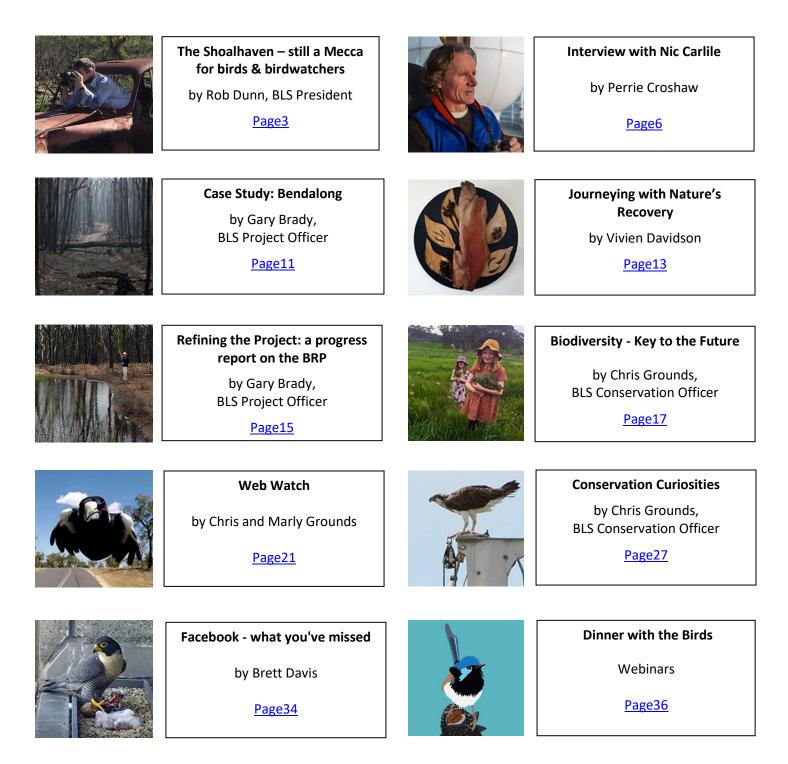
BirdLife Shoalhaven Magazine



Spring 2020



In this issue ...



Cover Photo:

This month's cover photo is a Rockwarbler, standing on a fire-blackened rock with a burnt tree stump behind it, taken after the Summer 2019 / 2020 fires. The BirdLife Shoalhaven Bushfire Research Project is monitoring the effects of the Shoalhaven fires on its birdlife, including iconic species like this. Anecdotal evidence suggests that Rockwarblers are doing okay - let's hope our long term study confirms this. The photo was taken by our Conservation Officer, Chris Grounds.

Acknowledgment:

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

The Shoalhaven – still a Mecca for birds & birdwatchers

- by Rob Dunn, President BirdLife Shoalhaven

In a just a few weeks it is the anniversary of the start of the Currowan fires in the Shoalhaven, which led to the loss of 90% of the Shoalhaven's National Parks, State Forests and Crown Land. Just before the fires in October last year, I gave a talk at the Bird Haven Festival in Shoalhaven Heads entitled 'The Shoalhaven – a Mecca for birds & birdwatchers'. After what happened a few weeks after my talk, and the slow recovery of habitat since, can I still make the same claim?



I certainly feel I can, because just within a short drive of my home in Vincentia in Jervis Bay, I can still find all the birds from my presentation by visiting different places nearby – like Bar-tailed Godwits on our shores, Rednecked Avocets at our lakes, White-bellied Sea Eagles along the coast, Azure Kingfishers by creeks, Striated Herons in mangroves, Scarlet Honeyeaters in forests, Wonga Pigeons in rainforests.



If you add to this the variety of birds that come to native gardens, the many seasonal migrants, a large number of threatened species, plus the birds at the internationally recognised Key Biodiversity Areas of Lake Wollumboola and Jervis Bay, who could not argue that the Shoalhaven is still a Mecca for birds and birdwatchers?

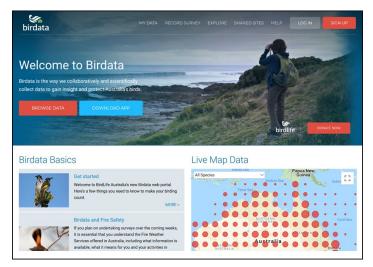
This is certainly the case if you live in the north-east part of the LGA, or other smaller areas that escaped the fires, but trips into the other parts of the Shoalhaven will show you the full extent of the fires and challenge this idea. Certainly, in these areas you only need to hear how quiet the bush is to know how much has been lost.



However the intensity of the fires is patchy and there are still isolated pockets that miraculously were untouched, both large and small in size. Pictures taken bushwalking in the Yerriyong State Forest (below) show a pristine area of rainforest under the escarpment where lyrebird nests have been found nearby.



Over the past year BirdLife Shoalhaven volunteers have strived to get a better understanding of what is actually happening in both these burnt and unburnt areas. Even while fires were still burning, everyone seemed to want to share their bird experiences, both good and bad. Some of these we included in our summer magazine. Birders did what they always do, they went birdwatching and recorded what they saw, even though a lot of their normal bird walks had been burnt.



Gradually we saw that a lot more people were starting to enter their bird surveys into BirdLife Australia's Birdata portal. The number of surveys recorded showed a marked increase on previous years and this has been increasing month by month. Clearly birdwatchers wanted to play their part to track the state of Shoalhaven's birds into the future.

Some of this information and other local insights have been captured in case studies by Marg Hamon on Bawley Point in the Winter magazine and by Geoff Ball on Bendalong later in this edition - see page 11.



As the number of surveys increased, BirdLife Shoalhaven was duty bound to set up a system to collate this information and make it accessible and meaningful for research. Our Bushfire Research Project (BRP) is now taking shape with a central database bringing together the surveys from Birdata and information on birds' feeding and nesting requirements and site fire intensity, vegetation type and photo points. We have also made recent changes to allow more birders to contribute to the project. This is vital as the recovery of birds will take several years of data to interpret meaningfully.



Slowly the bush is starting to recover, but this recovery is very varied and not uniform. The resulting changes for bird populations still remain impossible to predict for some time. Data (via the Birdata app) is the key to getting a handle on what is happening now and what can be done to conserve our birds in the future.

We hope to package the first year's data into an Annual Report soon, as a first step to engage with researchers to assist us to try to answer some of the research questions we would all like answers to.

The continuing social aspect of our BRP can also not be ignored. When Dr. Martine Maron, Deputy Director of the Threatened Species Recovery Hub and now President of BirdLife Australia, spoke at an event in Mollymook in early March, she asked if I thought it was too soon after the fires. I assured her that this was far from the case, as there was a real desire for people to come together and share experiences, especially through their interest in birds.

The social context was evident in our interviews with Fiona Stewart in our last magazine and with Nicholas Carlile in this magazine - see page 6. It has also come out of our partnership with Shoalhaven Landcare during bird talks with private landowners. This will be explored further in the "New Leaves New Lives" art exhibition in Ulladulla in January. The details for this event are still being fleshed out, but the article by Vivien Davidson in this magazine provides an overview - see page 13.

Despite all that happened in the weeks following my talk a year ago, the Shoalhaven is still a Mecca for birds and birdwatchers.

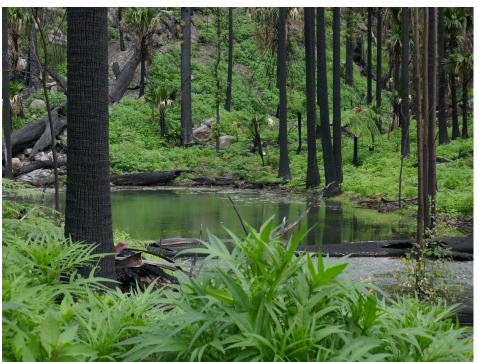
Of the 18 self-guided walks listed on our website - at <u>www.birdlifeshoalhaven.org/selfguidedwalks.html</u> - only two have been impacted by the fires.



Of course, the fires have devastated vast areas and their recovery remains hard to predict, but people's interest in birds is very much alive.

If you take the opportunity to visit those areas that have been impacted you will get a unique insight into the renewal of vegetation and hear birdsong return ever louder in future years.

You can still find all the birds that have always been a drawcard for birdwatchers in the Shoalhaven, but you may just need to be more selective where you go.





Interview with Nicholas Carlile

- by Perrie Croshaw

Ecologists Nicholas Carlile and Lisa O'Neill live with their three teenage kids on 80 acres north-west of Nowra in the Budgong Valley.

By January 4, 2020, Lisa and the kids had packed all their precious stuff and headed to Sydney but Nicholas stayed to protect their 33 hectares from the Currowan fire roaring towards him from the south.

But Nicholas says that he was lucky - due to the landscape and a wind change - that their property didn't bear the brunt of what was happening further to the west and south. Budgong was consumed by this firestorm on January 4, the bridge over School Creek into Kangaroo Valley was destroyed but the fire turned away from the Carlile / O'Neill property and headed towards Bundanoon and Kangaroo Valley.

Nicholas tells us about the impact of fire on flora and fauna in this region.

BLS: Nicholas, would you please describe the events of the afternoon of Jan 4, 2020?

NC: We bought here in 2000 and moved here fulltime in 2006. We have been waiting for this fire for over 20 years. The area last burnt in 1965 with the Chatsbury fire that came out from near Moss Vale and burnt to the coast in 36 hours. The landscape on our property is regrowth from that fire.

The Chatsbury / Bungonia bushfire of 1965 burned from 5 to 14 March 1965 in the Southern Highlands, destroying the villages of Tallong and Wingello.

Before we built the house, we built a wine cellar which doubles as a bushfire bunker in the side of the hill. It's totally fireproof.



Our house was designed to withstand fire. All the opening windows have steel shutters fitted. All timber on the outside of the house is Class 1 low combustible, so all external exposed timbers are ironbark. All the windows are 10mm glass, all the fire screens are stainless steel.

The house should withstand most fires. Whether it would have withstood the Currowan fire before the southerly change came through at 7pm in the evening I'm not sure.

[The photo below shows the sky at 3pm in the afternoon, building up a head of steam].



So, the southerly change came through two hours earlier than predicted and that's probably what saved our bacon. The crowning fire had already reached Budgong Road, coming from the west, and we are only about 2km further east from Budgong Road.

