# Wallumetta



PRESIDENT'S NOTE

The Newsletter of Ryde-Hunters Hill Flora and Fauna Preservation Society Inc.

# FEBRUARY 2021 - No. 286

In his book 'A Life on Our Planet' David Attenborough sets out his witness statement and a vision for the future. David's witness statement starts with the year 1937 when the World's population was 2.3 billion, carbon in the atmosphere was 280 parts per million and remaining wilderness was 66 percent. His statement ends with the year 2020 where the world's population is 7.8 billion, carbon in the atmosphere 415 parts per million and remaining wilderness 35 percent.

In his vision for the future David states that we are causing a rate of biodiversity loss that is more than 100 times the average and only matched in the fossil record during a mass extinction event. Our activities are committing the Earth to failure (p111).

The Conversation on-line journal reported on 22 January 2021 that Australia's Threatened Species Strategy, a <u>five-year plan</u> for protecting our imperilled species and ecosystems, fizzled to an end last year. A <u>new</u> <u>10-year plan</u> is being developed to take its place, likely from March.

The original strategy (2015-20) was eagerly welcomed for putting the national spotlight on threatened species conservation. However, there's little evidence the strategy has had a significant impact on threatened species conservation to date. Australia's list of <u>threatened species</u> continues to grow.

Now, more than ever, Australia's remarkable species and environments need <u>strong</u> and <u>effective</u> policies to strengthen their protection and boost their recovery.

The previous strategy focused very heavily on feral cats as a threat and less on other <u>important and potentially compounding threats</u>, particularly habitat destruction and degradation.

As David Attenborough states (p111) we are converting natural habitats on land such as forests, grassland and marshlands to farmland at a too great a rate. We are warming the Earth far too quickly adding carbon to the atmosphere faster than any time in our planet's history.

The Conversation article argues that now is the time to seize this

opportunity and ensure the new 10 year plan has a holistic and evidence-based approach encompassing the full range of threats and targets linked to clear and measurable conservation outcomes, effective prioritisation of focal species, threats and actions and that it has significant financial investment from government, Government leadership, coordination and policy alignment.

Frank Breen, President

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# MAPPING THE IMPACT OF SOIL SALINITY: Researchers track a big problem on a broad scale

# Adapted from an article by Lauren Fuge; published by Cosmos, 16 December 2020

A team of international researchers led by Amirhossein Hassani from the University of Manchester have just used machine learning to analyse how soil salinity has changed across the world... and found that large areas have been salt-affected over the last 40 years.

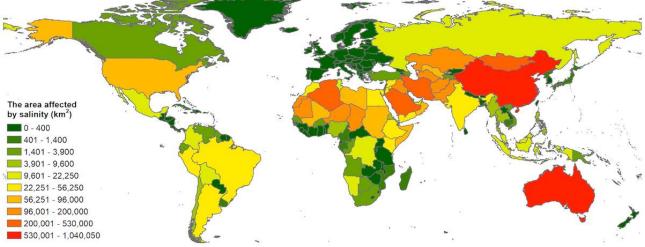
The amount of salt and sodium in soil varies over space and time, especially in the top 30 centimetres of the ground, which are more exposed to climatic conditions. These variations are typically due to natural events like droughts, floods or erosion, but are now increasingly driven by human activity like fertilisation, irrigation, and the effects of climate change.

High salinity can affect microbial processes, damage crops, and in turn impact human livelihoods. It is one of the main land-degrading threats influencing soil fertility, stability, and biodiversity, and therefore it is vital to understand how and why these variations occur. But until now, most soil salinity studies have been localised, both in space and time.

This study reveals that 11.73 million square kilometres have been salt-affected in the last 40 years – an area 20% bigger than the US. Of this, 0.16 million square kilometres were croplands.

In arid climates, evaporation dominates over precipitation, allowing salt to concentrate in the soil.

