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Cape Chatter

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‘It’s the swale of the centuries ...’

For residents or visitors to **The Cape**, there is a small swale running alongside the 2nd Surf exit track near the off-leash dog park. It looks a pretty innocuous drain, but it is turning up some wonderful delights from the plant world—the most recent discovery being the amazing super plant *Azolla*. Last year it was the carnivorous *Fairies Aprons* (*Utricularian*) on show. The swale takes water from the eastern side of the ancient sand dune ridge that runs north-south alongside Sunlight Blvd, feeding a small constructed wetland along the way and finally filtering into a drainage line in the southeast sector of the estate where a fantastic natural wetland amongst retained habitat is evolving—a favoured spot of the **vulnerable** *Latham’s Snipe* which migrates from northern Japan. Are you following me ... just like the water!! And just to top it off, the shy and **threatened** little waterfowl, the *Levin’s Rail*, has been heard and recorded calling from that nearby small constructed wetland, having previously been recorded in the south east natural wetland a month ago. Further proof that biodiversity sensitive urban design and ecological restoration is working at **The Cape**.

There are many native animals roaming the estate at the moment. A young *Short-beaked Echidna* is keeping the residents of Stage 1 entertained after the excitement of the *Koala* visiting a couple of weeks back, there have been numerous *Lowland Copperhead* snake sightings, and a young *Bare-nosed Wombat* with light fur coloring (pictured below) has been poking around in the “bog” next to the wetlands. Christened “**Blondie**”, it is very cute, but sadly, also has mange. Fortunately, it received its first treatment of Cydectin on Saturday evening and is on the start of a road to recovery.



Above: The lovely *Fairies Aprons* is a carnivorous plant found in the swale. Last year they were in flower around November, so keep an eye out for them in the weeks ahead.



A wander down the creek line ...

The restored creek line is looking pretty special at the moment. The flower spikes of the *Water Ribbon* plant are shooting up and lots of small herbaceous plants are beginning to flower amongst the sedges and rushes. I will get down there in the coming weeks and get some close-up photos of some of these delights. Last evening I wandered down the creek and along its edges from north to south. The *Pobblebonk* (*Eastern Banjo*) frogs were doing their thing and there is a good number of birds appearing. I am yet to see the *White-fronted Chat* or *Black-fronted Dotterel*, but hopefully they will appear soon. The yellow flowering *Capeweed* is an attraction to many birds this time of year, including the lovely *Australian Pipit*, *Eurasian Skylark* and *European Goldfinch*, which can be seen on the grassy edges of the creek.



Above: *Water Ribbon* (*Cynogeton procerum*) flower spikes. These plants are wonderful bird and frog habitat and the roots (tubers) were used by first nation people as an important source of carbohydrate.

If you walk slowly along the gravel tracks, keep your eyes peeled for these lovely little ground birds as they scurry amongst the grass catching insects. They are *Australian Pipit* (aka *Richard's Pipit*), are often seen in pairs and have a habit of standing on raised objects and bobbing their tails.



Above: *Australian Pipit* is a ground dwelling bird that appears at **The Cape** from spring to autumn.



The *European Goldfinch* is an introduced bird to Australia most likely from aviary escapees. They appear at **The Cape** when the yellow flowering *Capeweed* emerges in spring. You will see them in small flocks of up to 20 or so birds along the grassy edges of the creek and open grassy spaces. Like the *Pipit*, they remain in the area and breed over the warmer months but are generally unseen during the colder months. Quite a lovely little bird, keep your eyes out for small flocks drinking in the creek line ponds later in the afternoon.

Left: *European Goldfinch* (male) feeding among the grasses.

The ponds and stags along the creek line ...

The ponds and tree stags are providing important habitat for birds, frogs and hopefully micro-bats. Over the past 4 weeks, observations of nest preparation activity around the *Eastern Rosella* nesting boxes have increased. We have three *Rosella* nesting boxes in place. At the moment, the birds are showing quite a bit of interest in two of them—they have been seen entering and leaving the boxes - but do not yet appear to have taken up residence—there is still plenty of time.

