

Plant Cuttings – October 2024

What are slime moulds? Step inside Sarah Lloyd's thriving microscopic world– ABC News, 26 October 2024

Deep in the bush of northern Tasmania, there's a woman with a magnifying glass. She's crouched over a mossy log, and brimming with quiet excitement. This is Sarah Lloyd. She is hunting for slime moulds. These tiny organisms are only just visible to the naked eye, so they're best seen under a microscope or through a powerful camera lens.

<https://www.abc.net.au/news/2024-10-26/slime-mould-sarah-lloyd-northern-tasmania/104486718>

Drivers damaging sensitive and vital saltmarsh ecosystems at Agnes Water– ABC Radio Hobart, 29 October 2024

It may look like a mudflat perfect for a four-wheel-drive adventure, but ecologists say motorists are destroying "underrated" ecosystems of the Great Barrier Reef. Deep wheel ruts and displaced "mud" have scarred the vital coastal Queensland saltmarshes, which protect the reef.

"Saltmarshes are the underrated heroes of the Great Barrier Reef ecosystems," ecologist Jock Mackenzie said.

<https://www.abc.net.au/news/2024-10-29/drivers-destroying-saltmarsh-protecting-great-barrier-reef/104501826>

Image Resources gains environmental approvals to clear WA banksia forest – ABC News, 23 October 2024

Ecologists are alarmed by plans to clear a significant area of endangered WA banksia woodlands to make way for two mineral sands projects.

Image Resources has environmental approval to clear 206.4 hectares of banksia woodlands for its Atlas mining project at Nambung, about 170 kilometres north of Perth.

Curtin University botanist Kingsley Dixon said giving up the high-quality habitat, a nationally-listed threatened ecological community used by endangered black cockatoo species for food, would be a devastating biodiversity loss.

<https://www.abc.net.au/news/2024-10-23/image-resources-gains-environmental-approval-banksia-forest/103765190>

Dewatering at South32's Groote Eylandt mine probed after vegetation dieback – ABC Rural, 24 October 2024

The Northern Territory's environment department is investigating vegetation dieback on Groote Eylandt believed to have been caused by the dewatering of mining pits on the island.

Named by Dutch explorer Abel Tasman in 1644, Groote Eylandt in the Gulf of Carpentaria is home to a manganese mine owned by South32 subsidiary GEMCO.

GEMCO has been working to remove huge amounts of rainwater that collected in its manganese pits after Cyclone Megan dropped a record 681 millimetres of rain on the island over two days in March. The company's pumping of water from the mining pits into nearby scrub is suspected to have caused dieback in three areas of trees, an issue first identified by the company in September.

<https://www.abc.net.au/news/2024-10-24/south32-groote-eylandt-manganese-mine-dewatering-tree-dieback/104502222>

Have WA's new environmental protection laws left the state's EPA a toothless tiger? – ABC News, 20 October 2024

Some of Australia's biggest carbon polluters have a couple of reasons to celebrate this week. WA's Labor government passed environmental protection laws that were described by one of its own MPs as an industry "wish list". The government also made a big change to its greenhouse gas policy that will have implications for fossil fuel projects.

Basically, it strips WA's environmental watchdog – the Environmental Protection Authority (EPA) – of the power to factor in carbon emissions when deciding whether to give the green tick of approval to some of the state's most highly polluting projects.

<https://www.abc.net.au/news/2024-10-20/wa-new-environmental-protection-laws-/104479996>

Conservationists plan to turn invasive fish tilapia into fertiliser to revegetate Mary River – ABC News, 15 October 2024

An innovative trial to turn a noxious fish into fertiliser could help ancient and endangered species flourish in one of Queensland's most diverse river systems.

The Mary River stretches 291 kilometres from the Sunshine Coast to the Great Sandy Strait at Hervey Bay and uniquely flows south to north.

But below the surface is its most notable feature: a unique group of species that conservationists say are "scientifically important, totemic and iconic".