# Continents with the highest salt-affected areas are Asia (particularly China) and Australia:



Total area affected by soil salinity averaged between 1980-2018 as predicted by the model. Credit: Nima Shokri et al.

Looking to the future, these results are useful as they now allow researchers to predict the likelihood of soil salinity in particular areas, and therefore help manage land and soil resources.

The information can also be valuable for enhancing our understanding of:

- terrestrial carbon dynamics
- food security and agricultural modelling
- climate change impacts
- water resources and irrigation management
- efficiency of organic/inorganic reclamation practices.

The long-term predictions made by this study can help us better manage Australia's soils.

These serious ongoing problems in Australia compromise our soils' capacity to support food and fibre production, as well as reducing the ecosystem services that our soils provide.

This research has great potential for Australia as we seek to restore our soils for food security and climate change mitigation. The challenge for us all is to take notice and act upon the science.

### **KOSCIUSZKO NATIONAL PARK UNDER THREAT**

The National Parks Association (NPA), an organisation in which our Society is a member, has raised concerns about threats to the integrity of Kosciuszko National Park.





The NPA's comprehensive research papers show that the case for Snowy 2.0 and its claimed benefits simply don't stack up. There are better alternatives, ones that avoid catastrophic impacts.

While the NPA strongly supports a rapid shift to renewable energy to decarbonise the electricity sector and supports pumped hydro as a component of this shift, it opposes Snowy 2.0.

A forum was held in January 2020 to explain why NPA and senior industry analysts are convinced that Snowy 2.0 is the wrong project in the wrong location, and to seek support for making the case to community and government for the abandonment of the project. Associate Professor Bruce Mountain of the Victorian Energy Policy Centre and NPA's Ted Woodley led the discussion.

Concerns about the massive environmental impacts of Snowy 2.0 were detailed in the NPA paper 'Snowy 2.0 doesn't Stack Up' and in submissions on the Main Works Environmental Impact Statement, both available on the NPA website: <u>https://npansw.org.au/campaigns-2/</u>

National Parks play a role in atmospheric carbon capture and sequestration, but it is through the natural solutions of maintaining vegetation, soils and functioning ecosystems, not massive engineering projects. It would be counter-productive to lose so much alpine region, uniquely vulnerable to global heating, to overstated mitigation claims of a poorly conceived development.

**But the Snowy 2.0 project was recently approved to proceed** and already the damage to our beloved Kosciuszko National Park is clear. And we recently discovered that Snowy Hydro are planning to cut corners and only put forth the cheapest and most environmentally damaging way of connecting to the grid - HIGH VOLTAGE OVERHEAD TRANSMISSION LINES.

50 industry experts and two dozen organisations recently sent an <u>open letter</u> to the Minister for Planning Rob Stokes and Minister for Environment & Energy Matt Kean calling on them to do the right thing and underground the Snowy 2.0 transmission lines.

New overhead transmission lines have no place in any National Park, especially when there are practical alternatives with far less impacts. The transmission connection must be underground.

Environmental impacts of overhead transmission would be absolutely shocking and include:

- Permanent disturbance of wildlife habitat by clearing 100 hectares (one square kilometre) of National Park under the path of the powerlines for the life of the project around 100 years;
- Loss of native fauna including threatened species Yellow bellied glider, Eastern pygmy possum, Squirrel glider, Gang gang cockatoo, Powerful owl, Masked owl and Booroolong frog;
- Land disturbance including erosion and weed infestation;
- Horrific visual impact over tens of kilometres of the Park and the buzzing sound of overhead transmission lines completely destroying the natural pristine beauty of the park.

Help get the message to Planning Minister Stokes and Environment & Energy Minister Kean

These are irreplaceable ecosystems in the middle of Kosciuszko National Park. They will not recover, and they cannot be offset. These are natural areas set aside for conservation and future generations, not for development. And feral animals are another issue...

