

BirdLife Shoalhaven Magazine



Summer 2022



PHOTOGRAPHY BY

Peter Noakes

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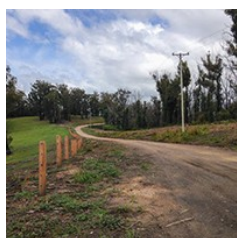
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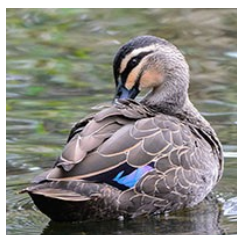
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... and much, much more!

This month's cover photo is the very much under-rated Welcome Swallow. Often overlooked or dismissed by birdwatchers on bird walks ("it's just another Welcome Swallow"), these birds are amazing flyers, catch their food and eat it on the wing, and their nests are feats of engineering! This beautiful photo by Peter Noakes does them the justice they deserve!

Acknowledgment: BirdLife Shoalhaven acknowledges the Aboriginal people of the Shoalhaven, their care of country, birds and habitat, and pays respects to all Elders.

Looking Back and Looking Forward

- by Rob Dunn, President of BirdLife Shoalhaven

In 2021 we all lived with the many challenges of Delta and now Omicron. This presented numerous challenges for all community groups. BirdLife Shoalhaven is no exception. However, if you compare our three organisational goals - at birdlifeshoalhaven.org/whoweare.html - against what has been achieved, we and the other environmental groups we support continue to provide a forceful voice for birds in the Shoalhaven.

Improving conservation outcomes

The bulk of the 'heavy lifting' to protect birds around the Shoalhaven has been led by other groups. These include the Lake Wollumboola Protection Association Inc, Manyana Matters, Bherwerre Wetlands in St Georges Basin, Heritage Estate in Vincentia, Our Future Shoalhaven in Huskisson, Shoalhaven Landcare, Shoalhaven City Council Bushcare and the NSW NPWS South Coast Shorebird Recovery Program.

Some of these groups have been active for decades and, while others are much newer, they are likely to still have a long way to go. BLS looks to support these projects through our magazine and submissions, utilising the 'power' of the BirdLife brand.

Our ability to provide additional conservation support to these groups is inevitably restricted by our own resource limitations. The resignation of Chris Grounds, our Conservation Officer, earlier in the year certainly presented a challenge for us and it took some time to fill this role.

Emily Dyball, the policy advisor for NSW Independent Justin Field, MLC, has recently taken over from Chris and she is currently looking at how best to prioritize our conservation focus for the year ahead.

The BLS Bushfire Research Project continues to receive excellent support from our members, who are still carrying out quarterly surveys at sites affected by the 2019-20 bushfires.



These campaigns and projects vary in scope, size, habitat, species impacted and the number of people and hours involved. They include fighting developments, advocating for extension of national parks and reserves and carrying out hands-on bush regeneration.

While the impact of Covid and its subsequent lockdowns meant that fewer surveys were submitted in 2021, everyone has been able to collect survey data at most project sites on a regular basis.

In May 2021 we released the 2020 Annual Report for the project with a foreword by Prof. Martine Maron, President of BirdLife Australia. We received a lot of positive feedback to what was one of the first citizen science publications on the 2019-20 bushfires. A significant achievement by everyone involved. The next report, covering the two years up to the end of spring 2021, will be released in a couple of months.



The Bushfire Research Project is the main focus of our ongoing partnership with Shoalhaven Landcare. Surveys are now being completed on seven private properties where Landcare groups are working on various bushfire recovery projects, including weeding, plantings and feral species control.

BLS members have helped out at some of these projects, learning more about Landcare, while up-skilling landowners on birds at the same time.

We have also run Birds for Beginners courses on a couple of properties and given presentations on our own research project, though Covid has limited what we have been able to do.

While BLS is an apolitical organisation, anyone committed to the environment would be well aware of the outcome of the LGA elections in December.

With eight new Councillors and a shift in the party representation, there is an opportunity to reset the compass on bird conservation looking forward.

Of course, time will tell and we will all need to work with the new Councillors to help achieve this.

Promoting the appreciation and understanding of birds

The BLS Magazine continues as the cornerstone of our communications to our expanding membership and supporters.

This colourful quarterly publication about the local bird scene, combined with fresh content on the BLS Facebook page and a user-friendly web-site, has been vital in maintaining BLS's position as an effective voice for Shoalhaven birds.

Other than our AGM and Landcare presentations, BLS has not held any events through the year, given the uncertainties of COVID. However just before restrictions on public gatherings took hold, we were able to be part of the 'New Leaves New Lives' art exhibition held in Ulladulla in January on the first anniversary of the Currowan fires.



Driven by local artist Vivien Davidson and supported by Lifeline South Coast, the exhibition focused on loss and recovery in the natural world and healing for the people impacted, attracting 100 people each day.

BLS gave presentations on bird conservation, our Bushfire Research Project and Birds for Beginners. The exhibits included a video by BLS member Charles Dove and a selection of bird photographs by some of our members. This was an important community event, providing a place for reflection, in which BLS was glad that it could play a part.



In December, two bird interpretative signs were installed at the Bangalee Reserve on the north side of the Shoalhaven River near Nowra.

BLS funded the project, thanks to the support of members and through events over the last few years, while the Council did the design and installation. The signs are along the Reserve walking track, which is included in our Bird Walk brochure.



In another attempt to raise the flag for birds, we also 'launched' a range of BLS merchandise on the Redbubble website - go to [Black Cockatoo BLS T-shirt](#). If you do not have a BLS T-shirt yet, why not!?



Building a stronger BirdLife Shoalhaven

A strong organisation also needs a well-established Committee with 'new blood' coming on board. During the year we appointed two new Committee members. In addition to Emily Dyball, as Conservation Officer, Sue Mitchell will take on the role of our Bird Walk Coordinator from Anne Reuter, who is moving to Adelaide. It is great to see the other Committee members also standing again for re-election.

But while it is important to have an active Committee, the real strength of BLS lies in:

- The over 1,000 people and other community groups, who we send the BLS Magazine to. Everyone plays a part in conserving, appreciating and teaching others about birds
- our environmental conservation friends mentioned above
- the staff of BirdLife Australia, who we are in regular contact with on a wide range of issues
- the staff of NSW National Parks & Wildlife Service and the environmental and Bushcare team at Shoalhaven City Council, who are at the 'front-line' of bird conservation, working under the pressures of budget constraints and an expanding work load with more visitors and development.

Many thanks for everyone's support.

I am sure **2022** will be another productive year for BLS. To help guide our priorities, the BLS Committee completes an Action Plan each year, aligning with BirdLife Australia's national Strategic Plan. You can find our 2022 Action Plan at birdlifeshoalhaven.org/whoweare.html.

If anyone wants to be part of the activities we have planned - or has new ideas they would like to explore - please get in touch!

Rodent Eradication on Lord Howe Island

You are invited to a presentation by Nicholas Carlile, Senior Scientist with NSW Department of Planning, Industry and Environment, at the Shoalhaven Heads Bowling and Recreation Club (76 Shoalhaven Heads Road, Shoalhaven Heads) at 7pm on Monday 7th February.

Nicholas will speak about the **recent rodent eradication program on Lord Howe Island** and the follow-up bird recovery.



Afterwards our President, Rob Dunn, will provide an overview of the achievements of both BirdLife Australia and BirdLife Shoalhaven and our priorities for the year ahead. This will include the BirdLife Shoalhaven AGM.

To attend these presentations you must register on-line at www.eventbrite.com.au/e/the-rodent-eradication-program-on-lord-howe-island-tickets-226772270967.

The presentations will be held in the Auditorium room next to the Club's bistro. They will start at 7pm and finish by about 8.30pm, which should give everyone plenty of time to get home at a reasonable hour.

If you are attending the presentations, you may also want to join a bird walk from 4pm (sharp) until about 6pm. We will meet for the walk at the "Shoalhaven Heads Shorebirds Airport" by the car park at the end of River Road. For the bird walk you must register on-line at www.eventbrite.com.au/e/bird-walk-at-shoalhaven-heads-tickets-226777265907.

After the bird walk you may want to have dinner at the bistro in the Shoalhaven Heads Bowling and Recreation Club in good time for the start of presentation. Click on shoalhavenheadsbowlingclub.com.au/bistro/ for the bowling club's menu.



As the evening will also include our AGM, if you would like to nominate for any committee position please contact Rob Dunn, BLS President by Monday 24th January at president@birdlifeshoalhaven.org or call 0438 250 600.

Please register on-line for the talks and bird walk ASAP as space is limited!

Everyone is welcome to attend the birdwatching, dinner and presentations, but it will be fine if you can only attend the presentations.

Partners and friends are also most welcome to attend, but don't forget to register!



The Impossible Shoalhaven Bird List!

- by Brett Davis



An Impossible Shoalhaven Bird

The committee of BirdLife Shoalhaven were discussing the creation of brochures and bird checklists for use by members and members of the public, and we realized that we needed a definitive list of the birds of the Shoalhaven.

A Shoalhaven bird list would appear to be a simple task, but when you delve into it, it is not only difficult, it is actually **impossible!** Here's why ...

Citizen Scientists

I questioned one of the list providers mentioned below about the accuracy of their list, and was told that "Person X" kept the records for the group and in order to "keep the peace" he / she recorded what people **said** they saw, even while doubting the veracity of the sighting!

One of my favourite computer acronyms is **GIGO** - garbage in, garbage out - and some databases have more garbage going into them than others. All of our databases, brochures and lists are produced by citizen scientists, some of whom are better birders than others. Every observation from anyone is potentially wrong. People make mistakes. Even me!

When I was a novice birder in Sydney I can remember looking through bird books trying to identify a bird, and eventually discovering the listing, only to find that the bird I identified is a Cape York resident! Similar incorrect sightings have managed to find their way into most - if not all - of the various online bird databases.

Which database should we use?

BirdLife Shoalhaven is a branch of BirdLife Australia and the database that BirdLife Australia uses is Birdata. Should we just use Birdata? It would sure make things simple!

Unfortunately, a very quick check of Birdata shows that there are birds missing from the Shoalhaven list that definitely should be on it!

For example, the Australian Little Bittern which I and many others have seen at Bada Dam near Burrill Lake, and the Semipalmated Plover that caused quite a twitching stir at Lake Wollumboola a few years ago, are both missing from the Birdata list for the Shoalhaven. Apparently nobody (including me) had ever submitted sightings of these birds into a Birdata survey!

Birdata is not the only potential source of information about Shoalhaven birds. There are also databases at **eBird**, the **Atlas of Living Australia**, **iNaturalist** and the **NSW BioNet**, and various published bird lists such as the Birds of the Shoalhaven brochure, the Milton-Ulladulla Birders list and the Lake Wollumboola bird list.



The databases used, —with NSW BioNet still to be added

I also realized that BirdLife Australia has **BARC** - the BirdLife Australia Rarities Committee - which investigates and decides on the validity of bird sightings in Australia and its territories.

And then there is **NSW ORAC** - the NSW Ornithological Records Appraisal Committee - which receives submissions and provides an informed, discerning and impartial appraisal of claimed records of birds which are rare in New South Wales. I downloaded both the BARC and ORAC lists as well, and compared all the lists.

Right from the start I noticed that there were problems with EVERY list!

The Birdata list had generalized entries where contributors could not precisely identify a bird (which in itself was a bit of a worry) i.e. Brown Goshawk / Collared Sparrowhawk, Crow / Raven, Fairy-wren, Jaeger, small Albatross, Teal etc. so these were removed from the lists. The rest of the list was "reasonable" - I could not see any obvious errors.

Which naming convention?

The eBird list also looked reasonable, but the ALA list was very *colourful* - see the sub-heading below! In addition, all three lists followed different naming conventions, and contained many species with different names.

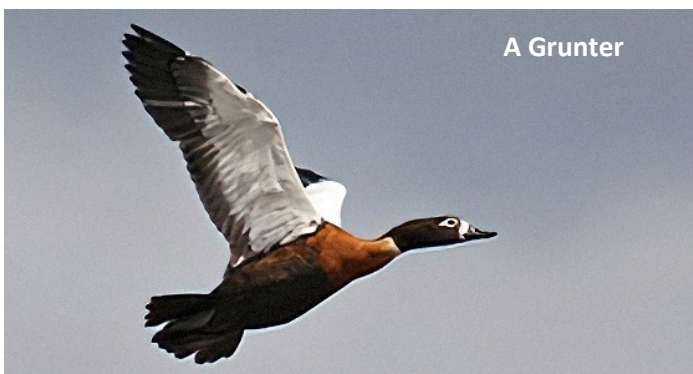
To show how much the names were different, consider this: Birddata has bird names listed under "Common Name", eBird uses "Species Name", and the ALA uses "Vernacular Name"!

Common name or Species name or Vernacular name?

Some of the naming differences were caused by the addition or subtraction of a single hyphen i.e. Fairy-wren vs Fairywren. Others were also easy to reconcile i.e. Great Crested Grebe vs Crested Grebe, European Goldfinch vs Goldfinch, or Laughing Kookaburra vs Kookaburra.

