



RHHFFPS

Wallumetta

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

Website: <http://rydehffps.org.au/>

Member of the Nature Conservation Council of NSW (NCC)
and founding member of the Powerful Owl Coalition

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2023

We acknowledge the Wallumedegal, original inhabitants of the Ryde – Hunters Hill area.

PRESIDENT'S NOTE

The safeguard mechanism has now been adopted by the Commonwealth Parliament and that is positive news. This legislation requires the largest industrial emitters of greenhouse gases to reduce their output each year to achieve the national target of 43% reduction in greenhouse gases by 2030. This is backed up by a cap on the total amount of emissions which will become tighter each year.

While there is a lot of work to do yet the legislation is welcome in more ways than one. The media commentary on the legislation says that there are elements in the deal that make it harder for some fossil fuel developments to go ahead as they would not be economically viable. (*The Guardian 28 March*)

Coal and gas projects have a large impact on native vegetation and from a biodiversity perspective only endangered ecological communities are considered in proposals for these projects. Often these are not regarded as important enough to prevent projects and consequently a lot of native vegetation is lost.

For example the approval of the Santos project to develop 116-well coal seams in the Surat Basin in Queensland will allow clearance around each well of up to 2.5 hectares of land leading to further habitat destruction and more species facing extinction.

If the media commentary is right then the legislation should lead to fewer coal and gas projects and therefore less impact on our natural heritage.

While this is welcome the Society will continue to press for more work to be done to reduce greenhouse gas emissions and save our natural heritage.

Frank Breen

Frank Breen, President

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Coal seam gas well in Queensland - photo from The Standard

COMING EVENTS

Thursday 6 April 5-6.15pm – Tarban Creek Flying-Fox Camp Talk, Riverglade Reserve

Meet at the Manning Road carpark. Grey-headed flying-foxes play an important role in the survival and regeneration of bushland. A Sydney Wildlife volunteer will give a talk about the flying-foxes at 5pm, after which participants can take part in a flying-fox count.

Sunday 18 June 2023, 2pm – Field of Mars Reserve Heritage Walk

Phillip Ward will share his first-hand knowledge of the Reserve over the last 70 years, and lead a walk to see remnants of various activities in the Reserve since European settlement

Sunday 16 July 2023, 10 am & 2pm – Winter Wildflower Walks

It's amazing how many wildflowers we see in the Reserve during winter. This is really the perfect time of year to see many species of colourful native flowers in our bushland.

And in August or September 2023 – "Music on Mars"

We are planning a spectacular event! Watch for more details closer to the date.

We welcome members' suggestions for events we may hold. If you have any great ideas for things you'd like to do, please let us know! Email rhffps@gmail.com

PAST EVENTS

Clean Up Australia Day was successful this year, with Society members clearing rubbish around Buffalo Creek. At the nearest public site – Magdala Park + Lane Cove River Walk – 57 members of East Ryde Scout Group collected 18 bags of rubbish and recyclables; more volunteers but much less rubbish than last year.

Election Forum – Sunday 19 March 2023



Photo by Alfred Vincent

Candidates (or their nominated representatives) for election to the State seat of Ryde presented their environmental policies and responded to questions from the audience. We thank the Field of Mars Education Centre for allowing us to use their conference room again, and Kristina Dodds of the NCC for recording the forum and making it available to be viewed online afterwards.

After the forum we served a free salad lunch at the Visitor Centre, and held our

Annual General Meeting (AGM)

We presented annual reports and elected our Management Committee for the coming year. A motion of appreciation was passed in recognition of the contribution of the late John Boyle. After the meeting the raffle prize-winning ticket was drawn. Winner Chris Jones of the Ryde District Historical Society was delighted to receive the Yarnknit hand-knitted rug:



*Photos by
Lyn Langtry*



NEWS FROM AROUND THE FIELD OF MARS

WILDLIFE... Tawny Trio Tale, then two more!

Society member Lyn Langtry was recently treated to a visit by a family of three Tawny Frogmouths to her East Ryde back yard. Two were also spotted by Pam and Bev at The Habitat nursery – see below.

Bev Debrincat also saw a white necked heron in Buffalo Creek – the first ever reported sighting of one in the Field of Mars Reserve: see the photo in her [Habitat Network Facebook post](#).