### IMPACTS OF FERAL HORSES IN KOSCIUSZKO NATIONAL PARK

This message from the Nature Conservation Council was circulated on 7 January 2021 to all Society members with email addresses, with a request to sign the petition to save native species from feral horse impacts....

The ancient peatlands, moss beds, plants and wildlife of our iconic Kosciuszko National Park are in trouble. The hard hooves of thousands of horses are trampling rare plant communities and destroying the habitat of tiny alpine



Photo: ABC News - Greg Nelson

tree frogs, sensitive alpine spiny crayfish, the chubby broad-toothed mouse and the critically endangered northern corroboree frog.

Science shows habitat degradation by feral horses is driving 34 species of native plants and wildlife closer to extinction. Yet in 2018 the NSW Government introduced the Kosciuszko Wild Horse Heritage Act, an environmentally damaging law that protects feral horses ahead of the fragile ecosystems of a national park.

The deadline to sign the petition has now passed, but we still need as many NSW residents as possible to ask the NSW Legislative Assembly to:

- 1. Urgently implement a new horse management plan for Kosciuszko.
- 2. Fund a restoration program for horse-affected areas in Kosciuszko.
- 3. Repeal the Kosciuszko Wild Horse Heritage Act 2018.

### NUCLEAR WEAPONS ARE OFFICIALLY UNLAWFUL

The landmark United Nations Treaty on the Prohibition of Nuclear Weapons has come into force. Remarkably, it is the first ever global ban on these weapons that threaten all living things.

**The story started here in Australia**, in Melbourne, 14 years ago, when a handful of people founded the International Campaign to Abolish Nuclear Weapons (ICAN). Among these volunteers was Australian Conservation Foundation (ACF) Nuclear Free Campaigner Dave Sweeney.

Together they have grown to become nearly 600 people-powered movements from more than 100 countries united in a call to end nuclear weapons. Together they won hearts and minds, and in 2017, the prestigious Nobel Peace Prize. They advanced a global treaty that bans nuclear weapons, just as chemical and biological weapons, and landmines are banned. But...

86 states have signed the treaty in endorsement, and over 50 states have shown great leadership by ratifying and committing to the treaty. Australia has not signed or ratified the treaty.

See ACF's website <u>https://www.acf.org.au/</u> to sign a petition for action (on this and other issues).

Ratifying the treaty comes with an obligation to assist people, land, water and wildlife affected by nuclear weapons use or testing. Given Australia's weapons testing history in Maralinga and Emu Field, South Australia, and Montebello Islands, Western Australia, we should be ratifying the treaty and taking responsibility for the fallout and impacts of these tests.

There is still much work to reach full nuclear disarmament. The weapons ban treaty provides us a clear framework and pathway to achieving it. It is our best hope for ending our worst weapons.

### **IS LITHIUM THE ANSWER?**

A *Cosmos Briefing* webinar on 21 January with energy and mining experts looked at key aspects of lithium and the future of renewable energy...

# Lithium Has Cosmic Origins

Lithium was the only metal produced in the Big Bang 13.7 billion years ago. Relatively little has been produced since, and the exact mechanisms of its production are still debated. Scientists think about half is created when high-energy cosmic rays slam into heavier elements like carbon and oxygen in interstellar space, breaking them up into lighter atoms. In 2020, astronomers discovered that a certain type of red giant stars also become lithium factories at the end of their lives.

# It's King of the Battery World

Lithium's properties currently make it superior to all alternative battery materials. As the least dense metal, lithium has the highest energy storage per kilogram, making it ideal for mobile applications where weight matters, such as in cars – a Tesla car can operate on a lithium-ion battery weighing 600 kg; this would be 4 tonnes (4000 kg) or more if it relied on lead-acid batteries. And lithium-ion batteries can be discharged to around 10% capacity without failure.