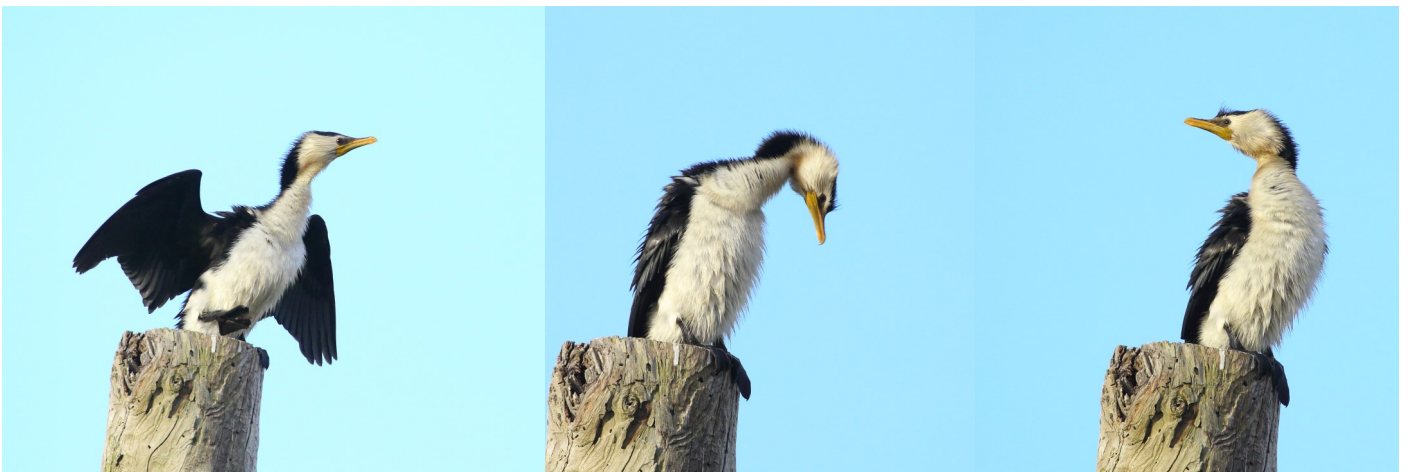


The nest location is selected by the female *Eastern Rosella* who will typically lay a clutch of 4-5 eggs and incubate them for 19 days. At left is a female pictured last Saturday as it stopped near the mini-oval en-route to the most southern box. The female alone does the incubation and will occasionally leave the box to feed until the eggs hatch. The male will assist feeding the female and the chicks until they fledge about 35 days after hatching.



As I wandered further down the creek line, a *Little Pied Cormorant* came into land and preen itself on a stag, placed at what I call the convergence pond. There has been quite a bit of *Cormorant* action around the creek and wetlands over recent weeks, with three species observed—*Great*, *Pied* and the *Little Pied*. Normally these birds spend most of their time nearer the coast where they can be seen regularly fishing.

A shag on a stag ...



Clockwise from left: The *Little Pied Cormorant* settles after landing on the stag, has a quick look down and around, and then gets into a bit of preening. They are interesting birds, and are quite fascinating to watch with their head and neck making snake like movements as they survey their environment.

Obviously, the *Little Pied* is a smaller bird than the other two, and it is also recognisable by its stubby yellow bill. *Cormorants* are effective fishers, and hunt for fish underwater with foot-propelled chases. Just look at those web-feet! They have a 'permeable' plumage to reduce their buoyancy and the amount of energy used in diving. The downside is they need to dry their wings regularly so you will often see them perched on a structure with their wings extended at full stretch.

Resting under the stag ...

The creek line ponds are nice habitat for a variety of ducks. Just under the *Little Pied Cormorant*, resting on a log placed in the middle of the convergence pond, was a pair of *Pacific Black Duck*. These birds are usually very shy and take to flight quickly, but I managed to get them at a good time while they were resting, 'reflecting' on life!



Above: Both sexes of this species are pretty similar in appearance. The main difference I look for is the colour of the head crown—the male, pictured left has a black crown, while the female, right and below, has a dark brown crown.

Superb Fairy-wrens in trouble?