"Australian" or "Australasian", "Eastern" and "Common" were problems as well - for example - Eastern Koel vs Common Koel vs Pacific Koel!

However, other naming differences were more obscure i.e. a Cape Petrel is also a Cape Pigeon, a Pacific Black Duck is a Grey Duck, a Swamp Harrier is a Kahu, a Dollarbird is an Eastern Broad-billed Roller, and an Australian Shelduck is a Grunter!



Which Scientific Names?

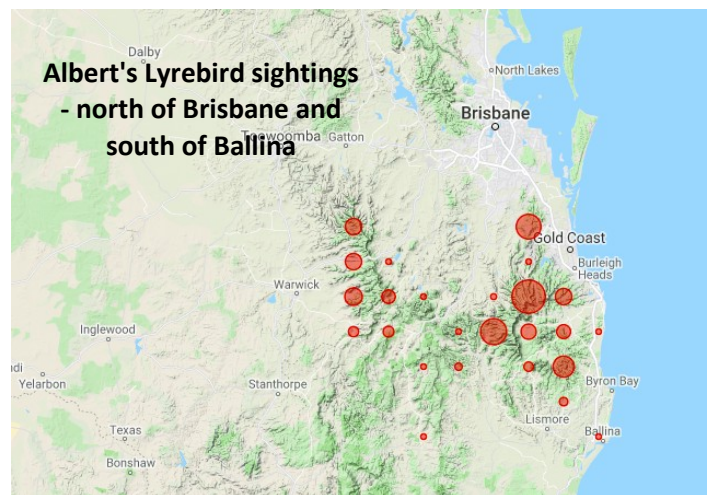
To reconcile the different names, I had to examine the scientific names, but even these were often different! DNA analysis often causes scientific names to change - birds are "lumped" together or "split" apart - with the scientific name changing as a result.

Sometimes the databases don't echo these changes.

Given that we are a BirdLife branch, I used the scientific names used in Birddata, and also the Birddata names for the "definitive" list of Shoalhaven bird names, even though some eBird and ALA names were better (in my humble opinion)! For example, the Emerald Dove (ALA) or Pacific Emerald Dove (eBird) is called the Brown-capped Emerald Dove in Birddata. Who actually calls it that?!

The "colourful" ALA list!

According to the ALA general data profile, their search results are filtered by default to exclude lower quality records, but their filtering process cannot be good. I immediately suspected the ALA list was pretty crook because right at the top of the list was "Albert's Lyrebird" - this species is found only in a small region of Queensland and far northeast New South Wales. I also removed other birds from the ALA list which are definitely not in the Shoalhaven i.e. birds endemic to Western Australia, Queensland or Tasmania.



In addition, the use of capitals for the second word in a bird name was problematic - sometimes it was capitalized, other times it wasn't.

What about ferals?

Should feral birds be included in the list? It's fair enough that Common Starlings and Common Mynas should be on the list, because they have established breeding populations, but what about feral domestic chickens or geese? Do we include them on the list if they are breeding in the wild?

And what about feral ducks, which definitely breed in the wild - do we have a listing for "Feral Duck" or do we list all the individual feral duck species like "Muscovy Duck"?

In the end, I just made an executive decision to remove feral chickens, ducks and geese from our list.

But was that too hasty? My wife and I went to Christmas Island and the Cocos-Keeling Islands a few years ago, and quite happily ticked the resident "Red Junglefowl" which is resident to both islands.

The Red Junglefowl looks remarkably like a domestic chicken, which isn't surprising because its scientific name is *Gallus gallus* and the domestic chicken is *Gallus gallus domesticus*.



So is the Red Junglefowl shown above a valid sighting on Christmas Island but not in the Shoalhaven? You might like to check out Red Junglefowl sightings on Birdata. Not only has it been seen on Christmas Island, but also apparently at a few locations around Cairns, Brisbane, the Gold Coast, the Sunshine Coast hinterland, the Eyre Peninsula in South Australia, Great Keppel Island - and Taronga Zoo! I kid you not - check it out!



Should cage escapees be listed?

There has been a Ring-necked Parakeet regularly seen in the Bay and Basin area of the Shoalhaven in the past few years. Should it be on our list if it is an exotic bird that has escaped from a cage?

How about escaped Canaries or Zebra Finches? Most people would say they should not be on the list, but what happens if a couple of escapees find each other and breed?

Should breeding populations of escapees be on the list?

And where exactly is the Shoalhaven?

Marg Hamon found a record for a Black-necked Stork (Jabiru) seen on a dam on the Gerringong to Berry Road about 8km from Berry.

I measured 8km from Berry on Google Earth, and ended up near the maze on the Gerringong to Berry Road. There are even a couple of dams shown near that location, one of which could have been where the Jabiru was sighted.

Unfortunately, this is about 2 kilometres outside of the boundary of the Shoalhaven!

And how far out to sea does the Shoalhaven go? 50 nautical miles? To the edge of the continental shelf? To the edge of our territorial waters (12 nautical miles) or the contiguous zone (24 nautical miles) or the exclusive economic zone (200 nautical miles)?

And do the northern and southern edges of this zone run east-west, or do they run perpendicular to the coastline?



BARC and ORAC

You would think that if a sighting in the Shoalhaven has been accepted by BARC (the BirdLife Australia Rarities Committee), then it would also appear on the BirdLife Australia database in Birdata. And you would be wrong!

A sighting of a Cook's Petrel off Ulladulla in 2009 was accepted by both BARC and NSW ORAC, but according to Birdata there are no Cook's Petrels in the Shoalhaven.

The same thing has happened for the Semipalmated Plover seen at Lake Wollumboola, and for a White-Bellied Storm Petrel.

The problem with "splits"

Let's assume there is a bird species on the Shoalhaven list that we have only one record for. Let's further assume that this species is "split" into two different species. How do we know which species was seen in the Shoalhaven?

What about historical records?

Some records in the databases go back many years. Chris Brandis has records for Letter-winged Kites that go back to 1893 and 1915. Should those Letter-winged Kite still be on the Shoalhaven bird list? There are similar stories for Brolgas, Bush Stone Curlews and Jabirus. If we find fossil records of Shoalhaven birds from 65 million years ago, should they be on the list?



Where do we draw the line? Should we only list birds seen in the past 100 years? Or fifty? Or only those seen since the year 2000?

ORAC accepted a sighting of a Banded Honeyeater at Greenwell Point in 1993. Banded Honeyeaters are confined to the tropics of Australia, and they don't appear on any of the databases or lists mentioned in this article.

Should that sighting be accepted just because it was accepted by NSW ORAC?



BARC and ORAC have beautifully documented rules for evaluating sightings, but many of these rules are arbitrary. For example, should the first sighting of a Great Horned Owl be accepted if the bird hitched a ride on a ship for a few weeks and a few thousand kilometres, then jumped off the ship onto the dock? You'd think not, but again, you'd be wrong!

BARC Rule 4:12a states "Ship assisted birds that are vagrants **may** be acceptable if the species **might be expected** to arrive in Australia naturally **given favourable circumstances**".

How arbitrary is that?!



In conclusion

Given that there can **never, ever** be a "definitive list" of Shoalhaven birds and that any list that is produced will **always** be an arbitrary list open to conjecture and argument from all and sundry, BirdLife Shoalhaven has produced an "**Arbitrary**" List of Shoalhaven Birds.

The list contains an arbitrarily arrived at number of 400 birds, 339 of which we have "accepted" as pretty likely to have been seen in the Shoalhaven, and 69 of which we believe are less likely to have been seen here. There is also an associated list of 59 "rejected" birds that have somehow been included on one or more of the databases or lists mentioned in this article.

The list can be downloaded as an Excel file by clicking this link - www.birdlifeshoalhaven.org/thelist.xlsx

Because the list is arbitrary, we are quite happy to receive arguments for against the inclusion of birds on the list. Send your arguments - and supporting documentation or photos - to communications@birdlifeshoalhaven.org.

BirdLife Shoalhaven may form its own sub-committee to evaluate all arguments and future sightings. If you would like to be on the sub-committee, and can provide proof of your experience and qualifications, let us know!

And if you find any typos, or errors or omissions in the list, also let us know!

We look forward to hearing from you! Really!

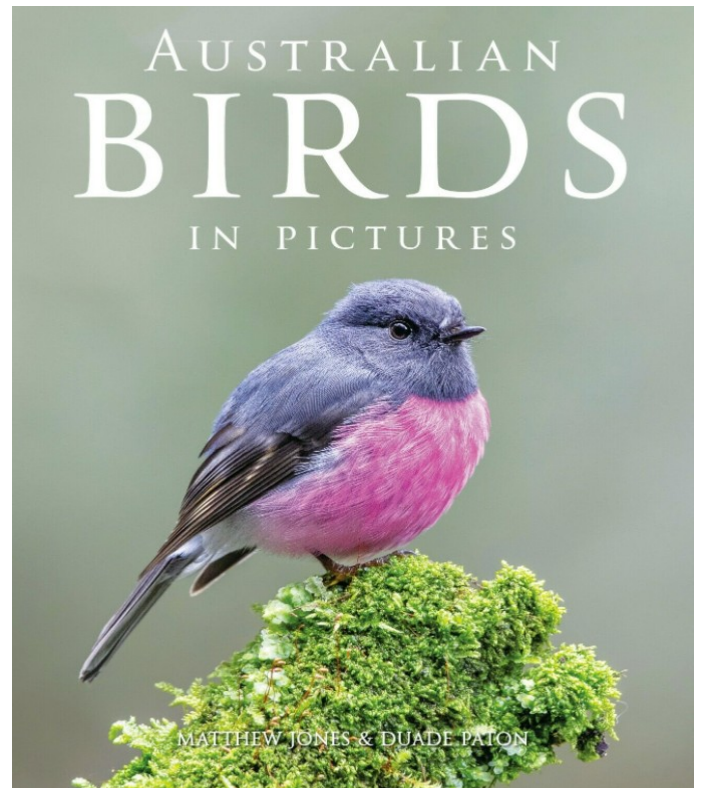
Australian Birds in Pictures

Two photographers who have been based in the Shoalhaven have combined their images into 192 pages of wonderful bird photography.

The Guardian says "With a strong focus on endemic species, Australian Birds in Pictures, compiled by the late wildlife photographer **Matthew Jones** and the bird photographer **Duade Paton**, showcases a range of wildlife in their natural habitats."

Booktopia says "Quite simply one of the best collections of images of Australian birds ever compiled. This illustrated book showcases beautiful photography which depicts the country's wild birds in their natural habitats. There is a strong focus on endemic bird species and families, while the authors have specialised in portraits and behavioural shots. Subjects range from soaring albatrosses and stooping raptors, to rarely seen views of skulking emu-wrens and quail-thrushes."

The book is available at a number of online bookstores for around \$40.



Birds have a History

- by Chris Grounds

There are many fascinating and varied aspects of birds but one of the least acknowledged is the history associated with birds - Aboriginal, colonial and post-colonial.

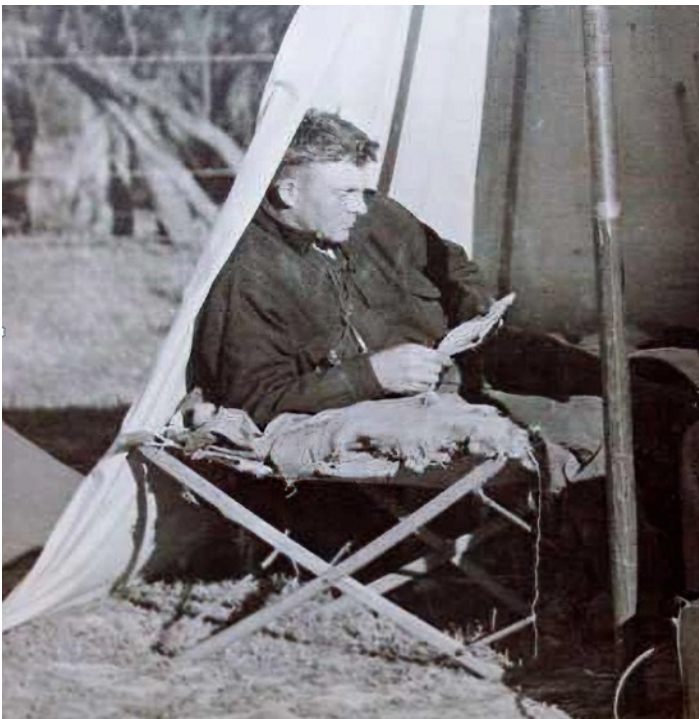
The accounts of explorers like Oxley and Sturt are loaded with references to birds, which they relied on in fair measure for food in their journeys, particularly swans and emus, but also the occurrence of birds they were familiar with from other areas.

Within Aboriginal culture birds figure in a number of ways such as food but also in socio-sacred life in which birds are among the totems of first nations, clans and inheritance.

The "Elliot Papers"

Discovery and research by Garry Daly has revealed an absorbing insight into some Shoalhaven history of birds. Garry is the Principal Ecologist at Gaia Research and is well known in environmental, conservation and birding circles over many years. He became involved in the 1980s with a record of birds in the Tapitallee area of the northern escarpment of the Shoalhaven.