Meanwhile, visitors to the Reserve continue to report seeing wallabies and echidnas, as well as other animals.

Although it is autumn, students of one of the bushwalking groups from Ryde East School counted twelve different species of plants in flower along the Sand Track.

BUSHCARE

All volunteer bushcare sites are doing well, even including the “Visitor Centre” site by the Warada Track on the flat grass area. For the past six months, only one volunteer plus one supervisor have been attending, so its maintenance may be handed over to contractors. Nevertheless, the site itself is in relatively good condition, along with adjacent areas developed on National Tree Days. Originally part of the Ryde Municipal Council garbage tip of the 1950s, this area is now a good habitat for wildlife. It includes a brush turkey mound and we surprised a swamp wallaby hanging around there two months ago when we arrived.

At Cemetery Creek 2, we believe we have eradicated the *Soliva sessilis* reported previously, but we are still working on removing the other weeds accidentally introduced there, as well as the usual invasive weeds from the cemetery including *Bidens pilosa* (Cobblers pegs), *Verbena bonariensis* (Purple-top) and plastic flowers.

Other sites now include Streamwatch water sampling in their work. It will be interesting to discover and report the health of water in nearby creeks.

New members are welcome in all our teams – phone the City of Ryde Council on 9952 8222 and tell them you would like to volunteer. All necessary training is provided on-the-job.

VISITOR CENTRE

Except for days when we held special events, things have been relatively quiet on weekends. Fewer visitors have been seen, and even the animal life has been less in the vicinity of the Centre, although the ducks and moorhens occasionally wander out of the creek, and the magpie-lark (peewee) family has increased to four. Roast has finished tending his mound, but a few female brush turkeys still scratch around near the building - which is why some holes have appeared in the sandy soil by the veranda.

East Ryde Joey Scouts and parents visited one Thursday evening in February and while some tended the gardens outside, others tidied, cleaned and washed inside the building.

More recently, we welcomed another two members to our volunteer team: Phil and Belinda Davidson. Thanks to all members on our roster which is always well-organised by Alfred.

JOIN OUR VISITOR CENTRE TEAM! to keep the Visitor Centre open 9am-5pm on weekends and public holidays. Our roster of 4-hour shifts is negotiated according to members’ availability. No specialised skills are required, and Alfred happily provides the training needed. Most visitors’ questions are answered in the maps and range of free leaflets we have available.



Tawny frogmouths at The Habitat - photo by Pamela Ward



Photo – Hunters Hill Trust

FIGTREE PARK UPDATE

Last August we reported on the success of Hunter’s Hill Council in receiving a \$4.75million grant to upgrade Figtree Park, and their plans to prune and remove over 25 existing trees in the park to include extensive infrastructure.

Following widespread community concern, the matter was referred to the Hunters Hill Local Planning Panel, who last December ruled removal of trees is “not in the public interest”.

In March, after Council referred the matter back to the planning panel, they rejected the application for a second time. However, at the 27 March Council meeting, a late motion to apply the grant funds via a revised proposal, resulting in much reduced loss of trees, was approved 5 to 2, despite ongoing community opposition. But at least many valuable trees were saved! An alternative option for Council to return the unused funds to Department of Planning was rejected.

WHAT’S HAPPENING AT WICKS ROAD?

We recently discovered plans to use the City of Ryde Council’s Porters Creek construction waste recycling facility, officially known as Environmental Construction Materials Recycling Facility (ECoMRF), at the old Porters Creek landfill site, 162 Wicks Road Macquarie Park (beside the waste transfer station), to take spoil from the tunnels being dug under Middle Harbour to connect the Warringah Freeway with the northern beaches area, and under Sydney Harbour towards Balmain.

Planning NSW has provided a website link:

<https://www.nsw.gov.au/have-your-say/warringah-freeway-upgrade-wicks-road>

... but it is difficult to discover any details. We would like to know:

- How will the spoil be transported there? (Presumably by a convoy of trucks, but by which route and at what times of day or night?)
- Will toxins contained in the spoil be identified and treated?
- Will current measures to prevent run-off into Lane Cove National Park and the Lane Cove River be adequate to manage the extra material being brought to this facility?

