



# EUROBODALLA NATURAL HISTORY SOCIETY

Inc.

PO Box 888  
MORUYA NSW 2537

[www.enhs.org.au](http://www.enhs.org.au)



NEWSLETTER NUMBER 200

April 2024

Having reached another milestone for the Society with this our 200<sup>th</sup> Newsletter, we thought we might take a brief look at how it started and how it has developed.

The first newsletter, distributed in August 1986 was 3 pages long and was typed out five times – original and four carbon copies – on a well-worn portable typewriter. The Society had no equipment and no money to buy any, so it was the typewriter or nothing. It opened with the following paragraph:

This is our first Newsletter and we hope to publish regularly, perhaps every two or three months, until sufficient members are willing to submit sightings records to enable us to compile a monthly Newsletter. No matter how new you are to this watching and recording discipline, no matter how often you bewail your lack of knowledge, never under-estimate the value of your sightings records. Those records are the base upon which every Society builds its knowledge of the area and with time that aggregation of facts and figures becomes a yearly picture which can be of great strength in preserving the delicate balance between wildlife and our ever-changing environment. You, the members, supply that information; what species were seen, when, where, how many, with your comments on behaviour or unusual circumstances. The Society could not exist without your records, so please start the ball rolling as from September.

Whilst the aim of a monthly Newsletter was never achieved, one has been published every two or three months subsequently and has often repeated the plea for members to submit records of sightings.

Carbon copies became a thing of the past when Mike Crowley organised access to a Gestetner copier at Moruya High School for printing the newsletter. As the editor Jill Whiter commented “The flimsy waxed sheets crimped on the typewriter roller with alarming ease and the livid red correction fluid never quite corrected properly, so our readers were often left guessing what letter was meant to be in the middle of a word. The schoolchildren who rolled out the 70 or whatever copies every second month must have pondered why they were chosen to fit fiddling waxed sheets over an inky roller.”

Newsletter 46 in June 1994 introduced the banner at the top of the first page, with the ENHS logo and a drawing of a White-necked Heron, although the heron was then facing to the right. The heron drawing has an interesting history (see later).

Between 1998 and 2000, different formats and logos were experimented with and graphics such as those below were introduced. These experiments were short lived and in March 2000 the old logo and heron were reinstated and, in January the following year, photographs (black and white) were published for the first time. It wasn't



**EUROBODALLA  
NATURAL HISTORY  
SOCIETY  
INC.**

**NEWSLETTER**

NUMBER 75

APRIL — MAY 1999



#### FROGS

Common Froglet calls at BP; Striped Marsh Frog calls at BP.; Bibron's Toadlet calls at BP; Lescur's Frog calls at BP; Peron's Treefrog calls at BP; Verreaux's Frog calls at BP;



6

summary section of the newsletter. We would also encourage members to contribute articles for the newsletter. If there is some aspect of nature that is of interest or you have a photograph that has a story attached to it, please send it to us. Helen and David Kay

#### A warm welcome to new members:

Jane Andrews, Lilli Pilli.  
Jocelyn Davies, Bermagui.  
Bronwen Harvey, Mystery Bay.  
Kaitlin O'Brien, Dalmeny.

#### What's coming up.....

**Saturday 13 April, 2pm Mummaga Lake Fungi Walk** (2-3km Grade 2) Meet at the Bodalla Park Rest Area on the Princes Hwy just south of Brou Lake Rd. Local fungi expert Teresa van der Heul, will lead the fungi walk. In addition to fungi, Wonga Pigeon, Brown Gerygone, Silvereye, White-naped Honeyeater, Rufous Fantail, Black-faced Monarch, Eastern Whipbird.

**Sunday 28 April, 9am, Deua National Park** (2-3km Grade 2) Meet at the car park outside the Eurobodalla Shire Council and the Library, off Vulcan Street, Moruya. The National Park is home to Large-billed Scrubwren, Superb Lyrebird, Pilotbird, White-cheeked and Crescent Honeyeater, Red-browed Treecreeper, Varied Sittella, Common Wombat and Dingo.

**Saturday 11 May, 2pm Potato Point** (2-3km Grade 2) Meet at the toilet block near the intersection of Riverview Rd and Blackfellows Pt Rd, near the bridge. A walk amongst Spotted Gum/Cycad coastal forest and fringing Swamp-oak Forest as well as dune vegetation with views of the ocean. A mix of sea birds, shorebirds, water birds and forest birds.

**Sunday 26 May, 11am: Annual General Meeting.** Eurobodalla Botanic Gardens, Princes Highway Batemans Bay. The meeting will be in the Spotted Gum Pavilion, which overlooks the grassy area in front of the visitor centre, at 11am. This will be followed by lunch (there are BBQ facilities) and then a guided walk through the gardens which is home to many species of local native plants and birds. 130 species of birds have been sighted at the gardens over the years.

A nomination form has been sent with this newsletter.

**Saturday 8 June, 2pm Runnyford Road** (2-3km Grade 2) Meet at the corner of Runnyford Road and the Princes Hwy, just north of Mogo. We will drive along Runnyford Road to the bridge that crosses the Clyde River. Scarlet Robin, Little Eagle, Brown Goshawk, Striated Heron, Southern Emu-wren, Black-fronted Dotterel, Great Cormorant.

**Sunday 23 June, 9am Wasp Head** (3-4km Grade 2) Meet at the carpark near the entrance to Murramarang Resort, Banyandah St, South Durras. Wasp Head provides a great vantage point for a number of sea bird species, including albatross, Australasian Gannet, White-fronted Tern, Southern Giant-Petrel. In the forest, Varied Sittella, Eastern Spinebill and other honeyeaters.

until 2011 that colour photos were introduced for the first time, for the newsletter posted on the website, and in the same year the heron on the masthead was turned to look left.