The record was known as the "Elliot Papers" and was the collection of notes of Aubrey Elliot [1910-1943], a dairy farmer and passionate birder.



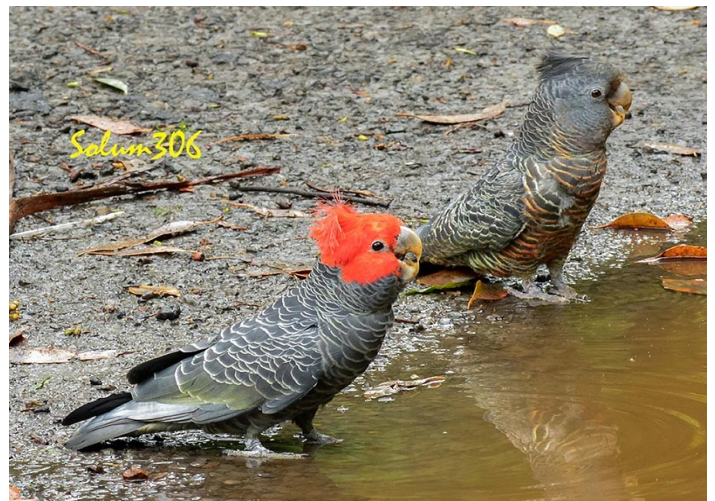
Aubrey Elliot checks notes on a field trip

The Elliot Notes were cited in "Handbook of Birds in New South Wales" [Morris, McGill and Holmes 1981] and also in the Birds of the County of Camden [Gibson 1989] but the actual location of this amazing record was otherwise unknown.

But what had happened to the Notes? Garry was able to find out that Chris Chafer of the Illawarra Bird Observers Club had the notes, which were typed on cards and stored in a metal box – a form of spreadsheet of that time but an invaluable record. Chafer was happy to pass on the records to Garry for safekeeping and he has committed those to a PDF record.

The Notes are primarily an account of the birds on Elliot's family farm at Tapitallee in the 1930s and 1940s. These notes were of special interest to Garry as he moved to the adjacent property in the 1980s and they clearly had immense historical interest. During that period Aubrey and his brother Arthur kept notes on the birds in the local area and devised a hide that was mounted on a utility that enabled them to take close-up photographs.

To augment his observations Elliott interviewed local residents and collated information on the status of the area's birds.



The Gang-gang Cockatoo was common in Elliot's time

The Elliot Notes for the Gang-gang are one example of his work:

Gang Gang Cockatoo *Callocephalon fimbriatum*

Fairly common about this district especially west towards Budgong, Burrier and beyond. Two specimens were collected by Thorpe at Cambewarra for the Australian Museum in November 1881.

19/4/29 Saw five near *Old home* for the first time.

11/1/31 I had an excellent view of trustful pair in the Forest.

3/1/32 Saw nine on The Forest at *Top Flat* gully. At least four were males.

3/6/38 A pair were over here at home as I worked this evening.

8/7/40 Two flew over, going south.

The cards revealed the valuable historic catalogue of birds that Aubrey Elliot had seen on his farm and in the broader Shoalhaven area.

In 2021 Garry submitted a paper in the Australian Zoologist that dealt with the change in status of the birds in the Shoalhaven - <https://doi.org/10.7882/AZ.2021.016>. The paper provided an evaluation of the status of species but little detailed information. Garry decided to record all the notes as an E-Book and that is now nearing completion. Examples from the records are included with this article.

Topknot Pigeon *Lopholaimus antarcticus*

This pigeon is relentlessly shot with the result that it is becoming rare although in earlier days it was very abundant. My father told me that formerly these birds nested every year in a tall Turpentine tree on the Old Place on the family property at West Cambewarra. It is rare around the mountains here today. At times they feed freely in the big-leaved figs (*Moreton Bay Fig Ficus macrophylla*) on the Old Place. Two specimens have reached the Australian Museum from Cambewarra being purchased from Yardley in April 1887 and the other from Dr G. Hurst in 1912.

2/7/32 Jas Lumsden told me that they breed on the mountain.

1/2/30 in the monthly lists kept by me for the years 1926-30 this species was observed on the following: in 1926 January, April, October and December, 1927 January, May, June and November, 1928 February, March, May, November and December, 1929 January, 1930 November. These records show a sharp decline.

18/3/39 Al Forsyth told me that when coming down the Browns Mountain Rd today a flock flew out from above the top gate. He totalled 34 birds.

23/9/40 Bill Smith told me that about 12 months ago they were numerous about the mountains near Dapto as a lot of unrestricted shooting went on among them.

Elliot Notes on the Top-knot Pigeon



Top-knot Pigeon noted as "relentlessly shot"

The Abstract of Garry's 2021 paper "presents a comparison of avifauna in the Tapitallee area between 1926–40 and 1985–2020. During that time there have been changes in the distribution and abundance of many birds. **Fourteen species have become locally extinct** while 28 have colonised / recolonised the area. "Combining Aubrey's and our data a total of 194 species of bird have been recorded in the area. Dams have been constructed and native vegetation has regrown on the steeper slopes. These actions have expanded the habitat for aquatic and forest dependant species but disadvantaged those that occupy grasslands. The Red Fox *Vulpes vulpes* colonised the area in 1907 and is implicated in the local extinction of the Bush Stone Curlew *Burhinus grallarius*. "



The Bush Stone Curlew is now 'locally extinct'

It is no small task that Garry has taken on and the work is near completion for this labour of love. It will constitute a significant historic record within Shoalhaven birding. Garry has added photographic images for virtually all species with the willing support of several committed bird photographers in the Shoalhaven.

There is an adage that applies in conservation with history that "we do not know what we have lost until we know what we had". Garry's work with the Elliot Notes will be a landmark production in the spirit of this thought.

See www.birdlifeshoalhaven.org/garrydaly.pdf for a more extensive breakdown of Garry's work in the Tapitallee area.

Keeping Cats Safe at Home (Indoors)

- by Maureen (and Norm) Webb

Shoalhaven City Council was one of 10 Councils across NSW recently awarded grant funding of \$92,000 each to highlight and assist residents understand and accept the concept and benefits of keeping their cat on their own property. Around 10 stakeholders attended (via Zoom) the first meeting held by the RSPCA to work on the project of "Keeping Cats Safe at Home Indoors".

Most participants were from the Shoalhaven with Landcare and Council represented, but some from Weddin and Walgett Shire were also present. Norm and I attended in our own right but also represented BirdLife Shoalhaven.

The recent Internet survey "Keeping Cats Safe at Home - Indoors" received over 8000 responses with one of the top reasons ticked for preventing the roaming of cats was to "Prevent predation on wildlife". There were other choices but predation on wildlife was of major concern.



This was a great result for those dedicated to the preservation of our birds and wildlife. It has taken many years for this reasoning to surface and be semi-accepted.

While it is early days for the project, ideas brought forward during the meeting included education for children, education for cat owners, and a request for RSPCA support for a review of the NSW Companion Animals Act 1996. As it stands now, Councils across NSW cannot make policies to fit local situations where cat control is concerned.



The ACT has recently passed legislation to ensure wildlife is protected. From July 1st 2022 domestic cats must be kept indoors or on their owner's property.

The ACT Minister for Transport and City Services stated "the ACT Cat Plan 2021-2031 has been developed to support responsible pet ownership and balance the wellbeing of cats with management of their impact on Canberra's environment."

Knox City Council (Victoria) is proceeding with a 24-hour cat curfew from 10 April 2022, requiring cats to be kept on their owners premises at all times.



Other ideas ranged from -

- Highlighting cat born diseases that can affect humans
- Cheaper access to micro chipping, desexing and registration.
- Use of an iconic bird such as the Superb Fairy-wren (above) to get messages across.
- Tracking collars for cats located near areas of high conservation value to show cat owners their roaming patterns.
- Identify high conservation areas, and gain Local Land Service support working with National Parks, Council and volunteer groups to reduce cat impact on native animals.
- Use of Instagram to highlight a local Shoalhaven "celebrity" cat.
- Use of the RSPCA name as support for all publicity with this project.

Future meetings are planned to involve cat owners and stakeholders but Shoalhaven Council and Birdlife Shoalhaven should also be given time for more comment.

The KCSH project is due to be launched at the RSPCA Education Centre in March 2022.

Although the Shoalhaven project led by the RSPCA is a step in the right direction, Norm and I believe nothing less than a major campaign utilising TV and social media backed by strong legislation will change matters greatly.

The NSW State Government's Companion Animals Act must be reviewed!

Bushfire devastation made worse

- by Geoff Ball

The need to protect trees remaining after the Currowan bushfire seems obvious. However for some the bushfire has given reason to cut down more trees.



On returning after the NSW lockdown to two survey sites in Conjola National Park I was dismayed at the first to find a large shelterbelt had gone and that the roadside treeline had been cut back a further ten to twenty metres from the road. This occurred sometime between June 2021 and October 2021, during the lockdown period - over a year and a half after the fires!

The Bendalong Mountain Road Birddata survey site extends from this point close to the Bendalong Road corner to the far corner 200 metres down the road. On the left hand side of the road a shelterbelt of mature eucalypt trees has been totally removed and replaced by the barbed-wire fence. On the right hand side of the road the treeline has been cut back ten to twenty metres from the power lines.

At the second site on nearby Nerringillah Road the trees had again been cleared a further ten to twenty metres from the road. In addition there has been extensive clearance of trees along the Bendalong road, for approximately two kilometres the bush has been cleared 10 to 20 metres back from the road.

On enquiry it seems that this clearance is legal. There are a number of regulations that might have allowed removal of these trees. Electricity companies have powerful "rights" to clear land where there are above-ground power lines. Under the Electricity Supply Act 1995 and even the Biodiversity Conservation Act 2016, they have an absolute power to remove trees.

Then in August this year the NSW government introduced new rules that allow landowners to clear rural land within 25 metres of their boundary with very few restrictions;

the Rural Boundary Clearing Code under the Rural Fires Act 1997.

If the land has not been previously protected there is little requirement to consider environmental impact and no need to offset the loss of vegetation.

The Bendalong Mountain survey site is a standard Birddata two hectare site for conducting 20 minute surveys. This older map of the site was prepared on Google Maps. It shows the shelter belt at the road side and the bush on the left hand side, part of Conjola National Park.



The reason for this clearing is likely to be given as "bush fire risk management" but it seems highly unlikely that these clearances would have protected anything or in any way changed the course of the devastating Currowan fire last year.

I started monitoring these survey sites after the fires, to get an idea of bird numbers in the central area of Conjola National Park. At that time the park was still closed, so road-side sites were the only way you could do this.

There are not a lot of birds in this area, at least this has been the case during the surveys I have done since the fires. The most recent survey, conducted after tree removal, counted eight and seven total birds on the sites respectively in a 20 minute count. It will be difficult to see if the removal of trees has any effect on bird numbers in this small area.

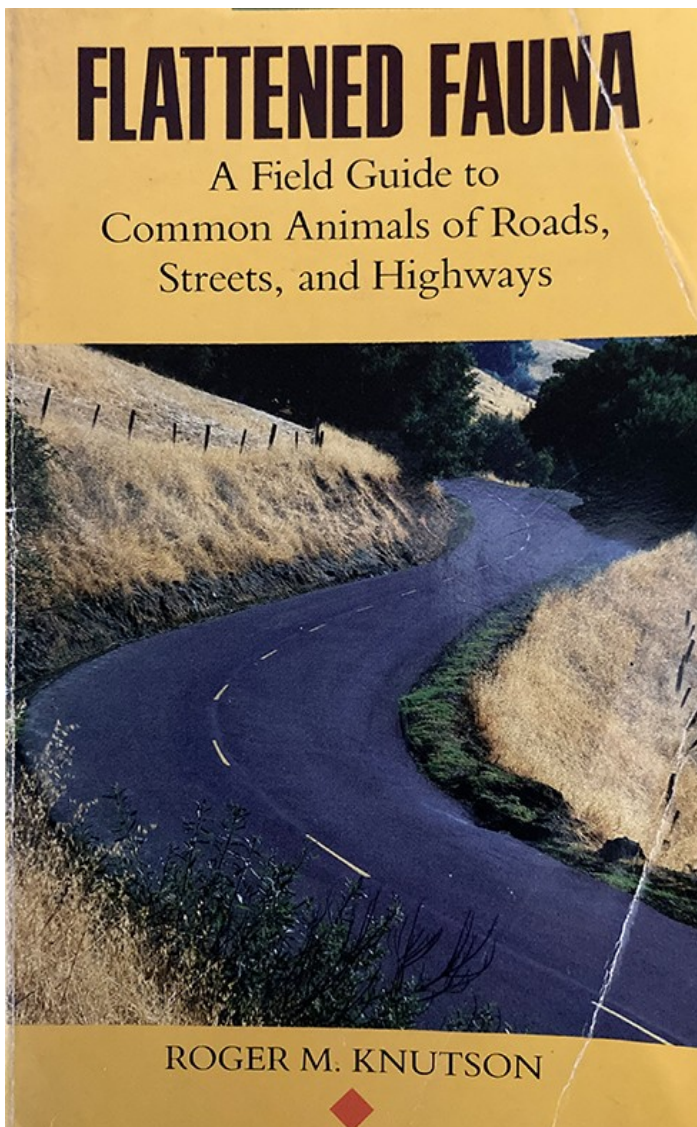
Nevertheless clearances like this are part of the insidious decline in habitat, responsible for the decline of bird species generally.