A recent article from *Birdlife Australia* highlighted a disturbing issue for the future of the little *Superb Fairy-wren*. These birds are reasonably common within and along the edge of Yallock-Bulluk and the retained habitat of **The Cape** and in the wetlands. I am yet to see or be told of any evidence of them among the house garden habitat or streetscapes within the estate.



Above: Male *Superb Fairy-wren* in the distinctive blue and black breeding plumage—very impressive!



Over the past eight years, counts of these birds have halved in our major cities. “They are normally found in suburbs that have corridors of native bushland close by so their rapid disappearance, along with a number of other small bush birds, is cause for grave concern. Superb Fairy-wrens do much better where there are numerous dense plants and a thicker understorey in our gardens... they are likely losing out in urban areas due to the loss of richness and diversity of habitat and urban sprawl as infill development decreases wild urban spaces ... each of us can play a part to create safe spaces for these birds”. Sean Dooley, Birdlife Australia.

So our home gardens can become important habitats for small birds by creating thick, layered plantings of indigenous species which provide food and safety, away from larger predator birds.

What do these birds have in common?



Last week as the sea fog moved in, I managed to get a distant shot of a non-resident bird which visits us over spring and summer, the *Horsefield's Bronze Cuckoo* (pictured left). The interesting thing about this bird is that it is an “obligate brood parasite”, meaning it lays its eggs in the nests of other species and then relies on that species to rear its young as if they were its own. In this case, the most likely carers locally are the *Superb Fairy-wren* and the *Brown Thornbill*, pictured centre and right respectively. We also have *Shining Bronze Cuckoo* and *Fan-tailed Cuckoo* as spring-summer migrants to **The Cape** who also use the same technique of brooding.

Other interesting nature observations?

Following on from the exciting *Koala* visit a couple weeks back (picture right), we had another *Koala* visit near the Project KOALA planting zone today at the southern end of Sunlight Blvd (thanks San for the observation). We also had a report of *Koala* grunting calls from the area near the central wetland ‘bog’ a bit further west late last week (thank you to Maryanne and Glenn). This is great news for the project—it seems we are on the money and hopefully over time we will have more safe and suitable habitat for increased *Koala* numbers along this part of the Bunurong Coast.

On the *Hooded Plover* front, a pair has been seen occasionally at the 2nd Surf ‘blowout’ site but it does not appear a nest has been established. Further west along the beach at what is known as 2nd Surf West, two flocks were observed (one of eight and one of five) which suggests the birds are still sorting out their pairings for the breeding season. Five of the birds had identified leg bands which helps monitors and researchers in tracking their whereabouts. Identified were AS, RY, DZ, AW, and WD.



Above: Hooded Plover RY (left orange) pictured left on 2nd Surf in November 2019. RY was in the flock of five, but not the flock of eight, early in October 2021, when he was pictured (right). The flock of eight is pictured in the middle. Flock sizes vary along the coast, but research suggests the birds flock in certain, preferred areas. They also have preferred nesting sites above the high tide line, on rock platforms and in dune systems where they have clear lines of sight against any predators.

As always, please stay out of fenced off areas and observe any signage—and please keep dogs on leash when you are allowed to walk them on the beach in the designated times.

Azolla ... the super plant?

Cape Developer Brendan Condon was quite excited when he showed up at my place recently with a bunch of green, leafy matter in his hands and told me the story of the amazing super plant, *Azolla*, which he noticed in the 'swale of the centuries.'



"Azolla had a massive impact on our climate 50 million years ago when it sequestered CO₂ and moved the world's climate away from a greenhouse state".



Azolla has many potential uses in today's world in addition to CO₂ sequestration—including biofuel, biofertiliser, food, and livestock feed. Asian rice growing communities have been using *Azolla* as a natural fertiliser for centuries, growing *Azolla* as floating nitrogen fixing crops in rice fields/paddi's between rice planting seasons.

So next time you are walking along the swale, check out this amazing super plant. To learn more about the *Azolla Event*, check out <http://theazollafoundation.org/>.

Azolla is a unique freshwater fern that grows free floating on water and is one of the fastest growing plants on the planet due to its symbiotic relationship with *anabaena* ('blue-green alga') that is passed down from generation to generation. These two plants have evolved together continuously as the Earth's climate has changed from a greenhouse world to the present phase of glacial-interglacial cycles. So, why is it so special?