<https://www.abc.net.au/news/2024-10-15/invasive-tilapia-fish-to-fertiliser-conservation-plan-mary-river/104463408>

Vitrinite accused of clearing koala habitat and illegal coal mining in Queensland – ABC News, 4 October 2024

A coal mining company with former links to a US fraudster has been accused of illegally mining coal and destroying koala habitat without the required federal environmental approval. About 47 hectares of koala habitat has been cleared near Vitrinite's Vulcan Mine in the Bowen basin, about 150 kilometres south-west of Mackay, to make way for an open cut

coal pit. Vitrinite has denied breaching any federal law related to what it described as a "small scale resource definition" activity at the site.

<https://www.abc.net.au/news/2024-10-04/koala-habitat-cleared-without-federal-approval/104414272>

VIDEO: Pressure on Alcoa to fully rehabilitate WA's jarrah forests after mining – 7:30 (ABC) 15 October 2024

US mining giant Alcoa has been extracting bauxite from Western Australia's forests for six decades under the condition it rehabilitates the land it uses.

But new research has concluded they're falling short of that promise. Cason Ho reports.

<https://www.abc.net.au/news/2024-10-15/pressure-on-alcoa-to-fully-rehabilitate-wa-s-jarrah-forests/104476962>

Two of three promised Victorian national parks to be legislated next month – ABC News, 15 October 2024

Conservationists are celebrating the appearance of a critically endangered plant that has emerged from the ashes of recent bushfires in Victoria's west.

However, they say a national park, which the government promised to create three years ago, is needed to protect the plant and other endangered species.

When fires swept through the state forest west of Ballarat in February, all known populations of the critically endangered Mount Cole grevillea were wiped out, according to Ben Gill from the Victorian National Parks Association (VNPA).

<https://www.abc.net.au/news/2024-10-15/promised-national-parks-delay-wombat-lederberg-buangor-pyranees/104455956>

Phytophthora microscopic mould shuts popular Glass House Mountains trail as a national biosecurity risk – ABC Rural, 4 October 2024

A disease that is wreaking havoc on Queensland's precious Bunya Pine trees has now forced the closure of a popular mountain trail in the south-east Queensland hinterland. The microscopic water mould known as Phytophthora has been detected in the Glass House Mountains National Park.

It is listed as an environmental threat of national significance to Australia's biodiversity, placing important plant species at risk of death or extinction.

The Department of Environment and Science has erected signs at a walking track in the Coochin Hills section of the park warning hikers it is temporarily closed due to the soil-borne organism being found nearby.

<https://www.abc.net.au/news/rural/2024-10-04/phytophthora-plant-mould-closes-popular-mountain-coochin-hills/104428404>

Mice are primary pollinators for Australian banksia that flowers low to the ground: study – ABC Science, 24 October 2024

Sometimes plants need a helping hand to reproduce. But what about a beak? Or a snout? Most pollination is by animals, and perhaps the best-known pollinators are the birds and bees. Many plants rely on these flying animals to transfer pollen between flowers for sexual reproduction.

Now Australian scientists are discovering more grounded creatures — native and invasive rodents — play larger roles as pollinators than we realised. And for some plants, such as certain banksia species, native rodents may be their primary pollinators.

<https://www.abc.net.au/news/science/2024-10-24/rodents-primary-pollinators-banksia-flowers-reproduction-plants/104480912>

Lower Murray River and Macquarie Marshes may be designated 'critically endangered'. Here's what that means – ABC Science, 18 October 2024

An 830-kilometre stretch of the Murray River, from where it mixes with the Darling River to the point it meets the sea, could soon be designated critically endangered by the federal government. The same status could also be given to the massive Macquarie Marshes wetland, also known as Maliyanga Ngurra, in the Murray-Darling Basin in New South Wales.

But what does it mean to declare natural waterways such as a river and marsh critically endangered? For scientists, the listings are a recognition of the depleted state of the environment. For others, it represents barriers to the function and development of the \$30 billion agricultural industry that relies on the waterways.

