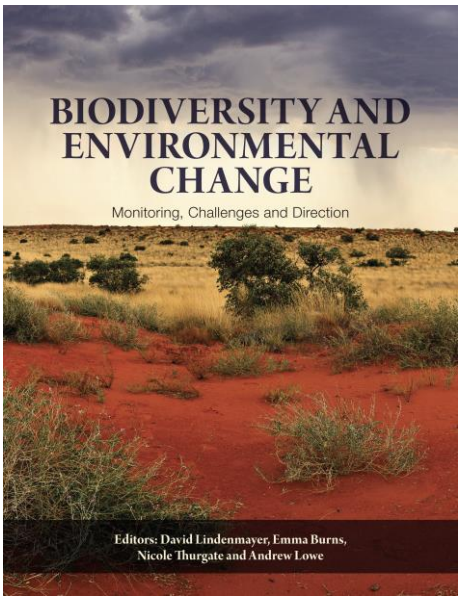
A check of the coverage of Broome and the Kimberleys reveals the former's treatment is in fact much more comprehensive, mentioning and giving descriptions/species to see for many more of the spots we visited along the Gibb River Road, perhaps due to the uneven coverage mentioned above. By contrast the treatment in the latter is surprisingly brief, mentioning only two spots off the Gibb River Road and less than half a page for Broome. The latter is very surprising considering Broome was well on the bird watching map by the time it was published. I haven't been able to check whether this has been rectified in the updated version, but would be surprised if it wasn't, with the above-mentioned review noting it is a "slick, bulked-up, and more glamourous affair" compared with the "homely hand-drawn charm" of the original.

So by doing this review I've answered my initial question, a book such as this definitely still has its place. I would certainly recommend purchasing a copy, particularly if you're interested in expanding the list of birds you've seen in Australia, and don't have either or

both of the earlier books. It certainly brings together information that may be on a variety of web sites on the Internet which from my Google searches certainly doesn't give you everything. However, the caveat here is my low level of skills in using Smart phones, on line atlases, apps etc. If you're planning a serious bird watching visit to any region my advice would be to consult it first, but then try to use local knowledge including by hiring a local guide. Also importantly be aware of seasonal conditions, and if at all possible plan to visit inland places a few months after good rains.

Biodiversity and Environmental Change *– Monitoring, Challenges and Direction.* **Editors: David Lindenmayer, Emma Burns, Nicole Thurgate and Andrew Lowe.**
CSIRO Publishing Collingwood, 2014, ISBN 9780643108561, 610pp., Hardcover, AU $130

Reviewed by BRUCE LINDENMAYER, Chapman ACT.



This book is arguably the most significant, up-to-date and comprehensive review ever undertaken on the state of the environment of **the vast majority of land ecosystems in Australia**. It is the edited work of some 84 contributing scientists in every state and territory, under the Australian Government's Terrestrial Ecosystem Research Network (TERN). Importantly, several contributors have maintained monitoring sites (often over decades) as part of the Long-Term Ecological Research Network (LTERN). This latter approach has the advantage of providing data on measured changes in biodiversity in selected monitoring sites, replicated over a number of years.

Unfortunately, the importance of long-term scientific field data collection has not always been adequately recognised by governments and other decision-makers (nor even some scientists, who prefer to focus on "new" desktop methods) as a critical input to management and policy decisions impacting the Australian environment.

The extent and duration of ecological monitoring varies significantly over the continent, with much more coverage currently in habitat areas closer to population centres, wet forests and alpine areas. Mallee regions and (except for a Simpson Desert study managed by Sydney University scientists) remote and arid habitats are poorly covered. Nationally, the total level of coverage is inadequate.

Early chapters in the book argue the case for monitoring (including the critical issues of site selection, planning and maintaining long-term studies). They also outline the habitat areas included and identify gaps in current monitoring. Cultural challenges Australians face in making the environment relevant to society and policy formation are emphasised.

Ten chapters then represent a fascinating tour through Australia's habitats with reviews of what research and monitoring studies have revealed. In every chapter, maps, splendid photographs, tables and case boxes describe the work undertaken and threats to that environment and recommendations.

