EUROBODALLA
NATURAL HISTORY SOCIETY
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The Gang-gang Cockatoo (*Callocephalon fimbriatum*) **-** Grant 1803

Taxonomy and distribution

The genus *Callocephalon* contains only one species, the Gang-gang Cockatoo; no subspecies are recognised. It is regarded as the most primitive of the living cockatoos, having diverged from the last common ancestor shared with the other 'black' cockatoos some 20 million years ago. The species is distributed across the wetter parts of south east Australia from Sydney to eastern South Australia.

Male Gang-gang
Photo R Soroka

Description and behaviour.

The Gang-gang is the second smallest cockatoo in Australia, the smallest being the Cockatiel (*Nymphicus hollandicus*) and is unmistakable. The species displays dramatic sexual dimorphism. Males possess a bright red head and soft grey body, while females are grey all over with a red wash to the belly. Young male birds display patchy red heads compared to the plain grey of juvenile females. The only confusion risk would be at a distance, but the characteristic buoyant flight - somewhat reminiscent of a King Parrot - and unique creaky door call allow the observer to rule out Galahs and Little Corellas (*Eolophus roseicapilla* and *Cacatua sanguinea*).

Female Gang-gang
Photo R Soroka

Like all cockatoos the species is gregarious even in the breeding season and is generally encountered in small flocks. Gang-gangs usually keep to themselves, but in winter in urban environments they may very loosely associate with other cockatoos and parrots around fruiting Hawthorn trees.

Diet and breeding

The species is largely vegetarian but does also enjoy eating sawfly larva. Most of the species' diet consists of native and introduced fruit and seeds which are often collected arboreally. Surprisingly quiet for a cockatoo - often the best way to detect Gang-gangs is to listen for the sound of cracking nuts in the forest.

The species is monogamous and take several years to reach sexual maturity. They generally breed at higher elevations in the summer months, then as the weather cools, move to lowland coastal areas. Nesting occurs in deep hollows of old growth forests. Both parents prepare the hollow by chipping it to create a floor of wood chips and sawdust. The female then lays a clutch of up to 3 eggs. Both sexes incubate the eggs for 28-30 days and look after the young for up to six months after they fledge.

Goannas, snakes and cats will raid nests if given a chance and adults are preyed on by larger raptors and owls.

Conservation and status in the Eurobodalla

Though adaptable and capable of utilising the opportunities that urban environments provide, Gang-gang Cockatoos are ultimately reliant on cool old growth forests. As such the species is vulnerable to logging and climate change. Their long lives (up to 30+ years) may mask long term declines, a problem common with a lot of long lived organisms. In NSW the species has been recently listed as vulnerable due to long term declines and, following the recent fires, it wouldn't be surprising if its conservation status is revised to a higher threat level.

Gang-gangs are uncommon in the Eurobodalla and generally are observed in the winter months. There are few breeding records, though this is probably due to the species breeding in our hills rather than on the coast.

Gang-gang family Photo R Soroka

A warm welcome to new members….

Kirsty Craven, Ngunnawal ACT
Jill Gutteridge, Tomakin
Paula Howe, Congo

What's coming up…..

Good news – now that the COVID restrictions have been relaxed, we can recommence our field meeting program, with some new protocols to keep us safe. Our first meeting will take place on Saturday 11 July, with a walk beside the Moruya River.

By now, most of you should have received an email from Lyn Burden, our Secretary, with the program for the rest of the year and the new protocols - though of course, in these uncertain times, things may have to change. We've also included the program and protocols in this newsletter – please read them carefully before attending a field meeting.

In brief the program proposed for the next three months is:

Saturday 11 July 2pm: Moruya Riverside.
Meet at the Moruya Swimming Pool car park, off Shore Street (east) Moruya.

Sunday July 26, 9am: Corunna Lake.
Meet near the corner of Princes Highway and Mystery Bay Road. Turn east onto Mystery Bay Road then immediately left into a lane.

Saturday August 8, 2pm: Mullimburra Point.
Meet at the Bingie turnoff, intersection of Princes Hwy and Bingie Rd.

Sunday August 23, 9am: Wasp Head.
Meet at the entrance to Murramarang Resort, Banyandah St, South Durras.

Saturday September12, 2pm: Barlings Swamp and Bevian Rd.
Meet at the corner of George Bass Drive and Bevian Road, next to Barlings Swamp.

Sunday September 27, 9am: Tuross Heads.
Meet at the toilet block on Tuross Boulevarde on the corner with Bridges Avenue, Tuross Head.

After the fire…..

It is now six months since bushfires consumed approximately 80 percent of national parks and 90 percent of state forests in the Eurobodalla region. The extent and severity of the fires means that it will take many months, if not years, to analyse their impact. So, the questions that some of us are asking - such as how many species of flora and fauna have been lost and how many can recover - are unanswerable at this stage.