When the southerly came through, the fire was already burning up the side of Emery's Plateau to the south of us. It forced the fire north, so it burned along Emery's Plateau then around the corner and down into our property.

With a southerly wind behind it and the protection of the plateau we ended up with only a creeping fire on our property. The main fire front just burned from Budgong Road up to Mount Scanzi and then petered out on the other side.

Further west where the valley opens north - south, it just charged up towards Bundanoon and various other places before the weather changed again.

BLS: Knowing that the fire was so intense, even with your bushfire bunker and the fact that you've got one road in-and-out, would you stay again?

NC: Yes, absolutely. I would always stay and attempt to save our home. It's not worth staying to get crisp, but I've got all the PPE (personal protective equipment) because I've worked on fires on offshore islands where we manage penguin habitat.

But equally, I didn't want to be here. And by 7pm I *really* didn't want to be here. But there was no way I was leaving. I just realised it was not going to be pleasant. By 7pm that night I started transferring hard drives and computers to the bunker.

I had heard noise to the west and thought it was a fleet of helicopters, but it was just the sound of the forest exploding. One of the huge air tankers went past around 6pm and almost blotted out the sky, quite low around to the south west of Budgong, trying to slow the fire.

I only saw one tanker. So they were throwing resources at it, but this fire was bigger than anything the RFS had to throw at it.

When that southerly change came through just after 7pm, the pyrocumulus cloud that had developed with the north westerly collapsed, and in doing so, houses outside the burn zone had all their windows blown in, demountables were blown off their footings, chicken tractors rolled over in paddocks, trees twisted and broke.

The force of the blast when it collapsed was huge. It was a major fire event happening further to the west - and we were just fortunate.

The previous catastrophic fire in the 1960s, from my observations, burnt down into almost all the rainforest and all the way up to Red Rock. So, the rainforest we knew and fell in love with 20 years ago, was a recovered rainforest. I figured this fire was going to be similar. But with the landscape and wind change, we ended up with a creeping fire which mostly put itself out.

I spent nine hours fighting the ground fire around our house so that we wouldn't have to look at blackness around our house after the fires had gone.

BLS: How much rain have you had since then, and are you worried you might be impacted by fires again this year?

NC: I've got rainfall records going back 20 years. In our first year, neighbours who had been here for 6-7 years before us said it was the driest they had ever seen. The drought we had in 2018-2019 was 25 per cent worse than 2001-2002.

We have seen swathes of forest die along Budgong Road, forest which had germinated in the last 25 years on soils that couldn't retain moisture. We were seeing 25-year-old trees die of thirst.

After the fires came the floods and now the ground moisture is really high. We've had 140 per cent of our annual rainfall already this year and are set to reach a record. We should break 2 metres before the end of the year. But the rain has come in fits and starts with 980mm in February. Certainly our landscape won't carry fire for quite some time, but only part of Emery's Plateau burned to the south of us, so there is still potential for the south east of us to carry a fire.

BLS: What impact have animals and birds had on the forest around you?

NC: Most of the fire around our area was self-extinguished because the level of leaf litter was such that even a trampled line from a Wombat trail would stop the fire.

I certainly put that down to the fact we have been fox baiting for 15 years and that allowed our ground bird life, lyrebirds mostly, to maintain a fairly low level of fine fuels close to the ground. The lyrebirds were in good numbers because we had been baiting foxes for such a long time.

Long term studies by Chris Davey and Peter Fullager into the Brindabellas after the Canberra fires in 2003 found that in the higher density lyrebird areas, the fire was of less intensity.

So, if you want to reduce your fire, certainly to noncatastrophic conditions, maintaining low fox numbers will increase your probability of having more lyrebirds which will increase your probability of less fine fuels on the ground.

It would be even less intense in our rainforest areas if we had good numbers of brush turkeys. These were originally described in a collection that John Gould made on Cambewarra Mountain (around 1832-1836).



Brush turkeys are making a comeback. They have been seen in the Valley.

We work on the low fox numbers to also maintain quality rock wallaby habitat in the area, with our nearest colonies at Budgong Gap and Kellett's Creek about 6km to the south of us.

Lisa's job is to maintain baiting and camera monitoring at these colonies. Our property gets baited as we've had rock wallaby scats in the forest just to the south of us.

BLS: And what about feral cats?

NC: I've been running four cat traps almost constantly since April but have only caught two cats. I still see the occasional cat, but they are tricky to trap.

I run cameras here to monitor small mammals - and on the same night within 50 metres of the house in two different directions, I've seen two different cats. Their densities can be quite high and the fire has impacted them. But they are still a bugger to catch!

BLS: What wildlife attracted you to this area and what are their numbers like now?

NC: As a botanist I understand the strong link between flora and fauna. On our first visit to the property, we walked to the edge of the rainforest and saw a couple of plant species that we knew would support the suite of wildlife we wanted to see.

We saw stinging trees (Dendrocnide Moroide: birds and bats eat the small seeds, and the leaves are an important food source for pademelons and others), kodas (Ehretia Acuminata: delicately scented, white flowers in spring are followed by large clusters of edible, sweet tasting, yelloworange berries in autumn, which are loved by birds) and tamarinds (Diploglottis Australis: fruits are very attractive to fruit doves, pigeons, green catbirds, bower birds, bats and scrub turkeys). There were also cedars and such, but we were more interested in fruit producing plants.

When we first lived here fulltime in 2006, we had one pair of Logrunners (*Orthonyx temminckii*) in the rainforest next to us. We started fox baiting and by 2018 we had 4 pairs. We do know they occur at Bomaderry Creek - that's probably the most southerly point for the species. But having them here was certainly a bonus.

Logrunner numbers coincide with lantana management on the property. We have gone from about 4 hectares down to less than half a hectare of lantana over the past 15 years.



We've put a Voluntary Conservation Agreement on 75% of our property which has reduced our rates by 75% and this has meant we have more money to manage lantana. We've also received \$20,000 in grants to manage lantana over last 10 years.

Lyrebirds are our most common ground bird. We only lost 40 per cent of our property to ground fire, so there are areas where the lyrebirds remained.

After the fire we have one pair of Logrunners left. We've seen an uptick in Wonga Pigeons and Bassian Thrushes. We've previously had flocks of Bowerbirds here – up to 20 birds in springtime as the juveniles flock together.

We have a whole swathe of soft fruit trees. We know that if the trees are not covered during flowerbud burst the bowerbirds strip them of their flowers even before the flowers open. But this year I'm covering trees with fruits the size of my thumb.

Last year after the fires, we took all the covers off the trees because we couldn't keep the wildlife out, they were so desperate. We sacrificed that year's crop and opened up all our trees to anything that needed it, the Wallabies, the bats and the birds.



This year we have so much fruit and some of our fruit is developing without covers. We do have the occasional bowerbird - I've seen up to two.

The two big changes we have seen in Budgong Valley that I've never seen here in 20 years are the Sulphur-crested Cockatoos – a flock of seven - and Eastern Rosellas. The only Eastern Rosella we've ever seen here before paired with a Crimson Rosella to raise a hybrid offspring.

We now have a pair of Eastern Rosellas in the paddocks below our property. I delight in their colours. Every time I see them I get a shock with the vibrant yellow and green and their call is so distinctive.

My usual estimate of how productive our forests are happens when I hang out the washing. I can usually get 20-25 species by call.

We've seen pretty much all the birds we expect to see but their numbers are much reduced.

All our frog fauna is still here, especially our Great Barred Frogs. I saw one in a patch adjoining the burnt forest when the rain started about a month ago and have since seen them on our 1.4km driveway. We get frog calling from our dam and have about 8 species there, which is what I would expect this time of the year. So, our frog fauna seems good.



I haven't run a check on bats yet, but we usually have about 8-10 species. Hopefully most of those will still be extant because they live in the part of the forest that didn't get burnt.

The Powerful Owls are still hanging around as we hear the calls and we've seen some bandicoots, ringtails and Brushtailed Possums, bush wallabies, plus some other macropods, antechinus and bush rats in the area. Whether we spot more higher order marsupials remains to be seen. Tiger Snakes haven't returned. Red-bellied Black Snakes are still here and Diamond Pythons have arrived and this really surprised me.

The Stone Fungi is coming up. This is remarkable as they had been waiting for 50 years to reappear.

We have some big trees that are four hugs around. These are about 300-400 years old, or older. One collapsed but is still alive. We only lost one of our really old trees.

I've got a knee-high grassland 30m from the house where we have a rare solanum (tomato plant) doing well. This year we have six mature plants and seedlings. It doesn't seem to germinate back in areas that experienced the fire though.

But we are now seeing fantastic flowering events. The Illawarra gallery forest won't look the same in my lifetime. That will be it for another 50 years before it recovers. But our pocket has survived and so things can spread out from here.

BLS: Are you and your neighbours optimistic about rate of recovery after the fires?

NC: The gullies where we have done our lantana work is a recovering rainforest and this didn't get burned. It will provide a seed reservoir for the forest to the east of us. Having spent time recently in the forest identifying plants, it looks like regeneration is well underway for most species.

We had some potential sighting of Pademelons here a few years ago and followed up with camera work but didn't secure anything.

One bit of wildlife seen in the valley (although I've yet to confirm that) is a koala that was spotted crossing the road in Budgong. We had a koala on a camera in Kellet's Creek about two years ago. But a local said they saw a koala moving into the only patch of forest which wasn't burned in Budgong Valley.



I've got some automated sound recording devices and will put these out in the forest as we are entering koala calling season in October. I think there are some bright patches of hope that there might be some unusual things.

You'd be surprised what can survive. When things are in very low numbers, it's very difficult to ascertain whether they exist or not and it can take several years to get up to a critical level.

What's interesting in terms of koalas, is that there is a record of one in a tree above a group of picnickers in the early 20th century. We have plenty of their feed trees here - Woollybutts and forest red gums. There is a triangle of these red gums where this one was seen.

BLS: How was post fire recovery managed?

NC: One unfortunate aspect of road management and post fire recovery which was done to make the place "safe", was the practice of pushing over large hollow trees on the sides of the road.

My kids and I would rub crosses off some of these good trees each day to try and save as many as possible. There were many that didn't need to be cut down. It was devastating to watch. It takes about 150 years for a tree to form a hollow suitable for a possum and we lost a lot of hollow bearing trees.