# Half the World's Lithium Is Mined in Australia

Lithium is found in rock and clay deposits as a solid mineral, such as in Australia, and it also can be dissolved in brine, such as in South America. Australia currently supplies about 55% of the world's lithium, but we only have 18% of the total lithium currently accessible, and an even smaller percentage of the total lithium resources. Chile, Argentina and Bolivia are known as the "Lithium Triangle" – estimated to hold at least half of the total lithium in the world.

# Seawater Could Provide Huge Amounts of Lithium

Lithium supplies are finite, but last year scientists made progress towards tapping into another enormous source. The world's oceans contain 180 billion tonnes of lithium, but it's incredibly diluted. This means it's much more expensive to extract than lithium in rock or brine as it requires evaporating away much of the water. But researchers are working on more efficient methods.

# And, as reported in the December 2020 *Wallumetta*, low-cost zinc-bromide battery technology may offer a much cheaper and safer technology than lithium ion batteries.

# SYDNEY'S BUS FLEET 100% ELECTRIC BY 2030

Remember the item in December 2020 Wallumetta about electric buses in New Zealand? Well... this news came to us from Greens MP Jamie Parker, Member for Balmain:



The NSW government announced they will replace the entire 8000-bus fleet with electric-powered vehicles by 2030. And they will be rolling out the first 50 electric buses to Sydney next year.

A trial with 4 vehicles last year showed that these electric buses saved 292,000kg of  $CO_2$  (compared to the amount that would have been emitted by diesel buses) and running cost for each electric bus is one third of the cost of a conventional diesel bus. And they are quieter.

# HOW BIRDS COPE IN ALTERED ENVIRONMENTS – A CITIZEN SCIENCE PROJECT

Adapted from an article by Amelia Nichele, science journalist at The Royal Institution of Australia and published by Cosmos Magazine on 23 November 2020.

Many regard birds as problematic when they scratch up gardens, attack street wires, upset garbage bins or even steal an outdoor meal from our own hands. But researchers at the **Big City Birds Citizen Science Project** see these behaviours as an exciting demonstration of the way birds are adapting to a changing environment in unusual and innovative ways. Some of Australia's most iconic bird species are being forced to adapt to city living as humans dramatically alter landscapes.

**Big City Birds** is a project launched in 2020 as a group effort between scientists from the Taronga Conservation Society, the University of Sydney and the Max Planck Institute. The study targets five species: the sulphur-crested cockatoo (*Cacatua galerita*), Australian brush-turkey (*Alectura lathami*), white ibis (*Threskiornis moluccus*), little corella (*Cacatua sanguinea*), and long-billed corella (*Cacatua tenuirostris*). Focusing on these species may help us understand how and why they have managed to adapt to human-modified environments. The data may reveal three different aspects of avian city living: how the birds are using the landscape, how they use



*Our "Turk" with his identifying 075 tag* 

resources in the city, and their population structure and social network.

Co-creator Matthew Hall, from the University of Sydney, says the project is "in its early days", but it's produced some interesting results so far. "I've found reports of brush-turkeys moving up to 10 kilometres between suburbs particularly fascinating," he says. "As these birds are not strong fliers, they have to walk that distance and deal with hazards such as road traffic."

As well as reporting sightings and bird behaviours, the researchers are also interested in where the birds set up shop for the nesting season. "Seeing where in the city cockatoos can find tree hollows, ibis build their nests, or where brush-turkeys construct their mounds is great!" Hall says.

While the focus is on behaviour, as researchers are marking birds, they also encourage reports of wing-tagged, banded and paint-marked birds. According to research group leader Lucy Aplin, from the Max Planck Institute of Animal Behavior, "Reports of individually marked birds will allow us to investigate how individuals use the city differently, and are hugely valuable in giving insight into the social and ecological variables that shape each bird's natural history."