Rainforests currently occupy only 0.2% of Australia's land area, but are habitat for a huge part of its biodiversity. Whilst much lowland rainforest has been cleared since European settlement (particularly south of the tropics), landcare and conservation initiatives during the past 30 years have partially arrested the overall rate of loss. CSIRO and James Cook and La Trobe Universities maintain long-term rainforest study sites, in one case since 1963. In recent decades, threats have emerged from plant root fungi (*Phytophthera* and Myrtle Rust) and also Chytrid Fungus, leading to a catastrophic decline in frog species. Introduced pests (pigs, cane toads, dogs and exotic ants) are serious threats to Cassowaries, Orange-footed Scrubfowl, quolls and tree kangaroos. Rainforest species are also threatened by climate change, tourism and development. Dense rainforests have proved resistant to exotic plants, but exotics such as lantana and pond apple impact fragmented areas and edge vegetation.

Alpine Areas occupy 0.04% of Australia's land area, comprising land above 1700-1800m on the mainland and 1000m in Tasmania. Long-term ecological monitoring of alpine areas dates from 1946 with new studies added over recent decades. Studies have confirmed the serious damage to native vegetation and creek banks especially from feral horses but also feral pigs, and that alpine cattle grazing to reduce fuel loads, is ineffective. Exotic weeds pose a major threat, but their impact needs more study, whilst "control burning" to reduce fuel loads is likely to have a negative effect on native vegetation. However, conservation work on the Mountain Pygmy Possum, including construction of artificial boulder fields and translocations, have reduced threats to this species. Other studies have shown that alpine ecosystems have some resilience to major bushfires and potentially to climate change.

Heathlands occur widely throughout Australian tropical and temperate regions in nutrient poor soils. Their range extends sporadically, from the Arnhem Land plateau, to the Kimberley, South-west WA, along the Bight to mainly coastal and some inland parts of the eastern states and Tasmania. They are the repository of some of Australia's unique and iconic flora and fauna, variable from site to site. Bird and plant lovers will be well aware e.g. of the many honeyeaters, wrens, bristlebirds, waratahs, banksias and grevilleas endemic to heathlands, often within limited ranges. Heathland LTERN studies in the Sydney Basin, Jervis Bay, Arnhem Land and Mount Lofty Ranges have shown that most species respond well to infrequent fires, but are adversely impacted by root diseases. Whilst relative to other Australian ecosystems, heathlands are well represented in nature conservation areas, those in south-west WA have suffered badly from fragmentation. Overall, heathlands are slow to recover after clearing or disturbance from mining. There are major on-going threats from exotic animals and weeds, tourism and urban development, particularly in eastern Australia.

Temperate Eucalypt Woodlands once covered a large part of south-eastern and south-western Australia, but only a fraction of the original vegetation remains - remnant conservation areas are estimated at 2.2% in south-east and 9% in the south-west. Today 10 of 46 ecological communities listed as threatened in Australia are found in temperate eucalypt woodlands. There are long-term studies in the Tumut area, Riverina, Cumberland Plains, south-west WA and SA. Threatening processes include land clearing, over-grazing, salinity, exotic species (especially foxes), firewood and bush rock removal. A key concern is the on-going loss of scattered paddock trees which support farm production, as well as their ecological values. Since the 1960s, many factors in combination have led to tree "dieback", which continues to threaten surviving paddock trees. However, studies following restoration projects this century in the Riverina have reported increasing reporting rates of several bird species of conservation concern, including Brown Treecreeper, Jacky Winter, Rufous Whistler and White-winged Triller.

North Australian Tropical Woodlands cover about a quarter of Australia's land mass: in north Queensland, NT and northern WA, They are sparsely populated and dominated in large part, by beef stations. The habitat consists of open forest with grass and diverse shrub understorey with scattered patches of monsoon rainforest. Soils are poor and rainfall seasonal.
Around 20% is burnt annually in both controlled and wild fires. Long-term studies have focussed on investigating the effects of fire (particular on vegetation including through satellite mapping) and more recently on biodiversity. There are designated sites in Kakadu, Victoria River area and Litchfield.

Recent decades have seen a severe decline in observed populations of almost all small native mammals and in some fire sensitive plant communities (calitris and heaths). Threatening processes include too frequent and uncontrolled fires, introduced plant species (many of which burn hotter than displaced natives), feral animals (cats, pigs, cane toads and herbivores). The authors acknowledge a "daunting challenge" in predicting cause and effect here, in the weight of these multiple threats.