Because those roadside reserve areas had never been cleared, they retained some of the most important hollow trees and we lost many of them along Budgong Road.

They brought in a massive forest clearing tractor truck device which was three people high and pushed over everything it could reach. Also, the army got involved with chipping companies and woodchipped everything they could fit in the chipper.

Sadly, the woodchipping was an aesthetic thing. There was a huge amount of money available for post fire recovery so these companies were brought in to just chip everything.

It was like the flood recovery here. There was a massive amount of money to assist with flood recovery, so they filled all the drains with rocks. When we had further rain, it washed the rocks out onto the road again or just created more erosion sites.

BLS: What did you learn from the fire?

NC: Because we built in a fire zone we have to maintain a fire-free zone. People need to be aware that we live in a really fireprone region and you can't expect there will be enough resources to help save your property from fires in the future. A local property owner who has been here as long as us expected the RFS to turn up and save them! But the RFS doesn't have the time, or they can't take the risk.

When we put in our 1.4km driveway, we made it wide enough for the RFS to get up, but by the same token we were told by the RFS that they probably wouldn't come.



If you are fighting a ground fire, don't use water. I would use a leaf blower to create a free zone. I was using my boot to clear the area but a leaf blower would have done a better job. If you take the fuel away, it won't burn. I saved my header tank by raking a line around it.

I was also given this tip. The biggest problem with houses is that they burn from the inside out and this is usually because of the negative air pressure in house. You can change the air pressure in your roof cavity, house or shed, by turning on the household fan. This will change the air pressure and reduce the potential of embers being sucked into the roof or shed.

We have our roof insulation doubled over at the bottom and we went above and beyond to prepare our home for a bushfire. But I still wouldn't be certain the house would have survived this fire.

We have our bushfire bunker, a firefighting trailer, 100m of hoses and respirator masks. We still had mobile service but no landline. I have a VHF radio – every resident in the valley should have one – and at least I could communicate with the RFS.



Case study: Bendalong



Bendalong is located half an hour north of Ulladulla and borders Conjola National Park. The coastal village is set on Red Point, named by Captain Cook on his 1770 voyage.

Geoff Ball set up two survey sites near Maple St on the edge of Bendalong in 2017 and has been monitoring the bird populations regularly using the standardised 20 minute / 2 hectare method. Geoff's comments on the site are in quotations.

"I set these two sites up originally to practice surveying skills after downloading the Birdata app and it is now fascinating to have a record of the changes over the past few years, and the awful effects of the bushfires."

Bendalong Road was cut by fire on New Years Eve and the Township of Bendalong isolated. Saturday, January 4, saw extreme fire conditions, with howling north-westerly winds and 40-degree temperatures, pushing the Currowan fire to the doorsteps of many homes (ABC News).

A collation of the data recorded from Maple Street Corner and Maple Street Bush Track since 2017 show a decline in the number of species sighted per survey, and the total number of individuals recorded.

Extracting the data pre-fire showed that at one site, Maple St Corner, the numbers were relatively stable prior to the fires and have since declined, while at the other site the numbers have shown a trend downward for the years preceding the fires.

"Looking back at the data it seemed there had already been a big drop off in numbers later in 2018 and in 2019 before the fires. I put this down to the drought.



"During that time the site was very dry, occasional puddles after rain were well used by birds and the bush looked dry, degraded and sparser than before."

Nectarivores are the most often observed feeding group at these sites and it seems that they have been declining over the period of the surveys, not just as a consequence of the fires.

Analysis of nesting behaviours shows that most sightings are of hollow-nesting birds. Though the numbers were constant pre-fire, they have suffered a decline post-fires and have still not recovered eight months later, despite the regrowth that has occurred on the site. Once again there is a downward trend in the total number of birds sighted over the period of the surveys.



Interpretation

Both of these sites were heavily impacted by the January fire event with all layers, ground, mid layer and the canopy severely burnt.

A visit to the site in March showed widespread epicormic growth and the ground layer recovering. The fire event will have reduced the numbers in all parameters: species, individuals, hollow nesters and nectarivores. The sites are still not showing a recovery to pre-fire levels eight months after the event, even with significant rainfall and abundant regrowth.

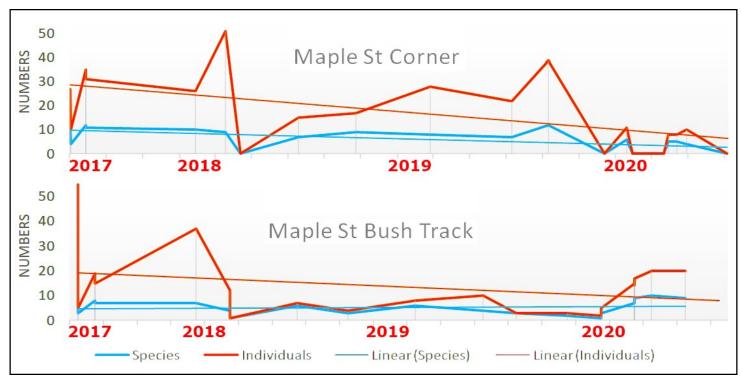
Looking at the data prior to the fire event shows differences in the numbers.

"Birds were fairly scarce on the Maple Street Bush Track site before the fire, except for one visit by a troop of Topknot pigeons, but bird numbers and diversity have now increased with the weed and herb growth from increased light after the fire burnt out the canopy."

Hollow nesters were trending upward while nectarivores were in decline. The drought prior to the fires could account for this. The numbers at the Corner site were increasing while the number of species and individuals were declining on the Bush Track site.

"At the Corner site numbers are increasing very slowly, but steadily after the fires. The most noticeable absences are the wattlebirds, and also the Superb Fairy-wrens have been slow to reappear, but there seems to be more Variegated Fairy-wrens than previously. I have not seen Red-browed finches in the area since the fires."





Journeying with Nature's Recovery



– by Vivien Davidson

I live in Morton, in the Shoalhaven region, against the southern edge of Morton National Park, in the hills behind Lake Burrill. My husband and I have a small acreage and we joined the Land for Wildlife program.

It was important to us that our property could offer the bird and animals nearby some extra habitat, and sources of extra food and water, including a purpose-built dam.

The great Currowan bushfire started in late November 2019, about 11 kilometers from our home.

In the months that it raged ferociously across the region, we were threatened by it three times and on one of those occasions, it burned about 40% of the remnant bush along the creek line on our place and also around the other perimeters.

We were fortunate. When the fire hit our neighbourhood cluster of houses, our buildings were miraculously spared and the tree canopy survived, but others within 2 kms sustained a total burn from a terrifying firestorm - homes lost and the surrounding bush became a forest of black skeleton trees with no canopy, no under-story and worse, the eerie silence of no birds.

I received an email soon after the fires that referred to my experiences as "**eco-grief**". Now I had a word to label the anxiety and deep distress I had been feeling. Like many people, we had been frantically setting up food and water stations, not knowing how many of our fauna friends were still alive.

The birds who regularly visited the garden around our house started to reappear, but were there any lyrebirds left when the deep gullies burnt out? What about the Whipbirds, the Pardalotes, the Treecreepers and the Bassian Thrushes? They all seemed so vulnerable to fire!

I spoke to others who had chosen to live in the bush because of their emotional attachment to nature. For some there was a deeper sense of grief about the bush and its creatures than there was about their personal material losses! How much of this loss is permanent? How do we come to grips with the scale of it all?

Because I had been a trauma therapist before moving to our rural property I could reflect on my own reactions and what I needed to help me come to terms with how much that fire season changed our human community. My mind was full of ideas about how we could help each other get through our trauma and grief. I knew that the more we could be mobilized to help support each other, the less the likelihood of long-term mental health issues.

There is so much power to heal coming from the ordinary person's ability to reach beyond themselves and connect empathically with other people's shared suffering. I have always thought that listening with empathy and understanding is 50% of the therapeutic task. You don't have to be a professional counsellor to do that.

In my "retirement" escape to the country, I discovered abilities that had been left undeveloped due to work. I was introduced to the fibre arts through the local Milton spinners and weavers group and the Eurobodalla Fibre Textile Art Group.



I was taught wet and dry felting techniques and suddenly found the medium - sculptural felting - that worked for me to express my awe and wonder at all the natural world around me, my favourites being the birds! I even felted an extinct one!

Creativity also allows us to express our emotions in physical and empowering ways and to connect with others who can resonate with what we are trying to express. It is also a way to commemorate what is precious to us and offer that to others to also appreciate. With nature art in particular, it can hopefully draw attention to what is special, awe-inspiring or what has remained unnoticed.

After the fires I went out looking at everything that had changed in the bush and the devastation that had occurred. I wanted to commemorate the burnt beauty of the skeletal fronds of my cabbage tree palm, to turn pieces of Spotted Gum bark that had magically changed by fire from beige spots to patterns of stunning colour into artwork.



And of course, I had to make more birds as well as gliders etc. I want to share the beauty, the loss and also the amazing capacity of nature to survive, like my cabbage palm that has come back from the dead. Doing this and soaking myself in the observation of nature's fight to come back has helped me process my distress.

The rain has brought amazing regrowth. In addition to that, being part of organisations that are working hard to restore and conserve our natural world help take us out of despair. We can work together to rebuild and to help nature regenerate, even if we only donate money. All these ideas have now come together into a project that I would like our community to embrace. New Leaves, New Lives Art Exhibition is a community recovery project, to be held at the Ulladulla Civic Centre from Jan 4th to Jan 10th, 2021. It will happen at the anniversary time of the worst of the Currowan Fire and contributing artists will come from the South Coast fire affected areas.



The artists will tell their story in 2D or 3D art, photography and also in words. They will each have an artist statement about their own experiences and what has helped them since. In addition there will be interactive workshops for adults and children to create their own nature art, under the guidance of artists and art therapists.

Nature conservation groups such as Wildlife Rescue South Coast, BirdLife Shoalhaven and Shoalhaven Landcare will have displays and talks to educate us about what we know has happened since the fires, and what we can be doing to support our creatures and their habitats.

Lifeline South Coast also appreciate the need for us to still be working on helping each other recover from the trauma, and get through the anniversary time. So they are generously funding the project and also working with other disaster recovery services to give us those wonderful volunteers to help staff the exhibition with friendly supportive listeners.