<https://www.abc.net.au/news/science/2024-10-18/murray-river-macquarie-marshes-critically-endangered-listing/104361446>

NSW couple helps rare wild Beadle's grevillea spring to life after drought – ABC News, 8 October 2024

When Catherine Wright and Andrew Menzies bought their rural property in the New South Wales Northern Tablelands in 2003 they did not realise they would also become guardians of an endangered native plant species.

Spring Camp, located south of Armidale, is one of the few areas in Australia where the *Grevillea beadleana* grows in the wild.

"We feel like we are custodians of the land and our role here is to promote the biodiversity on Spring Camp," Ms Wright said.

When the couple bought the property, the former owner told them about the population of several hundred plants and their significance.

<https://www.abc.net.au/news/2024-10-08/endangered-beadles-grevillea-bloom-again-nsw-northern-tablelands/104421382>

Want genuine progress towards restoring nature? Follow these 4 steps – The Conversation, 25 October 2024

“Nature positive” is seemingly everywhere. Two weeks ago, Australia hosted the first Global Nature Positive Summit. This week, nations are meeting in Colombia for a global biodiversity summit to discuss progress on nature positive commitments.

Nature positive has a simple meaning: ensuring more nature in future than there is now. Making it a reality is the hard part.

It’s necessary because nature is in trouble. Once common species are becoming threatened and threatened species are going extinct. Humans, too, will be severely impacted. When ecosystems are healthy, they provide vital benefits. Insects pollinate crops, trees slow floodwaters, earthworms, fungi and soil critters make healthy soil and natural vistas improve our mental wellbeing.

<https://theconversation.com/want-genuine-progress-towards-restoring-nature-follow-these-4-steps-240569>

The biodiversity jukebox: how sound can boost beneficial soil microbes to heal nature – The Conversation, 2 October 2024

In a race against time, scientists are exploring new ways to restore natural systems. Alongside traditional methods such as planting trees, reducing pollution and reintroducing native species, a surprising new tool is emerging: sound. Ecologists can harness sound to bring life back to degraded ecosystems.

On land and at sea, natural soundscapes are being replicated to stimulate growth, reproduction and even communication among species. Sound is already being used to restore oyster beds and coral reefs.

In our new research, we found beneficial plant microbes are also receptive to sound. We used high-frequency white noise to stimulate a fungus that promotes plant growth. The noise is a bit like the sound emitted in between channels of an old-fashioned radio.

<https://theconversation.com/the-biodiversity-jukebox-how-sound-can-boost-beneficial-soil-microbes-to-heal-nature-235866>

A patchwork of spinifex: how we returned cultural burning to the Great Sandy Desert – The Conversation, 11 October 2024

How can a desert burn? Australia’s vast deserts aren’t just sand dunes – they’re often dotted with flammable spinifex grass hummocks. When heavy rains fall, grass grows quickly before drying out. That’s how a desert can burn.

When our Karajarri and Ngurrara ancestors lived nomadic lifestyles in what’s now called the Great Sandy Desert in northwestern Australia, they lit many small fires in spinifex grass as

they walked. Fires were used seasonally for ceremonies, signalling to others, flushing out animals, making travel easier (spinifex is painfully sharp), cleaning campsites, and stimulating fresh vegetation growth ready for foraging or luring game when people returned a few months later. The result was a patchwork desert.

<https://theconversation.com/a-patchwork-of-spinifex-how-we-returned-cultural-burning-to-the-great-sandy-desert-240447>

Yes, nature is complex. But saving our precious environment means finding ways to measure it – The Conversation, 10 October 2024

Nature loss directly threatens half the global economy. The rapid destruction of biodiversity should alarm the many Australian businesses dependent on nature, such as those in agriculture, tourism, construction and food manufacturing. Yet nature considerations are often ignored in business decision-making.

At the Global Nature Positive Summit in Sydney this week, scientists, politicians, conservationists and business leaders have gathered to discuss ways to help nature in Australia – not just by protecting it from damage, but improving it. Getting more businesses interested in – and taking positive action on – nature conservation is key to the talks.