Desert Complex Environments are dominated by hummock grassland (spinifex) and range from the Pilbara (and off-shore islands), through central WA, southern NT and SA to beyond the Flinders Ranges and the Channel Country; occupying around 25% of the Australian landmass. Spinifex areas are interspersed with acacia and eucalypt woodland, and occasionally cycads, callitris, palms and figs. Ecosystem drivers and threats include variable and erratic rainfall (leading to boom-and-bust cycles), infertile soils, fire and introduced species. Specific threats are from feral camels, donkeys, rabbits, pigs, foxes and cats; weeds such as buffel grass, rubber vine and (poisonous) tree tobacco and the removal of slow growing native trees around scattered wet areas. Long-term monitoring sites have been established in the Flinders Ranges, Simpson Desert and north of Alice Springs. Generally the decline of small native mammals in this complex has been less severe than in the northern woodlands, but during boom periods after rain, feral cats, and foxes take a heavy toll, as they do after bushfires. In past centuries, bilbies and bettongs played an important role as 'ecosystem engineers', digging and spreading seeds and fungi, but are now virtually restricted to areas behind feral-proof fences. Studies have shown that dingoes can play a key role in the control of rabbits, pigs, foxes and cats with positive outcomes for biodiversity. Ground-dwelling birds of concern are Little Button-quail, Brown Songlark and Short-tailed Grasswren, all of which have been suggested as 'indicator species' for future studies.

Chenopod and Acacia Shrublands cover around 25% of Australia's landmass, intersecting with and surrounding the spinifex environment. Chenopods shrublands (saltbushes, copperbushes, bluebushes and samphires) occur around the Bight, central SA lakes, and western NSW and Queensland. Acacia forests replace eucalypts in areas of 250-350 mm/year rainfall. Since 1788, around half of the endemic native mammals, and several plants in these habitat areas have become extinct, with a significant reduction in the abundance and distribution of birds and reptiles.

Commonwealth/States programs have focussed for decades on monitoring the impact on vegetation of livestock, kangaroos and feral goats. One outstanding Flinders Ranges site (Koonamore Reserve) was established by Adelaide University in a degraded (390 ha) paddock in 1925. The major focus of its studies in subsequent decades has been on the reaction of vegetation to seasonal rainfall, and especially to rabbit control. Studies at another Flinders Ranges property (Bounceback) following removal of livestock and rabbit control have shown variable responses from small mammal and reptile populations.

Tussock Grasslands are distributed over 6% of the continent in north-west Queensland, the Barkly Tableland and in patches in SA, WA and NSW around the margins of the vast desert areas. Dominant are four species of mitchell grass. Others include bluegrasses, Kangaroo Grass and ribbon grasses. The habitats are generally uniform and have low vertebrate richness. However, three endemic mammals have been lost since 1788. Bird species include grassland specialists Little Button-quail, Singing Bushlark and Brown Songlark, wet season migrants Little Curlew and Oriental Pratincole and irruptive Flock Bronzewing and Letter-winged Kite. Monitoring has concentrated on establishing sustainable levels for cattle grazing, and has provided valuable information on this. However, knowledge of tussock grasslands ecosystems fauna is poor, and there are concerns for remnant small native mammals.

Tall Eucalyptus Forests occur in high rainfall areas from Queensland to Victoria, Tasmania and southern WA covering around 0.75% of Australia's land mass, and are dominant in areas with annual rainfall of 1500 to 2500 mm/annum (lower in WA). These forests are of global importance, containing the world's tallest flowering plants, with individual trees frequently exceeding 70m. They are the world's most carbon dense forests, support diverse and unique flora and fauna, and are important headwaters for water supplies. Monitoring for vegetation structure dates from the 1960s, but since the 1980s studies have included all biodiversity values. Tall eucalyptus forests are threatened by unsustainable logging practices, high intensity wildfires and the dominant tall tree species by salvage logging after fires. Individual fauna (including Victoria's critically endangered Leadbeaters Possum) and other arboreal mammals dependent on tall living and dead trees, face a dire future under current logging practices and future climate change. These forest communities contain outstanding scenic attractions which in most cases are close to major population or tourism centres, and warrant better conservation.

Synopsis. This book has been a long but wonderful virtual tour through the varied Australian land environments and their conservation issues. However, those wanting a quick overview, will find it in Chapters 1 and 14.

Clearly, virtually every habitat and its biodiversity face severe challenges from neglect, unsustainable development (clearing, logging, over-grazing) and the impact of feral animals, fungi and invasive weeds. In particular, the vast remote and arid regions suffer from insufficient monitoring, and new challenges from mining development, including abandoned drill holes which take a heavy toll on native animals. Climate change will certainly make matters worse.

PERSONAL COMMENT: A major concern for Australians committed to the environment, has been the significant reduction of government funding and support for science and the environment in recent years.