If you are a south coast artist who would like to contribute art or nature photography or run a workshop, please visit the New Leaves, New Lives Art Exhibition Facebook page (@NewLeavesArtExhibition) by clicking this link to get to www.facebook.com/NewLeavesArtExhibition/ or email newleavesnewlives2021@gmail.com

I hope you can make it to the exhibition and share your own stories and journeys over this past, difficult year.

[Editor's Note: Vivien is a member of BirdLife Shoalhaven and Wildlife Rescue South Coast, a former trauma therapist, and felt sculptor.]

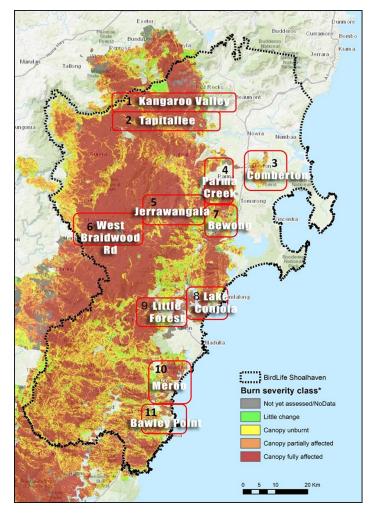
Refining the Project: a progress report on the Bushfire Recovery Project (BRP)

- by Gary Brady, BRP Coordinator

There is evidence of a greater interest in bird surveying across the Shoalhaven. During spring this year 46 surveys have been logged on Birdata across 36 sites compared to 8 surveys in the same period last year.

This year to-date 417 surveys have been logged across 202 sites by 99 surveyors compared with 205 surveys in the same period last year across 44 sites by 21 surveyors.

The map below shows the clusters on which we will focus our effort. This "clustering" of survey sites in proximity to each other will minimise travel time so that more can be achieved in a single visit. This is in line with the approach adopted by BirdLife Australia's bushfire recovery research in Key Biodiversity Areas across Australia.



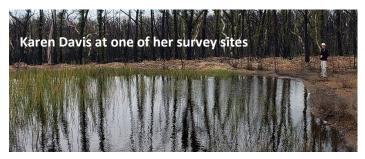
The number of sites from which we will collect and collate data from has now been rationalised, in consultation with the surveyors - given their local knowledge. This will ensure the number of surveys is similar in each cluster, while ensuring that a range of fire severities and habitats are represented. We hope to gather one to three 20 minute/ 2 hectare surveys per site per season.

BRP surveys completed to-date after rationalising sites

| | | Surveyors | Surveys | Sites |
|---------|-----|-----------|---------|-------|
| Summer | BRP | 8 | 22 | 20 |
| Autumn | BRP | 10 | 49 | 31 |
| Winter | BRP | 12 | 41 | 35 |
| Spring* | BRP | 9 | 15 | 15 |

* to mid October

Some additional survey sites may be selected on private properties where Shoalhaven Landcare is undertaking bushfire recovery projects, such as plantings, weeding, fox control, habitat for fire-impacted fauna species (e.g. threatened broad-headed snake, bandicoots).



Having our survey sites classified as Shared Sites will make it possible for birders experienced in Birdata survey techniques and with excellent field skills to contribute directly to the BRP.

It will also give birders who survey our sites a good idea of the bushfire severity and recovery in the Shoalhaven in a certain cluster. Importantly, this will support our local birders and help mitigate potential burn-out.

We are keen to talk to any birders and bird groups who would like to help us with these surveys!

| | Revised BRP sites |
|--------------------------------------|-------------------|
| Total Shared sites for clusters | 44 |
| detailed in table below | |
| Remaining clusters to be turned into | 2 (18 sites) |
| Shared sites | |
| Sites on private properties | 7 |
| Total number of current BRP sites | 79 |

The majority of these sites - listed below - have now been converted to Shared Sites in Birdata, and can be found on the Birdata website at - <u>Shoalhaven Shared Sites</u> - (https://birdata.birdlife.org.au/shared-sites#map=-

35.2379754_150.4216762_10&program=birdata®ion_i d=37&state=nsw&type=2_ha_search)

These are Shared Sites, which means that they are available for all birdwatchers to visit, investigate, monitor, survey and record!

Contact Gary at <u>brp.coordinator@gmail.com</u> for more information.

| Shared site name | Fire severity | Habitat type (still to verified) | Land tenure |
|--------------------------------------|---------------|----------------------------------|----------------------|
| Comberton Cluster (3 on map) | | | |
| BRPC1-Numboid Rd | Medium | Eucalypt Medium open forest | State Forest |
| BRPC2-Numboidard Fire Trail | Medium | Eucalypt Medium open forest | State Forest |
| BRPC3-Worigee NR | Medium | Eucalypt Medium open forest | Nature Reserve |
| BRPC4-Vineyard Rd | Medium | Eucalypt Medium open forest | State Forest |
| BRPC5-Currambene SF | Medium | Eucalypt Medium open forest | State Forest |
| BRPC6-Charcoal Road | Medium | Eucalypt Medium open forest | State Forest |
| BRPC7-Manuka Rd | High | Eucalypt Medium open forest | State Forest |
| Parma Creek Cluster (4 on map) | | | |
| BRPP1-ParmaCreek-Parma FT int | High | Eucalypt Tall open forest | Nature Reserve |
| BRPP2-East-West Link Trail (Western) | High | Eucalypt Tall open forest | Nature Reserve |
| BRPP3-Yerringong | Medium | Eucalypt Low open forest | Nature Reserve |
| BRPP4-ParmaFT-Hell Hole FT int | High | Eucalypt Tall open forest | Nature Reserve |
| BRPP5-Turpentine Blue metal Dump | Medium | Eucalypt Tall open forest | Nature Reserve |
| BRPP6-Parma Creek NR | Light | Eucalypt Low open forest | Nature Reserve |
| BRPP7-HellHole FT | Light | Eucalypt Low open forest | Nature Reserve |
| BRPP8-Flat Rock | Light | Eucalypt Low open forest | Nature Reserve |
| Jerrawangala Cluster (5 on map) | | | |
| BRPJ1-Deans Rd | Light | Eucalypt Tall open forest | Nature Reserve |
| BRPJ2-Blackwood Bench | High | Eucalypt Tall open forest | State Forest |
| BRPJ3-Boolijong headwaters | High | Eucalypt Tall open forest | State Forest |
| BRPJ4-Butterbush Trail | High | Eucalypt Tall open forest | National Park |
| BRPJ5-Cabbage Tree Creek | High | Eucalypt Tall open forest | State Forest |
| BRPJ6-Cassia Rd Gully | High | Eucalypt Tall open forest | State Forest |
| BRPJ7-Jerrawangala | Medium | Eucalypt Tall open forest | National Park |
| BRPJ8-Braidwood Rd Twelve Mile | Light | Eucalypt Tall open forest | Crown Land |
| West Braidwood Cluster (6 on map) | | | |
| BRPW1-Boolijah Creek | Medium | Eucalypt Low open forest | National Park |
| BRPW2-Bainbrig Creek 1 | High | Eucalypt Low open forest | National Park |
| BRPW3-Waterhole near Touga Road | High | Eucalypt Low open forest | National Park |
| BRPW4-Bainbridg Creek 1 | High | Eucalypt Tall open forest | National Park |
| BRPW5-Bulee gap | High | Eucalypt Low open forest | National Park |
| BRPW6-Endrick River | Unburnt | Eucalypt Tall open forest | National Park |
| Bewong Cluster (7 on map) | | | |
| BRPB2-Corramy Park | Medium | Eucalypt Tall open forest | Regional Park |
| BRPB3-Corramy | Medium | Eucalypt Tall open forest | Regional Park |
| Little Forest Cluster (9 on map) | | | |
| BRPL1-Pointer Gap | High | Eucalypt Tall open forest | Crown Land |
| BRPL2-Little Forest | High | Eucalypt Tall open forest | Crown Land |
| BRPL3-Porters Creek Dam | High | Eucalypt Tall open forest | Crown Land |
| Meroo Cluster (10 on map) | | | |
| BRPM1-Meroo NP | Light | Eucalypt Tall open forest | National Park |
| BRPM2-Woodburn | Light | Eucalypt Tall open forest | State Forest |
| BRPM3-Lake Tabourie | Light | Coastal Dune Forest | Nature Reserve |
| BRPM4-Lemon Tree Ck Rd | Medium | Wet Sclerophyll | Crown Land |
| BRPM5-Termeil Lake Track Meroo NP | Light | Eucalypt Low open forest | National Park |
| BRPM6-Monkey Mountain Rd | Medium | Eucalypt Tall open forest | Crown Land |
| Bawley Point Cluster (11 on map) | | | |
| BRPB1-Nuggan Headland | Medium | Eucalypt Tall open forest | National Park |
| BRPB2-KBA Ulladulla Beach Cottage | Light | Eucalypt Tall open forest | Private Land |
| BRPB3-Willinga Rd | Unburnt | Eucalypt Tall Closed Forest | Private Land |
| BRPB4-Old Princess Highway | High | Eucalypt Tall open forest | State Forest |
| | | | |

Biodiversity - Key to the Future

- text and photos by Chris Grounds, Conservation Officer

Key Points

- Biodiversity as a Priority
- Key Biodiversity Areas and the Shoalhaven
- Alliance for Zero Extinction
- A New Shoalhaven KBA
- Shadow of the EPBC Act Review

BirdLife Shoalhaven (BLS) was recently invited to participate in a workshop organized by the Milton National Parks Association to consider what I would call 'principles of conservation' and one of the key principles of the draft statement produced from this workshop was as follows:

"We will work together to maintain, preserve and protect the biodiversity of lands, ocean and waterways in our region."

Biodiversity is not just a fundamental concept in thinking and discussion but it is fundamental to the living on this planet at any scale.