To get involved, all you need is a phone or a computer and a keen eye. Note down several things including the presence of a bird, its age and sex, what it's eating and how it's behaving. Then, report the findings either on the Big City Birds app, or through the website:

# https://www.spotteron.com/bigcitybirds/form/add/0

Big City Birds also encourage reports of other species as a comparison. There's also no limit to how often you report; the researchers say as much as possible.

"By focusing on these species, we hope to understand how and why some of our native species have managed to adapt to human-modified environments," Aplin explains. "By studying these success stories we can build a broad understanding that we can apply to help those species that haven't been so successful."

# We encourage members to assist the project by submitting own observations. Volunteers of our Society have reported on the brush turkeys near Buffalo Creek in the Field of Mars Reserve.

#### WHEN THE BIRDS LIGHT UP

(Adapted from Australian Birdlife magazine: Vol.9 No.4, December 2020 - p.10)



Local magpie visiting the Visitor Centre

Magpies are one of our most widespread birds in urban areas, particularly around the Ryde – Hunters Hill area, where they often come into contact with artificial light at night. And increasing numbers of sportsgrounds are being lit up at night, scattering light into adjoining bushland areas. Nearest floodlit oval to the Field of Mars Reserve is in Pidding Park.

The glow given off by our cities has been found to affect their behaviour, according to research conducted by the University of Melbourne and La Trobe University.

The study found that magpies need up to ten hours' sleep each night, and when they miss out due to the

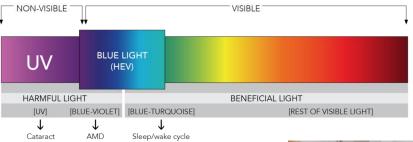
effects of artificial light, they struggle to recover those lost hours. Nocturnal lighting caused magpies to lose up to 76% of their rapid eye movement (REM) sleep as well as having their non-REM sleep patterns affected. And because ambient light makes it difficult for them to gain sufficient sleep night after night, their brain function may be adversely affected, rather like someone drinking too much alcohol.

Some sleep-deprived magpies were less efficient in some survival skills, overlooking prey items while searching for food and becoming less vigilant (or at least with delayed reactions) when scanning their surroundings for potential predators, both on the ground and in the air.

"For magpies, when they're foraging, they may be a little less efficient, and may be a little more groggy, and so they may potentially miss a few worms that they would've had if they were more awake," said graduate researcher Farley Connelly.

The researchers also found that light on different levels of the spectrum may affect birds differently, and the impact of amber light was generally less damaging for birds than white light.

Nevertheless, though amber lighting was found to reduce sleep disruption in some birds, it is probably not a one-size-fits-all solution, as it may have different effects on different species.



# Win this bright Yarnknit\* rug!

Tickets \$2 each / 3 for \$5 available at the Field of Mars Visitor Centre. \* Hand-knitted and kindly donated to RHHFFPS by the Holy Spirit Yarnknit Group of North Ryde.

Raffle will be drawn at our Annual General Meeting.





# HABITAT NETWORK

Bushcare operations in the Field of Mars Reserve and beyond, as well as other environmental organisations and schools within the City of Ryde, have all benefited from the Habitat Network community garden and native plant nursery which was begun and is still managed by Society members Bev Debrincat and Pamela Ward.

The project started as an idea in October 2008 and, after four years of

preparation, persistence and awaiting approvals, in September 2012 the first volunteers started work onsite at Santa Rosa Park, 251 Quarry Road, Ryde. By November the basics were in place and more facilities are being added as funds become available.

The official opening was on Saturday 3 November 2012, attended and supported by local politicians and representative of several associated organisations:

• Sydney Wildlife

•

- Hunter's Hill Men's Shed
- Hunter's Hill Bushcare
- City of Ryde Council (including bushcare)
- Permaculture Ryde Ryde East Public School

Easy Care Gardening

Ryde-Gladesville Climate Change Action Group • Ryde TAFE and, of course...

Cornucopia Nursery

• Ryde Hunters Hill Flora and Fauna Preservation Society



Photo: Bev Debrincat August 2020

The Native Plant Nursery is open Wednesdays and Saturdays 10am-4pm.