However, one positive recent development has been the growth of privately sponsored organisations which have purchased bush properties with excellent environmental assets to conserve biodiversity, and especially for the study, conservation and breeding of threatened and endangered native animals. Many of these properties are large, in remote areas and include the habitat types (arid areas, mallee) mentioned above, where there is little or no long-term monitoring. These NGOs include Australian Wildlife Conservancy (AWC), Bush Heritage Australia (BHA) and of course, Birdlife Australia (BLA). Clearly, all of them would require **long-term government and donor funding** and additional expert staff for new long-term projects, but many of the monitoring activities would integrate well with existing

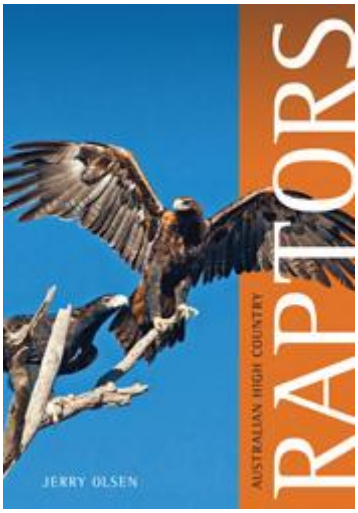
programs, and there would undoubtedly be opportunities in parallel projects, for post-graduate studies.

Despite a wealth of data and concepts, and some complex science, this book is easy to read. The tables, maps, case boxes and some spectacular colour photographs provide interesting insights to specific issues and projects.

PERSONAL DECLARATION: I am the father of the first editor and a major contributing author in this book, COG member and ANU Professor David Lindenmayer. Along with some 30 members of COG, I have worked with David and his ANU colleagues on TERN bird studies for several habitat areas since 1996. I also support the three NGOs mentioned in the previous paragraph (*Bruce Lindenmayer*).

Australian High Country Raptors. By **Jerry Olsen.** CSIRO Publishing, Collingwood, 2014, ISBN 9780643109162, 324pp., Softcover, AU$ 69.95.

Reviewed by ROBERT DIGAN, Cook, ACT



Jerry Olsen has written an interesting and informative book on our local birds of prey. Because, as he states, so much work has already been carried out on Wedge-tailed Eagles and Peregrines the book has bias but all of our local raptors are addressed. The high country is identified on a map at page four. Page five presents a cross section of the area leading from the grassland at 600 m to alpine communities starting at around 2200 m. The highest raptor nest is, at the time of writing, a Nankeen Kestrel at 1400 m.

The book is particularly well illustrated with black and white photographs of birds in the hand and in the wild. As a bonus there are fifteen pages of colour photographs. My favourite is an aerial food pass between Black-shouldered Kites. There are chapters on conservation and care of injured and sick raptors which round out the volume.

I suspect for most of us finding raptors and their nests is a hit and miss affair. Olsen suggests a number of indicators which will help increase the chances of finding them. However, at the end of the day it comes down to 'vigilance and hard systemic footwork with binoculars'. He also advises 'a survey of eagle and hawk nests' can take many weeks, even months of much walking'. But all will not be lost because you will locate a number of other birds which will be noted and included in the data bases managed by COG. When you do find a nest observance of chapter 5, 'Watching Raptors' is essential. The information is pertinent because unwittingly enthusiasm/disturbance can cause the nest to be deserted.

My first contact with Australian raptors was in 1956 on a trip from Hillston NSW to Booliga NSW. As a new chum it was explained to me the number of dead Wedge-tailed Eagles strung along the fences was a deterrent to eagles killing lambs. This belief and the relationship between eagle numbers and rabbit densities is addressed by Olsen.

Regarding lamb killing Olsen harks back to 1936 (Emu 1936 p.246) when Lannell investigated the claim in the Riverina. He found lambs were seldom killed and, practically never, sheep over two months old. See Table figure 9.1 at page 134 of the book.

The other claim – breeding successes of eagles are directly linked to rabbit densities, is deemed unlikely. Olsen makes the point the impact of drought on rabbit numbers and macropods is more likely to reduce the breeding success rate of the eagles. This makes sense.

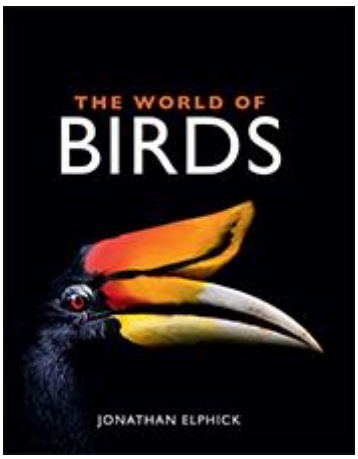
The comparisons with overseas raptors show some unusual findings. One in particular – many of these birds have shown a distinct preference to nest in introduced eucalyptus trees. Australia's lack of vultures is better known but I find it hard to believe the sporadic eating of carrion by Wedge-tailed Eagles is a substitute for vultures.