"To meet the challenges of the future we must ensure farmed landscapes retain their ecological functions. In particular, **maintaining biodiversity is key to climate adaptation.** And as many of Australia's plants and animals march towards extinction, the need to reverse biodiversity loss has never been greater." [The Conversation July 2020]



The Guardian in September reported that the Morrison government has said it refused to sign a global pledge endorsed by 64 countries committing them to reverse biodiversity loss because it was inconsistent with Australia's policies. Ponder that utterance for a moment. One wonders exactly what that says about 'Australian policies'. Australia joined China, Russia and Brazil in that refusal! Emmanuel Macron, Angela Merkel, Justin Trudeau, Jacinda Ardern and Boris Johnson are among world leaders who signed the Leaders' Pledge for Nature which was launched just weeks ago ahead of a major UN summit on biodiversity being hosted virtually from New York. The summit is working towards a Paris-style global agreement on nature.

Key Biodiversity Areas (KBA) and the Shoalhaven

BirdLife members would be very familiar with the concept and reality of **Key Biodiversity Areas**.

These derived from the initial concept of Important Bird Areas, which essentially simply underwent a name change to bring an emphasis to biodiversity.

There have been two KBAs exclusive to the Shoalhaven, Lake Wollumboola and Jervis Bay, and a number of shared KBAs across council boundaries - Barren Grounds Nature Reserve, Budderoo National Park, Cambewarra Mountain Nature Reserve, and the Ulladulla-Merimbula Coastlands.

A KBA such as the **Jervis Bay KBA** was defined on the basis of the presence of one species, the Eastern Bristlebird, which was the "trigger" for inclusion of any lands in the KBA. I recall proposing that the estuarine mangroves of Currambene Creek should be included in the KBA but the simplistic response was that there were no Eastern Bristlebirds there - hence no inclusion. Lake Wollumboola was defined on the basis of the sheer numbers of Black Swan and Chestnut Teal.

Birdlife Shoalhaven ran a research project a few years ago proposing that an area based on Shoalhaven Heads, Seven Mile Beach, Comerong Island, Coomonderry Swamp and the Shoalhaven River Estuary be classified as a KBA.



The NPWS had substantial records of that area which illustrated the extensive biodiversity and high ranking of that biodiversity and BLS provided an extensive discussion paper on the merits of the declaration of that area [that paper is in "Conservation" on the BLS website].

The result of that effort was that the BLA advice that nomination required numbers for a specific species which indicated a high proportion of the global population located within that area. The only species which could possibly meet that criteria was the Eastern Curlew but the numbers for any season always fell short of that criteria. The criteria was 0.5% of the global population of Eastern Curlew but for as much as this enigmatic bird was well known in the defined Shoalhaven Heads there simply were never quite enough.

Numbers of one species hardly seemed to fit the notion of biodiversity and a Key Biodiversity Area. The people who knew the area well, particularly birders who knew Shoalhaven Heads, rated the area a great chance to be recognized but we were to be disappointed. That doesn't change the natural character and asset of the area nor prevent our enjoyment of it of course.

Golo Maurer, the BLA KBA Program Leader had an interesting conservation article related to KBAs in the most recent 'Australian BirdLife' magazine of September and he points out there are 18,000+ KBAs across the globe. The article is also related to a small bird that is making a name for itself in the bushfire recovery in the Shoalhaven, the Rockwarbler.



ALLIANCE FOR ZERO EXTINCTION [AZE]

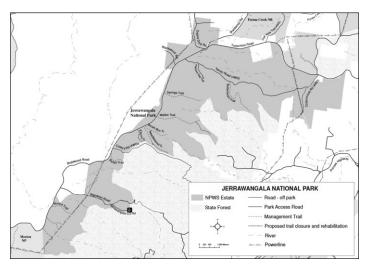
As we well know there is an abundance of conservation organizations and models, our own BLA included, but there is another you may not be familiar with, which relates to our KBA interest - and that is the Alliance for Zero Extinction (AZE).

The AZE, launched globally in 2005, was established to 'designate and effectively conserve the most important sites for global biodiversity conservation'.

The AZE focus is on the 1,500 of Earth's most endangered species that are restricted to just a single site, making these sites globally irreplaceable from a biodiversity conservation viewpoint. 853 sites have been identified worldwide. These sites hold the last-remaining populations of one or more species evaluated to be Endangered or Critically Endangered on the <u>IUCN Red List</u>.

All confirmed AZE sites are KBAs and thus contribute 'significantly to the global persistence of biodiversity.' and qualify because they "hold a significant proportion of the global population size of a species facing a high risk of extinction, and so contribute to the global persistence of biodiversity at genetic and species levels"

AZE AND A NEW SHOALHAVEN KBA



Associated with the AZE is the addition of a new KBA in the Shoalhaven, the Jerrawangala KBA, which has been AZE listed on the basis of *Euastacus guwinus*, a Spiny Crayfish thought to still inhabit the upland streams. The entire population of this crayfish species is confined to this KBA and the Atlas of Living Australia lists only three known sites. It is a kind of peak extinction risk.



The KBA is based on the Jerrawangala National Park of over 4,000 ha adjacent on the south-eastern side of the Braidwood Road near Tianjara and includes the wellknown Jerrawangala Lookout facility.



Virtually all of this National Park and KBA was burnt in the 2019-2020 bushfire with 84% assessed as badly burnt.



A number of bird species have been listed as of Commonwealth Priority for this KBA though they are not trigger species for the KBA. The species are: Black-faced Monarch, Gang-gang Cockatoo, Rockwarbler, Pilotbird and Superb Lyrebird.

A Jerrawangala 2ha site has been productive as a selected site for the BLS bushfire recovery monitoring for the BirdLife Recovery Project. The site was badly burnt some years back but its flora and the context of escarpment catchment held some further interest and that has proven to be the case in the recovery.

That has produced quite a few records of Lyrebirds seen and heard in the KBA and more especially adjacent below the cliff line though they have been quieter in recent monitorings.



There have been numerous recordings of Rockwarblers over some months with a climb in numbers, and in the most recent visit a Black-faced Monarch, the 'witchoo' bird. I have included an article on this in the Conservation Curiosities section.

There is a clear association between KBAs and National Parks and Nature Reserves in the Shoalhaven, which speaks to the value of our parks and reserves, and is a stark reminder that these social or community properties have a fundamental eco-environmental and conservation purpose.

Jerrawangala points clearly to the concerns which arise even in non-trigger bird KBAs with particular bird species. The issue which arises in this realization is that this value has been under-resourced and under-staffed in recent years and remains so.



It would be negligent not to link all this critical thinking to the recent developments with the Federal Government and the Review of the EPBC Act, which is a major BLA campaign platform. The Environment Minister Sussan Ley seemed determined to comment about what would happen to the legislation before the independent review was even finished. The comments continue when the initial Review Report was produced with the final still on its way.



Editor's Note:

Sussan Ley has incredibly unique qualifications to be an Environment Minister. She was born in Nigeria, lived in the United Arab Emirates, attended boarding school in England and migrated to Australia when she was 13. She was educated at La Trobe University, the University of NSW and Charles Sturt University, and has master's degrees in taxation and accountancy.

She has been a waitress, a cleaner, a shearer's cook, a commercial pilot and a farmer's wife, and was Director of Technical Training at the Australian Taxation Office in Albury for six years before entering politics in 2001. She is an Australian Liberal Party politician serving as Minister for the Environment since 2019, and has served as the Member of Parliament for Farrer in southwest NSW since 2001.

She changed her name from Susan to Sussan allegedly due to a belief in numerology.

Conservation organizations have expressed concerns that changes to the national act are not focused properly and seem to be smoothing the path for development. It seems to be called 'curbing green tape'.

One of the most worrying developments has been to foreshadow divesting Commonwealth powers to the states. After the experience with the NSW Biodiversity Conservation Act 2017, environmental advocates have even more to worry about and deal with in the conservation battle. The Sydney Morning Herald [SMH] reported in July that: "Environment Minister Sussan Ley said the government was consulting with the states over the "one-touch" regime, which would "devolve" the Commonwealth's legal responsibilities to protect threatened species and World Heritage areas in assessments of major projects."

The SMH noted that the plan doesn't commit to increase protections for critical habitats currently listed under the national environment laws. Jerrawangala N.P. K.B.A. is clearly critical habitat.

The "Interim Review" of the EPBC Act was delivered by Graeme Samuel, who sounded a stark warning that Australia's "current environmental trajectory is unsustainable". In a nutshell – it has no future!

There has also been strong comment about the inclusion of a 'watchdog' or independent regulator over the new EPBC Act, which the Federal government is ruling out. It is something the more progressive NSW Minister for Energy and Environment, Matt Kean, has supported.

All this must leave us wondering how KBAs and the associated AZEs will be managed in the years to come under this new federal and state environment legislation.

The Heritage Estate was excluded from development in 2009 under the EPBC Act whilst the state government approved the Bayswood and Woolworths developments, which have destroyed vital habitat corridor involving Jervis Bay NP and Booderee NP - thus impacting the Jervis Bay KBA.



The Canberra Times reported on October 7th 2020 that "More than \$36 million has been earmarked to help infrastructure projects get the tick of approval and hand federal environmental approval powers to the states. The package is part of the federal budget and will be spent over two years to speed up environmental approvals and implement more reforms to the Environment Protection and Biodiversity Conservation Act."

And so we are advised that we do not have the national policies to support restoring biodiversity loss - our national government said so! Their alternative is not to change their policies but to abandon any national responsibility for restoring biodiversity. Or perhaps it is just about throwing money at other dubious objectives.

Web Watch

- by Chris and Marly Grounds

Recipe for extinction

https://www.theguardian.com/australianews/2020/sep/06/recipe-for-extinction-why-australiasrush-to-change-environment-laws-is-sparkingwidespread-concern



The proposed changes [to EPBC Act] passed the lower house after the government used its numbers to gag debate on the bill and amendments proposed by Labor and the crossbench. No member of the government spoke on the bill, which still has to pass the Senate. The government's bill would amend Australia's environmental laws, clearing the way for the transfer of development approval powers to state and territory governments.

Critics argue shifting approval powers to the states without an independent regulator will fail to protect the environment. WWF-Australia says the bill in its current reform is a "recipe for extinction" and lacks standards that would ensure strong protections for nature, as well as a commitment to an independent regulator to enforce the law.