What will the 300th newsletter be like? Who knows? What we can say is that the ongoing success of our newsletter depends on the contributions from members. The extract from our first newsletter asked for members to submit their sighting records. Members' reports are still the basis for the species

**Saturday 13 July, 2pm 1080 Beach, Mystery Bay (2-3km Grade 2)** Meet at the carpark on Mystery Bay Rd just past the campground, opposite Lamont Young Drive, in Mystery Bay. A walk through coastal forest to 1080 Beach. Hooded Plover, White-bellied Sea-Eagle, Red-browed Finch, various honeyeaters, thornbills and fairy wrens, Australasian Gannet, as well as macropods.

### Field Meeting - Long Nose Point – 25 February 2024

The weather was ideal for the February field meeting to a site which was quite new for some. Sixteen of us gathered, including some new members, for the coastal Bangalay sand forest walk. Long Nose Point is adjacent to Barlings Beach, a small, protected beach which has some interesting wooded rock formations close in to shore. Far to the south we could see Gulaga mountain, which is such an icon of the Eurobodalla region.

Gee was our leader for the morning. She greeted us at the gate, welcomed everyone, particularly the new people, and outlined what we could expect – a short sharp climb up steps at the beginning, followed by a more gentle meander through the forest, with regular vantage points, opportunities to view the wonderful 180-degree coastal vista. I was reminded several times of how fortunate we are to live in such an absolutely stunning part of Australia. The sky was almost cloud-free, and the sun shone sparkles on the ocean.

The walk became as much a botany ramble as a bird walk. Birds were not especially numerous, as our species list totalled a modest 24, but there was a lot of interest in many of the plants of the forest floor. The dominant larger trees were Bangalays (*Eucalyptus botryoides*) – whose other common names include Bastard Jarrah, Woollybutt and Southern Mahogany – and Old-man Banksias (*Banksia serrata*).

The birding highlight for me was a very beautiful immature Sea-Eagle which was keen to display its newly-acquired flying skills, making several passes overhead. Gee and Bronwen captured some fantastic photos. One sharp-eyed walker also sighted a Grey Goshawk, white morph, at a very high altitude, also enjoying its enviable talent of flight. Most of the other birds listed were of the smaller scrub-dwelling variety, with the most numerous being Brown Thornbills, one of nature's true success stories. They are regularly the dominant species in a wide variety of habitat settings.

From the tip-end of Long Nose Point, at one of the many spectacular viewing points, we watched as a pod of dolphins frolicked near the surface of the ocean.

There was a brief discussion amongst a few of us about whether a confirmed identification can be made from a single feather. I found a feather which I was sure was from a Brown Cuckoo-dove, judging by its colour, its size and its "sheen". The species was noted but not included in the morning's tally.

Our thanks to Gee for her very able leadership, and to the group as a whole for their pleasant company. Mandy Anderson

### Am I a Bad Birder?

We thought some of our readers might enjoy the article by Olivia Congdon at <https://science.anu.edu.au/news-events/news/am-i-bad-birder>. The website also has several other articles on bird research and conservation.



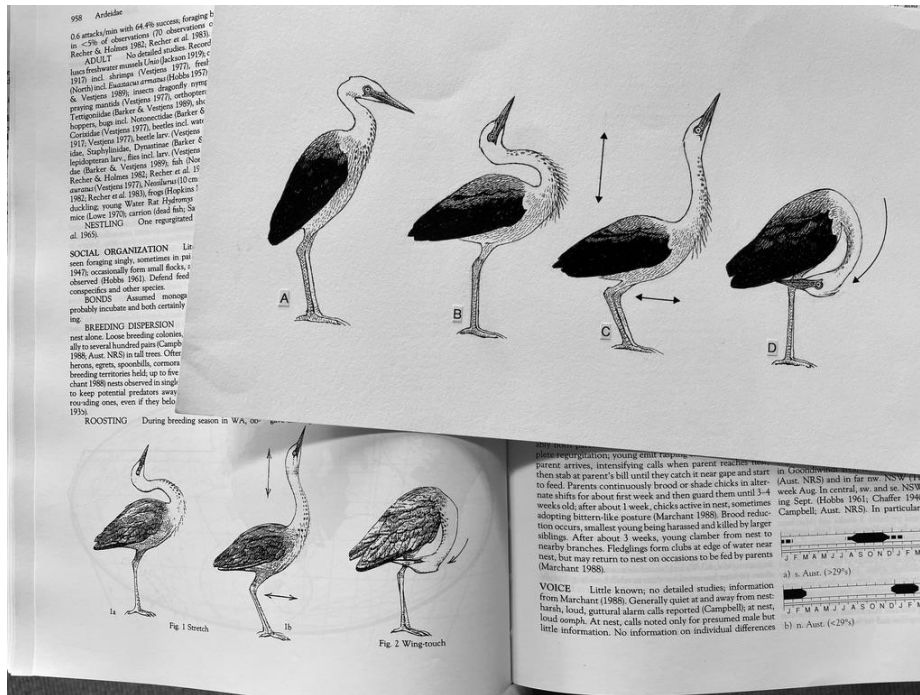
Birdwatchers in their habitat Photo M Anderson



Immature White bellied Sea-Eagle  
Photo G Hounsell

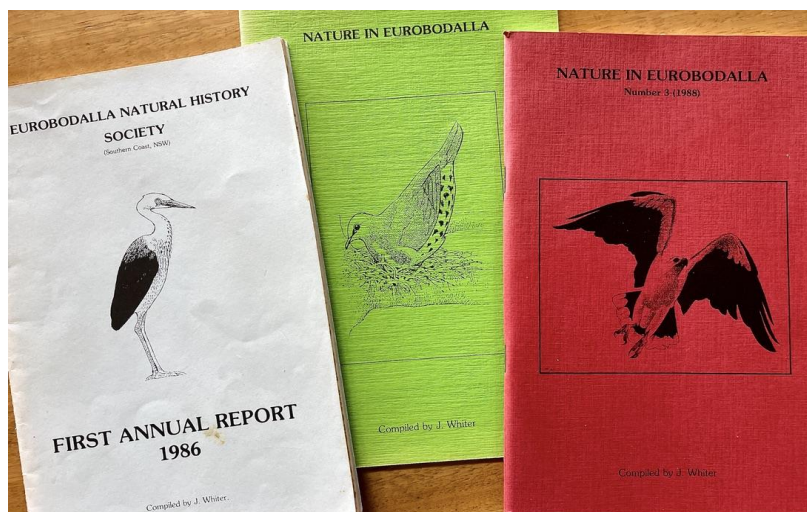
## The history of the Heron.