The diet of the Wedge-tailed Eagle includes most of the mammals introduced into our country. An interesting exception seems to be pigs. There are a number of possible reasons for this – such as their preferred habitat, but they are not always hidden away in swamps.
As an overall source of information on our local raptors the book is very good within the limits of the bias mentioned earlier. At Appendix 1 – Diurnals – thirty-eight pages contain good detail of our local raptors. For each species it identifies among other things, habitat, habit, foods and hunting all of which aid identification. But keep an eye out for the exceptions within which you see their activities. These are important and reportable.

I recommend the book.

The World of Birds. By **Jonathan Elphick**. CSIRO Publishing, Collingwood, 2014.
ISBN: 9781486302925, 612pp, Hardcover, AU $89.95.

Reviewed by STEVE HOLLIDAY, Ainslie, ACT



As a budding birder and naturalist, along with visits to the beach and bush, the local library was one of my favourite places to go. A book I would borrow at every opportunity was "The World of Birds" by eminent British ornithologist James Fisher, and Roger Tory Peterson, bird artist and inventor of the modern field guide, amongst other things. Once I was old enough to start haunting second-hand book shops I found my own copy; it is still a treasured possession. The book was published in 1964, now exactly half a century later I have before me another volume with the same title. The author, Jonathan Elphick, has a lifelong association with birds, and has previously written or contributed to a variety of books on topics as wide-ranging as bird art, migration, field identification, and birds in human culture. Similarities between the two volumes are probably outweighed by differences; although both are big, heavy books with a multitude of illustrations, in the 1964 work these are largely Peterson's wonderfully lavish paintings supplemented with black and white photos; the later book, in contrast, features a very large number of colour photos, as well as line drawings and diagrams. Fisher and Peterson is a very discursive tome, with discussions of topics as varied as field identification, methods of study, photography, bird books, sound recording, domestic and aviary birds, hunting, avian pests, the guano industry and cock-fighting. You will find little or no coverage of most of these in Elphick's book.

Some of these omissions seem surprising but, given that the book is already over 600 pages long, not unreasonable. As the author notes in the introduction the focus here is very much on bird biology and diversity, with a more text-book style approach than that of Fisher and Peterson. In scope it has rather more in common with another book I have, aimed at tertiary level students and beyond (Gill, 1995), than the older work. Gill, however, contains a lot more detail on many of the aspects discussed.

The World of Birds begins with an introduction in which the author explains why he wrote the book, and how it is structured, and gives a brief rundown of avian taxonomy and classification. This is followed by a fairly short but very interesting chapter titled "Early birds", which looks at evolution and the fossil record. This is as up-to-date as can be expected, given the rapid pace of new discoveries in this field. It is the only chapter not predominately illustrated with colour photographs; instead we have a selection of plates by artists new and old, showing reconstructions of fossil species. I was pleased to see the Australian Peter Trusler represented by a striking image of the dromornithid *Bullockornis*, as well as a couple of works by the fine British artist Maurice Wilson, whose art graces many books on prehistoric life from the 1950's and '60s. As well as talking about the origins of birds, feathers and flight, and giving examples of the more important fossil species and groups, there is an informative discussion on more recently extinct island forms such as New Zealand's moas, the elephant birds of Madagascar, and the more obscure (at least to me) giant geese-like moa-nala of the Hawaiian Isles.

From here the book progress through a series of chapters titled Anatomy and Physiology, Flight, Food and Feeding, Bird Society and Populations, Breeding, Where do Birds Live? (covering both bird geography and habitats), Migration, and Birds and Humans (which looks at human impacts and conservation). Each of these is a solid summary of our state of knowledge of the particular topic, with helpful diagrams and charts supplementing the numerous colour photos. For the most part, each chapter is logically and well-presented, and covers a lot of ground in a clear and concise manner. The language used is often quite technical but I think most readers would be able to work their way through this without too much difficulty, especially as many of the discussions have a variety of illustrations to aid understanding, and there is a useful glossary at the end of the book. The text is further enhanced by the use of boxes on special topics related to the subject of that particular chapter.