For information about the existing facility see <https://www.ryde.nsw.gov.au/Environment-and-Waste/Waste-and-Recycling/Other-Services/Porters-ECoMRF-Construction-Waste-Recycling>

BEROWRA VALLEY NATIONAL PARK AND REGIONAL PARK PLAN OF MANAGEMENT

After almost two years - see Wallumetta June 2021, p.2 - this was finalised and adopted under the *National Parks and Wildlife Act 1974*, by the Minister for Environment and Heritage.

Berowra Valley National Park and Berowra Valley Regional Park are located approximately 20 kilometres to the north-west of Sydney in New South Wales in Country maintained and cared for by Aboriginal custodians. The National Park protects 3,876 hectares of natural bushland in the Berowra Creek catchment, including the beds of Berowra Creek where it flows through the park. The Regional Park includes 3 separate portions of land protecting 9 hectares of bushland where on-leash dog walking is permitted along designated trails.

The plan of management will guide the protection and management of the parks’ natural and cultural heritage values including threatened species and communities, and the parks’ significant Aboriginal and historic cultural heritage values. The plan also supports sustainable visitor use by providing for facilities and recreational activities that will promote opportunities for the community to appreciate and enjoy those values.

See the plan of management at <https://www.environment.nsw.gov.au/topics/parks-reserves-and-protected-areas/park-management/parks-plans-of-management>.

GREAT KOALA NATIONAL PARK – REMINDER TO SIGN THE PETITION!



Photo from National Parks Association of NSW

In February we reported there is a petition calling for the establishment of this park near Coffs Harbour and logging within the park to be halted. **Closing date is 11 April 2023.**

If you have not yet signed it, go to: <https://www.parliament.nsw.gov.au/la/pages/epetition-details.aspx?q=xWiyh7QOALBaYGLc6X91XQ>

AUSTRALIAN ALPS – SUBMISSION GUIDE AND DEADLINE 11 April 2023

The Invasive Species Council is concerned about Australia's Alps, including the habitats of vulnerable wildlife (see article about the Mountain Pygmy Possum below). This region continues to be trashed and trampled by feral horses. And for too long inaction and delay by successive governments has caused feral horse numbers to grow out of control. For an easy guide, go to <https://invasives.org.au/how-to-help/take-action/save-the-australian-alps/>

AUSTRALIAN MARSUPIALS TOP THE WORLD LIST OF MOST THREATENED AND UNIQUE ANIMALS IN UPDATED PROTOCOL TO IDENTIFY SPECIES NEEDING URGENT CONSERVATION ATTENTION

Précis of an article by Matthew Agius, published by Cosmos 6 March 2023

The Zoological Society of London (ZSL) has a new index, grading species on their evolutionary distinctiveness and endangered status. **Three of the top five are Australian marsupials.**

The [mountain pygmy possum](#) of the Australian Alps heads the list, ahead of the Madagascan ayeaye, [Leadbeater's possum](#) which lives in the southeast of Australia, Cuban solenodon and [numbat](#), now restricted to pockets of Western Australia.

These are rankings from the revised Evolutionarily Distinct and Globally Endangered (EDGE) protocol. It identifies species that should be prioritised for conservation.

The mountain pygmy possum, which is critically endangered due to habitat loss and the collapse of its primary food source, the [bogong moth](#), represents 25 million years of evolution.



Mountain Pygmy Possum: photo by Zoos Victoria

ZSL research leader Dr Rikki Gumbs hopes the new protocol will help authorities identify species that require urgent conservation attention. "The variety of life at which we marvel is the product of the shared and unique evolutionary histories of species past and present," Gumbs says. "Yet many of the most evolutionarily distinct species on Earth today are at risk of extinction."

Over a third of the top 20 animals on the EDGE2 ranking of mammals are in Australasia.

The three Australian marsupials in the top five are joined by the New Zealand greater short-tailed bat and two species of long-beaked echidna (ranked 19th and 20th) from Papua New Guinea.

In a positive, by global standards, work by Australian groups to protect critically endangered marsupials is better than other highly unique mammals.

The mountain pygmy and Leadbeater's possum reside in Victoria, and are priority species for Zoos Victoria's conservation work. Their efforts to protect these species include implementing citizen science tracking apps and advocating for sustainable living and keeping domestic animals indoors.

SCIENTISTS PROVE CLEAR LINK BETWEEN DEFORESTATION AND LOCAL DROP IN RAINFALL

Deforestation study adds to fears Amazon is approaching tipping point after which it will not be able to generate its own rainfall.