Gaining access to burned areas is, of course, a massive task, but vital for park management. Dangerous trees will be a problem across the fire areas for some time and every significant weather event, such as rain or high wind, will make access more difficult. National Parks and Wildlife Service (NPWS) staff are continuing to analyse fire severity data, using satellite imagery. Where access is possible, footage of burned areas, taken from the ground, is being compared with satellite imagery, so that the accuracy of data from satellite images can be established.

WIRES, the Australian Wildlife Rescue Organisation, and Ripper Alliance, specialists in drone rescue technology, have been collaborating with NPWS and State Forest (SF), using drones and infrared cameras to search for wildlife. They have focused on refuge areas identified in the Deua and surrounding SF tenure.

In the next newsletter you will be able to read more about the work being carried out to monitor particular species of flora and fauna as well as unexpectedly good news about some unlikely survivors. Gillian Macnamara

Gangs of Little Ravens roaming around Moruya!

We are very fortunate to live in an area where nature surrounds us and is readily observed. But we are not always paying attention, nor are we necessarily linking things that are going on. This series of events details how exchanging perspectives and sharing our observations can help us all understand our environment better.

I received an email from Michael and Sarah Guppy on 8 April which detailed some interesting Little Raven behaviour:

"We noticed large flocks of ravens feeding with the Ibis in the fields, which with Peter Fullagar's help, we identified as Little Ravens. We then noticed a few caterpillars on the road, like this one. Then we had some very strong winds for 2 days and a lot of green leaves came down. Sarah said a lot of them had been eaten, but I dismissed it as wind damage!

Caterpillar on the road Photo M Guppy

Then the ravens appeared on our road, making a lot of noise, in the morning. I wrote to Peter and said they were roosting on our road and going into the fields during the day.

Then we noticed a lot of black specks on the road. We thought they were some little insect, but on closer inspection they looked like some sort of dropping. Then this morning there was huge raven activity up the road, and lots of caterpillars, and the penny finally dropped! Good thing identification of what was going on wasn't urgent!"

On 10 April, 20 Little Ravens arrived at my property at Moruya Heads and because of Michael and Sarah's message, this grabbed my attention immediately. I observed the same feeding behaviour, the ravens were eating caterpillars, picking them off the leaves on the higher branches of the eucalypts around the house. This group left within 15 minutes but an hour later a group of 30 had returned. We wondered if these birds were the same group so kept in touch. At the time I had 30, Michael had a group of 90 at Maulbrooks Road, north-west of Moruya.

Little Raven food Photo J Morgan

A few days later, on 13 April at 8 am, a group of 100 arrived at Moruya Heads and systematically worked through the eucalypts around the house. They left, heading NNW. At 9.50 am about 200 went through Maulbrooks Road, heading SSW. Michael saw one picking at something in the leaves, but most were preening, calling and ruffling their wings.

I also checked the ground and found many eaten eucalypt leaves and one caterpillar like this one. Both this and Michael and Sarah's were Moth larvae of the Geometrid family. This family is characterised by great variation of larva at different stages of development, so we cannot identify the species. I have reared the one I found, and it is currently pupating.

The Little Ravens continued to come for a couple of weeks and then disappeared from our areas. Julie Morgan

Mistletoe – Friend or Foe?

Mistletoes may be either parasitic shrubs attached to tree branches or root-parasitic trees or shrubs. Most are 'hemiparasites', producing their own nutrients through photosynthesis, dependent on their hosts only for support and to obtain water and minerals from the soil.

Amyema cambagei
Photo nthqueenslandplants.com

Most Mistletoes are spread by birds. When a bird deposits a seed on a branch, the seed germinates quickly, growing a modified root, the 'haustorium', which penetrates the bark and grows into the host's 'xylem' (water conducting) tissue. The growth of haustoria can restrict the nutrient flow along the host's branch, causing the death of the branch beyond the Mistletoe. Host trees do not usually die unless they are otherwise under stress. Mistletoes grow on a wide range of trees, although some are species specific. The name originated in Anglo Saxon dialect: 'mistle' meaning 'dung' (because the seeds sprout from bird droppings) and 'tan', which became 'toe', and means 'twig'.

There are over 1,000 mistletoe species worldwide and approximately 90 in Australia, with 66 endemics belonging to 1 of 2 families. Loranthaceae is a predominantly southern hemisphere family and has the most species – 65 in 11 genera – in Australia. Vicaceae is a predominantly northern hemisphere family consisting of 3 genera and 15 species. This family also includes *Viscum album*, the traditional European Mistletoe, source of ancient legends and mythology, once a symbol of fertility and believed to have magic powers and medicinal properties. It is not found in Australia.