One of the founding members of the Society, Stephen Marchant, was the chief editor of Australia's ornithological masterpiece "The Handbook of Australian New Zealand and Antarctic Birds", HANZAB. He required drawings of the courtship behaviour of the Pacific Heron for inclusion in the handbook. He approached renowned wildlife artist Frank Knight who kindly produced 4 drawings, three of which were used in the handbook.



The four drawings produced by Frank Knight overlaying their entry on page 928 of Volume 1 of HANZAB.

During 1986, the Society decided to begin publishing members' observations in an annual report as a historic record of the year's sightings. The first report was simply called the First Annual Report 1986 and the one Heron drawing that was not used in HANZAB was used on the cover. This name was thought not "catchy" enough, so it was changed to "Nature in Eurobodalla" in 1987. Frank Knight was again approached, and he provided the subsequent two NIE covers, a Wonga Pigeon and a White-bellied Sea Eagle.



The first three issues of Nature in Eurobodalla

In 1994 it was decided the Society needed a masthead or letterhead, not only for the newsletter but also for official letters etc. I was asked design the letterhead, which I did, incorporating the drawing of the heron. Mike Crowley



## White-necked Heron – *Ardea pacifica* - (Latham 1801)

Given that the White-necked Heron has appeared at the top of our Newsletter for many years I thought it time to provide some detail about the species. Sometimes referred to as the Pacific Heron, it is widespread throughout most of Australia except the deserts of eastern WA and western SA, from the Nullarbor Plain north to the Great Sandy Desert. It occurs sporadically in Tasmania. While sometimes seen in tidal areas, most are found in shallow fresh waters, including farm dams, flooded pastures, claypans, and even roadside ditches. The species has thrived following the construction of irrigation, dams and other man-made water sources and its current conservation status is of Least Concern.

The White-necked Heron is a large long-legged heron with a body length of 76-106 cm, a wingspan of 147-160 cm and a weight of up to 860g. It has a white head and a long white neck with a double line of black spots running down the front. The upperparts of the body are slate-black, with plum-coloured nuptial plumes on the back and breast during the breeding season. Underparts are grey and streaked with white. The bill is black, the naked facial skin is blue or yellow, the eyes are green, and the legs and feet are black. In flight, it has large white “headlight” spots on the carpal joint (bend of the wing).



White-necked Heron  
Photo R Soroka

In the young, the down is long, especially on the crown, with the neck and head white and upperparts and upper wing light grey-brown. Juvenile feathers are dark grey. In juveniles a broad strip of grey-black runs down the front of the neck. The head and neck are commonly tinged brownish-grey. The adult feathers emerge as the juvenile feathers become worn.

The White-necked Heron is a shy bird, keeping to areas where it has a clear view of its surrounds. Commonly found in shallow wetlands, it is usually seen foraging singly or in pairs. They feed by wading in shallow water or stalking through wet grass. Like other herons, they have a special hinge mechanism at the sixth vertebra that allows them to rapidly extend their folded neck and so catch unwary prey. The diet includes freshwater mussels, fish, shrimp, freshwater crayfish, spiders, dragonfly nymphs, damselflies, praying mantis, grasshoppers, water beetles, lizards, young ducklings, young rodents and amphibians. The young are fed with regurgitated tadpoles and may knock smaller young out of the nest in competition for the food source. Adults will defend feeding territories against other species and have been seen harassing ibises and raptors, often stealing prey. When water sources dry up, they fly to others at an altitude of 30-100m.



White-necked Heron  
Photo R Soroka

White-necked Herons will breed at any time in response to good rain, but most breeding occurs between September and December. Most of their breeding sites are in wetlands within the Murray–Darling Basin, though they also nest in the Diamantina Basin and in south-western Australia, where the species expanded its range in the 1950s. The nest, usually measuring 30-60cm across, is made from bulky materials (twigs and sticks about 1-2cm in diameter) very loosely constructed on a platform with a depression in the middle. Nests are commonly between 15-30m high in a living tree such as a river red gum near or over water. Eggs are incubated by both parents for about 30 days before hatching. Eggs are light blue-green, measuring 53mm x 38mm. Clutch size is usually four eggs but as many as six have been known to occur. When the chicks hatch, the parents alternate shifts to provide shade with their wings. The young start leaving the nest when they are  $\frac{3}{4}$  grown and their first flights take place at about 6–7 weeks of age.

During breeding seasons males have been observed standing on or near the nest structure for very long periods, fiddling with nesting material, preening, and displaying. The male has also been observed displaying as follows: from a normal stance, the bird brings its body into a horizontal position, throwing its head back nearly reaching the body. It then stretches its head skyward and pumps its head three to four times over the course of a minute. With legs bent, it exclaims an "oomph" call or guttural croak.

The family Ardeidae is widespread with a cosmopolitan distribution and includes 72 recognised species, some of which are referred to as egrets or bitterns rather than herons. They are found on all continents except Antarctica and are present in most habitats except the coldest extremes of the Arctic, extremely high mountains, and the driest deserts. The classification of the individual heron/egret species is fraught with difficulty and there is no clear consensus about the correct placement of many species into either of the two major genera, *Ardea* and *Egretta*. Similarly, the relationships of the genera in the family are not completely resolved. David Kay

## Beaks

Beaks (or bills) come in a wide variety of delightful shapes and colours. They are one of a bird's defining features and one of the first things birdwatchers look at when identifying a bird. Many common names, such as spinebill, spoonbill and thornbill, reflect this.

Some non-avian animals such as octopi, squid and turtles also have beak-like structures, as do some mammals, such as the platypus. But the beaks of birds have evolved over many years into the unique, refined anatomical structures we see today. Birds' ancestors, even flying ones, had bony jaws and teeth. The avian beak is a streamlined structure, strong but lightweight, which is essential for efficient flight. There are bones at the core of the beak, but these are relatively thin and lightweight.