Flattened Fauna

- by Rob Dunn

Many would agree, that there are often marked differences in what Australians find funny compared to Americans. When I came across an American book called "Flattened Fauna, A Field Guide to Common Animals of Roads, Streets and Highways", published in 1987, I assumed it was an attempt at humour. In fact, it was written by an academic and very serious in its purpose. However, you would not think it with quotes like these:

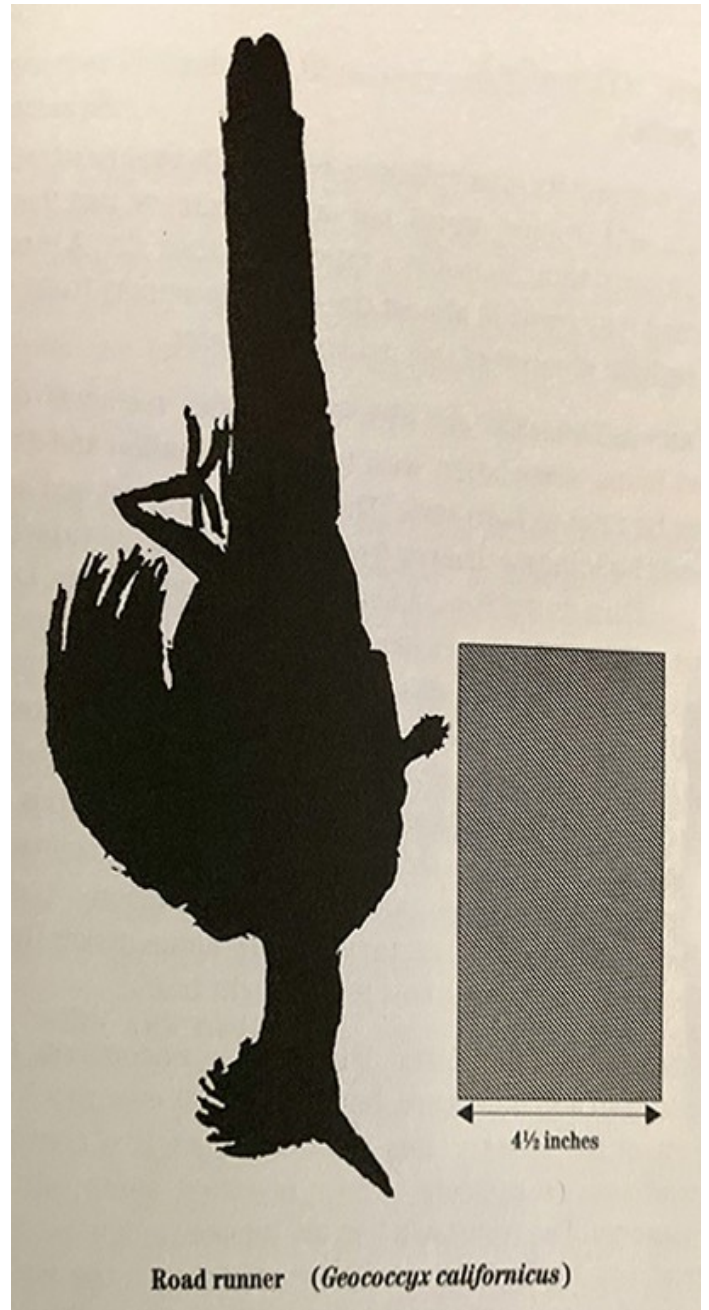
"This is a book about animals that..... are not just merely dead but really most insincerely dead. These are animals in which even flies have lost interest."



"Once you have been hooked on flat animals, the urge to collect representative specimens emerges quite naturally. You might even wish to prepare prime examples as wall mounts or paperweights. Resist the temptation!"

The book then goes on to provide a field guide of flattened fauna sorted by taxa, like the one for a Roadrunner with a very strange explanatory note ...

"This illustration was drawn from a dead road runner, and is included to show something of the serenity achieved by a few road animals. The frantic pace of constant food-seeking has slowed considerably here. Regardless of traffic speed, the bird is clearly at rest."



The book ends not with a "Mammal & Bird List", but a "Dead List" where you can even note down the condition – 1. Recent, 2. Old, 3. Scraps only.

I could forgive this book if it had provided statistics on animals killed on our roads, advocated for changes to mitigate the impacts of traffic on fauna and championed the work of wildlife rescue groups, but it does not.

Hopefully this book is catalogued in libraries under the "Bizarre", rather than under "Field Guides."

BLS Rocks, Wiggles and all that Jazz

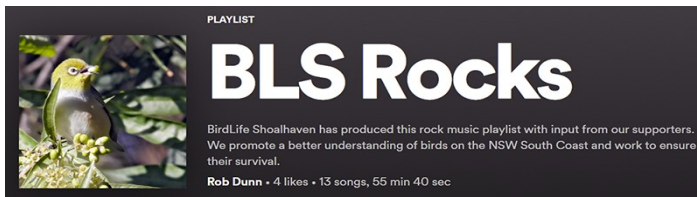
- by Rob Dunn

In June and July my wife and I went with a couple of friends on a driving trip up through Queensland and across the Gulf country to Katherine in the Northern Territory, returning home down through western NSW, with the four of us with all our bags and camping gear crammed into one Subaru Outback for 11,000 kilometres.

Amazingly, we came back friends, despite a difference in our taste in music. I liked rock music, they didn't. They liked folk music, I didn't. The rule was that if you were driving - you chose the music. Luckily, we found some common ground.

After we got home, I came up with the simple idea of playlists for different music genres which had 'bird' or the name of a bird in the title, as opposed to band or artist names, like The Eagles. (Trivia - How many tracks of the Eagles includes the name of a bird? None.)

Of course, I set up the BLS Rocks playlist first. After an hour of searching on Spotify I'd found two blackbirds, three eagles, (none by The Eagles of course,) one pigeon, dove, seagull and albatross and four unidentified birds. We can argue whether all of the songs are really rock music. In fact, some clearly are not, but I like Paul Kelly and it was my playlist after all! Go to - [BLS Rocks](#) - to hear what I ended up with.

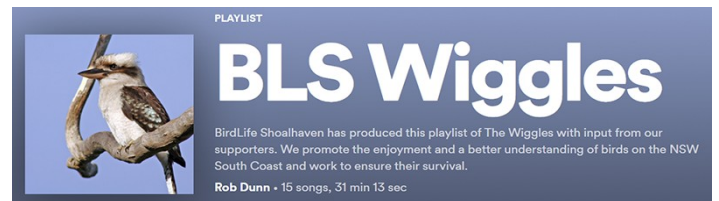


I commissioned our friends to set up the BLS Folk playlist, as they were clearly the best qualified. Their list included five sparrows, indeed they said they could give me one whole folk playlist just for sparrows! I have to admit that when I listened to their selection, I really enjoyed it. For the first time I could actually hear the lyrics, which was certainly not possible when you are driving along the horrific dirt road across the Gulf from Burketown to Borrooloola. Go to - [BLS Folk](#)

BLS Classical was going to be a problem. Not because of a lack of depth of knowledge, as my wife was ready to help out, but composers wrote pieces, detailing the key and the instruments it was written for, rather than giving a catchy "song" title. But I was saved when I discovered "The Birds" by Ottorino Respighi, Stravinsky's "Chant du Rossignol" (French for "Song of the Nightingale") and Vaughn Williams's "The Lark Ascending". Go to - [BLS Classical](#)

Next, I thought I'd have a quick look at Jazz and was expecting to not get very far. But searching on Spotify, I found Miles Davis, Duke Ellington and then stumbled across Charlie "Bird" Parker, who provided two tracks. He also wrote "Ornithology", which I was tempted to include even though it did not meet the "bird" rule. I thought this might mean Parker was a keen birdwatcher, but Google says it relates to him running over a chicken while driving the band's bus! Go to - [BLS Jazz](#)

With four playlists in the bag, the novelty of the idea was beginning to wane, but of course we needed something for kids. Not having children, I was completely out of my depth, and I called on our Editor, Brett Davis, for help, even though he does not have children either. He said that he would first check out the Wiggles. In no time we had 15 songs and, because the name of BLS Wiggles after the catchy BLS Rocks appealed, we went no further and called it a day. Go to - [BLS Wiggles](#)

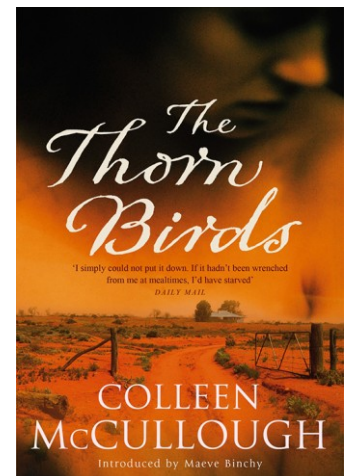


Brett and I had a lot of fun pulling these lists together and whatever your music interests, we hope you enjoy listening to them, whether at home, on the way to the shops, or somewhere between Burketown and Borrooloola.

Editor's Note: Given the premise that if a little bit of culture is good, then a lot of culture must be great, the "Music" theme has been extended on our website to other areas of the arts, and into pop culture as well.

Our website now has pages devoted to birds and their involvement in Movies, Literature, Poetry, Fairy Tales, Cartoons, Sculpture and Football!

To check them out on our website - [click this link!](#)



Flying the Flag!

- by Chris Grounds and Brett Davis

There has been much debate within the volunteering community of the NPWS South Coast Shorebird Recovery Project about the pros and cons of bird banding - especially of critically endangered species such as our much beloved Hooded Plover - due to the NPWS stopping the banding of shorebirds.

Bird banding began in 1890 with a Danish biologist called Mortensen banding European starlings. Within 40 years bird banding was being used world-wide, including Australia, primarily to research migration routes.

Shortly after the Second World War, bird banding "took off" with the use of mist-nets and cannon-netting for shorebirds and waterbirds. By the mid 1960s the European Union for Bird Ringing (!) was established, and national bodies also started springing up including the Australian Bird and Bat Banding Scheme (ABBBS) - see www.awe.gov.au/science-research/bird-bat-banding

There are many safeguards built into the bird banding system. The ABBBS administers all bird and bat banding in Australia. Bands are only issued for approved studies, and banders must have demonstrated high-level skills in catching and handling birds, and must have a permit from the state wildlife authority before being allowed to operate a banding project.

BirdLife Australia has a PDF document about the subject called "Bird Banding and Leg Flagging" which can be found at www.birdlifeshoalhaven.org/info-bird-banding.pdf. It says that bird banding allows us to identify individual birds so we can discover fundamental information about them such as their life-span and movements, as well as their inter-relationships with their partners and their off-spring.



Up until a few years ago, every one of NSW's critically endangered Hooded Plovers was banded, and we were able to discover amazing details about their relationships.

For example, the first pair of Hoodies we knew at Cave Beach in Booderee National park consisted of C7 and M9. M9 went to Hoodie heaven it seems, then C7 took up with E6 before C7 was injured, rescued, rehabilitated and released back into the wild. In the meantime, E6 took up successfully with an unbanded partner, while C7 was involved with a nest on the eastern end of Bherwerre Beach last year that failed.

Out of all of this partner swapping and location changing there were only 2 successful nests of 2 and 3 fledglings across five seasons.



The nest locations changed as the pairings changed and there were many nests lost. Late in 2021 the two old flames - C7 and E6 - hooked up again and started a nest on Cave Beach - but sadly, this failed sometime around January 9th.

Imagine if all the way through this record of breeding of a critically endangered species there was not one bird with a leg flag! We would have no idea of the intricacies of the relationships of the different pairings, the comings and goings, the change in nesting locations, or the relative success and failure of the different pairs.

In addition, at least 5 successful fledglings went off the beach without banding-flagging in recent years. Who are they related to? Where did they go? Have they survived? Who knows? Without banding, vital data is being lost.

Is this good science? Is this good conservation? No!

An unbanded bird is just a bird, but a banded bird is an individual.

People form attachments to individual birds. As a result, they really care about the survival of the birds, not just as some remote ideal that would be nice to attain, but as a deeply held personal belief based on watching birds and sharing their lives - from egg, to banding, to fledging, to adulthood and to finding a partner to repeat the whole process.

Keep on banding!

Umbarra the Pacific Black Duck

- by Chris Grounds

(Aboriginal and Torres Strait Islander readers are advised this article contains names of people who have died).



One of the first things I was taught by Yuin Elders about Aboriginal culture in my early associations with the south coast in the 1970s and in particular the Far South Coast was the significance of UMBARRA as a symbol of the Yuin people.

Umbarra is known to contemporary birders as the Pacific Black Duck [*Anas superciliosa*].