Mistletoes occur in all states and territories except Tasmania. In the Eurobodalla there are 6 species: *Amyema cambagei; A congena; A pendula; A miquelii; Dendrophthoe vitelline* and *Muellerina celastroides*.

Amyema pendula
Photo Australian National Botanic Gardens

Mistletoes are generally easily recognised: some species have different foliage from that of the host and many have leaves that mimic the host's but grow more densely and are more reddish. The large, colourful flowers usually occur in autumn and spring; they are arranged in tetrads, triads or dyads on a single peduncle. The fruit is a single seeded berry, brightly coloured and fleshy. The seed is covered with a sticky, sugary substance called viscin. Birds eat the fruit then wipe the seed off their beak or vent onto a branch, and the viscin cements the seed to the branch. Many birds disperse seeds but the main one in Australia is the Mistletoebird. It has a short, simple gut through which the seed passes in 3-12 minutes, meaning the dispersal range is limited. This, plus the fact that Mistletoebirds do not fly far, may explain why there are no Mistletoes in Tasmania. Mistletoes do not regenerate after fire and are not adapted to drought.

Mistletoe are ecologically important and beneficial to the environment in many ways:

- Mistletoe research has led to increased understanding of the evolution of plants.
- Flowers, fruit and leaves are good food sources for birds, koalas, sugar gliders and possums, especially as they are flowering when most other plants are not.
- They help with pest control by attracting insect-eating birds and beetle-eating possums, thus protecting the host's leaves from predation.
- Densely branched clumps of Mistletoe provide a cool respite and protection. This is important in arid and semi-arid regions and is why many birds prefer to nest in Mistletoe.
- Their leaves are dropped more than those of Eucalypts and contain more nutrients, increasing soil fertility under the host tree.
- They increase biodiversity. Melbourne City Council has planted hundreds of Mistletoe seeds in healthy street trees around the inner city and the CBD, to increase wildlife in these areas.

From pre-Roman times, Mistletoe has been used to treat infertility, epilepsy, hypertension and arthritis. More recently, a treatment for cancer was considered. Opinions now vary as to how safe or efficacious medicinal herbs extracted from Mistletoe are and which parts of the plant are poisonous. Aboriginal people have several uses for Mistletoe: they use the leaves in therapeutic steam baths, and in infusions to treat fever, they also use the flesh from the fruit to treat cuts. And they hunt fruit bats and possums that feed on the fruit.

Examples of root-parasitic mistletoe

Nuytsia floribunda: Western Australian Christmas Bush

This is a hemiparasitic tree up to 10m high in the family Loranthaceae. The only species in this genus, it is endemic to WA, occurring from Esperance to Geralton, on sandy soil in open forests, woodland and heath. Hosts include eucalypts, grasses, sedges and vines. It is the largest known parasite in the world, with blades on its roots which it uses to cut into the roots of any plant within 100m and sometimes through PVC pipes and electrical cables. It was once common on the coastal plain around Perth, often in gardens and remnant bushland, but its numbers are declining with increased urban development. Flowers are honey-scented, vivid yellow/orange and appear between October and January. Fruit is dry and 3 winged, dispersed by wind and therefore not dependent on birds. The seed is sticky and heavy, resulting in limited distribution.

Atkinsonia ligustrina: Blue Mountains Mistletoe or Louise's Mistletoe

This is an erect evergreen shrub 1-2m high in the family Loranthaceae. The only species in this genus, it occurs in woodland and heath, on exposed sites, in a small area of the Blue Mountains. One plant may parasitise the roots of several neighboring trees and shrubs at the same time. Leaves are elliptical, 2-5cm long and 1cm wide. They are longer than the inflorescence which consists of 2-8 yellow, tubular, sweetly scented, insect-pollinated flowers, usually occurring in November. The fruit is olive shaped, 15mm long, green to scarlet when mature in March. The seed is sticky. Fran Anderson

Eurobodalla Nesting Box Installation Program

Many of our birds and other animals rely on tree hollows to live and breed in, but after many years of tree clearing, drought and bush fires, trees with hollows are now a dwindling resource. Over 300 of our native species in Australia use tree hollows, including birds, insects and mammals. This includes 15% of our native bird species who use tree hollows, mostly for nesting purposes. Some bird species, including Masked Owls, Sooty Owls, Australian Owlet-Nightjars and White-Throated Treecreepers also roost in tree hollows year-round.

Native mammals are also heavily dependent on tree hollows, either for sleeping during the day or to raise offspring. Of Australian native mammals, 83 different species use tree hollows. These include bats, possums, gliders, and ground-dwelling mammals that climb such as quolls, native rats, dunnarts, phascogales, cuscus, numbats and antechinus. Numerous reptile (79 species) and amphibian species (27 species) also use tree hollows.