Using chapter 4 (Food and feeding) as an example of the coverage in one of these chapters, we begin with beak shapes and sizes, then move through discussions of insectivores, birds that prey on various vertebrate groups, seabird feeding methods, carrion feeders and plant-eaters (including fruit, pollen, nectar, sap, buds etc.). There is also a section on unusual diets such as wax (honeyguides) and blood (Sharp-beaked Ground Finch of the Galapagos). Then we look at cooperative feeding and mutualism, food caching, and piracy and parasitism. The chapter concludes with sections on foraging methods and drinking. Interspersed through the main text are the special boxes covering subjects as diverse as open-bill probing in starlings, mass feeding by gannets, the extinct, moa hunting Haast's Eagle, the bizarre leaf-eating Hoatzin, and the bone-breaking Lammergeier.

The final chapter, the Bird Families, is by far the longest part of the book, at nearly 320 pages. This is an order by order, family by family discussion of the complete range of living birds. Each family section has a box containing a summary of the distinctive features such as the number of recognised species and genera, size and weight range, distribution and habitat, behaviour, breeding details, food, voice, migration, and conservation status. These are usually

only half a page or less but pack in a lot of information, and are very useful. The information box is followed by an essay on the relevant family, covering such topics as the range of species, interesting behaviours, classification and the fossil record. Where disagreement exists about classification of particular orders or families, this is briefly discussed and alternatives noted. Nearly all families are illustrated with at least one colour photograph, even those containing just a single species. These are the work of many different people, although David Tipling is acknowledged as the major contributor. Photographs are generally of a high quality although I felt quite a few, such as the potentially spectacular Wallcreeper shot on page 532, suffered from the necessarily small reproduction size. If I had to pick a favourite it would perhaps be the surreal White-winged Snowfinch on page 553, or the beautiful Long-tailed Tit nest with chicks on page 515. Some of the coverage seems a little lop-sided, for example the 11 species of Long-tailed Tits get as much space as the 169 species of honeyeaters, but overall I felt this section worked very well as an introduction to the global diversity of birds. The book concludes with a glossary, a useful appendix explaining the Birdlife/IUCN threat categories for endangered species (these are constantly referred to in the conservation section for each family), and a fairly brief reference section.

Overall the book is a quite scientific, well written and well illustrated introduction to the avian world. I enjoyed reading and reviewing it, and learned plenty. Coverage is pleasingly global; species pictured are from all corners of the planet, as are the examples used in the text. It is nicely presented, with a striking head shot of a Rhinoceros Hornbill adorning the cover. Some potential buyers may baulk at the size and weight, or the rather hefty price, but if you require an introductory volume on bird biology you could do worse. I suppose in this day of apps and internet, you could question if there is still a need for such a book; as a life-long bibliophile I would like to think there was.

References

Fisher, J. and Peterson, R. T. (1964) *The world of birds: a comprehensive guide to general ornithology.* Macdonald & Co. (Publishers) Ltd., London.

Gill, F. B. (1995) *Ornithology*, 2nd edition. W.H. Freeman and Company, New York.

Climate change adaptation plan for Australian birds. Editors: Stephen T. Garnett and Donald C. Franklin. CSIRO Publishing, Collingwood, 2014, ISBN 97806431028, 272pp., Softcover, AU $69.95.

Reviewed by STEVE HOLLIDAY, Ainslie, ACT

This book, the work of 8 different authors, is an attempt to analyse the potential effects and impacts of climate change on Australia's birds. It identifies the main threats, and then suggests actions to be taken for each bird species and subspecies considered to be most at risk.

The conclusions reached by the project are based on 16.5 million records from 39 sources, including nearly 175,000 from the COG database. The two Atlases of Australian birds contributed the bulk of the records; over 10 million. The book is extensively referenced, with each separate section having its own list of references. Taxa at risk are discussed at the level of species and subspecies.

A brief introduction notes the uncertainties involved in predicting the effects of climate change, and points out potential changes already occurring, such as the timing of arrival and departure of migrants. It also outlines the major purpose of the book; assessing the vulnerability of Australian birds in the face of climate change, and identifying the taxa most at risk.

The next three sections examine, respectively, the exposure, sensitivity and vulnerability of Australian birds to climate change. The three concepts are discussed in detail with the methods for determining each outlined. Exposure is determined using modelling to predict what will happen to different habitats and regions; some will be relatively unchanged, others could become almost entirely unsuitable for some of the species that occur there now. Sensitivity uses life history traits to determine whether a species is likely to be particularly at risk; generalist species are far less likely to be adversely effected than specialists. A combination of sensitivity and exposure is used to determine vulnerability.