A bird has an upper jaw and a lower jaw or mandible. The upper jaw is made from several fused bones – the maxilla, the pre-maxilla and the nasal bones. The bones are covered by the dermis, a layer of tissue criss-crossed with blood vessels and nerves. On top of the dermis is another tissue layer, the epidermis. The inner part of the epidermis is made of living cells which make a waxy protein called keratin, the substance we see on the surface of the beak. This outermost layer is called the rhamphotheca. Its texture varies between species. In passerines, it is hard and dry like the horns of cows and sheep. Some birds, such as ducks, have a softer and more flexible rhamphotheca which is rubbery to the touch.

Cells in the epidermis continually secrete new layers of keratin so the rhamphotheca is always growing from the inside. The older outer layers of the beak wear down as a bird grows. Some birds sharpen their beaks by rubbing them on abrasive objects. The keratinous sheath may change colour seasonally, or as the bird matures.

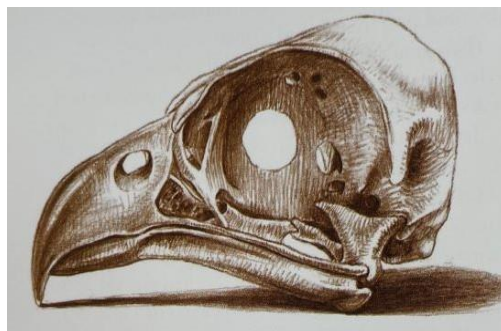
In most birds, the rhamphotheca consists of two solid pieces, one forming a sheath around the upper beak and one covering the lower beak. Some birds, such as cormorants, pelicans, ostriches and all seabirds, have compound rhamphotheca.

The upper beak is connected to the forehead, to the cranium. Many birds have a cranial facial hinge where the upper beak and cranium meet, enabling the upper jaw to move independently from the skull. The ability to move both jaws is called cranial kinesis, and is lacking in most mammals, which have stationary upper jaws. Cranial kinesis enables birds to manipulate food and other objects. In some species, the upper and lower bills are also flexible due to bony units called elastic zones. This flexibility is called rynchokinesis and is found in diverse species such as shorebirds and snipe.

Birds use their beaks for various tasks, including getting food, grooming and communication. Each species has evolved a beak adapted to its diet and behaviour.



Goldfinch



Osprey

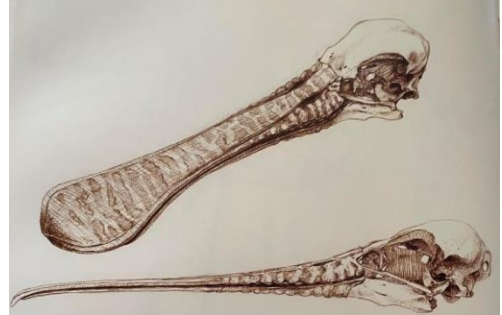
Generally, beaks are categorized according to their shape and function.

- **Hooked beaks:** Birds of prey such as ospreys, owls, eagles, and other meat eaters use their beaks to rip open flesh.
- **Cone shaped beaks:** Goldfinches, sparrows and canaries have short, robust beaks that end in a conical shape, allowing them to break open seeds.
- **Short, curved beaks:** Parrots and macaws have short, curved beaks for splitting open hard fruits and nuts.

- **Straight, thin beaks:** Bee eaters and robins specialise in catching and eating insects.
- **Long, thin, needle-like beaks:** Nectar feeders such as hummingbirds and spinebills insert their beaks into flowers to feed.
- **Wide, flat beaks:** Filter feeders such as flamingos, swans and ducks have a filtering system in their beaks to strain out dirt.
- **Large, long, and strong beaks:** Herons and cranes have long, strong beaks to catch fish. Pelicans, albatrosses and seagulls have long, curved beaks to catch fish and prevent them from escaping. The pelican's beak can hold water in which it can store fish.
- **Spatulate beaks:** Wading birds such as spoonbills have large, long beaks that help them pick up molluscs and small animals from the bottoms of ponds and marshes.



Heron



Spoonbill

- **Multifunctional beaks:** A Toco Toucan's beak is not just for show, this multi-purpose appendage can be used to collect and skin fruit, frighten predators, attract mates, and defend territory. Recent research has shown that it also helps to keep the bird cool on hot tropical days.

In researching this article, I discovered that beaks (or bills) are fascinating and crucial parts of bird anatomy and behaviour. Helen Kay

## Caterpillars

It is always delightful to connect with fellow naturalists, to exchange observations and to notice patterns that emerge in the natural world. Such collaboration can enhance our understanding, as has been the case recently with our caterpillar observations.

In early January, Janice Sagar told me about the hundreds of caterpillars in the trees around her home at Moruya Heads and on an external, east-facing house wall. Then, in mid-January, Michael and Sarah Guppy reported many partially eaten eucalypt leaves on the ground around their Moruya property, which reminded them of the large number of caterpillars in their eucalypts in April 2020. I then started to notice fallen eucalypt leaves in certain locations on my property at Moruya Heads and saw the odd caterpillar abseiling down from the tops of ironbark trees on fine threads. Friends from Moruya Heads and Moruya were sending me messages about the many caterpillars on the trunks of the Spotted Gums around their homes and, when I looked on the Spotted Gums on my property, there were hundreds of caterpillars emerging from the ground and climbing up the trunks. The caterpillars here and in the photos that people sent me were mainly the larvae of moths from the Geometridae family, including the species *Antictenia punctunculus*, Pink Arhodia (*Arhodia lasiocamparia*) and the Black-banded Wedge-Moth (*Capusa senilis*). I imagine that we are likely to see large numbers of these moths in the near future.