Ideally, natural hollows provide the best environment for our birds and mammals. However, installing nest boxes where few natural hollows remain can provide significant benefits for local wildlife, and can increase the carrying capacity (total number of all different species of native animals able to live in that habitat) of the

local ecosystems. If there is sufficient food, and good habitat otherwise, but no natural tree hollow for nesting or shelter, a nest box can enable breeding to occur.

Wood duck at nest box Photo A McGlashen

As part of its response to the recent bushfires and ongoing drought and, particularly the impact on our native species, Eurobodalla Shire Council developed an excellent new program to build nesting boxes to protect birds and animals across the Shire. And they are looking for volunteers!

Nesting boxes help to imitate the work that tree hollows do for many species. So far there has been a huge interest and effort from community groups, private property holders, Men's Sheds, high schools and more to build and supply nesting boxes. Council has recently received funding of $49,000 from WIRES to continue its work with community groups. The boxes have been heading out to high priority transition zones in good bush closely located to burnt areas. They have and will continue to be installed in Council managed reserves and strategically located private property with some of the funding being used to install the boxes safely and in the most effective location for specific species. Many private property owners are being provided with the nesting boxes and they are able to install them on their own bushland properties.

To learn more about nesting boxes you can visit nestboxtales.com, which provides a wealth of information. To find out more, or if you think you have a property that could be involved with this program, please contact Courtney Fink-Downes on courtney.fink@esc.nsw.gov.au. Helen Kay

Cicada Base and Wallaby Station – the Mystery Bay pod

The horrific impact of the recent bushfires on wildlife cannot be overstated. Much has already been written, and I don't need to repeat the heartbreaking details. Mystery Bay was spared a direct firestorm, despite five evacuations. The forests in this section of the Eurobodalla National Park remain relatively unscathed and has become a refuge for native animals escaping from devastation to the south and west.

My friend Kara and I decided to join the loosely formed Bermagui Wildlife Support 2020. We attended an early meeting, which was addressed by several passionate people who were aching from the losses that they saw in their local forests. One of the speakers, a visitor from Potoroo Palace, provided invaluable advice on what types of foods to provide for the surviving animals. A group member charged with seeking funding contacted Animals Australia, who had received millions of dollars in donations from all over Australia and overseas. Their initial donation of $1000 to the Bermagui group was used to buy kangaroo pellets. Once the bona fides of our group were established, Animals Australia continued to provide funds, and businesses including Woolworths who donated generous amounts of fruit and vegetables.

Kara and I established the Mystery Bay 'pod', consisting of two feeding and watering stations which we named Cicada Base and Wallaby Station. We chose sites within the 1080 section of Eurobodalla National Park that were invisible from the road and where parking was safe. Everyone in the group committed to a four month involvement, and we were surprised when we realised recently that we had been maintaining the two stations for almost that long.

Feeding station Photo M Anderson

Initially we replenished supplies every two days. The wildlife quickly discovered the treats and, within the first couple of visits, all the food was taken from each station; surprisingly, water was taken only at Cicada Base, which was close to an ephemeral swamp.

Within a few weeks, as we made less frequent visits, the Swamp Wallabies began waiting for us at a safe distance from where we parked and, as we returned to our cars, we were able to watch them arriving for their supplementary feeds. Once we counted 25

swampies in the vicinity. There was a small mob of kangaroos close by, as well as numerous bird species, but we only saw the wallabies taking advantage of the supplies.

We placed some food in trees, in containers or spiked on branches, out of reach of wallabies, so that other species stood a chance, and all of this food was also taken – possibly mostly by possums, but we had a few flying foxes around, and the bower-birds would also have had their eyes on these treats.

Gradually we reduced our visits to once every four, then five days and, with the arrival of Coronavirus, we began travelling in separate cars. As a primary school teacher, Kara has skills in assembling and presenting data in an interesting way; she recorded our observations in charts, which we fed back to the Bermagui group leaders, to their absolute delight.

We have ceased delivering food, since February's rains have provided a burst of regrowth. The Pittosporums are covered in fruit, and the grasses have thickened. And we have noticed that Swamp Wallabies are not particularly fussy about what they eat, appearing just as enthusiastic about fungi and, surprisingly, banksia leaves, which to me seem very tough and unpalatable. But, no doubt, grapes, sweet potato and kangaroo pellets are much more enticing. They do seem to prefer drinking fresh tap water rather than from muddy rain puddles.