Habitat Network encourages sustainable gardens which incorporate habitat and food. To make this easy they sell local native habitat plants at reasonable prices. Stock availability varies, so go and see what's there when you want some plants. Food plants are seasonal vegetables, herbs, companion plants and ones that deter or attract certain insects; all beneficial to one's garden. Native plants are also provided for local bushcare sites and schools in small biodiverse lots to help them create habitat havens.

During 2020, over 7400 plants went out, and another 400 so far this year.

The Habitat also features 2 hives of native bees, with a series of garden beds specially planted with bee and butterfly friendly plants.

And the food garden is open 24/7. It is there for all to harvest a little of the produce and enjoy it fresh from the plant. People are encouraged to take a few outer leaves of food plants leaving more for others to do the same. (The garden is for sampling, not as an alternative to buying the weekly supply from a store.)

The Habitat is run by volunteers for the community. A core commitment is to keep the nursery open at the times above. Under supervision, volunteers perform many tasks including weeding, washing pots (to maintain biosecurity), sowing seeds, transplanting seedlings, and compost and worm farm management. In summer, extra volunteers water the nursery stock each day. Pam and Bev collect seeds and cuttings for propagation from bushland areas under licence and follow strict guidelines to ensure integrity of the natural areas.

To find out more, visit <a href="https://www.habitatnetwork.org/CommunityNursery.htm">https://www.habitatnetwork.org/CommunityNursery.htm</a>

### **B&B HIGHWAY PROJECT + ABC GARDENING AUSTRALIA**

You learned about it first in the June, 2020 edition of *Wallumetta*! We reported on efforts to develop grounds of Ryde East Public School as a wildlife corridor between the Field of Mars Reserve and Wallumatta Nature Reserve in Twin Road, East Ryde with the introduction of the B&B Highway. ("*B&B*" is a short name for "*Bed & Breakfast for Birds, Bees and Butterflies*".) In the face of coronavirus restrictions this project has now been fully implemented



with the introduction of wicking gardens and, of course, the hive of native stingless bees.

And in December Costa Georgiadis looked in with the ABC Gardening Australia team. They intend to feature it in a programme early this year but we're not sure exactly when... so keep watching!

**But there are ongoing difficulties.** In the August and December 2020 editions of Wallumetta, we reported on instances of damage in the Field of Mars Reserve. The school has similar troubles.

A key section of the wildlife corridor is the between the library building and eastern boundary. About six months ago, the school engaged a mowing contractor during a month when they had no General Assistant. And their workers mowed down most of the seedlings of native groundcovers and low shrubs planted behind the library last year - although, strangely, they carefully avoided the *Bidens pilosa* (*"Cobblers pegs"*) and *Solanum nigrum* (*"Blackberry nightshade"*) weeds.

Fortunately, this summer's weather has been good for growing and bush regeneration, so some *Einadia hastata* and *Commelina cyanea* have recovered in parts of the damaged area.



But now there is more damage! A neighbouring block of land has been cleared, presumably for a knock-down / rebuild project. The boundary fence was removed and some native bushes dug out on the school side of the boundary. In the photos here you can see the cleared area and an uprooted *Kunzea ambigua*, which was part of the bush corridor developed within the school grounds.



Our President's Note on page 1 points out the need for strong and effective policies to strengthen protection. And our Society aims for education of the membership and of the community, particularly in the local area, in nature conservation and protection of the environment.

Several recent local cases of environmental damage highlight the need for:

- education of workers in building and maintenance industries
- operations to be regulated and monitored, and for
- education and regulation of supervisors and regulating authorities.

**A culture shift is needed**. And this is difficult when young students see their work destroyed. They could question whether their efforts to improve our natural environment really matter.