*Antictenia punctunculus*



Pink Arhodia Moth



Black-banded Wedge-Moth

Photos: J Morgan



A similar event occurred in April 2020, and we wondered at the time whether a period of low rain followed by intense rain had led to it. This pattern occurred again in 2023/4, with a period of dry in 2023 broken by summer rains. Sarah and Michael reported that the caterpillars had again attracted large groups of Little Ravens. This had me thinking about the groups of Australian and Little Raven that I had seen recently at Moruya Heads and so, the next time they arrived, I watched to see what they were doing. Sure enough, they were feeding on the caterpillars in the tall eucalypts. I had also noticed a strong northward movement of Noisy Friarbird in early January and concluded that the birds were starting their migration. About a week later, I counted 150 birds in five minutes, but these birds were heading south-east. I thought that they could be heading towards the flowering Bangalay (*Eucalyptus botryoides*) in the coastal forest for a good feed before their migration but the next day I noticed that they were feeding around the house, where there are no Bangalays or other flowering gums. When I looked more closely, they were in fact feeding on the caterpillars. Deb Stevenson also confirmed the same behaviour around her home in Moruya Heads. The Noisy Friarbirds were joined by other nectar feeders including Yellow-faced Honeyeater and Rainbow Lorikeet. I have often seen these species feeding on insects and their larvae during their breeding season, but this seemed opportunistic. The feeding frenzy continued for three weeks, and the cacophony of bird calls was deafening at times. After a few weeks of this, many of the ironbarks were significantly denuded but interestingly, the Spotted Gum fared better.

Just as it did in 2020, sharing our observations and exchanging perspectives helped us all understand our environment better. Julie Morgan

## Feathers Part 2

### More about feather function and a brief look at pests and diseases

**Communication:** Feathers can be puffed up or otherwise adjusted in threat or warning. Birds often signal aggression with changes in plumage as well as posture: the Willie Wagtail flares its white eyebrows, and the Noisy Miner settles its feathers back to show more of the yellow patch behind the eye. Display is also an important element of courtship. Two male birds with elaborate displays are the Victoria's Riflebird, who arches his wings over his head as he hops and bobs, and the Superb Lyrebird, who raises his stunning tail up and over his head as part of his song and dance routine.

**Plumage colour** serves important functions, including camouflage (see below), species recognition, and display. Birds see a greater spectrum of colour than we do and are also able to distinguish between colours which look the same to us. So, what birds see in the plumage of a Rainbow Lorikeet, for example, is not what we see. Colour can be produced by pigments within the feathers or by feather structure, or both. More can be found on this big subject here: <https://academy.allaboutbirds.org/how-birds-make-colorful-feathers/>

**Feather sonation** means the production of sound with feathers. Some birds do this when alarmed: the Eastern Spinebill flutters loudly and the wings of the Crested Pigeon produce a whistling sound. Some, like the Australian Magpie, fly noisily when giving chase. And some use feather sonation in display. An elaborate example from overseas is the Club-winged Manakin of South America, who knocks the inner edges of his secondary wing feathers together about 100 times a second to produce this sound: <https://youtu.be/HcmHDYR2QgY?si=V1eMQkADTSptAQgo/>

**Silent flight:** In contrast to the noisy fliers, some predators have plumage that enables almost noiseless flight. Owls, for instance, have specially shaped feathers on the leading edge of the wing and a fine 'fringe' of feathers on the trailing edge, both of which adaptations reduce noise by breaking up the air flow.

**Camouflage** is another important function. Many birds begin life with drab feathers that provide excellent camouflage. Has anyone else walked on a beach and narrowly missed stepping on a motionless Little Tern as it blends with the pebbles and sand? As young birds become better at defending themselves, they lose their camouflage and grow adult feathers. Camouflage may be the reason that females of many species are drabber than their mates, as they spend more time sitting on nests, vulnerable to predators. Nocturnal birds, too, such as owls and frogmouths, need camouflage to roost undisturbed during the day.

So, why might different species of shorebird have developed different plumage colours? One explanation is that different colours have different benefits, so there is a trade-off. White plumage such as the Great Egret's blends into the sky when viewed from underwater, making the bird invisible to prey, whereas the darker



plumage of the White-faced Heron reflects less light, casting a better shadow and making it easier for the bird to see prey underwater.

## Pests and diseases

Birds suffer from a range of pests and diseases, some affecting feathers.

**Bird lice** are external parasites ('ectoparasites') that are common in wild birds, feeding on feather debris and skin scales. As this is dead matter, the lice do not harm the bird, though they may cause irritation, especially when the host is heavily infested. The lice lay their eggs or nits along the feather shafts. Birds use a few methods to rid themselves of ectoparasites, including preening, bathing, having dust baths and spreading their wings to bake in the sun.

**Psittacine beak and feather disease (PBFD)** is an incurable disease, endemic among wild parrots in Australia, New Zealand and Indonesia, and caused by beak and feather disease virus (BFDV). It rarely affects other species. Descriptions of parrots with feather loss consistent with PBFD suggest that it has been here since the 1880s at least. Unfortunately, the virus mutates, making prevention and treatment unfeasible. It is also a very stable virus, able to withstand high temperatures, and can remain viable for years. This is bad news for our parrots, particularly those that are endangered. Unfortunately, the live bird trade has spread the disease overseas, and now affects the endangered African Grey Parrot. In Australia it is most prevalent in widespread species such as the Sulphur-crested Cockatoo, Little Corella and Galah.

PBFD is more likely to be severe and even fatal in newly hatched birds and fledglings, when it causes acute sickness. In fledglings that survive the initial infection, and in older birds, feathers develop abnormally during each moult, leading to progressive deterioration of the plumage.

Some species are more susceptible: cockatoos, for example, are more likely to show severe symptoms, such as feather loss and beak malformation, whereas in the smaller parrots in the genus *Neophema* (which includes the critically endangered Orange-bellied Parrot) the disease usually presents only as change in plumage colour. Some birds, for example the Rainbow Lorikeet, can recover from the disease; they become carriers, spreading the virus throughout their lives.

The virus is transmitted through contact with virus-laden feather dust and faeces as well as directly from bird to bird, for example, by a parent regurgitating food from a virus-laden crop. Infected females also lay infected eggs, passing the virus to the chick.