For the first time researchers have proven a clear correlation between deforestation and regional precipitation. Scientists hope it may encourage agricultural companies and governments in the Amazon and Congo basin regions and south-east Asia to invest more in protecting trees and other vegetation.

The study found that the more rainforests are cleared in tropical countries, the less local farmers will be able to depend on rain for their crops and pastures.

The paper, [published in the journal Nature](#), adds to fears that the [degradation of the Amazon](#) is approaching a tipping point after which the rainforest will no longer be able to generate its own rainfall and the vegetation will dry up.



Human activity and drought 'degrading more than a third of Amazon rainforest' – photo from The Guardian

People living in deforested areas have long provided anecdotal evidence that their microclimates became drier with lower tree cover. Scientists already knew that killing trees reduces evapotranspiration and thus theorised this would result in lower local rainfall.

The Leeds University team have proven this using satellite and meteorological records from 2003-17 across tropical regions.

Even at a small scale, they found an impact, but the decline became more pronounced

when the affected area was greater than 50km squared (2,500 sq km). At the largest measured scale of 200km squared (40,000 sq km), the study discovered rainfall was 0.25 percentage points lower each month for every 1 percentage point loss of forest.

This can enter into a vicious cycle, as reductions in rainfall lead to further forest loss, increased fire vulnerability and weaker carbon drawdown.

One of the authors, Prof Dominick Spracklen of the University of Leeds, said 25% to 50% of the rain that fell in the Amazon came from precipitation recycling by the trees. Often described as the “lungs of the world”, the forest functions far more like a heart pumping water around the region.

The local impact of this reduced water recycling was far more obvious, immediate and persuasive to governments and corporations in the global south than arguments about carbon sequestration, which was seen as having more benefits to industrial countries in the northern hemisphere.

“Demonstrating the local benefit of keeping tropical forests standing for the people living nearby has important policy implications,” Spracklen said. “I hope our work will provide a strong incentive for policy and decision makers within tropical nations to conserve tropical forests to help maintain a cooler and wetter local climate, with benefits for nearby agriculture and people.”

The authors also looked forward at the possible effects of further deforestation. For the Congo basin, they estimated a rainfall decline of 16mm a month by the end of the century based on projections of forest loss.

In all regions, the consequences are likely to be felt in cities and farm fields hundreds or thousands of kilometres outside the cleared forest. The study notes that crop yields could decline by 1.25% for each 10 percentage point loss of forest cover.

MUSHROOMS CLEAN UP TOXIC MESS INCLUDING PLASTIC... So Why Aren't They Used More?

This is an abridged report of an article originally published by [The New Food Economy](https://www.yesmagazine.org/environment/2019/03/05/mushrooms-clean-up-toxic-mess-including-plastic-why-arent-they-used-more), a nonprofit newsroom covering the forces shaping how and what we eat. You may read it in "Yes Magazine": <https://www.yesmagazine.org/environment/2019/03/05/mushrooms-clean-up-toxic-mess-including-plastic-why-arent-they-used-more>



Oyster mushrooms - photo by Gardening Australia

Research suggests mushrooms can convert pesticides and herbicides to more innocuous compounds, remove heavy metals from brownfield sites, and break down plastic. They have even been used to remove and recover heavy metals from contaminated water.

Proponents say this natural alternative to wildfire and pollution cleanup is potentially cheaper.

When wildfires burned across Northern California in October 2017, officials feared runoff from the toxic ash could pollute local creeks, potentially tainting the drinking water supply for the region's 700,000 residents. In the aftermath of the fires, local businesses, and ecological activists in Sonoma County mobilized to cleanse the foundations of burned-out buildings with ... mushrooms.

The Fire Remediation Action Coalition placed more than 70km of wattles—straw-filled, snakelike tubes designed to prevent erosion—inoculated with oyster mushrooms around parking lots, along roads, and across hillsides. These are a type of edible mushroom you may buy in supermarkets.

The volunteers are advocates for "mycoremediation," an experimental bioremediation technique that uses mushrooms to clean up hazardous waste, harnessing their natural ability to use enzymes to break down foreign substances. The tubes provided makeshift channels, diverting runoff from sensitive waterways. **The mushrooms would do the rest.**

Root mycelia consume food externally, by secreting powerful enzymes that break down molecules. So they digest whatever they're growing on, converting it to nutrients and [depending on the substrate] edible mushrooms.