So, on 19 May, exactly four months after the start of the project, we leave the wildlife to their own devices. It's not easy turning our backs on them, but we know that it is best for them to be self-sufficient. This is the final entry in Kara's diary: "So, after four months of regularly visiting our wildlife stations we need to pull back and hope our animals are healthy and strong on their own. We'll keep popping back while the restrictions surrounding Coronavirus allow it, but other than that, this is 'over and out' as far as the Mystery Bay pod of Bermagui Wildlife Support 2020 goes. Stay safe little animals. Mandy and Kara x" Mandy Anderson

ENHS members have many stories to tell about their observations of nature. 'My Patch' is a forum where these stories can be shared with others and will be published both in the newsletter and on the website. Photos are welcome. Please send your contributions to mypatch@enhs.org.au

Logo design by Trevor King

Masked Lapwings at Surfside

Given that I live in quite a built-up area, my daily bird sightings are pretty much restricted to the common urban birds: Magpies, an occasional Mudlark or two, Rainbow Lorikeets, Little Corellas, Red Wattlebirds, sometimes groups of thornbills and other BBJ's, and now and then a cheery Spinebill. Masked Lapwings are normal residents in Sunshine Bay where I live and can be seen strolling around grassed areas – roadside verges, mown nature strips and the like.

I occasionally see pairs of Sooty or Pied Oystercatchers inspecting the rock platforms at low tide in Sunshine Cove.

Recently I was surprised to see a pair of Masked Lapwings imitating the behaviour of the Oystercatchers on the rock platform – peering into rock pools, hopping from outcrop to outcrop, pecking at this and that, and even one taking a splash dip in one of the pools. I have lived on the Eurobodalla coast for some thirty years, but I have never seen Masked Lapwings on the sea front, let alone taking a bath in a saltwater pool.

While watching the behaviour of these Masked Lapwings in their local normal surroundings - grassy areas divided by bitumen roads bearing quite constant traffic, it seems to me that they are aware of the hazards of their chosen habitat. A pair that I noticed one day were standing on one side of a local road (presumably waiting 'to get to the other side', like the proverbial chicken). When the coast was clear, they walked to the middle of the road, briefly stopped to relieve themselves, waited while a car drove past, then calmly walked to the opposite footpath.

I believe that many members of the natural world include the activities of our human world in their day-to-day life calculations, that animals do not operate entirely by instinct, but take into account man made occurrences

(like traffic staying on black roads and mostly not deviating on to grasslands) and adapt their behaviour accordingly.

As for the Lapwings on the shoreline rocks, maybe they observed the Oystercatchers and were overcome by curiosity and decided to see for themselves. Who knows? Jenny Liney

Wallaby Tales (continued)

We started fostering dogs for the RSPCA about a year ago, we have now had four. When we started we had about 4-6 wallabies that visited regularly, we wrote an article in the ENHS newsletter about the various members of this group. We deliberately never let any of the dogs go near the place frequented by the wallabies. But it was to no avail, and gradually the wallabies stopped coming. They would sporadically re-appear between dogs, but the time between dogs was usually very short. The last dog, Lexi, was adopted on a Saturday, about 3 weeks ago. Lexi had a few problems and was with us for an unusually long time, about 3 months. By the end of the 3 months there was no sign of any wallabies. Lexi left the property at 1230, and to our surprise, and delight, at 1600 Big Al appeared in his usual place, quite tame, not at all concerned. He is now a regular visitor, but alas, we now have another dog arriving shortly. We obviously are barely scratching the surface in terms of what we think we know about how these animals perceive and interact with their environment. Sarah and Michael Guppy

A local Scorpion

On Easter Monday Helen decided to vacuum our bedroom but found something she hadn't expected – a small scorpion. She called me and asked whether it would be OK to vacuum it up but, as it was still moving, I suggested I take it outside instead. This I did with the help of a dustpan and brush. Before depositing it in the bush away from the house, I took a couple of photos and posted them on the ENHS Facebook page. The responses included several emojis, mostly indicating surprise, and one comment stating 'I didn't know we had them'. This prompted me to look a little further into the distribution of scorpions locally.

Forest scorpion Photo D Kay

With the help of the internet I discovered that there are relatively few species of scorpion in NSW and with a reasonable degree of certainty I decided our intruder was Cercophonius squama, commonly called the Wood Scorpion or Forest Scorpion. The species is native to southeastern Australia, is typically around 25–40 mm long and comes in different shades of brown. They usually live in burrows under plant litter though sometimes under the bark of standing trees, usually eucalypts. They prefer damp environments and spend much of the summer in their burrows. Wood Scorpions feed on prey that is less than 1 cm long. A female can produce 30 live young at a time, and initially carries them on her back inside the burrow. Their lifespan is more than three years.

The distribution map on the website of the Australian Museum shows a small number of records from the Eurobodalla, from near Durras, Broulee and Gulaga. The Atlas of Living Australia had no records – although I've now added one – and Kevin Dawes subsequently posted a photo of one from his Surfside garden on the ENHS Facebook page.