#### **NEWS FROM THE FIELD OF MARS**



2 swamp wallabies spotted together on the Sand Track early one morning. Photo: Bev Debrincat

We continue to see large numbers of bushwalkers and the weather this summer was conducive to healthy growth of fauna and flora. Water dragons,



Ducks in our bird bath

turtles and a variety of birds are often seen. And the families of ducklings and waterhens have all grown up with an excellent survival rate. Some plants, mainly the wattles (*Acacia spp.*) and Mountain Devils (*Lambertia formosa*) are flowering.

Unfortunately for the welfare of the tracks and adjacent bushland, riding of pushbikes through the Reserve seems to be growing in popularity, and there are no clear signs at entrance points indicating this is not allowed.

There were a few windstorms during which some trees have fallen. As usual, we promptly clear track blockages to avoid having people forming side tracks which damage the adjacent bushland.

#### **Bushcare**

To the delight of members of our volunteer bushcare groups, all sites are now back in full swing and we are even allowed to have morning tea again! Most sites are in good shape, with native plants thriving and the moist soil allowing quick and effective weed removal. This has been important especially at the Visitor Centre site where *Anredera cordifolia* (*Madeira vine*) is sprouting in several places. All sites have weeds including the usual suspects: *Bidens pilosa*, *Solanum nigrum*, *Ehrharta erecta*, *Sida rhombifolia* (*Paddy's Lucerne*) and annual summer weeds. *Ochna serrulata* (*Mickey Mouse weed*) keeps appearing in otherwise unspoiled natural bushland. At Cemetery Creek 2 site, we planted several seedlings propagated from various plants in that area. And, beside the Sand Track, we noticed another *Acacia podalyriifolia* (*Queensland Silver Wattle / Mt Morgan Wattle*) has appeared. It is an Australian native weed!

#### **Visitor Centre**

Last October a Council mowing team shaved the new turf outside the Visitor Centre, and set the mowing level so low they knocked off the lids from the termite traps which are flush with the ground and even broke one – see photo: This close shave mowing almost killed the expensive new Zoysia turf which our



Visitor Centre volunteers had been regularly watering and nurturing during dry weather earlier in 2020. We then gave up on our efforts to care for it, but fortunately the good rains early last summer rejuvenated the turf so, after spending many hours weeding out all the flat weeds which sprouted among the nearly-dead turf, we'll give it another chance.

Meanwhile, we remain open for business with an updated COVID-Safe Plan. Most visitors stay out on the veranda. Our maps and track notes remain popular, with supplies replenished frequently.

And visiting groups are reappearing, mostly on weekdays. We hosted two Probus Club visits, and meanwhile some bushwalking groups came through and called in to the Visitor Centre when they discovered we were open! On three Fridays in January, we opened up for "Wild Kindy", to provide secure storage for the children's daypacks. This group went on bushwalks, played games and built bush shelters in the flat grass area.

**INVITATION! -** JOIN OUR VISITOR CENTRE TEAM! We have a small number of members on a roster of 4hour shifts to keep the Visitor Centre open on weekends and public holidays. We really enjoy spending time in the idyllic environment to chat with visitors to the Reserve, to help others in a friendly manner and, at times when nobody else is around, to do a bit of reading or homework. No specialised skills are required, and Alfred will happily provide the small amount of training needed. The frequency and times of each person's shifts are negotiated individually, according to preferences and availability. If interested please email Alfred: alfred.vincent@bigpond.com (phone 02 9879 6067).

### The Visitor Centre Gardens



Adjacent to the Visitor Centre building is the Rod Wallace garden, in which we have always aimed to grow examples of trees, bushes and ground covers found in the local bushland. In 2009 work on the Visitor Centre

toilets laid the garden bare so a fresh start

was needed. Since then, we have planted many seedlings but, as frequently reported, plants in this garden often come to grief at the hands (or feet) of careless cleaners, those who walk on the garden as a shortcut to the toilet, and whippersnipperman.