The next section is titled "Conserving Australian bird populations in the face of climate change". This discusses potential management strategies and outlines a series of overall actions to be taken to mitigate against future climate impacts. These include maintaining and enhancing habitat, intensive management for particularly vulnerable species, last resort actions (captive breeding; DNA and germplasm storage), and understanding and preparing for what is/may be happening through monitoring and research. The section concludes with discussions of costs of potential actions and timing. As the authors point out, last resort actions are already occurring for taxa such as Orange-bellied Parrot, Helmeted Honeyeater and Regent Honeyeater; others such as Western Grass Parrot will also probably require such action.

The final, and largest, section contains individual adaptation profiles for the 59 taxa (species and subspecies) of Australian birds that the authors consider to be both highly sensitive and highly exposed to climate change. Each taxon account contains sections on the reason for listing, recommended adaptation response, ecology, current abundance and trends, current threats and existing management, exposure by 2085 under current emission rates, sensitivity, and adaptation strategy (actions needed), and includes a list of references. There are tables detailing vulnerability status, costs of implementing and carrying out actions, and a breakdown of exposure and sensitivity data predictions. The bulk of the taxa concerned are island forms (e.g. Forty-spotted Pardalote, Lord Howe Island form of Pied Currawong), seabirds (e.g. Gould's Petrel, Lesser Noddy) or occur in very specific habitats such as rainforest (e.g. Trumpet Manucode, Banded Fruit-Dove) and/or a small geographical range (e.g. Rufous Scrub-bird, Black-eared Miner). Species such as Pied Oystercatcher, Beach Stone-curlew and Hooded Plover will be highly exposed by rising sea levels. No taxon occurring in the Canberra region is considered to qualify in both categories, the south-eastern form of the Glossy Black-Cockatoo, for example, is considered to have very high sensitivity but low exposure. The Kangaroo Island and central Queensland coast forms of this species, however, are thought to be at risk in both.

An appendix lists all Australian birds considered to be either very highly or highly exposed or sensitive to climate change, or both. This list contains over five hundred taxa. Only a small number of these occur regularly in the Canberra region. Some examples are Red-browed Treecreeper, Pilotbird and Southern Whiteface (eastern form), Chestnut-rumped Heathwren,

White-throated Nightjar (eastern form), Superb Lyrebird (southern NSW form) and Regent Honeyeater.

Given the uncertainties surrounding the scope and impacts of climate change, the authors approach appears logical. Although modelling can only give an indication of what the future holds it is a very useful tool, and from the analysis in this book it is clear that a safety-first strategy is needed. The pre-emptive approach outlined seems a very sensible one. The authors point out that their predictions need to be tested and modified as new and more accurate information becomes available. Monitoring programs, such as surveys and atlassing, will be of the utmost importance to the success of the proposed actions.

The editor's note that the work should be considered as complementary to the 2010 Action Plan for Australian birds(Garnett et al 2011) as that work didn't consider the impact of climate change as a threatening process. It should be of great value to anyone with an interest in Australian bird conservation, and to stakeholders such as government agencies, climate change and conservation researchers, and environmental and birding groups.

The report on which the book was based is available on-line:
http://www.nccarf.edu.au/publications/adaptation-strategies-australian-birds

References

Garnett S.T., Szabo J.K. and Dutson G. (2011) *The Action Plan for Australian birds 2010*. CSIRO Publishing, Collingwood.

RARITIES PANEL NEWS

The following endorsed list contains an ancient record of a species new to the COG area of concern – a Square-tailed Kite. In normal circumstances the Panel would not consider so old a record. It has learnt, however, that expert opinion at the time agreed with the identification, so has "bent the rules" – just this once. There have been subsequent reports of Square-tails to the east of the ACT which the panel has been unable to endorse, mainly on the grounds that positive identification features were not observed or the behaviour of the bird was aberrant. As the species is not uncommon along the south coast in the warmer months, it is increasingly possible it may appear in our region. If you believe you have seen one, please report it with as much detail as possible – and ideally, with a photograph.

A most pleasing record is that of the much-twitched and much-photographed Australasian Bittern in Giralang and McKellar. While these bitterns are sporadically recorded in our region from Rose Lagoon, Collector, it appears the most recent ACT record comes from 1946 (see Wilson 1999). A Little Bittern was also recorded in the area, highlighting the value of our urban wetlands in attracting waterbirds.