The species is described as "slightly aggressive" with a sting that can cause inflammation and pain for several hours, and it is recommended that medical advice be sought. Given this is not the first time we've found one in the house we'll continue to treat them with due caution, but I'm intrigued as to why we have only ever found them in our bedroom. David Kay

Correction: The photo of the Kookaburra in the last Newsletter was credited to Karen Cotteril. It was taken by Geoff McVeigh. Our apologies for this error.

Highlights from ENHS records - Autumn 2020

Avian species	Number	Place	Observer	Comments
Emu	1	Cadgee Farm		Reported to JC
Stubble Quail	5	Com	JC	
Black Swan	Up to 100	MHS/Bingie	JM/DHK	
Aust Shelduck	1	Com	JC	
Australian Wood Duck	Up to 18	MYA	LB	16 young
Grey Teal	30	Com	JC	7 dependent young
Chestnut Teal	30	Com	JC	3 dependent young
Brown Cuckoo-Dove	30	MKS	SMG	
Peaceful Dove	1	Com	JC	
Bar-shouldered Dove	4, 1	Coila L/Com	GM/JC	
White-throated Nightjar	1	PS	JM	March record
Aust Owlet-nightjar	1	Com	JC	
White-throated Needletail	Up to 100	Sth DS	JCof	Last record April 24th at Surfside
Eastern Koel	Call	MB	MA	March/April
Horsfield's Bronze-Cuckoo	1	PS	JM	In April
Shining Bronze-Cuckoo	1	PS	JM	In March
Fan-tailed Cuckoo	Up to 7	PS	JM	Widespread records of this species
Shearwater sp.	6, 2	CO/Bengello Bch	PG/FM	In March
Royal Spoonbill	10, 9	NA/Com	MA/JC	
Aust Little Bittern	Calls	BBWG	DB	In May
Striated Heron	1	NA	MA	
Cattle Egret	60, 3, 2	MYA/MB/Com	JM/MA/JC	
Great Egret	30	MHS	A Nicol	
Intermediate Egret	1	Com	JC	
Little Egret	4	NA/MB	MA	
Eastern Reef Egret	1	CO/PP/NA/BI	PG/MA/DO	
Australasian Gannet	6, 5, 4	Sth DS/MHS/ MB	J Cof/JM/MA	Many immatures
Great Pied Cormorant	2	CO	PG	
Australasian Darter	1	BI/Com	JC/DO	
South Island Pied Oystercatcher	1	Candlagan Ck	PG/NC/HR	From 12 May
Aust Pied Oystercatcher	Up to 30	Coila L	GM	
Sooty Oystercatcher	25	CO	PG	
Pacific Golden Plover	2, 1	MB/CO	NC/MA	
Red-capped Plover	4	Corunna L	A Cram	2 adults and chicks
Double-banded Plover	7, 5, 4, 2	Broulee/CO/ Brou L/MB	PG/NC/MA	
Hooded Plover	3, 2	Bingie Bch/TS/ Brou L/Bogola Head	AM/GM/MA	Pair with immature at Bingie Beach
Black-fronted Dotterel	4, 2	MO	DHK	
Whimbrel	1	NA	MA	March
Far Eastern Curlew	3	NA	MA	March
Bar-tailed Godwit	200, 110	NA/TS	MA/GM	
Sanderling	1	CO	NC/GM	May
Pacific Gull	1	CO	PG	Juvenile in March
Caspian Tern	11, 6	Brou L/NA	MA/NC	
White-fronted Tern	2	MB	MA	