If you do want to delve further into BFDV and PBFD, there are plenty of resources online, including: [https://wildlifehealthaustralia.com.au/Portals/0/ResourceCentre/FactSheets/Avian/Beak\\_and\\_feather\\_disease\\_virus\\_in\\_Australian\\_birds.pdf](https://wildlifehealthaustralia.com.au/Portals/0/ResourceCentre/FactSheets/Avian/Beak_and_feather_disease_virus_in_Australian_birds.pdf).

We can reduce the incidence of most pests and diseases within the wild bird population by regularly cleaning bird baths and any other places where birds congregate around our properties. Birdlife Australia recommends soaking your birdbath in a solution of one cup of domestic-strength bleach to four litres of water, then rinsing thoroughly and leaving in the sun to dry.

And that is probably enough about pests and diseases. Feathers Part 3 will be on the more uplifting (sorry!) topic of flight. Gillian Macnamara

## Highlights from ENHS records - Summer 2023-24

Avian species	Number	Place	Observer	Comments
Emu	2	Brou L	MA	Tracks
Brown Quail	4, 2	Com/Bingie	JC/DHK	
Stubble Quail	20	Com	JC	
Musk Duck	2	PS/Kianga	JM/MA	
Hardhead	3, 1	Eurobodalla Rd/ Com	MA/JC	
Australasian Grebe	6, 2	MB/Com	MA/JC	
Brown Cuckoo-Dove	10, 2	MKS/Cool	SMG/DO	
Bar-shouldered Dove	2, 1	Bingie Pt/ MO	DHK/NM/MA	

Topknot Pigeon	2	/MB/Kianga Cool	DO	Fewer records this summer
Tawny Frogmouth	4, calls	MB/Bergalia	MA/DHK	
White-throated Nightjar	Up to 4	PS	JM	
Australian Owlet-Nightjar	Calls	PS	JM	
White-throated Needletail	200, 100, 40, 30	Surfside/Broulee MKS/MO	DB/GH/SMG/ NM	Smaller numbers elsewhere
Eastern Koel	6, 4	Broulee/PS/ Bergalia	GLM/JM/DHK	Fewer elsewhere
Channel-billed Cuckoo	4	MB	MA	Fewer elsewhere
Shining Bronze-Cuckoo	2, 1 or calls	PS/MO/Com/ MB	JM/NM/JC/MA	
Brush Cuckoo	2 or calls	PS/MKS/Deua R Valley/Belowra	SMG/JM/RS/AR/ JC	
Pallid Cuckoo	2 or calls	Belowra/Deua R Valley	JC/RS/AR	
Lewin's Rail	1	Eurobodalla Rd	MA	Near Cheese Factory Bridge
Dusky Moorhen	15, 4, 3, 2	BBWG/Eurobod alla Rd/Com/MO	MA/JC/NM	
Eurasian Coot	40, 30	Eurobodalla Rd/ Kianga	MA	
White-faced Storm Petrel	1	LP	J Mather	Beach cast in January
Fluttering Shearwater	1	GC	CO	Beach cast in January
Royal Spoonbill	30, 18, 14	Com/NA/MYA	JC/MA/JM	
Nankeen Night Heron	4, 2	Bumbo Rd/ BBWG	MA/P Warbuton	
Cattle Egret	10	MYA/MB	JM/MA	Last record December 15 <sup>th</sup> First return February 17 <sup>th</sup>
White-necked Heron	2, 1	Bergalia/Com/ MYA/Bumbo Rd /MB	DHK/JC/JM/MA	
Intermediate Egret	1	Tilba	MA	
Eastern Reef Egret	2, 1	MO/NA/Sth DS /Bingie Pt/ NA/ Broulee/DY	NM/MA/JCof/ GLM	
Australasian Gannet	2	Broulee	GLM	
Great Pied Cormorant	5, 1	NA/Kianga	MA	
Australian Darter	1	PS/Kianga/Tilba	JM/MA	
Aust Pied Oystercatcher	50	Brou L	MA	In February
Sooty Oystercatcher	14, 12, 10	CO/MB/MO	GC/MA/NM	Fewer elsewhere
Pacific Golden Plover	14	MB	MA/B Harvey	Colouring up in February
Red-capped Plover	20	Sth DS	JCof	Dependent young and display
Hooded Plover	4, 3, 1	MB/Bogola Hd/ Bingie Pt	MA/DHK	Fledged young and nest with 3 eggs at Bogola Hd
Black-fronted Dotterel	2, 1	Bingie/MO/ Belowra	DHK/NM/JC	
Whimbrel	1	NA	MA	
Far Eastern Curlew	26, 1	TS/NA	GM/GC/MA	
Bar-tailed Godwit	180, 70, 22	NA/Brou L/TS	MA/GC/GM	
Ruddy Turnstone	1	MB	B Harvey	
Latham's Snipe	2, 1	Bergalia/MO	DHK/NM	
Little Tern	10+	Sth DS	JCof	Nesting on sandflats
Caspian Tern	15, 7, 5, 3,	CO/Sth DS/ TS/MB	GC/JCof/GM/MA	
Arctic Jaeger	1	Long Nose Pt	FM	In February
Powerful Owl	1 or call	MO/MKS/PS	NM/SMG/JM	
Southern Boobook	Calls	MKS/MB/Deua RValley/Bergalia	SMG/RS/AR/ DHK/MA	