Over the past 15 years, fungi enthusiasts and citizen scientists have deployed mushrooms to clean up many incidents: oil spills, boat fuel pollution, contaminated soil, and polychlorinated biphenyls (PCBs) in Washington state's Spokane River. Research suggests mushrooms convert pesticides and herbicides to more innocuous compounds, remove heavy metals, and break down plastic.

Proponents say it's a natural, more benign, and cheaper approach to environmental clean-ups. The problem with traditional approaches is that they can remove potentially fertile topsoil, whereas mycoremediation can help clean up toxic sites while actually improving soil fertility.

So why isn't mycoremediation a more common practice?

Government regulations require the removal of 100 percent of targeted contaminants within a short time frame. Current mycoremediation solutions simply work too slowly for that.

"Mycology is very neglected as a science, and mycoremediation is currently very site-specific," says Peter McCoy, a self-trained mycologist viewed by many of his adherents as a founder of the [radical mycology movement](#). McCoy says there's no one-size-fits-all method for applying mushrooms to biohazard sites. Reactions vary depending on species of mushroom, contaminants present, and local growing conditions, so treatments must be customized and that further exploration is likely necessary. "Hopefully, we'll develop enough anecdotal evidence for certain common pollution scenarios that we can build off-the-shelf protocols. But we're not there yet."

HIGH SEAS TREATY APPROVED TO PROTECT THE WORLD'S OCEANS

An historic agreement to protect the world's High Seas has been agreed by 190 nations.

United Nations member states have agreed on a legal framework to protect the world's oceans. The High Seas Treaty places 30% of the seas into protected areas by 2030, aiming to safeguard and recuperate marine nature. Decades in the making, this agreement will allow the creation of international marine parks on the world's High Seas.

The Australian government is to be congratulated, as it has been a real champion for this Treaty.

NEW MEMBERS WELCOME!

Please pay by direct transfer to our Bendigo Bank account: RYDE HUNTERS HILL FLORA AND FAUNA PRESERVATION SOCIETY INC, BSB 633-000, Account number 190716589.

Include your name in the transaction description; and email your name, address and phone number to rhffps@gmail.com

Alternatively, you may pay by cash or cheque: Complete and hand in this form with payment in a sealed envelope at the Field of Mars Visitor Centre or post to: RHHFFPS, PO Box 552, Gladesville 1675.

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Annual Membership (add \$10 for newsletter to be sent via Australia Post): \$

Individual \$ 15 (+ \$ 10)

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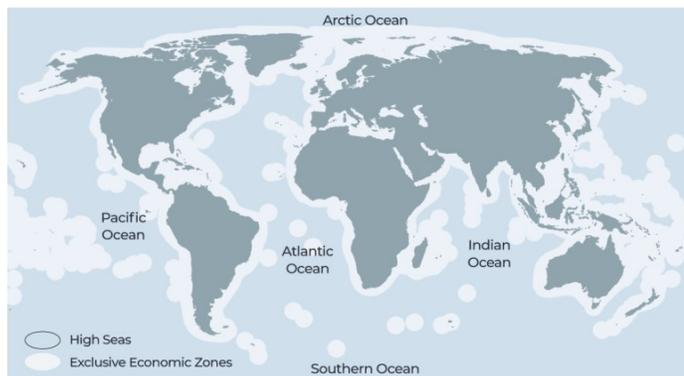
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The High Seas - oceans beyond countries' national waters - are home to incredible marine life and unique ecosystems that underpin all life on Earth. Vast ocean regions are under increasing pressure from overfishing, deep-sea mining and pollution. Now there is a pathway to protect these waters.

Remarkable underwater worlds are made up of deep water corals, whale and shark highways, massive canyons, deep-sea vents, abundant fish stocks, and other as-yet undiscovered wonders.

The High Seas make up two-thirds of the global ocean and cover nearly half the surface of our planet. At present only about 1% are protected.



Oceans cover more than **70 percent** of our planet's surface

The ocean has absorbed **90 percent** of the world's excess heat

Every year at least **8 million** tonnes of plastic waste end up in the world's oceans

Source: IUCN.org | March 5, 2023

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