The Yuin story of Umbarra comes from Wallaga Lake near Narooma. Umbarra is an animal hero, rather than a Creator, and is the totem and protector of the Yuin peoples from the Dreaming. It is in this Lake that the physical symbol of Umbarra exists as Merriman Island, which has the silhouette of a flying Pacific Black Duck.

The island bears the name of Merriman who had Umbarra as his totem. If his people were in danger, Umbarra warned them so they could take refuge on what is now called Merriman's Island in Wallaga Lake.

This was a time in the 1970-80s that conservation battles around Mumbulla Mountain, just north of Bega, involved the cultural leader Gubbo Ted Thomas and the eventual creation of the Biamanga Aboriginal Place now a cultural place within Biamanga National Park. His wife Ann was involved with the Aboriginal Studies curriculum in local schools.

On this basis the bird is of particular significance to South Coast and Shoalhaven birders.

In the 1990s an Aboriginal Cultural Centre was built at Wallaga Lake. The Centre closed for some but was reported in local press as reopening in 2019 as an Art Gallery with the Walker sisters and artists Alison and Marias Walker as resident artists.

The business name is "Madhang Djabadj Ngaranggals", which the sisters point out means "strong black duck women" in Djirringanj language.

A recent article in 'The Conversation' [October 2021] titled "Singing Up Country" pointed to a further cultural significance associated with Umbarra.

Songlines are fundamental and deeply spiritual trails across Country that embody Dreaming and Creation of Country and are acknowledged and celebrated in song.

The authors point out that "due to invasion and attempted cultural destruction since 1788, knowledge of songlines in southeast Australia has been limited. Now, new research has begun reawakening a dormant Black Duck Songline covering 300 km along the New South Wales South Coast.

The Black Duck Songline, as current Aboriginal knowledge holders confirm, travels up the South Coast from over the Victorian border to the Hawkesbury River, north of Sydney, passing through many important cultural locations of the Yuin and Dharawal peoples of the region. Yuin teachings for the south coast were reflected in 1970s book called 'The Mountains Call Me Back'.

This noted the connection of country identified in mountains between Cullinghutti [Coolangatta Mt.] to Dithol [Pigeon House], Gulugah [Mt.Dromaderry], Mumbulla and Buluwan [Mt Imlay].



Go to <https://theconversation.com/singing-up-country-reawakening-the-black-duck-songline-across-300km-in-australias-southeast-167704> for the full article.

Editor's Note: Chris was the Head Teacher Social Science and Deputy Principal at Narooma High School [1987-1994] which implemented one of the first school-wide Aboriginal Studies courses, consulted on the first Year 7-10 School Certificate Aboriginal Studies Syllabus and ran a Culture Camp series for Aboriginal students with the Wallaga Lake community.

Manyana Matters New Year's update

- by Bill Eger

(President, Manyana Matters Environmental Association)

We responded to both the 'North Manyana Estate' and the Ozy Homes 'Manyana Beach Estate' development proposals, and made many submissions regarding the impact on Matters of National Environmental Significance and other issues.

We took out a full page advertisement in the Sydney Morning Herald, asking the NSW State Government to acquire the Ozy Homes land and conserve it as the Manyana Special Conservation Reserve (MSCR). This was supported by prestigious organisations including the Worldwide Fund for Nature (WWF), the Australian Conservation Fund (ACF), the Nature Conservation Council (NCC), the National Parks Association, Greenpeace and many others, as well as prominent politicians, scientists, educators, creatives, professionals and celebrities.

MMEA members played a positive and significant role in electing a mayor and majority of councillors to Shoalhaven City Council who share our values and goals. After 47 years of rule by a political party that was opposed to saving our Manyana forest, the balance of power is now in the hands of people who care about our community and our environment. A historic moment!

We worked with Endeavour Energy on limiting the tree felling on Bendalong Road, and received a \$15,000 grant from Endeavour through Greening Australia towards the replanting of trees locally.

Our Association was awarded the prestigious John Kaye Memorial Award for social justice and environmental protection by the Greens NSW.



And much more besides but I'm trying to be brief. On a personal note, it was wonderful to see that a lyrebird was photographed (above) feeding in the MSCR. It was another vindication of the importance of this habitat for post fire recovery of this species and many others.

Ozy Homes

Currently the Environment Protection and Biodiversity Conservation (EPBC) Act 'controlled action' referral process initiated by MMEA is still with Department of Agriculture Water and Environment (DAWE).

It has passed through a number of phases and is currently in another assessment stage. Until Ozy Homes responds to all the issues we brought up in the submissions, DAWE cannot proceed.



North Manyana Estate

Similar to the Ozy Homes situation, this development proposal has been classed as a 'controlled action' by Federal legislation under the EPBC Act.

If it gets through the Federal process, it will still have to conform to NSW state planning and environmental policies. It is a few steps behind the Ozy Homes referral.

Red Head Villages Association

Our local Community Consultative Body (CCB), the Red Head Villages Association (RHVA) has acquired a grant of \$80,000 to work with consultants to develop a master plan for the future infrastructure and sustainability of our five villages.

I would urge everyone to be part of this process, which must include broad community consultation. The plan will be used by our community and Shoalhaven City Council as an expression of our future directions. The next RHVA AGM is Saturday 22nd January - see you there!



A Development Challenge for Birders

- by Chris Grounds

There is a relentless destruction of bird habitat by developments in the Shoalhaven, and it will continue with many instances of it subject to community conservation action. To some degree, the new political balance in Shoalhaven Council will influence this for the better, but it will not be enough.

Birders - in my experience - are overwhelmingly opposed to destructive development, but it seems so often that destructive development leads the race.



The interface of Gang-gang breeding and development

There is one particular reason that helps development that I have seen again and again and especially in three development sites in the Bay and Basin recently.

When objections to developments in key habitat have arisen, a check of the records of threatened species observations have indicated that **there is a notable shortfall between threatened species we know have been there, and the record of them.**

I have seen this at two Bay and Basin sites where an immediate check on the Gang-gang records showed that they were basically non-existent - which was known not to be the case!

This lack of data doesn't help the objections to a development and lets the developer off lightly. The birds are known to be threatened and known to be present at both sites but recorded sightings were very limited. This can adversely affect the actual DA and the conditions which apply to an approval.

Bird biodiversity is really important so **recording all sightings helps the cause.** After all, the act covering development is the EPBC Act and the B stands for Biodiversity! I suggest that **we need to focus on recording threatened species sightings at particular places of interest which we believe may be threatened by future development.**

Our BLS website includes the list of threatened species for the Shoalhaven.



We have come a long way technologically with databases and apps for recording sightings. We need to use these more widely and consistently and appreciate they are not just strictly for creating data but for aiding the conservation argument for birds at our key sites.

It can be expected that a focus like this can actually create new and critical knowledge for a site that should have significant influence on a development proposal.

Not everything that needs to be known is known and there are instances where we can create that knowledge.

So go to your locally threatened areas and record the birds that are there - NOW - before the DAs come in!

Endangered Bristlebird Genes

- by Chris Grounds

The Eastern Bristlebird (*Dasyornis brachypterus*) has high threatened species status as an "Endangered" bird and a number of new active conservation programs have been announced recently.



A boastful Bristlebird in JBNP heathland

There are only about 2,500 Eastern Bristlebirds left in the wild and their populations are separated, which can result in low genetic diversity and reduce overall fitness and survival and this contributes to their status as an Endangered threatened species.

Analyses by BirdLife Australia and the Australian Government Wildlife and Threatened Species Bushfire Recovery Expert Panel identified the Eastern Bristlebird as one of 17 bird species requiring urgent management action to support their 2019-2020 bushfire recovery.

It is considered particularly vulnerable to inappropriate fire regimes as it is a poor flier that stays close to the ground and requires dense vegetation. Fortunately the Jervis Bay area was spared in these fires.

The Shoalhaven's Jervis Bay area is one important enclave of the species, much to our local delight with sightings, especially in the last year, being a regular and more numerous occurrence over a larger area. You know you are a local birder when you are just a tad blasé about yet another sighting!

This is really irritating to visitors though learning to recognize the distinctive and delightful call helps. If you are not familiar with the call check it out at: https://ebird.org/species/easbri1?siteLanguage=en_AU.

The National Recovery Plan indicates that each of two populations, Budderoo-Barren Grounds and Bherwerre Peninsula [Jervis Bay-Booderee-JBNP] are stable at around 1000 individuals and thus constitute two of the most important populations nationally.

In a separate instance at Jervis Bay, 45 birds were translocated from Bherwerre Peninsula to Beecroft Peninsula between 2003 and 2005 (Bain et al. 2012), with a current estimate of more than 94 birds (Baker et al. 2012). There have been at least two significant bushfires in this area over the last decade.

The Bristlebird is a resident species in the Shoalhaven. It is listed as 'Endangered' by the International Union for Conservation of Nature (IUCN) on the international 'Red List' and in Australia under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 as well as state legislation in Queensland, NSW and Victoria. The northern population of the Eastern Bristlebird meets the criteria for 'Critically Endangered' by the IUCN.

It is one of the Shoalhaven's best known threatened species birds. Its isolated, limited and discontinuous population distribution in the Shoalhaven and adjacent Southern Highlands areas contributes to the high threat of extinction.

Importantly, this enigmatic species is the "Trigger Species" for the Jervis Bay Key Biodiversity Area though all populations occur in Key Biodiversity Areas.

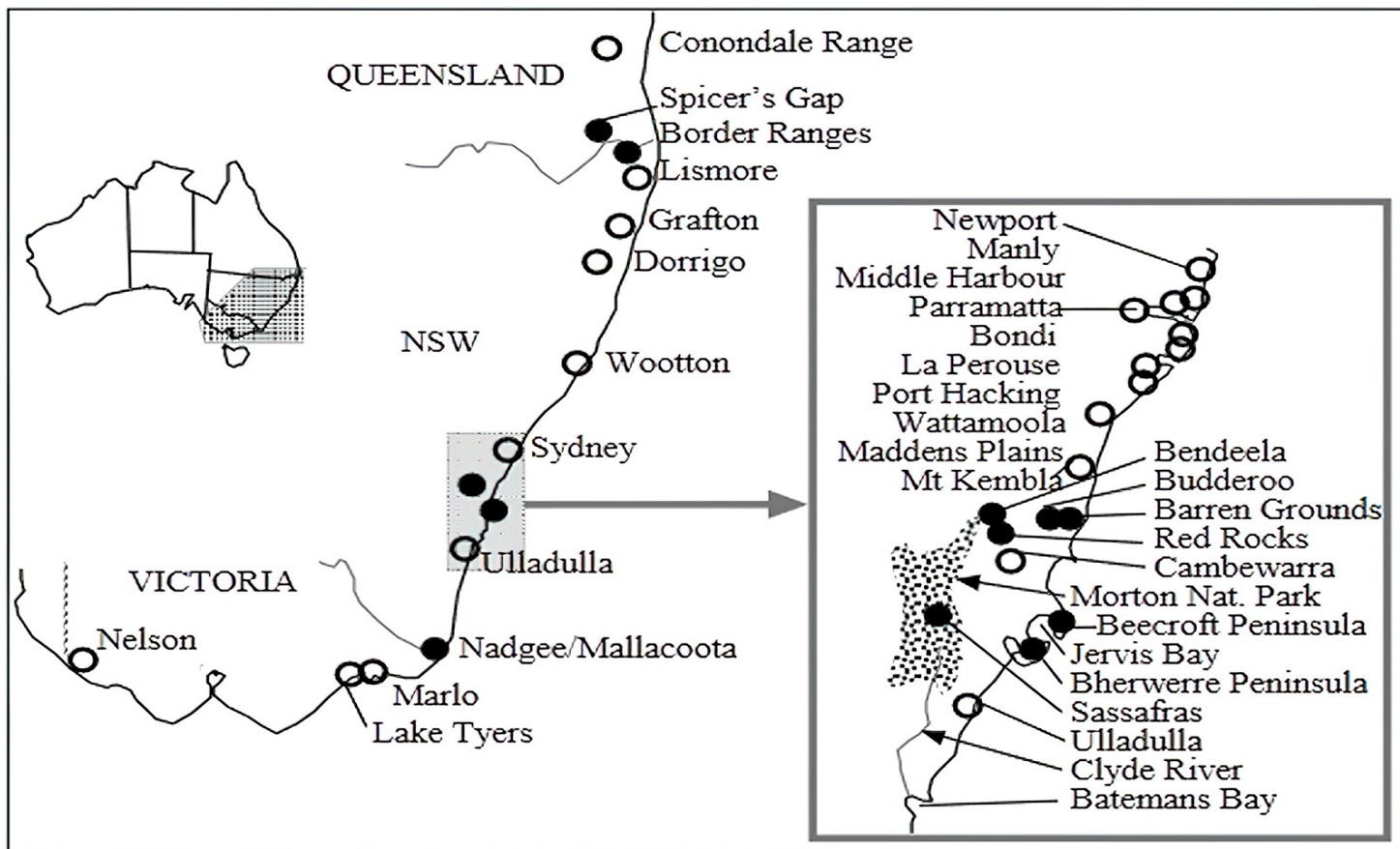


Figure 2. Past (○) and recent (●) distribution of the Eastern Bristlebird (based on Baker 1997).