Luckily The Habitat provides replacement seedlings, so we keep trying!



Nevertheless, several shrubs did survive and now the focus of this garden is turning towards an educational role as we plant a selection of edible natives including *Tetragonia tetragonioides* (*Warrigal greens*), *Lomandra longifolia* (*Mat rush*), *Prostanthera spp.* (*Mint bush*) and *Commelina cyanea* (*Scurvy weed*).

Logs forming the border of this garden are not fixed to the ground, so they can be rolled back to reveal invertebrate life for school students visiting t



Meanwhile, in 2016 our Society celebrated its 50th anniversary and, with help from a number of young Scouts, our memorial garden was developed to the west of the building. It, too, was planted with endemic shrubs but they had a habit of disappearing. And it is invaded by weeds from the adjacent grass area, mostly *Pennisetum clandestinum (Kikuyu grass)* and *Salpichroa origanifolia (Pampas lily-of-the-valley)*.



# Field of Mars Plan of Management

There is still no movement here.

Meanwhile, we are concerned that when the draft City of Ryde Open Spaces Plan of Management was tabled at the Council meeting it did not include wording proposed by our Society: *'Bushland areas will be increased where possible to reverse the trend of reduction and gradual destruction of Natural Areas.'* We intend to raise this again when the plan is placed on public exhibition.

Members are encouraged to monitor the City of Ryde website and comment on the documents when they go on public exhibition.

### **EVENTS**

#### Past Event: End-of-year Get-Together for Society members

Saturday 5 December 2020 was a pleasant day and our small gathering enjoyed the barbecue + salad lunch and chat... and, yes, some took the time to enjoy their own bushwalks.



### **Coming Events:**



### Clean Up Australia Day: Sunday 7 March 2021

Our Society manages a closed site along Buffalo Creek within the Field of Mars Reserve open to Society members and by invitation only. Site Manager will be Alfred Vincent (02 9879 6067).

Nearest public site (to our knowledge) will be Magdala Park and the Lane Cove River Walk, (part of the Great North Walk) managed by 1st East Ryde Scout Group; Site Manager Phillip Ward (0417 439 456).

Annual General Meeting [AGM]: Saturday 20 March, 2pm at the Field of Mars Visitor Centre.

Our AGM will feature presentation of reports on our operations during 2020, and the election of our Management Committee for the coming year. All members are invited, and encouraged to consider accepting a position on our Committee. The meeting will conclude with afternoon tea.

| New members always welcome!   | <b>RHHFFPS Membership Application</b> : |       |                                  |    |
|---|---|-------|----------------------------------|----|
| Financial members enjoy active involvement in our<br>Society's activities to protect natural environments<br>both locally and beyond, and receive "Wallumetta",<br>our bi-monthly newsletter with news about<br>environmental issues and events.<br>Please pay by direct transfer to our Commonwealth<br>Bank account: RHHFF PS INC GENERAL ACCOUNT<br>062171 - 0090 1574. Include your name in the<br>transaction description, and email your name,<br>address and phone number to rhhffps@gmail.com | NAME:                                   |       |                                  |    |
|   | Address:                                |       |                                  |    |
|   | Phone:                                  |       |                                  |    |
|   | Annual Membership:                      |       | Int if receiving etter by email: | \$ |
|   | Individual                              | \$ 25 | (-\$10)                          |    |
|   | Family                                  | \$ 45 | (-\$10)                          |    |
|   | Concession                              | \$ 20 | (-\$10)                          |    |
| Alternatively, you may pay by cash or cheque:<br>Complete and hand in this form with payment in a<br>sealed envelope at the Field of Mars Visitor Centre<br>or post to: RHHFFPS, PO Box 552, Gladesville 1675.  | (Students/Pensioners) Donation          |       |                                  |    |
|   | Total Payment:                          |       |                                  |    |
|   | Cash Cheque Electronic transfer         |       |                                  |    |