Osprey	2	NA	MA/GH	
Square-tailed Kite	1	Broulee/PS/MO/ Kianga/MB	GLM/GH/JM/NM T&A Ross//MA	
Wedge-tailed Eagle	4, 3	PS/Cool	JM/DO	Adults with 2 juveniles at PS
Swamp Harrier	2, 1	MB/PS/MO	MA/JM/NM	
Grey Goshawk	2, 1	Long Nose Pt/ MKS/PS/ Bergalia/MB	FM/SMG/JM/ DHK/MA	
Brown Goshawk	1	Bergalia/Surfside /MKS/MO/Com	RSor/SMG/DHK/ NM/JC	
Collared Sparrowhawk	1	MKS/MO	SMG/NM	
Oriental Dollarbird	15, 4	Broulee/Com/ MO/Bergalia/ MB	NM/GLM/DHK/ JC/MA	
Azure Kingfisher	2, 1	Bumbo Rd/Com/ Cool	MA/JC/DO	
Sacred Kingfisher	4, 3	Com/Belowra	JC	1 or 2 elsewhere
Australian Hobby	3, 1	MB/MO	MA/NM	
Brown Falcon	2, 1	Com/TS/MB	JC/M Craig/MA	
Peregrine Falcon	1	MKS/Com	SMG/JC	
Glossy Black-Cockatoo	5, 4, 3	PS/Bergalia/ MHS/MKS	JM/DHK/ C Leslie/ SMG	
Yellow-tailed Black-Cockatoo	Up to 60	MB	MA	
Gang-gang Cockatoo	14, 9, 7	Broulee/Cool/ MKS/Deua R Valley	GH/DO/SMG/RS/ AR	2 juveniles fed by adults at Broulee in January
Eastern Rosella	10, 3, 2	Com/MO/MB/ Bergalia/NA	JC/NM/DHK/MA /DHK	1 young at Com
Musk Lorikeet	2	Broulee/PS	GH/JM	
Superb Lyrebird	4, 1	Bumbo Rd/ Broulee	MA/GLM	Calls elsewhere
Green Catbird	Call	Tilba	MA	
Red-browed Trecreeper	1	MO	NM	
Southern Emu-wren	5	Broulee	GLM	
Brown-headed Honeyeater	7, 4, 1	Com/Belowra/ Broulee/PS	JC/GH/JM	
Noisy Friarbird	Up to 150	PS	JM	Feeding on moth larvae
Scarlet Honeyeater	10, 4, 2, 1	PS/MB/Belowra/ Broulee	JM/A Christensen /JC/GH	
White-fronted Chat	1	Coila L	R Clunes	Juvenile
Striated Pardalote	2, 1, call	Com/PS/MB	JC/JM/MA	
White-throated Gerygone	Call	Com	JC	
Varied Sittella	10, 5	PS/MO/Com	JM/NM/JC	
Olive Whistler	1	MO	NM	At Meringo Ck
Rufous Whistler	8, 6, 5	Belowra/PS/Com	JC/JM	
White-bellied Cuckoo-shrike	2, 1	PS/ERBG/Com/ MB	JM/MA/JC	
Common Cicadabird	6, 1, call	PS/MO/Cool/ MKS	JM/NM/DO/SMG	
White-winged Triller	4	Belowra	JC	
Dusky Woodswallow	6, 3	Broulee/MO/ Belowra	PG/NM/JC	Young at MO
White-breasted Woodswallow	7, calls	MB/PS	MA/JM	
Rufous Fantail	6, 2, 1	Belowra/Broulee /PS/Bergalia/MB /Deua R Valley	JC/GLM/JM/ DHK/MA/RS/AR	



Leaden Flycatcher	4, 2, 1, call	PS/MB/MO/ MKS	JM/MA/NM/ SMG	
Satin Flycatcher	1	Bergalia	DHK	
Restless Flycatcher	2, 1	Belowra/Com	JC	
Black-faced Monarch	3, 2, 1	MB/PS/Broulee/ MO	MA/JM/GLM/ NM	Calls elsewhere
Little Raven	100, 50	MKS/PS	SMG/JM	Feeding on moth larvae
White-winged Chough	15, 9, 6	Com/MKS/PS	JC/SMG/JM	Fewer reports of this species
Rose Robin	Calls	Com	JC	
Golden-headed Cisticola	10	Com	JC	
Australian Reed Warbler	2, 1	Com/ Eurobodalla Rd	JC/MA	
Little Grassbird	Calls	BBWG/ Eurobodalla Rd	MA	
Tawny Grassbird	1	BBWG	DB	
Red-whiskered Bulbul	2	Kianga	T&A Ross	One with an aviculture band. Presumably escapees.
Mistletoebird	4, 2	PS/MYA	JM	
Australasian Pipit	4, 2, 1	Belowra/Com/ Bingie Pt	JC/DHK	

<b>Non-avian species</b>	<b>Number</b>	<b>Place</b>	<b>Observer</b>	<b>Comments</b>
Common Wombat	1 or signs	Cool/Com	DO/JC	
Short-beaked Echidna	1 or 2	PS/MB	JM/MA	
Antechinus sp.	1	MB	MA	
Long-nosed Bandicoot	Signs	Mossy Pt	HR	
Yellow-bellied Glider	Calls	MKS	SMG	
Sugar Glider	Calls	Com	JC	
Common Ringtail	1	Broulee	GH/GLM	
Possum				
Common Brushtail	1 or 2	Com/Broulee/ PS/MB	JC/GLM/JM/MA	
Possum				
Eastern Grey Kangaroo	30, 28	Cool/Sth DS	DO/ JCof	
Red-necked Wallaby	5, 1	Cool/MKS/ Mossy Pt	DO/SMG/HR	
Grey-headed Flying Fox	Hundreds flying SE	Pedro/PS/MHS	JS/JM	Towards flowering Bangalay in the coastal forest
Lesser Long-eared Bat	1	Com	JC	
Bottle-nosed Dolphin	Pod	Long Nose Pt	FM	
Snake-necked Turtle	3, 1	Com/Mossy Pt	JC/HR	
Yellow-bellied Water- skink	3	Com	JC	
Weasel Skink	1	Surfside/Mossy Pt	RSor/HR	
Eastern Blue-tongue	3, 2, 1	Broulee/Com/ Bogola Hd	GLM/JC/MA	
Jacky Lizard	2, 1	Mossy Pt/PS/ Broulee/Cool	HR/JM/GLM/DO	
Eastern Water Dragon	1	Cool	DO	
Gippsland Water Dragon	5	Com	JC	
Lace Monitor	3, 2, 1	PS/Com/Cool	JM/JC/DO	
Red-bellied Black Snake	3, 1	Com/Sth DS	JC/Cof	

**Frogs** Common Eastern Froglet, Brown Striped Frog, Tyler's Toadlet; tree frogs: Brown, Eastern  
 JC/JM/HR/DO Sedgefrog, Jervis Bay, Screaming, Peron's, Tyler's, Verreaux's.