Conservation Research Programs Hot Up

The latter months of 2021 provided a good deal of news regarding conservation efforts for the Eastern Bristlebird including the Booderee National Park population.

BirdLife Australia itself has acquired a 'Bushfire Recovery Grant' awarded under the Australian Government's Regional Bushfire Recovery. This will allow BLA's Bushfire Response Team to investigate if the area between two sub-populations has suitable habitat connecting the two populations thus aiding bushfire recovery.

The research will cover remote areas of both NSW and Victoria and determine if a connection between the two populations allows for greater genetic diversity thus being more likely to adapt to environmental changes.

In November Booderee Natural Resources Team Leader Dion Maple said 150 birds were either heard or seen during the routine Booderee surveys of the Bristlebird population three times a year. The count in Spring produced the highest number of birds in 17 years!

Dion indicated that the numbers were a "huge sign of the success of our fox control and ecological burn programs" but acknowledged that Booderee "thankfully remained relatively unscathed in the 2019-20 Black Summer bushfires".



Dion Maple with a Booderee Bristlebird (SCR)

Dion noted that "There is also a network of protected areas between us at Booderee, the adjacent Jervis Bay National Park and places like Heritage Estates near Vincentia, which both also provide good habitats." He also indicated that the robust population in the immediate area may enable the local population to contribute to the conservation program for the species as the potential to relocate some birds to enhance another site.



Booderee Heathland Bristlebird habitat.

"We have translocated Bristlebirds from Booderee and Bherwerre Peninsula across Jervis Bay to the Beecroft Range to establish another population over there," he said. "That was 20 years ago and was a success so can be used as an example of what might be possible."

The Heritage Estate Community Network HEST magazine in September had noted that Estate survey had recorded distinct increases in Bristlebird population in the area occupied in the Heritage Estate and adjacent parts of Jervis Bay National Park, which are all part of the same biodiversity corridor as Booderee and importantly, involve the Jervis Bay Key Biodiversity Area.

The main threat to the Eastern Bristlebird is the loss or fragmentation of suitable habitat, which can be caused by inappropriate fire regimes and clearing for urban or agricultural development. The restoration of the Heritage Estate and adjacent areas, which are now in the Jervis Bay National Park is supporting this recovery.

As previously mentioned, only about 2,500 Eastern Bristlebirds are left in the wild, spread across isolated populations in eastern NSW and southern Queensland.



An Eastern Bristlebird is caught and released during field work in Budderoo National Park in the Illawarra region (DPIE)

In December 2021 the ABC reported that this species had reached a critical point indicating a need for a program to support genetic diversity for the Bristlebird.

Senior threatened species officer with the NSW Department of Planning, Industry and Environment, Kelly Roche, said the small, disconnected populations of the birds could result in low genetic diversity, which compromised the species' ability to breed and left the birds vulnerable to threats such as wildlife, habitat loss, disease and climate change impacts.

A 'genetic rescue' project will be conducted under the auspices of the NSW "Saving Our Species" program conducted by the NSW NPWS.

This starts with an assessment of existing genetic diversity followed by capture in area of larger populations and the choice of breeding individuals, which are then transferred into small less diverse populations.

Ms Roche said "a small number of those wild birds would be collected and introduced to the captive breeding program so they could interbreed and improve the genetic profile of that population. The captive-bred birds will then be gradually released into the wild."



Eastern Bristlebird monitoring and field work is underway at Barren Grounds in the Southern Highlands (DPIE)

The genetic rescue project is being undertaken in collaboration with Currumbin Wildlife Sanctuary (CWS), Caesar Australia, the Victorian Department of Environment, Land, Water and Planning (DELWP), the University of Queensland, Parks Australia and the Australian Department of Defence.

The "Other" Magazine

- by Brett Davis

The December 2021 edition of the BirdLife Australia magazine contained a few items that may be of special interest to BirdLife Shoalhaven members.



On page 9 of "AUSTRALIAN birdlife" (that's the combination of capitals and lowercase letters that BirdLife Australia uses to depict the title of their magazine) there is the snippet (shown below) and then on page 51 there is another snippet (shown at right).

PINK COCKATOO

On another naming issue, AB would like to acknowledge the issue of culturally offensive and inappropriate bird names such as 'Major Mitchell's Cockatoo'. The Research and Conservation Committee of BirdLife Australia has formed an advisory group of historians, ornithologists and Indigenous Australians to work through the necessary revisions to many of our eponymous bird names. We hope to be able to report on their recommendations next year.

In the meantime, we will adopt the widely popular alternative common name 'Pink Cockatoo' for this beautiful desert bird.

Thanks to **Chris Grounds** for writing in.



BIRDLIFE SHOALHAVEN ROCKS ON

Despite being hit hard by the 2019–2020 Bushfires, Rockwarblers are bouncing back. While not previously considered a threatened species, their very specific habitat in the sandstone escarpments of the Shoalhaven, which was battered in the 2019–2020 fires, meant there were fears for how they would do post fire. But BirdLife Shoalhaven's post fire site monitoring has revealed a healthy population on the cliff line in Jerrawangala National Park, and a jump in numbers seen last year suggested they may have bred successfully post fire. More recently, another bird was spotted at the site, moving about on the actual cliff face with nesting material in its bill. It appeared that the bird and its partner were nesting under a small ledge in the cliff face.

This special little bird certainly seems to have survived the horror of the fires on the plateau.

BirdLife Shoalhaven has also created four bird-themed Spotify playlists. Head to their Facebook page for a choice of four soundtracks to lift your day: BLS Rocks, BLS Classical, BLS Folk and BLS Wiggles.

Budawang Coast Atlas of Life

- from Annie Lane, two photos by Sam Nerrie

Budawang Coast Atlas of Life (BCAL) is a citizen science project that aims to motivate people to take an interest in nature and become citizen scientists. BCAL began in early 2018 and uses the iNaturalist (iNat) recording platform.

The BCAL region spans the landscape from the Great Dividing Range in the west, covering the Budawang Wilderness area, Morton NP and other surrounding National Parks. On the coast of New South Wales we cover the ocean north from Moruya up almost to Kiama, which includes both the Bateman's Bay and Jervis Bay Marine Parks.

We'd love you to join us and log your observations of any taxa in [Budawang Coast Atlas of Life · iNaturalist](#). You might also like to apply your knowledge and become an 'identifier' to help identify or validate species.



Gang-gang Cockatoo sightings have declined dramatically within the last three decades. It's not known why. While Gang-gang numbers have remained steady in Canberra for the last 30 years, other areas in South East Australia have seen declines of up to 70%. We urgently need to better understand what's critical for this Cockatoo so we can take action to ensure its survival.

1. Gang-gang Nest (tree hollows) Search aims to compare breeding success between regions and test potential causes (hollow competition, possum predation, climate change) of decline. This project is led by Dr Michael Mulvaney, a long term Gang-gang researcher from Canberra, in collaboration with BCAL and our sister project to the south *Atlas of Life in the Coastal Wilderness*. Citizen scientists on the south coast were asked to take photographs of Gang-gang activity in and around hollows and to note particular nesting behaviours. Hollows were then prioritised for checking during the breeding season (October – January). You can find the project here: [Gang-gang Nests \(tree hollows\) Search · iNaturalist](#)



2. The Hungry Parrots Project (#HungryParrots) is investigating the diet and foraging behaviour of wild parrots in Australia, with plans to expand to the rest of the world. The natural diet of many native parrots is not fully understood, and records are scarce. Better knowledge of Gang-gang diet is also likely to help in turning around the Cockatoo's decline. Please lodge any photographs of feeding Gang-gangs within the Hungry Parrot project. [Hungry Parrots Project · iNaturalist](#)



3. In a separate but related project, Eurobodalla Council has joined with Dr Susan Rhind to secure a grant to build and site artificial breeding hollows for Gang-gangs in Eurobodalla. The cockatubes have been designed specifically to tolerate the destructive tendencies of Gang-gangs! They are now installed in 10 Gang-gang hotspots and will be monitored for uptake over a period of five years.

Editor's Note: BCAL is one of several other excellent bird / fauna / flora databases that are currently in wide usage. Use the database that works best for you. The crime is not to use any of them - all data is good data! But try to use Birdata for sightings!

Bird Attacks

It might comfort some people to realize that our native birds just don't attack humans - they also attack just about anything else that moves into their territory - as these images from Peter Noakes demonstrate below!



And as this Square-tailed Kite can testify, one minute you can be just gliding along minding your own business, and the next minute along comes a Magpie and you find yourself under attack. Thanks to Alice Laps for the photos!

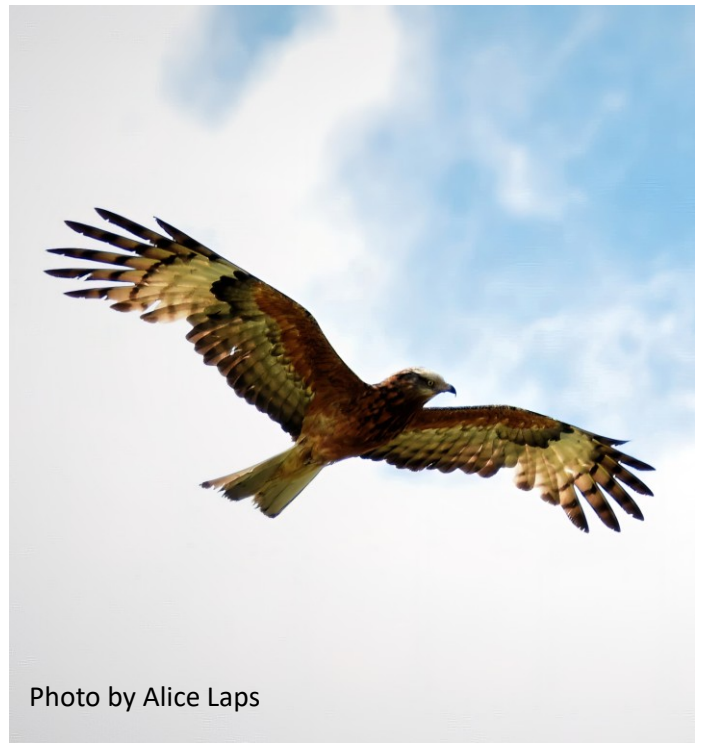


Photo by Alice Laps

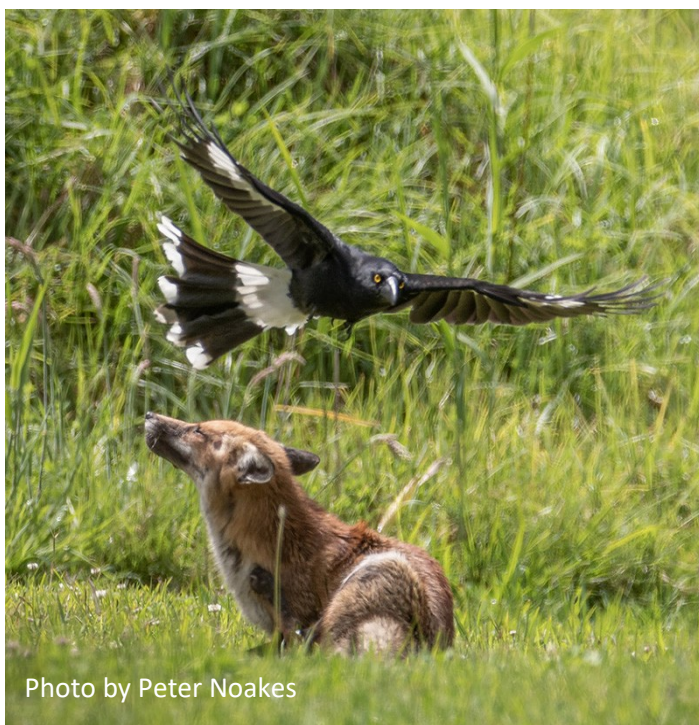


Photo by Peter Noakes

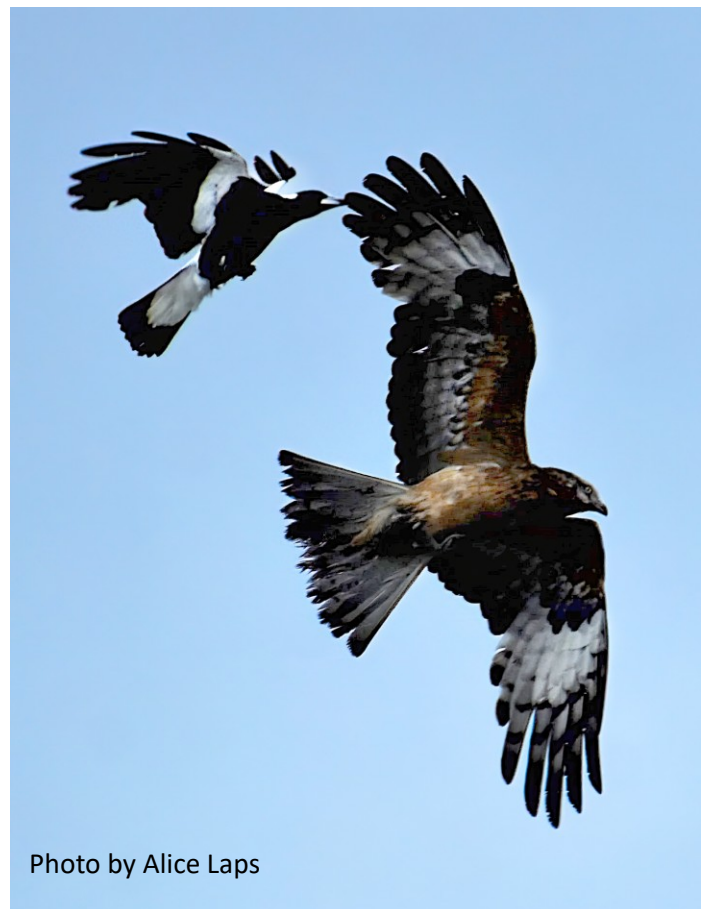


Photo by Alice Laps

Congratulations Wooden Spoonbills!