Powerful Owl	2, 1	Murramarang NP/Com	M Burk/JC	
Osprey	1 or 2	MHS/TS	JM/M Craig	Back at nest on the telecom tower at MHS
Square-tailed Kite	1	Bingie Pt/MB	DHK/MA	
Little Eagle	1	Turlinjah	G Mendell	
Brown Goshawk	1	Com	JC	
Collared Sparrowhawk	1	Cool	DO	Found dead
Whistling Kite	3	PDD	JF	On nest at Sth DS in March
Oriental Dollarbird	2	Belimbla	JC	
Azure Kingfisher	1	Candlagan Ck/ Com/NA	HR/JC/MA	
Sacred Kingfisher	1	Belowra/ Wadbilliga/ Eurobodalla Rd	JC/GM	
Australian Hobby	1	Com/MHS	JC/JM	
Peregrine Falcon	2, 1	MKS/PS/Com	SMG/JM/JC	Displaying at PS
Glossy Black Cockatoo	14, 8, 7	Pedro/PS/TS	S Doyle/JM/ G Mendell	More sightings than usual. Pairs and family groups
Yellow-tailed Black Cockatoo	40, 25, 23	MB/MKS/Cool	MA/SMG/DO	More widespread than usual
Gang-Gang Cockatoo	22, 10, 8	Pedro Pt/PS/ MKS/BI	JM/SMG/MA	More widespread than usual
Little Corella	300	MYA	LB	Numbers up.
Eastern Rosella	6, 5, 4	Com/MYA/ Bergalia/MB	JC/LB/DHK/ MA	
Swift Parrot	10, 3, 2, 1	NA/BP/Surfside /BBWG/PS	LG/G Clark/ DB/JM	First record April 12th
Little Lorikeet	12, 10, 6	PDD/PS/Sth DS	JF/JM/J Cof	
Superb Lyrebird	More than 3, 2, 1	NA/Belowra/ Cool/MKS	MA/JC/DO/ SMG	A few records
Red-browed Treecreeper	1	PS	JM	
Southern Emu-wren	2	Cullendulla Ck	M Burk	
White-cheeked Honeyeater	6, 2, 1	PS/PDD/MB	JM/JF/MA	
Brown-headed Honeyeater	10, 8, 4	Com/PS/MB	JC/JM/MA	Nest with young at PS in May
White-eared Honeyeater	3, 1	PS/NA/MKS	JM/MA/GM/ SMG	
Noisy Friarbird	5, 2, 1	PS/Bergalia/ Com	JM/DHK/JC	Calls also recorded. Last record April 29th
Scarlet Honeyeater	2, call	PS/MB	JM/MA	
White-fronted Chat	5, 1	Coila L/ Corunna L	GM/A Cram	
Fuscous Honeyeater	1, call	PS/MKS	JM/SMG	
Bell Miner	Up to 15	MYA	LB	
Striated Pardalote	1 or 2	PS/Com	JM/JC	
Varied Sittella	15, 10, 7	BBWG/PS /Com	DB/JM/JC	
Australasian Figbird	Up to 6	MYA/BB	JM/DB	Nest building at BB
Rufous Whistler	3, 1	Com/LP/PS/MB	JC/IAG/JM/ MA	Last record April 10th
White-bellied Cuckoo-shrike	4, 2	Com/PS	JC/JM	
Dusky Woodswallow	20, 5, 4, 1	Com/Sth DS/ Eurobodalla Rd/ Cool	JC/J Cof/GM/ DO	
Rufous Fantail	1	Bergalia/MB	DHK/MB	

Leaden Flycatcher	1	Bengello Bch	JM	March
Black-faced Monarch	1	PS	JM	March
Little Raven	Up to 200	MKS/PS	SMG/JM	Large flocks in March/April
White-winged Chough	11, 10, 9	Com/MKS/PS	JC/SMG/JM	
Rose Robin	1 or 2	MKS/PS/Com/ NA/Cool	SMG/JM/JC/G M/DO	Immatures at Com and PS
Golden-headed Cisticola	8	Com	JC	
Tree Martin	Up to 15	Com	JC	
Bassian Thrush	1	Com	JC	First at this location
Mistletoebird	2	PS	JM	
Red-browed Finch	30	Com	JC	Nesting in March
Australasian Pipit	11, 3	Com/Bingie Pt/Coila L/MB	JC/DHK/GM/ MA	

Non-avian species	**Number**	**Place**	**Observer**	**Comments**
Common Wombat	Signs	Com/Belowra/ Cool	JC/DO	
Short-beaked Echidna	2	MB	MA	
Spotted-tailed Quoll	Signs	PS	JM	Fresh scats
Yellow-bellied Glider	1 or calls	Mossy Pt/MKS	HR/SMG	
Sugar Glider	Calls	Mossy Pt/PS/ Com	HR/JM/JC	
Common Brushtail Possum	2	LP/Mossy Pt/ Com/Cool	IAG/HR/JC/DO	
Eastern Grey Kangaroo	65, 18	Cool/ Sth DS	DO/J Cof	
Red-necked Wallaby	Up to 8	Cool	DO	
Grey-headed Flying-fox	1 or 2	Mossy Pt/ MB/Cool	HR/MA/DO	
Microbat	1	Com	JC	Freetail
Seal sp.	6	MHS	JM	
Bottle-nosed Dolphin	10	Sth DS/MHS	J Cof/JM	
Whale sp.	5	BP	NC	
Snake-necked Turtle	5, 1	Com/Mossy Pt	JC/HR	
Yellow-bellied Water-skink	3	Com	JC	
Eastern Water-skink	1	LP	IAG	
Eastern Blue-tongue	2	Com	JC	
Jacky Lizard	1	Sth DS/Mossy Pt/PS/Cool	J Cof/HR/JM/DO	
Gippsland Water Dragon	Up to 10	Com	JC	
Lace Monitor	1	Belowra/Cool	JC/DO	
Diamond Python	1	Cool	DO	
Eastern Small-eyed Snake	1	Cool	DO	
Mustard-bellied Snake	1	Sth DS	J Cof	
Red-bellied Black Snake	3, 2, 1	Com/PS/Mossy Pt/Belowra/Cool	JC/HR/JM/DO	