The White-winged Black Tern is a new species for the ACT, though it is recorded from time to time at Lake Bathurst, so its arrival at Fyshwick sewage ponds was not entirely surprising. It was associating with Whiskered Terns, providing a useful size comparison. The White-winged Black Tern is a small tern, pale grey above, black bill in non-breeding plumage, red-legged, white forehead and black crown, white below, with a white rump and tail. The tail may be forked.

This list also contains two records of the migratory White-throated Nightjar, five days apart, from Lyneham and Callum Brae, in September – possibly the same bird, passing through? Single individuals of this species turn up every one or two years, and it has been known to breed here.

White-headed Pigeons feature again, this time in Queanbeyan. One or two records of this species occur most years now. A Blue-faced Honeyeater was spotted joining a throng of parrots, miners and wattlebirds in profusely flowering ironbarks at Hawker ovals in spring – again a rare visitor from further north and west. And the much-twitched Azure Kingfisher remained in Jerrabomberra Wetlands and environs for some months over winter. The Panel cautions against hasty records of this species – it is rare in the ACT, seriously brightly coloured vis-à-vis the more variable Sacred Kingfisher, has a dumpy appearance, really long black bill and bright orange-red legs, and can often be seen diving for food.

The panel has included assorted records of unusual species from COG's waterbird surveys on Lake Bathurst in this listing. *Please note that there is as yet no specific list of unusual species for COG's broader area of concern.* If the species is on the ACT unusuals list, it is highly probable that it will also be unusual in COG's broader area of interest. If in doubt whether to report a species which you believe is unusual, please check with the panel secretary at rarities@canberrabirds.org.au.

Endorsed list 85, November 2014

White-headed Pigeon *Columba leucomela*

2; 17 Jul 2014; Andrew Nicholls; Gilmore Place Queanbeyan GrN15

White-throated Nightjar *Eurostopodus mystacalis*

1; 19 Sep 2014; Michael Lenz; Lyneham Ridge GrK12

1; 25 Sep 2014; Maree Gilbert; Callum Brae NR GrL15

Australasian Bittern *Botaurus poiciloptilus*

1; 9 Jun 2014; Duncan McCaskill; Ginninderra Ck GrK12

1; 10 Jun 2014; Martin Butterfield; McKellar Pond GrJ12

Square-tailed Kite *Lophoictinia isura*

1; 28 0ct 1990; Mark Clayton et al.; Lowden Forest Park GrW19

White-winged Black Tern *Chlidonias leucopterus*

1-3; 25 Nov 2013-22 Jan 2014; Michael Lenz, Peter Milburn & Julienne Kamprad; Lake Bathurst E basin GridY07

1; 15 Oct 2014; Peter Milburn & Martin Butterfield; Fyshwick Sewage Ponds GrL14

Azure Kingfisher *Ceyx azureus*

1; 16 Apr 2014; Sue Lashko & Michael Maconachie; Ginninderra Ck GrL14

1; 10 Jul 2014; Sue Lashko & Duncan McCaskill; anabranch of Molonglo GrL14

Blue-faced Honeyeater *Entomyzon cyanotis*

1; 20 Sep 2014; Roger Williams; Hawker Ovals GrI12

The Rarities Panel has also endorsed records from COG's Waterbird Surveys of the following species from Lake Bathurst East Basin.

Bar-tailed Godwit 1; 30 Oct 2013; 1; 28 Dec 2013; 1; 29 Oct 2014

Pectoral Sandpiper 1; 30 Oct 2013; 1; 25 Nov 2013; 4; 22 Jan 2014; 1; 12 Feb 2014; 3; 14 Mar 2014; 2; 29 Oct 2014

Marsh Sandpiper 5; 28 Dec 2013

Wood Sandpiper 5; 22 Jan 2014

Red Knot 2; 22 Jan 2014

Gull-billed Tern 1; 26 Apr 2014

Black-winged Stilt 1374; 29 Oct 2014

White-headed Pigeon (*Michael Lenz*)

Azure Kingfisher (*Roger Williams*)

Canberra Bird Notes

Canberra Bird Notes is published three times a year by the Canberra Ornithologists Group Inc. and is edited by Michael Lenz. Major articles of up to 5000 words are welcome on matters relating to the status, distribution, behaviour or identification of birds in the Australian Capital Territory and surrounding region. Please discuss any proposed major contribution in advance. Shorter notes, book reviews and other contributions are also encouraged. All contributions should be sent to one of those email addresses:

CBN@canberrabirds.org.au/michael.lenz.birds@gmail.com

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