- by Brett Davis

The 2021 NSW Twitchathon has been run and won, although there is not a lot of information available online about who won or how many birds the winning teams managed to spot!

However, I can tell you that a Shoalhaven team - the Wooden Spoonbills, consisting of Evelyn May, Marg Hamon, Maggie Mance and Rosemary Hales - finished 3rd in the 3 hour Birdathon section of the event - with 70 bird species seen!

There was also an 8 hour "Champagne Race", and for the really serious birdos there was the 30 hour "Main Race".

Weird team names are almost "required" for the event, and if there was an award for the best name I'm sure that the Wooden Spoonbills would be right up there, although the Spotless Cranks, the Binoculars and the very topical Noisy Pfizerbirds would also be in the running!

The Wooden Spoonbills listed the Brown-headed Honey-eater as their "rarest / best" bird, but other contenders would have been the Short-tailed Shearwater, Nankeen Kestrel, Brush Cuckoo, Tawny Frogmouth, Eastern Whipbird, Dusky Woodswallow and Olive-backed Oriole were good sightings as well. The team said that the White-headed Pigeon was their biggest "dip"!



White-headed Pigeon

The Twitchathon is held annually, primarily to raise money for different conservation projects, with each team trying to raise as much money as they can via sponsorships.

The leading money-raisers this year were the "Champagne Shrike-tits" who competed in the 8 hour race and raised \$6,855. Coming in 2nd were the Dunbogan Drongos who competed in the 30 hour event and raised \$4,622, and 3rd on \$3,460 were the Wooden Spoonbills! Well done!

Evelyn May has asked me to give her team's thanks to everyone who generously sponsored her team.

Another KBA?

- by Rob Dunn

Here is an email I sent to the owner of a business whose company car I spotted in the area recently ...



"Key Biodiversity Areas (KBAs) cover some of the most important sites for threatened birds and nature around the globe. Australia is home to over 300 of these irreplaceable sites, including a number near your own office in Cardiff. Supported by BirdLife Australia, local KBA volunteers take on a number of tasks to monitor, manage and advocate for the conservation of these important bird areas. There is also a KBA Guardian for each site, who acts as the first point of call for anything for 'their' KBA, including identifying opportunities and threats and carrying out annual health check.

"With this in mind, I had to do a double-take when I saw one of the KBA Insurance Repair vehicles near where I live, which is very close to the Jervis Bay KBA. After a search I learnt about what you do. It is ironic that this is not so different from what KBA Guardians do.

"I simply wanted to make you aware that we share an acronym and wish your company every success, as I am sure you do for our work in the environmental space.

"Regards, Rob Dunn"



Editor's Note: Rob advised me to "hold the article for now as I may get a response to my email. If the CEO offers us a KBA ute or \$100,000 - he will get the front page!"

Pioneering Wildlife Photographers

- by Mike Morphet

How often do we think how advancing technology is changing our lives and activities and at a relentless rate, sometimes with enthusiasm, other times some regret perhaps.

I look back on my mid-teens and see how greatly my use of a camera has altered. In short, a camera is used to observe and record. From before my birth and afterwards, my mother kept photograph albums depicting family members at home and on holiday. With some reluctance, she lent me her Brownie box camera to record my first experience attending my school's army cadet field camp at Catterick Garrison, North Yorkshire and then more assuredly for two further annual camps.

Moving to London for work, I bought my first Instamatic, which I later updated with a Voigtländer, bartered in Aden, to capture seascapes and scenes in ports and nearby places of interest. Then came SLR cameras by Minolta, Zenit and Canon as I tried to improve my skills, meanwhile switching from black and white to colour, including slides.

And finally, bliss, oh, bliss, a digital camera with zoom lens and dispensing with film, ideal for shooting wildlife without a firearm. I recall former IBOC member, Lenny Klumpes and the lengths he went to years ago, using hides and hours, to get the perfect shot. He won several international awards. I wonder what he would have thought of the camera technology available nowadays; possibly too easy and no art or artifice involved, amounting to fake photography.

I want to concentrate on three English photographers who focused on nature, particularly birds, and were brought to my attention through reading Rosamond Richardson's excellent book "Waiting for the Albino Dunnock: How birds can change your life" - it was published in April 2017, a month before her death after a long illness.

The Kearton Brothers - Richard (1862-1928) and Cherry (1871-1940) - were brought up in rural Swaledale, about 16 km from Catterick, and developed a strong love of nature. Aged seven, Richard, while inspecting a bird's nest, fell out of a tree and underwent a botched operation (in an inn, not a hospital) by a bone setter, well under the influence of alcohol, and ended up with one leg shorter than the other, thus curtailing his travels.

In 1900 Cherry developed the first phonograph recording of bird song (a nightingale and song thrush) in the wild and went on to make wildlife documentary films overseas, including Australia and New Zealand, but particularly in Africa, making use of motion photography and forming a close friendship with President Theodore Roosevelt.



Richard and Cherry Kearton photographing a bird's nest

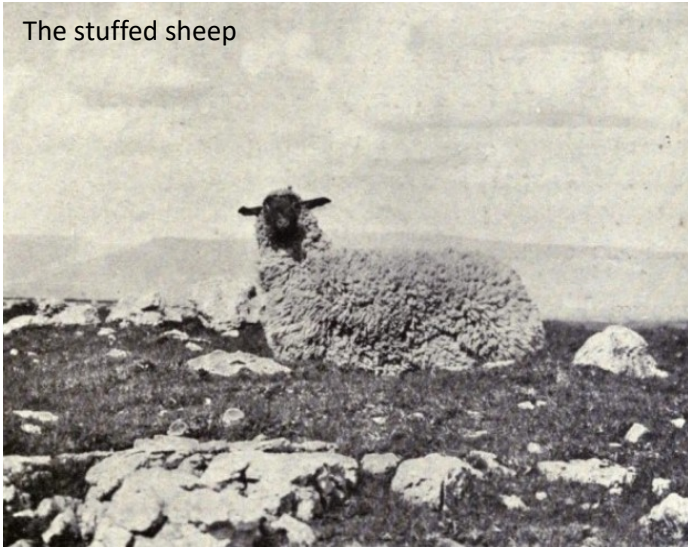
Straddling the start of the twentieth century, the Kearton brothers thought up strategies to obtain close-up photographs of wildlife, especially birds, acting naturally in their natural environment and without disturbing their subjects by their movement or the click of the camera shutter. Overcoming this problem entailed an element of deception and cunning, like that used in warfare; the Trojan horse for example.

Their imagination ran riot, ranging from the construction of a wooden mask, artificial rubbish heap, tree trunk and rock, to a sod house made of moorland peat and a stone house. They had two imitation farm animals made: a stuffed sheep in 1909, which housed only their camera, operated remotely via fifty feet of pneumatic tubing, following on from a stuffed ox, which was blown over with Cherry still inside.



The stuffed ox

The stuffed sheep



In his defence of their methods, in *Wild Nature's Ways* (1909), Richard stated, "To excel in deception is not a very laudable accomplishment, but the heinousness of the crime may, perhaps, be softened in the eyes of the moralist by a knowledge of the fact that in this case the duplicity employed has been entirely harmless to the deceived as it has been profitable to the deceiver." Nowadays would we consider Photoshopping or even the simple exercise of cropping and straightening photographs or creating clarity forms of deception?

It was Richard Kearton who in 1900 steered a single woman in her thirties into the vocation of ornithology by recommending that she switch from pictorial photography to that of birds. Emma Louise Turner (1867-1940) had been at a loose end when relieved of caring duties for her ill father and her brother's children after the death of his wife. And so she moved permanently from the Tunbridge Wells area of Kent to East Anglia to study and photograph the birdlife of the Norfolk Broads.

Emma Turner using a stereoscope



There she lived and worked in quite primitive conditions, residing in a very basic houseboat she called the 'Water Rail', moored on a tiny island that was later named Miss Turner's Island in her honour.

To capture images of her avian subjects, she used screens or would secrete herself under piles of rotting marsh vegetation with just the lens of her plate camera poking out. Her black and white picture of a young bittern at the nest site was remarkable and proof that this species did in fact exist in this locality.



In a long male-dominated domain, Emma Turner made significant inroads between 1901 and 1920, attaining membership of, and recognition by, the Royal Photographic Society, the Linnean Society and the British Ornithologists' Union.

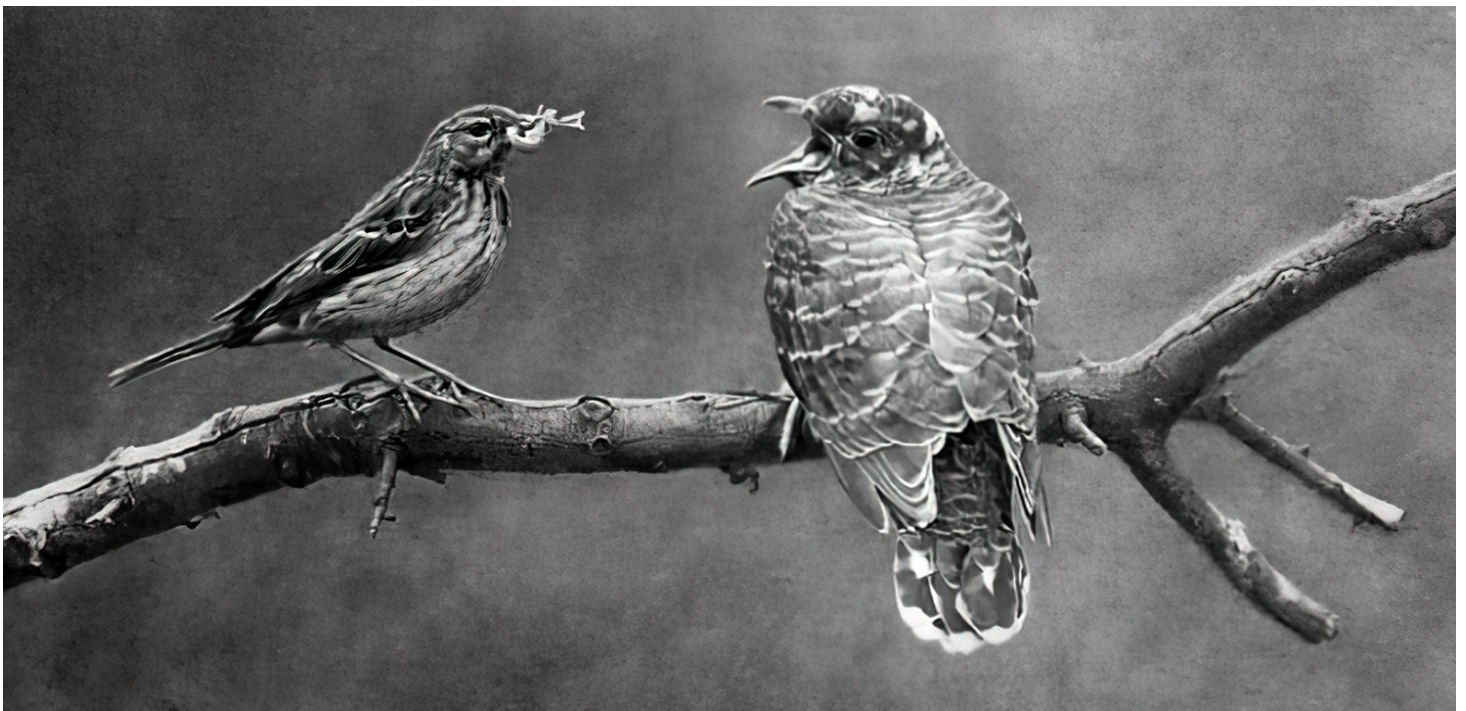
Four years later she became the first 'watcher' (warden), occupying a wooden hut for two seasons on Scolt Head, an island off the Norfolk Coast, to protect breeding tern colonies from disturbance and egg collectors. Fearing her black and white photography would soon become obsolete with the advent of film, like Richard Kearton, she turned to writing and lecturing, focusing on wildlife conservation.

Her plate photographs illustrated her book "Broadland Birds", published in 1924. Again like Richard, she suffered badly from a botched operation: hers was for cataracts, which rendered her blind.