Bushfire devastation

https://www.theguardian.com/environment/2020/jul/21/ bushfire-devastation-leaves-almost-50-australian-nativespecies-at-risk-of-becoming-threatened



Nearly 50 Australian native species not currently listed as threatened could be at risk as a result of the continent's devastating bushfire season, according to a study drawing on the work of more than 20 leading scientists. The researchers identified 70 animals that had much of their habitat affected by bushfire, including 49 that were not currently protected under national environment laws but should be urgently assessed. If all were found to be at risk it would increase the number of Australian land and freshwater animals recognised as threatened by 14%.

The publication of the peer-reviewed study in the journal *Nature Ecology and Evolution* followed the Morrison government on Monday releasing an independent review of the laws, known as the Environment Protection and Conservation Biodiversity (EPBC) Act. The interim review led by Graeme Samuel, a former competition watchdog head, found Australia's environment was in an unsustainable state of decline and the laws were not fit to address current and future environmental challenges.

Australian birds can teach us about choosing a partner

https://theconversation.com/what-australian-birds-canteach-us-about-choosing-a-partner-and-making-it-last-125734



Love, sex and mate choice are topics that never go out of fashion among humans or, surprisingly, among some Australian birds. For these species, choosing the right partner is a driver of evolution and affects the survival and success of a bird and its offspring. There is no better place than Australia to observe and study strategies for bird mate choice. Modern parrots and songbirds are Gondwana creations – they first evolved in Australia and only much later populated the rest of the world.

The 'Wing Tags' Project

https://australian.museum/get-involved/citizenscience/cockatoo/



Our research group from the Royal Botanic Garden, University of Sydney and AM have repurposed bovine ear tags as avian wing tags, inserting them through the loose, flexible skin that allows the wing to fold. It sounds and looks rather dramatic, so it is important for us to evaluate any animal welfare costs. Sydney's Sulphur-crested Cockatoos have turned out to be ideal guinea-pigs for testing the efficacy of wing tags. We tagged 100 individual birds with unique numbers and gave them unique names, which apparently helped endear the birds and the project to the citizens of Sydney.

This critically endangered bird tells us about Australia's failing environment protection laws

http://www.abc.net.au/news/2020-08-25/environmentprotection-laws-fail-swift-parrotconservationists/12574398



Conservationists say current laws don't take into account the cumulative impact of habitat threats on an animal like the swift parrot. When Sean Dooley started birdwatching as a kid in the 80s the swift parrot was already rare. "It's a beautiful bird. I remember around that time it was said that there were maybe 8,000," he says.

He says there now could be as few as 1,000 left in the wild. It's classed as "critically endangered" - one step from extinction. "You see a bit of bush being cleared here, it doesn't meet the criteria of having a significant impact, and a housing development there, or some logging in another site, and the lights go out for that bird across the landscape," he says.

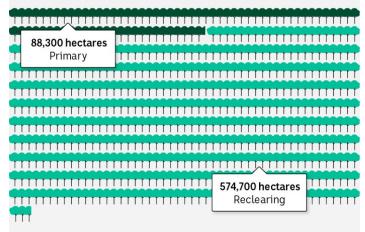
"Each incident isn't deemed serious enough, and so the swift parrot has been declining throughout the period of the EPBC Act." Lesley Hughes, a professor of biology at Macquarie University, agrees that the Act tends to assess threats to a species in a vacuum.

"It's the classic death by a thousand cuts. You could lose the species because each of those threats have been assessed independently rather than at the same time."

Deforestation in Australia: How does your state compare?

https://www.abc.net.au/news/science/2020-10-08/deforestation-land-clearing-australia-state-bystate/12535438

Landclearing in New South Wales between 2010 and 2018



More than 88,000 hectares of primary forest was cleared in New South Wales. A leaked report from the Natural Resources Commission last year suggested that land clearing may have surged by as much as 13 times.

Reclearing takes the state's entire land clearing tally to 663,000 hectares. In 2017, New South Wales relaxed its native vegetation clearing laws, however the impact that has had on land clearing is expected to show up in the reporting periods for 2019 and 2020.

Intensive farming is eating up the Australian continent – but there's another way

https://theconversation.com/intensive-farming-is-eatingup-the-australian-continent-but-theres-another-way-130877



In the past decade, the federal government has listed ten ecological communities as endangered, or critically endangered, as a result of farming development and practices. Woody vegetation in New South Wales is being cleared at more than double the rate of the previous decade – and agriculture was responsible for more than half the destruction. Farming now covers 58% of Australia, or 385 million hectares, and accounts for 59% of water extracted. It's painfully clear nature is buckling under the weight of farming's demands.

Research concluded that for farming to be sustainable, intensive land uses must be limited. Such intensive uses include crops and non-native pastures. They are "high input", typically requiring fertilisers, herbicides and pesticides, and some form of cultivation. They return greater yields but kill native plants, and are prone to soil and nutrient runoff into waterways.

Research into Hooded Plover migration

http://www.abc.net.au/news/2020-05-22/hooded-ploverstudy-inland-lake-migration-eyre-peninsula/12271406



Not much is known about what hooded plovers do outside breeding season. There is anecdotal evidence they travel to inland rivers and lakes.

A new study should shed light on where they go. Hooded plovers are found across the South Australian, Western Australian, Victorian and Tasmanian coastlines, and the study will focus on SA's Eyre Peninsula.

Natural Resources Management Eyre Peninsula researcher Rachael Kannussaar said the hooded plovers formed flocks over the winter. "This survey is hoping to look further into whether these flocks are moving inland during the winter months," she said. "From previous records back as early as the 1980s, we've had the odd report of hooded plovers being seen in inland lake areas and those reports have also coincided with the winter months. "In other cases, the hooded plovers do stay on their beach, in their nesting territory and pair and they don't flock up at all.

Export of hundreds of endangered parrots

https://www.theguardian.com/environment/2020/sep/04 /australias-environment-minister-orders-investigationinto-export-of-hundreds-of-endangered-parrots



The environment minister, Sussan Ley, has appointed an auditor to investigate her own department over the export of hundreds of native and endangered parrots to Germany over a three-year period.

Guardian Australia revealed in 2018 that the Australian government permitted the export of hundreds of birds to a German organisation despite concerns they were being offered for sale rather than exhibited. The Berlin-based Association for the Conservation of Threatened Parrots (ACTP) received permission to receive 232 birds between 2015 and November 2018. It was more than 80% of all the live native birds legally exported from Australia in the same period. The exports included threatened species such as Carnaby's and Baudin's black cockatoos, worth tens of thousands of dollars each.

Little Penguins project on Snapper Island, Batemans Bay

https://www.naroomanewsonline.com.au/story/6869402 /weeding-out-the-dangers-on-snapper-island/?cs



It's the beginning of the breeding season for Little Penguins off the Eurobodalla Shire's coastline, and conservation crews are excited. About 45 breeding pairs of Little Penguins or *Eudyptula minors* were previously recorded on Batemans Bay's Snapper Island. Eurobodalla Shire Council natural resource supervisor, Heidi Thomson, said the team's work to reduce threats to the colony was paying off.

Landcare volunteers help with weed control to improve Little Penguin's habitat on Snapper Island, just off the coast of Batemans Bay. Image: Eurobodalla Shire Council.

"Part of the project is to get rid of viny-type weeds, like turkey rhubarb which can cause entanglement, but we don't want to take away their nesting material," Ms Thomson said. "We are replacing those weeds with concrete nest boxes, which they took to really quickly!" Ms Thomson said crews stay off the island to "give penguins the space they need" during breeding season.

Walking time bombs: bird lovers call for ban on poisons

https://www.smh.com.au/environment/conservation/wal king-time-bombs-bird-lovers-call-for-ban-on-poisons-20200812-p55kyl.html?btis



Staff at Australia's largest bird conservation organisation [BLA] heard an unusual bird has visited Melbourne's CBD, they rush to see it. But there was something wrong with this owl. It sat perched only three metres off the ground, on a tree with no foliage. "It was completely exposed and close to the ground – you wouldn't usually see a nocturnal bird displaying that kind of behaviour," says Birdlife campaigns advisor Andrew Hunter.

Later that day a passerby found it dead under a tree in a nearby park. Hunter, who is also a wildlife rescuer, wanted to get the owl's body checked for poisoning from anticoagulant rodenticides, or rodent poisons. So he took it back to the office freezer – used for keeping bird carcasses that will be taxidermied for educational purposes – and arranged for veterinary students at Melbourne University to do a pro bono dissection.

This found large haemorrhages under the skin and in the muscle of the owl's keel, extending down the length of the left wing and around the carpus (wrist) of the right wing. The tissues also had very high levels of the anti-coagulant brodifacoum, enough to cause toxicity and account for the haemorrhages, the dissection report showed.

The parrot problem: why Zoom calls are forcing people to abandon their pets

https://www.theguardian.com/lifeandstyle/shortcuts/202 0/sep/14/parrot-problem-zoom-calls-people-abandonpets-lockdown-noisy-bird-rehoming-tricky



Depending on the species, parrots can live to 70 years or more in captivity. They are brightly coloured windbags and birds with brightly coloured plumage never shut up. Yes they can swear. Parrots squawk for all sorts of reasons – boredom and hunger being the main ones – but they will not be silenced.

"Would Polly like to stay in the bread bin until this Zoom meeting is over?"

Fire expert says we are living through 'Pyrocene' fire age

https://www.abc.net.au/news/2020-09-19/fire-expertsays-were-living-through-a-fire-age-pyrocene/12675874?



A fire expert argues the world has been living in the "Pyrocene" for more than 10,000 years. Unprecedented fires are not only occurring in Australia but around the world. Australia is uniquely positioned to educate the world about fire. Fire historian and author Stephen Pyne said Australia's deadly summer of bushfires is part of a global fire age that he calls the Pyrocene. "We're seeing in California, which also has a very long record of large fires, a real shift," he said. "We're now in the fourth consecutive year of conflagrations and in the past there had always been five or seven or 10 years separating these major outbursts. "You're starting to see it in Europe, people becoming alarmed — even the UK now is starting to have regular fires in the countryside."

Eastern Hooded Plover numbers on the rise thanks to volunteers, fewer visitors

http://www.abc.net.au/news/2020-08-02/hooded-plovernumbers-rising-in-south-australia/12513316



A vulnerable shorebird found across southern Australia is showing good signs of its numbers increasing as fewer people visit beaches because of travel restrictions. Hooded plovers are vulnerable to human activity on beaches, with their eggs often crushed by dogs and 4WDs. There's been a boost in hooded plover fledglings in SA, with 93 pairs and more than 50 fledglings recorded. The bird is one of 20 that are part of the Federal Government's Threatened Species Strategy.