Anabaena draws down atmospheric nitrogen that fertilizes *azolla*, and *azolla* provides a nitrogen-filled home for *anabaena* within its leaf cavities enabling the plant to double its biomass in as little as two days in water as shallow as 2.5 cm. *Azolla's* rapid growth makes it an important sequester of the greenhouse gas *carbon dioxide* which is converted directly into *azolla's* biomass.

In 2004, a scientific expedition to the North Pole showed that this remarkable plant had a massive effect on the Earth's climate 50 million years ago - a world then with a greenhouse climate that had much warmer global temperatures than those of today and where lush forests existed a few hundred miles from the North Pole. For one million years, the land locked Arctic Ocean had a shallow surface freshwater layer, or 'plume' on which a vast mat of *Azolla* grew sequestering CO₂ and the organic remains sank to the bottom of the ocean. This is known as the ***Azolla Event***. Core sediment samples from that 2004 expedition in the Arctic Ocean were composed almost entirely of *azolla* fossils and it is thought that CO₂ sequestered by *azolla* caused atmospheric levels of CO₂ to fall, triggering the initial shift from a greenhouse world towards our present icehouse climate.



This plant has not been planted in the swale and is most likely to be carried in by a waterfowl.

Aussie Backyard Bird Count 18-24 October

Want to be a citizen scientist for a week? The **BirdLife Australia** annual backyard bird count is back. It is easy and a bit of fun and you do not need to be a twitcher to take part. It also helps in learning bird identifications and calls. All you have to do is register, download the app and follow the procedures. It usually takes 20 minutes of observation for each count, and you can do as many counts as you like in the week. Go to <https://aussiebirdcount.org.au/> to register and find out more. The data collected assists **BirdLife Australia** in understanding more about the birds that live where people live and to help protect their future. Your observations could help improve the plight of our birds, particularly some of our smaller birds, like the *Silvereye* and *Willie Wagtail*, recent visitors to our home garden, and who, like the *Superb Fairy-wren*, have drastically reduced in numbers (by up to a half) as urbanisation and larger homes on smaller blocks continues to reduce bird habitat.

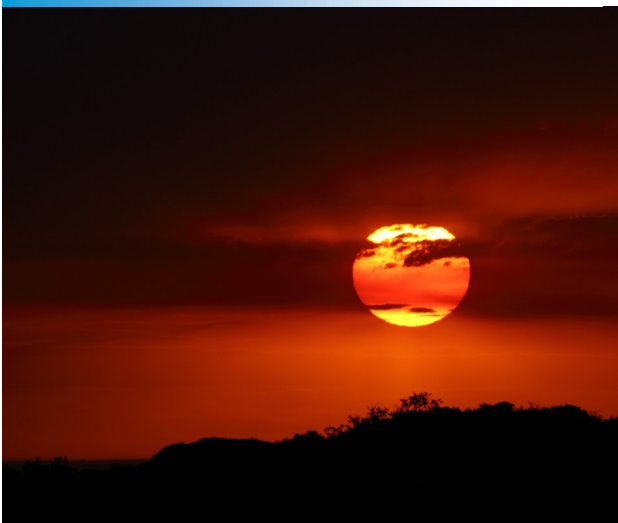


Above Left: The beautiful little *Silvereyes* are fortunately in good numbers around **The Cape**. Last week I saw our first *Silvereye* in our home garden having a quick peek before returning to the remnant *Swamp Melaleuca*.



Above Right: The *Willie Wagtail* first appeared a year ago along the creek line, wetlands and remnant *Swamp Melaleuca*. It occasionally visits our home garden for a quick look.

Nature Observations around The Cape



The Cape is on the traditional land of the Bunurong people

The **Cape Chatter** blog is a periodic newsletter produced by resident of **The Cape**, David Hartney. You can subscribe to receive it automatically by email by visiting <https://capechatter.com> and signing up. The website also contains all sorts of nature information and pictures of the ecology, flora and fauna at **The Cape**.

All photos shown in **Cape Chatter** are taken by David Hartney unless otherwise credited.

Feel free to contact David by email or through the website to report any nature observations at **The Cape**.

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