Upon her death, all her photographic plates were bequeathed to the British Trust for Ornithology (BTO), based in Thetford, with whom she had worked as a bird bander. Unfortunately, most of them were deemed lost among the Trust's archives.

The eventual discovery of twenty-two of them inspired some research leading to the publication last year of the book "Emma Turner: A Life Looking at Birds", co-written by James Parry (who was Rosamond Richardson's mentor) and Jeremy Greenwood (former director of BTO).

Despite adversity, through their driving passion and creative minds, the Kearton brothers and Emma Turner left a tremendous legacy which should serve to be a continuing source of inspiration for birders everywhere.



Thanks to IBOC and to Mike Morphet for allowing us to edit and reprint the "Pioneering Wildlife Photographers" article.

Valuable Aboriginal Perspective of Birds

- by Chris Grounds

(The author and BLS acknowledges the Walpiri people, community and their school and staff, their connections with birds of their country, and pays respects to all Elders).

This magazine has a background story on the Pacific Black Duck association with the south coast Aboriginal culture to indicate the links that exists in our shared interest in birds on the South Coast (see the "Umbarra the Pacific Black Duck" article on page 19).

The result of some (personal) 'lobbying' of BirdLife Australia concerning issues of Aboriginal perspective associated with their comment on, and persistence with, the naming of the Major Mitchell Cockatoo, was highlighted in the latest BLA Magazine (see "The Other Magazine" article on page 25).



Essentially, the lobbying resulted in the quite welcome renaming of the cockatoos shown above to "Pink Cockatoo".

This did nothing to rectify the motivation to perpetuating the original error, which required the withdrawal of the "alleged" massacre comment by BirdLife Australia.

I suggest an apology may be in order, though it seems at least the learning curve is complete.

A Walpiri-Yuendumu Bird Perspective

A third exceptionally interesting instance of an Aboriginal perspective arrived with me this morning (11th January), just as I thought my magazine contributions were finished, but this is simply too valuable not to share so we are off to central Australia.

Stephen Mitchell is a young Aboriginal man of South Coast family associations. He works on the staff of the school at Yuendumu with the Walpiri people, 300kms west of Alice Springs and has done so for a number of years.

He and I met a few years back and shared, among other things, the interest in education and teaching for Aboriginal children as well as birds of the community he worked with in central Australia.

I shared some "birding" with him for the birds of that area but we had acknowledged the extensive knowledge and interest of the Walpiri themselves in the birds of their country.

The school, teaching and education in these very isolated Aboriginal communities requires integration across the whole community, some innovative approaches to teaching and support from outside agencies.

Stephen, his colleagues and the Walpiri community seem to have met that challenge in one particular way, which is of special interest to birders in the Shoalhaven and, of course, anywhere in Australia for that matter.

The community has produced two booklets as educational resources, one dealing with the birds of Newhaven, which is a Australian Wildlife Conservancy's [AWC] reserve.



Jurlpu Wardikinpirri-wana

This first booklet, "Jurupu Wardikipirri-wana" [Birds we saw at Newhaven] was produced from information supplied by Elders, Newhaven Rangers and Micha Jackson on the Newhaven Bird project with funding support organised by Bentley James.

The 60 page book presents 36 birds that the participating group saw in the visit to Newhaven Reserve with the Walpiri language names, for example the Tiyi-tiyi or Mudlark and Ngatijirri or Budgerigar.

The book is well illustrated with photographs and further listing of birds seen on other field trips.

Bird profiles are presented in major part as a photo with Walpiri description and a translation provided towards the end of the book - illustrated for the Nguri or Tawny Frogmouth (below). The booklet and photos are copyright.

Nguri, Nyuri, Lirra-kilpi

Nguri, nyuri, lirra-kilpi, yuparli-purrangu, kakutu, yuparli-ngarnu, nyampu jurupu yirdi panu-kurlu.

Lirra-kilpiji, parrangka ka nyina lalka watiyarla.

Kulalparlipa nyangkarla watiya-piya pinti-piya.

Mungangka ka paarr-pardimi warru ngarninjaku pinta-pinta-pinkiki. Manu ka ngarni jalupa, jarlji manu yinarrki. Jangala manu Jampijinpaku ka-jana nyampuju jukurpa karrimi.



© Micha Jackson

© Josef Schofield

Nguri - Tawny Frogmouth

The Tawny Frogmouth has many names, 'Nguri', 'nyuri', 'lirra-kilpi', 'yuparli-purrangu', 'kakutu', 'yuparli-ngarnu'. In the day time it sits very still in the tree. We can't see it as it looks just like the bark of the tree. At night it flies around catching moths and other insects.

The second of the two booklets is 51 pages and specifically designed as a student "Reader" for Reading Level 5 so has a strong educational bent that brings birds into the classroom and teaching and learning.

It is based on information supplied by Elders in the Ranger program on the Karrinyarra field trip. Photos were supplied by the Waramungka Bird project and the Central Lands Council.

It is a catalogue of 45 birds of the Yuendumu-Walpiri country featuring profiles of birds as a photo with Walpiri language description and, as with the other book, English translations at the end of the book.

This so brief of references is a special testimony to "bird books" potentially being much more than birders normally imagine when we speak of our bird book, and points the way for a new direction for publication dealing with birds.

Yupurru Yintarru-rarruru

Yupurruju kuyu-yijala. Nyinami kalu pirli-wana manu manangkarra-wana. Ngarni kalu ngurlu, paarr-pardinjarla ka pirri-mani kutu, yarda ngarninjaku. Ngipiriji ka ngajarni yarlungka. Nyampu-kurlangu yawulyu Napanangka, Napangardi-kirlangu.



Yupurru / Yintarru-rarruru – Spinifex Pigeon

The spinifex pigeon is also meat. They live around the spinifex and hilly country. They fly up and down a little further away to eat more seeds. They lay their eggs in an open place. The Women's ceremony for these belongs to Napanangka and Napangardi.

World Record-breaking Godwits!

- by Brett Davis

Fifteen months ago on 13th October 2020 the Guardian published an article entitled "'Jet fighter' godwit breaks world record for non-stop bird flight".

"The male bird, known as 4BBRW in reference to the blue, blue, red and white rings fitted on its legs, also had a 5gm satellite tag harnesses on its lower back to allow scientists to track its progress.



The Bar-tailed Godwit set off from south-west Alaska on 16 September and arrived in a bay near Auckland 11 days later ... the journey will have been around 12,200km. It is estimated that the total flight time was 224 hours.

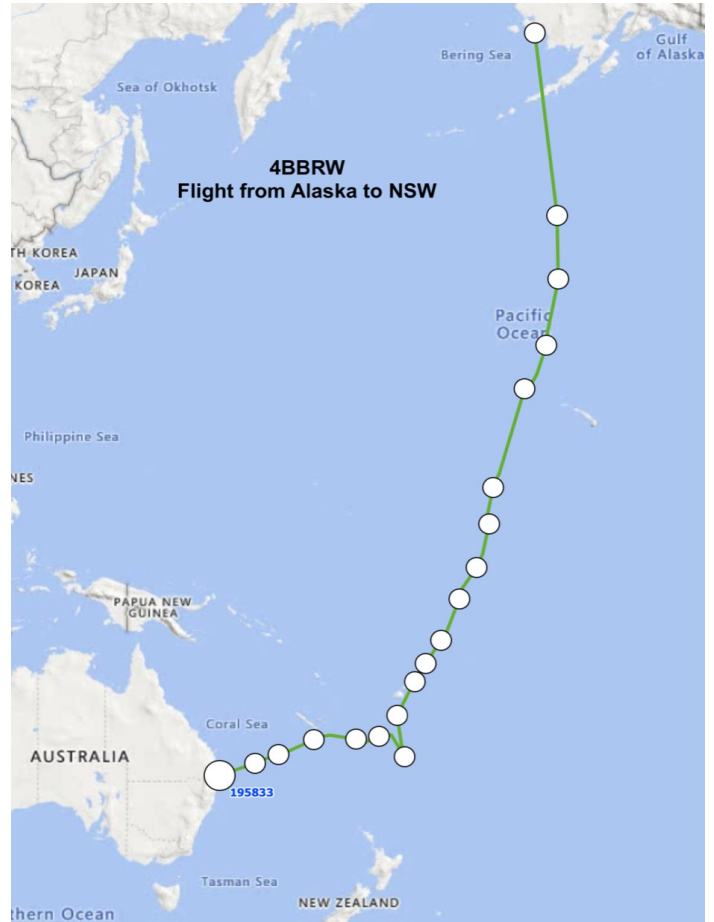
The previous longest recorded non-stop flight by a bird, of 11,680km, was recorded in 2007.

Almost a year after 4BBRW set his record in 2020, a female Godwit called 4BYWW broke the record with a flight of a similar distance but much faster, probably due to more favourable wind conditions. She flew at an average speed of 59 kph for 8 days and 12 hours.

One day after 4BBRW's record was broken by 4BYWW, he regained the world record when he touched down in Australia near Coolangatta on the NSW / QLD border. 4BBRW flew non-stop from the Yukon-Kuskokwim Delta in Alaska to Coolangatta, before moving a few kilometres south to Kingscliff and then a further 12km south to Hastings Point where the photo (above) was taken. His flight lasted 239 hours and covered at least 13,050km, averaging 55kph for the entire flight.

The aerial of the tracking device is clearly visible in the image above. The plot of the track of the entire flight is shown above right. Clearly shown in the plot is 4BBRW almost making it to New Zealand when adverse winds forced it to change course and head for the best available emergency destination of Australia.

Three weeks after arriving in Australia, having fed up and put on some extra weight, 4BBRW took off from Yamba and flew directly back to its preferred southern Summer residence in NZ, arriving 37 hours later after a "short hop" of 2,250km, averaging about 60kph for the trip.



Bar-tailed Godwits can double in size before a long flight. Red Knots also make big migratory flights, and they have similar weight gains and losses, as shown below ...



Moona Moona Pied Oystercatchers

- by Chris Grounds

The two Pied Oystercatchers who nested at Moona Moona Creek last season have done it again. Their new nest was quickly roped-off and signposted by volunteers, and the family made the most of their safe enclosure, as the photos below show! Two chicks fledged!



Bird Walks Calendar

There will be bird walks for **members only** as shown below. Visit www.birdlifeshoalhaven.org/joinus.html for information about becoming a member of BirdLife Australia and BirdLife Shoalhaven. Members should phone the leader of the walk for meeting time and place.

Bird Walks for Members

Saturday 22nd January - Bada Dam and Burrill Lake area - Karen Davis 0487 208 437.

Sunday 30th January - Vincentia WTP - Robyn Hill 0428 740 364.

Thursday 17th February - JB Maritime Museum - Yolande Cozijn 0409 820 159.

Other walks will be added to the Calendar on a regular basis. Please refer to the BirdLife Shoalhaven Calendar page on the website for the dates of all BLS activities. The link is www.birdlifeshoalhaven.org/calendar.html

Thanks

Thanks to IBOC and to Mike Morphett for allowing us to edit and reprint the "Pioneering Wildlife Photographers" article.



Powerful Owl seen on
Bangalee Bird Walk

How You Can Help

If you would like to get involved in bird conservation in the Shoalhaven, either as part of a specific BirdLife Shoalhaven project or by taking on a committee position, please let us know!

There are, however, a lot of other things that you can do. There are posters that need to be distributed. You could write an article (or articles) for this magazine. You could even lead a bird walk in your local area, something that you might do on a regular basis anyhow, but something that no other BLS members usually do.

You could also become one of our Facebook editors, send us some photos, or tell us about conservation issues in your neighbourhood!

Just email communications@birdlifeshoalhaven.org

The Fine Print

Contributions - any bird photographs, articles, conservation issues, birding experiences, anecdotes or sightings that you would like to share with fellow members, please send to the editor (Brett Davis) at communications@birdlifeshoalhaven.org

Requests for **re-publication of articles** must be referred to the Editor for approval.

General Disclaimer - the information in articles in this magazine is accepted in good faith and although the editor has tried to verify the accuracy of all information, BirdLife Shoalhaven and BirdLife Australia accept no responsibility for any errors, inaccuracies or exaggerations in this magazine.

Errors - if you find any errors in this magazine, please inform the editor at communications@birdlifeshoalhaven.org

Acknowledgements - thank you all of this season's contributors.

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Apologies - to contributors and sources who have inadvertently not been acknowledged. Let us know of our oversight and we will acknowledge your contribution in the next magazine.

Opinions - the opinions expressed in articles in this magazine are those of the individual authors and do not necessarily represent the views of BirdLife Shoalhaven or BirdLife Australia.

Australia's voice for birds since 1901

BirdLife Australia is dedicated to achieving outstanding conservation results for our native birds and their habitats.

With our specialised knowledge and the commitment of an Australia-wide network of volunteers and supporters, we are creating a bright future for Australia's birds.

birdlife.org.au

Add your voice

join us

Enjoy the rewards of membership, making a real difference for our native birds

volunteer

Contributing your time is one of the most effective ways to help

donate

Help us create positive outcomes for birds and their habitats