**Moths** Plume, Australian Bag (cases), Fungus, Meal, White Rush, Cabbage Centre Grub, Beet  
 JC/JM/C Leslie/ Webworm, Pink Arhodia, Black Geometrid, Black-banded Wedge-Moth (larva), Cream  
 RSor Wave, Plantain, Vine Hawk, Coprosma Hawk, Processionary (adult, larva and eggs),

	Banded Lichen, Lichen-eating Caterpillar, Heliotrope, Magpie, Tiger, Rainforest Vine, Green-blotched, Variable Cutworm, Native Budworm.
<b>Butterflies</b> MA/JC/C Leslie/ GLM/JM/RSor/ FM	Splendid Ochre, Barred Skipper, Lilac Grass-skipper, Narrow-brand Grass-dart, Blue Triangle, Orchard Swallowtail, Black and Spotted Jezebel, Cabbage White, Dusky Knight, Brown Ringlet, Varied Sword-grass Brown, Common Brown, Varied Eggfly, Meadow Argus, Australian Painted Lady, Yellow Admiral, Monarch, Lesser Monarch, Common Grass Blue.
<b>Dragon &amp; Damselflies</b> JC/JM/RSor	Common Bluetail, Blue-spotted Hawker, Wandering Percher, Blue and Fiery Skimmer, Tau & Australian Emerald, Graphic Flutterer.
<b>Beetles</b> JC/JM/FM	Dotted Paropsine, Clerid, Stinking and Tiger Longicorn, Nectar Scarab, Net-winged, Plague and Tricolour Soldier, Jewel, Acacia Leaf, Argentinian & Green Scarab, White Christmas, Three-lined Potato, Pintail, Honeybrown, Repsimus; Ladybirds: Transverse, 26 Spotted, Striped, White-collared, Variable, Steel Blue.
<b>Bugs</b> JC/JM/FM/ P Warburton	Bronze Orange, Horehound, Harlequin, Green Vegetable, Assassin, Pittosporum Shield Bug. Cicadas: Beach Squeaker, Greengrocer, Razor Grinder, Double-spotted, Black Prince, Silver Princess, Double and White Drummer.
<b>Other insects</b> JC/JM/RSor/ P Warburton	Bee: Blue Banded, Masked. Wasps: Common Paper, Blue Flower, Mason, Orange Caterpillar Parasite, Formosum Mud Dauber, Digger, Parasitic. Fly: Native Dronefly, Beefly, Giant Robberfly, Bottlebrush Sawfly. Other: Olive-green Coastal Katydid, Yellow-winged Locust, Giant Green Slantface, Black Field Cricket.
<b>Spiders</b> JC/JM/S Pearson	Two-spined, Whip, White-spotted and Orange-legged Swift, Black House, Leaf-curling, Jumping, Huntsman, Daddy Long Legs, White-tailed, St Andrew's Cross, Flat Rock, Garden Orb Weaving, Water, Giant Water, Speechley's Arkys.

**RAINFALL (mm). December:** 198.5 at MKS, 237 at Bergalia, 315 at Com, 233 at MB, 211.25 at Cool.

**January:** 72 at MKS, 50 at Bergalia, 49.5 at Com, 57.75 at Cool. **February:** 92.5 at MKS, 120 at Bergalia, 56 at Com, 54 at Cool.

### Contributors

MA	M Anderson, MB	DHK	D&H Kay, Bergalia	FM	Field Meeting
DB	D Bertzeletos, Surfside	GLM	G&L McVeigh, Broulee		R Clunes, Surfside
GC	G Clark, ACT	GM	G Macnamara, TS		M Craig, TS
NC	N Clark, Surfbeach	JM	J Morgan, PS		A Christensen, MB
JCof	J Coffey, Sth DS	NM	N Montgomery, MO		B Harvey, MB
JC	J&P Collett, Com	DO	D Ondinea, Cool		C Leslie, MHS
PG	P Gatenby, Broulee	HR	H Ransom, Mossy Pt		J Mather, LP
SMG	S&M Guppy, MKS	JS	J Sagar, Pedro		S Pearson, NA
GH	G Hounsell, Broulee	RSor	R Soroka, Surfside		T&A Ross, Kianga
		RS/AR	R Stacey, A Rees, MYA		P Warburton, BB
<b>Places</b>		DY	Dalmeny	NP	National Park
BB	Batemans Bay	ERBG	Eurobodalla Botanic Gardens	PDD	Percy Davis Drive, MYA
BBWG	Batemans Bay Water Gardens	FT	Firetrail	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	TN	Tomakin
CO	Congo	MB	Mystery Bay	TS	Tuross
DS	Durras	NA	Narooma	WL	Wallaga Lake

### ENHS Committee and Contact Details

Chair/Recorder	Julie Morgan	0457 637 227	chair@enhs.org.au
Secretary	Annie Loveband		secretary@enhs.org.au
Treasurer	Malcolm Griggs	4472 4150	treasurer@enhs.org.au
Committee	Mandy Anderson, Nicola Clark, Julie Collett, Paul Gatenby, Gee Hounsell, Deb Stevenson		
Public Officer and Membership	Malcolm Griggs	4472 4150	treasurer@enhs.org.au
Minutes Secretary	Mandy Anderson	4473 7651	
Newsletter Team	Mandy Anderson, Susan Heyward, David Kay, Helen Kay, Gillian Macnamara, Julie Morgan		editor@enhs.org.au
Website	Roman Soroka		webmaster@enhs.org.au

All mail correspondence to P.O. Box 888, Moruya, NSW, 2537.

Copyright 2024. All rights reserved. While all due care has been taken to ensure that the content of this newsletter is accurate and current, there may be errors or omissions and no legal responsibility is accepted for the information in this newsletter.