A recent survey of eastern hooded plovers in South Australia and Victoria showed a noticeable boost in the numbers of breeding pairs and fledglings. Ninety-three breeding pairs were spotted by BirdLife Australia volunteers in SA, along with 56 fledglings. A fledgling is the age in which a plover can begin to fly and evade predators. The highest adult-to-chick ratio was found on Yorke Peninsula which recorded 0.77 fledglings per pair, above the state average of 0.6. BirdLife Australia said a ratio between 0.4 and 0.5 would sustain a good population. Sally Box, the Commonwealth's Threatened Species Commissioner, said there were only 3,000 eastern hooded plovers left and that their protection was vital.

Are urban birds becoming aggressive?

https://www.theguardian.com/commentisfree/2020/oct/ 06/is-it-just-me-or-are-urban-birds-becomingincreasingly-aggressive



I'm being watched. I'm being followed. Sweat beads itch my forehead. My stalker neither blinks nor flinches. He waits. That's what he does. I'm looking straight into the soulless black sinister eyes of the ibis. It's an appalling abyss of newfound fearlessness and steadfast determination. He holds my gaze. I'm not ready to give up. Not just yet. This is my favourite lunch, from my favourite cafe, in what once was my favourite place to eat it: Sydney's botanical gardens.

He juxtaposes with the colourful blooms. He is neither pink nor orange nor green. He is pure black and a foul offwhite, with rashes of inflamed red under his oversized wings. His unblinking eye is a small burnt Malteser, sans the sweetness. It beggars belief a single person ever voted for this creature in the Guardian's Bird of the Year poll in 2017, when, perplexingly, it came second.

No penalty for Victoria despite 'wanton destruction' of trees vital to red-tailed black cockatoo

https://www.theguardian.com/environment/2020/sep/28 /no-penalty-for-victoria-despite-wanton-destruction-oftrees-vital-to-red-tailed-black-cockatoo



The Victorian government avoided any penalty for the "wanton destruction" of hundreds of trees that should have been protected to help save red-tailed black cockatoo.

Birdlife Australia said the breach, revealed in documents published under freedom of information, highlighted the failure of existing national conservation laws and the risk of leaving major environmental decisions to the states, as the federal government plans to do.

It also showed the need for an independent national environment regulator. The documents show the federal department became aware of the alleged illegal clearing in 2015 after experts working on the recovery of the endangered red-tailed black cockatoo repeatedly warned the Victorian government that it should be seeking approval under federal law for its operations.

The federal government launched an investigation and noted that two similar cases involving private landowners led to penalties of \$220,000 and \$70,000.

Attract small birds to your garden with native plants

https://www.smh.com.au/lifestyle/health-andwellness/want-to-attract-small-birds-to-your-garden-lookfor-native-plants-20201003-p561oz.html



Once you start noticing birds, you can't stop. It's addictive. I am now fixated on spotting the red-rumped parrots and whistling kites that my neighbours report seeing. I want to lure all sorts of birds, to draw them in with insects, nectar and hiding spots, to give them cause to reclaim this swampy saltmarsh. I am not alone. The pandemic has got lots of people – with all types of gardens – turning their minds to birds. James O'Connor, head of science and research at BirdLife Australia, says there has been a 10fold increase in the number of backyard bird surveys submitted to the organisation.

He says bird watching is not only a "great antidote" to the prevalence of technology in our lives but can also provide important information for conservation efforts. This month BirdLife Australia aims to encourage even more people to keep tabs on birds when it hosts its annual "Aussie Backyard Bird Count".

Australia loves magpies, even in swooping season

https://www.theguardian.com/australianews/audio/2020/oct/06/why-australia-loves-magpieseven-in-swooping-season



Videos of magpie attacks abound on social media during swooping season from August to October. But magpies are generally not aggressive and have many qualities that endear them to their many human friends.

Cheyne Anderson tells Gabrielle Jackson why there's more to love than fear from Australia's most accomplished songbird.

Conservation Curiosities

- by Chris Grounds (Solum 306)

RAIN IN THE MARSHES

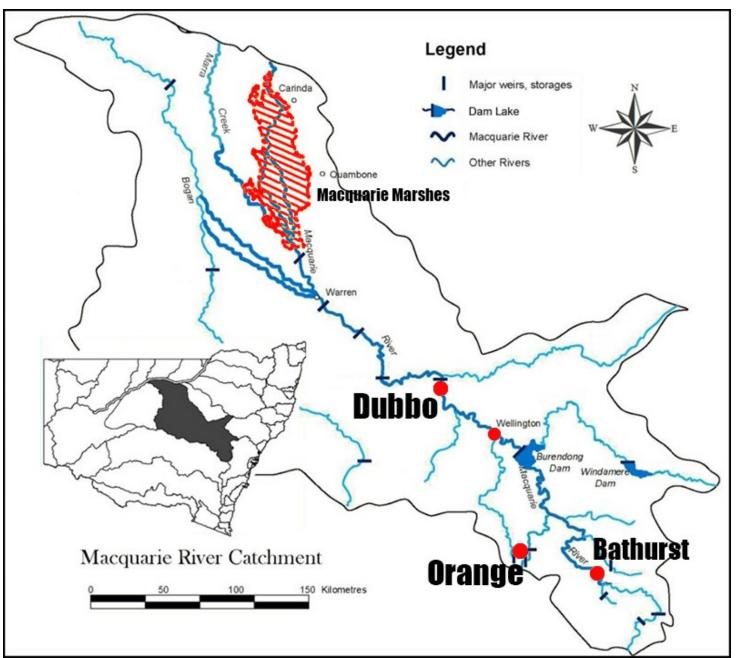
BirdLife Australia has assessed the **Macquarie Marshes** as one of the most endangered KBAs in Australia. The Macquarie Marshes are a complex of Nature Reserve, Ramsar, KBA and farming and grazing areas, some of which are involved in these categories. In simple terms they are about 2 hours north of Warren in the semi-arid western districts of NSW. The Macquarie River and the Marshes are part of the vexed Murray-Darling Basin.

The Marshes have been under threat, compromised and damaged for as long as I have known of them and that was the 1970s living on Macquarie River towns. BLS Magazine featured the Marshes in the Spring 2018 edition.

After experiencing an environmental flow from Burrendong Dam in September 2018, the Marshes region continued to fall foul of the 'Great Drought' [2017-19]. The perilous nature of urban water supply in western towns, large and small, became part of the picture.

Environment management at the Marshes is uniquely challenging. The vast bulk of users and demand are above or upstream in the Macquarie River catchment, which is vast. This involves Burrendong Dam, an extensive array of irrigators, large urban areas such as Dubbo in major growth phases, water for survival of other smaller urban areas such as Nyngan and Cobar and the various mining operations.

The nub of the management problem is upstream extraction and over allocations of water.



Tourism is now knocking on the Marshes door with substantial sums being thrown at bringing the Marshes to the travelling public, which will have its own challenges as it always does, as we in the Shoalhaven are very aware.

Many landholders, most of whom have long historic family links to the land, continue to be active in conservation of the Marshes. This led to the formation of the Macquarie Marshes Environmental Landholders Association.

On the other hand, 2020 has delivered good continuing rain and flows. Catchment water can deliver to the Marshes even when there is no local rain of course and flooding in the Macquarie River tributaries of the Talbragar, Little and Bell Rivers, all downstream of Burrendong Dam, delivered good flows earlier in the year.

A recent visit to the heart of the Marshes produced a limited but delightful birding session, which featured really large numbers of Magpie Geese.

The sight and sounds of the birds foraging in large flocks through the Monkeygar Creek wetland was a special experience. The Magpie Geese are a Vulnerable threatened species in NSW and Endangered in South Australia and Victoria.





MANYANA DOES MATTER

The Manyana Matters campaign continues these months on from the initial challenges made against a proposed residential development on a beautiful bush block spared in the bushfires of last summer.

The federal Minister, Sussan Ley declared the development proposal a "Controlled Action", which necessitates the provision of an up-to-date ecological assessment of the site. The problem then became the speed with which the developer Ozy Homes gets the investigation completed and delivered for examination by Manyana Matters themselves and organizations like our own BLS.

The Foundation for National Parks and Wildlife, an independent organization associated with potential parks properties has taken on fund-raising management for Manyana Matters. The lack of any sale offer is not helping with progress on that front.

It was the Foundation who managed the purchase of blocks in the Heritage Estate.

At a state level the issue still rests with the Planning Minister, Rob Stokes who has insisted on a position of Shoalhaven Council contributing to any purchase of the block if the state is to be involved.

BLS continues with its supports of Manyana Matters. The bird surveys completed by BLS members and the reports prepared for the Environmental Defenders Office can now be seen on our website.







EXCEPTIONAL OSPREY OBSERVATIONS

The Eastern Osprey is one the Shoalhaven's Vulnerable threatened species, which we have followed for some time in this magazine, including the winter edition.

However, the late cool and early warm seasons 2020 have proven to be a time of an exceptional number of actual birds observed in the Bay and Basin area at least.

In all this though there was only one verified nesting attempt - the failed nest on the Sanctuary Point mobile phone tower. I would love to hear verified nest stories!



Trios of the Osprey were reported at Callala Point reef [thanks John], Moona Moona and Bherwerre Wetland on Cockrow Creek.

The observation of three birds, especially across that range is a first. The trio suggests perhaps a juvenile in the company of parents.

Couples were seen and reported regularly within that broad coastal zone including Currambene Creek and again Moona and Cockrow Creek whilst solo birds popped up in all sorts of places like tops of vacht masts in Currambene the Maritime Creek and Museum pond [thanks Stan].



Are we simply seeing and reporting more Osprey or are there many Osprey in this precinct than usual? There is the very strong chance that individuals are repeated through the observations, which makes it more difficult to estimate how many birds have been present.

Thank you to all the people who have reported the bird sightings and sent them on to me for recording. It has certainly added a new chapter to the Osprey presence on the south coast.

URBAN TREE COVER

Urban tree cover remains an issue in the Shoalhaven for all the reasons we know but importantly for birds it represents important habitat, associated corridor and a contribution to biodiversity.