Frogs JC/JM/HR/DO	Common Eastern Froglet, Brown-striped Frog, Bibron's and Tyler's Toadlet; tree frogs: Brown, Eastern Sedgefrog, Jervis Bay, Keferstein's, Peron's, Tyler's, Verreaux's.
Moths JC/JF/JM/DO/HR	Ghost, Case, Plume, Cabbage Centre Grub, Beet Webworm, Eggfruit Caterpillar, Brown Pasture Looper, Clara Satin, Hakea, Red-lined Geometrid, Twin Emerald, Cream Wave, Plantain, Dark Patch Carpet, Sodaliata, White-stemmed Gum, Common Anthelid, Privet Hawk, Processionary, Fair Footman, Variable Halone, Lichen-eating Caterpillar, Heliotrope, Crimson Tiger, Tiger, Old Lady, Mistletoe, Beautiful Double-spot, Green-blotched, Bogong, Brown and Variable Cutworm, Native Budworm.
Butterflies MA/NC/JC/JM/	Splendid Ochre, Lilac Grass-skipper, Narrow-brand Grass-dart, Macleay's and Orchard Swallowtail, Lemon Migrant, Black Jezebel, Caper and Cabbage White, Dusky Knight,

DO/HR/DO/FM	Brown Ringlet, Varied Sword-grass Brown, Marbled Xenica, Common and Bank's Brown, Meadow Argus, Yellow Admiral, Lesser Wanderer, Monarch, Common Grass Blue.
Dragon & Damselflies JC/JM	Common Bluetail, Australian Emerald, Black-faced, Wandering and Scarlet Percher, Blue Skimmer, Tau & Australian Emerald.
Beetles JC/JF/JM	Net-winged, Small Leaf, Dung, Argentinian and Green Scarab, Metallic Green Acacia, Three-lined Potato, Honeybrown, Australian Eucalyptus Longhorn; Ladybirds: Transverse, 26 and Common Spotted, White collared, Striped, Fungus-eating, Steel Blue.
Bugs JC/JM	Water Strider, Water Boatman, Bronze Orange, Assassin, Green Vegetable, Glossy and Yellow-dotted Shield, Two-horned Treehopper.
Other insects JC/JM/DO/HR	Bees: Blue Banded, Teddy Bear, Masked, Leaf-cutter, Small Metallic Banded. Wasps: Common Paper, White-faced Brown Paper, Orange Caterpillar Parasite. Fly: Hoverfly. Cockroach. Yellow-winged Locust. Leopard Slug.
Spiders MA/JC/JM	Spiny, White-spotted Swift, Black House, Leaf-curling, Jumping, Huntsman, Daddy Long Legs, Golden Orb, Two-tailed, St Andrew's Cross, Flat Rock, Red-back.

RAINFALL (mm). March: 36 at LP, 84.5 at MKS, 81.5 at Com, 110 at MB, 67.75 at Cool. **April:** 38 at LP, 31 at MKS, 67 at Bergalia, 74 at Com, 66.5 at MB, 36.25 at Cool. **May:** 3 at LP, 4 at MKS, 11 at Bergalia, 4 at Com, 5 at MB, 3.5 at Cool.

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MA	M Anderson, MB	IAG	I&A Grant, LP		M Burk, DS
DB	D Bertzeletos, Surfside	SMG	S&M Guppy, MKS		G Clark, ACT
LB	L Burden, MYA	DHK	D&H Kay, Bergalia		M Craig, TS
J Cof	J Coffey, Sth DS	GM	G Macnamara, TS		A Cram, Deua R
JC	J&P Collett, Com	AM	A Marsh, Bingie		S Doyle, Pedro
KMD	K &M Dawes, Surfside	JM	J Morgan, PS		G Mendell, TS
JF	J Fearn, PDD	DO	D Ondinea, Cool		A Nicol, MHS
MF	M Fyfe, Broulee	HR	H Ransom, Mossy Pt		T&A Ross, NA
PG	P Gatenby, Broulee	FM	Field Meeting		
Places					
BB	Batemans Bay	ERBG	Eurobodalla Botanic Gardens	PDD	Percy Davis Drive, MYA
BBWG	Batemans Bay Water Gardens	LP	Lilli Pilli	PS	Pedro Swamp
BI	Bermagui	MKS	Maulbrooks Rd S, MYA	PP	Potato Point
BP	Burrewarra Point	MO	Meringo	SB	Surf Beach
Cool	Coolagolite	MYA	Moruya	SF	State Forest
Com	Comerang	MH	Moruya Heads, N&S	T'bella	Trunketabella
CO	Congo	MB	Mystery Bay	TN	Tomakin
DS	Durras	NA	Narooma	TS	Tuross
DY	Dalmeny	NP	National Park	WL	Wallaga Lake

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