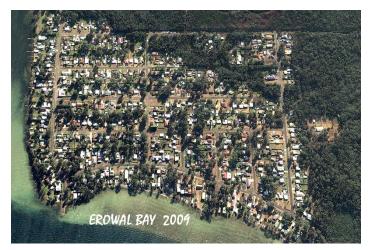
Readers might like to check the two Google Earth Photos below which portray the village residential tree cover change from 2009 top 2018 in Erowal Bay. Why Erowal Bay? It is simply where I live. The images are very telling in depicting the loss of urban tress in a recent decade. If it was to continue for another decade the loss would be immense and negligent.

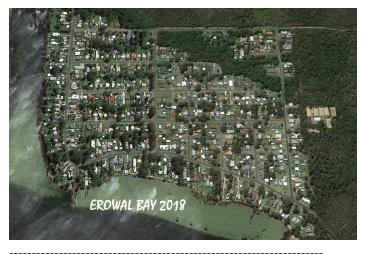
It is simple way for everyone to check areas that might concern us and produce hard evidence of the loss of environment.

Open Google Earth, go to VIEW then tick HISTORICAL IMAGERY - a sliding scale will be shown in the top left corner. The various years that a photo is available for can be selected and a photo can be saved from that.

Satellite Image technology has been one of the great innovations affecting management and conservation in the last twenty years.

We can make it work for us!





STATISTICS, DAM STATISTICS AND . . . what bird was that?

One of the stalwart tools of the natural sciences are DATABASES in their various I.T. persona such as the BLA Birdata App, a fine tool. They are also 'grist for the mill' of so much citizen science.

The many volunteers for our BirdLife Recovery Project [reported separately] and of the NPWS Shorebird Project are up to our collective ears gathering and recording data.

Databases are not a tool without frailties. In the first instance they are records of sightings or observations so they have that connection to reality and it must be said that without them we would have very little idea at all.

However, in another instance, they are records at very specific and isolated times, so they are records not of the birds as such but of the bird sightings. It is always a question of just how much the bird sightings reflect the actual bird presence.

This matters most when we attempt to go the steps further to use the collected and organized data and, as Geographers are wont to do, discern and explain patterns.

The greater interest is in the patterns that data may reveal, the degree to which they authenticate nature and the reasons for these patterns.

Two examples from our own BRP sites experience will explain the point.

A Yerriyong bushfire site was selected for BRP Monitoring because it was a good environmental example of a Scribbly Gum-Red Bloodwood - Xanthorraea [Grass Tree] woodland - open forest - something different.



On July 30 one site produced 26 Red Wattlebirds, 7 Little Wattlebirds, 2 White-naped Honeyeaters, 3 Eastern Spinebills and 4 Yellow-faced Honeyeaters in 8 species.

This was a notable change from the previous monitoring. By September 29 all those species were gone as the flowering finished.

The pattern was clear from the species, and the site flora displayed the answer. The fire and the follow-up good rain are the ideal ingredients for recovery and flowering of that great fire-resistant plant, the Grass Tree – Xanthorrhoea species. The Grass Trees were carrying spectacular scapes in full flower spikes and the range of honeyeaters were all over the larder. These Grass Trees were the trunked Xanthorrhoea resinosa.



At another chosen site at Jerrawangala an October 2nd, monitoring produced a surprise suite of birds most of which had not been recorded there previously. This included 2 Silvereyes, 2 Scarlet Honeyeaters, 2 Eastern Spinebills - all of which were very keen on Grass Tree flowering but two months after the Yerriyong flowering.





The reason was that the Jerrawangala Xanthorrhoea were a different species typical of the site, *X.concava*, no trunk, smaller scapes and later flowering, but Xanthorrhoea never the less.



The nub of the bird story thus becomes not just collecting and recording data, but reading the habitat and developing patterns, which in this case is a very timely reminder of the importance of Grass Trees - Xanthorrhoea in bushfire recovery.

GREY GOSHAWKS

An astute observation from a BLS member in Vincentia led to a special birding observation over recent months.

A pair of Grey Goshawks were or at least had been nesting in the Blenheim Beach Reserve. One of the birds was a "true" Grey Goshawk and the other a white morph of the Grey Goshawk.



Both birds are the same species [Accipiter novaehollandiae] but one, the white bird, is a genetic variant or morph. Interbreeding does occur.

It was apparent that the larger of the two birds was the white bird and hence the female, as tends to be the case with raptors. That bird was to be seen most often and the only one at the nest. After some weeks of observation it seemed that the white bird was often away from the nest and that nesting may have been completed.

Of course, it was a little hard to tell with a nest at such height, elevated in the eucalypt canopy, but the birds are, like so many birds, a delightful sight.



BHERWERRE WETLAND

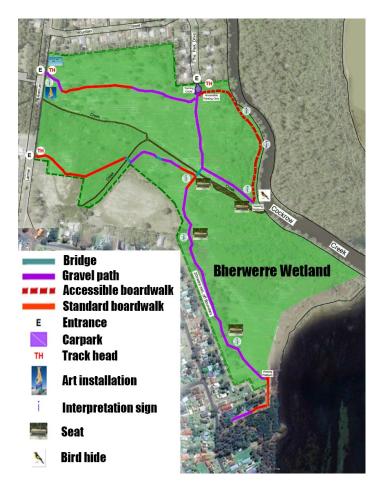
There has been excellent news regarding progress with Bherwerre Wetland on Cockrow Creek at Sanctuary Point.

Substantial funding was received by Shoalhaven Council earlier in the year for the project which would see the incorporation of passive recreation facilities and upgrading of the site.

Council staff have now surveyed the site to determine the nature of various works required to incorporate parking and walk tracks and implement the Concept Plan, which was approved by Council quote a while ago. It is essentially the third phase of the Concept Plan having been approved and then funded.

The financing has come from Destination NSW so is tourism based but this is a critical change as Off-Set Credits, which had already been created, were to be the source of funding but none had been taken up in any development. In effect that means that no other environment will be sacrificed to advance the works on the wetland.

Council's Project Manager will be attending the next meeting of the Basin Villages Forum on Monday October 19 to outline the nature of the projects at both the Wetland and Palm Beach.



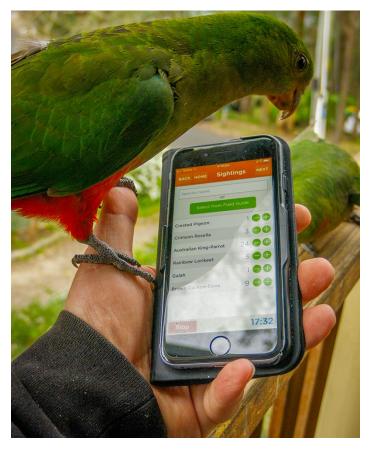


Facebook - what you've missed!

- by Brett Davis

For those unfortunate souls who are not regular visitors to the BirdLife Shoalhaven Facebook page, here are a few examples of what you have missed out on in the past three months.

We have promoted the Aussie Backyard Bird Count pretty extensively, with links to the website and the app.



We posted a link to a fantastic video of an Eastern Osprey having a bathe in the waves of a beach. We also posted a link to the 367 Collins Street webcam which monitors a Peregrine Falcon nest high above the city, and watched three eggs turn into three chicks, and the chicks feeding.





Phil Hendry has agreed to become one of our Facebook editors and will be contributing his bird photographs from time to time, taking over from where Charles Dove left off.



We've posted short reports and photos from birdwatching walks, promoted a series of webinars called "Dinner with the Birds" - see page36 - and of course, Kim Touzel has shared with us her amazing bird photography.

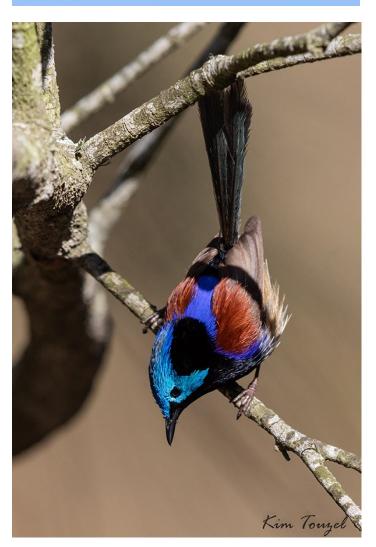












Dinner with the Birds

This series continues, with talks about Powerful Owls, heathland birds, Glossy Black-cockatoos and shorebirds. Click links below to register.

3. "<u>Dinner with the Owls</u>" with Dr Beth Mott, on Thursday November 5 at 7pm 4. "<u>Surviving the fires: heathland birds and Glossy Black-Cockatoos</u>" with Dr Dave Bain and Lauren, on Thursday Nov 19 at 7pm

5. "<u>Sharing the shoreline: beach nesters and waders</u>" with Jodie Dunn and Jess Sharp, on Thursday Dec 3 at 7pm



Calendar

For updates to the BirdLife Shoalhaven calendar, please visit http://www.birdlifeshoalhaven.org/calendar.html

| Sunday, October 25 | Last day of Aussie Backyard Bird Count and National Bird Week |
|-----------------------|--|
| Saturday, October 31 | Twitchathon |
| Sunday, November 1 | Twitchathon |
| Thursday, November 5 | 7:00pm - " <u>Dinner with the Owls</u> " webinar |
| Friday, November 13 | 2:00pm - BLS Committee Meeting at Mike's |
| Thursday, November 19 | 7:00pm - "Surviving the fires: heathland birds and Glossy Black-Cockatoos" webinar |
| Thursday, December 3 | 7:00pm - " <u>Sharing the shoreline: beach nesters and waders</u> " webinar |



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 <u>communications@birdlifeshoalhaven.org</u>

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

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Sources - images and text from the following websites may have been used in this magazine - australiangeographic.com.au, themonthly.com, birdlife.org.au, wikipedia.org, theguardian.com, theconversation.com, australia.museum, abc.net.au, smh.com.au, google.com/earth and naroomanewsonline.com.au,. If you like the content from those websites, we urge you to visit those websites and subscribe to their content.

Apologies - to contributors and sources who have inadvertently not been acknowledged. Please let us know of our oversight and we will issue a formal apology and acknowledgment 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.

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