<https://theconversation.com/yes-nature-is-complex-but-saving-our-precious-environment-means-finding-ways-to-measure-it-240583>

Australia is hosting the world's first 'nature positive' summit. What is it, and why does it matter? – The Conversation, 7 October 2024

This week, Australia hosts the inaugural Global Nature Positive Summit in Sydney. It comes at a crucial time: biodiversity loss and ecosystem collapse is one of the biggest risks the world faces in the next decade.

The event, which begins tomorrow, brings together leaders from government, business, academia, environment groups and Indigenous Peoples. Together, they will seek ways to drive investment in nature and improve its protection and repair.

More than half the world's economy directly depends on nature. Biodiversity loss threatens global financial stability, putting at least US\$44 trillion (A\$64 trillion) of economic value at risk.

Industries such as agriculture, fishing, forestry, tourism, water and resources rely heavily on nature. But ultimately, all of humanity depends on the natural world – for clean air, water, food, and a liveable climate.

<https://theconversation.com/australia-is-hosting-the-worlds-first-nature-positive-summit-what-is-it-and-why-does-it-matter-236236>

How we created a beautiful native wildflower meadow in the heart of the city using threatened grassland species – The Conversation, 4 October 2024

A city street may seem an unusual place to save species found in critically endangered grasslands. My new research, though, shows we can use plants from these ecosystems to create beautiful and biodiverse urban wildflower meadows. This means cities, too, can support nature repair.

Species-rich grassy ecosystems are some of the most threatened plant communities on the planet. Occupying easily developed flat land, grassy ecosystems are routinely sacrificed as our cities expand.

In south-east Australia, the volcanic plains that support Melbourne's northern and western suburbs were once grasslands strewn with wildflowers, "resembling a nobleman's park on a gigantic scale", according to early explorer Thomas Mitchell. But these exceptionally diverse, critically endangered ecosystems have been reduced to less than 1% of their original area. The few remnants continue to be lost to urban development and weed invasion.

<https://theconversation.com/how-we-created-a-beautiful-native-wildflower-meadow-in-the-heart-of-the-city-using-threatened-grassland-species-240332>

More than 20% of Earth's plant species are found only on islands – and time is running out to save them – The Conversation, 17 October 2024

Islands have long intrigued explorers and scientists. These isolated environments serve as natural laboratories for understanding how species evolve and adapt.

Islands are also centres of species diversity. It has long been speculated that islands support exceptionally high amounts of global biodiversity, but the true extent was unknown until now.

In world-first research published in Nature today, my colleagues and I counted and mapped the diversity of plant life on Earth's islands. We found 21% of the world's total plant species are endemic to islands, meaning they occur nowhere else on the planet.

<https://theconversation.com/more-than-20-of-earths-plant-species-are-found-only-on-islands-and-time-is-running-out-to-save-them-238433>

Industry and activists rally to tackle biodiversity crisis- SBS News, 4 October 2024

As the world battles the surging effects of climate change, a rapid decline in biodiversity has also been quietly unfolding. Australia, known for its rich and diverse natural environment, is particularly sensitive to biodiversity risks and already has one of the highest rates of species extinction.

The situation has sparked an unprecedented alliance of environmental advocates and industry leaders to come together to address this critical issue in a first-of-its-kind World Nature Positive Summit.

Chief executive of the Australian Conservation Foundation, Kelly O'Shanassy says the goal of the summit is raise awareness and drive collective action to protect nature.

<https://www.sbs.com.au/news/podcast-episode/industry-and-activists-rally-to-tackle-biodiversity-crisis/pbvccedmj>

Red list of endangered species now counts 742 Australian species - SBS News, 29 October 2024

A fluffy native mouse is among the Australian animals added to the international red list of threatened species, with conservationists warning of an escalating global extinction crisis.

There are 742 endangered Australian plants and animals on the International Union for Conservation of Nature's Red List of threatened species, which grew by six species in the past year.

<https://www.sbs.com.au/news/podcast-episode/red-list-of-endangered-species-now-counts-742-australian-species/0xgugkbfm>

Paramotorists collect rare plant species from Peruvian desert oases – New Scientist, 11 October 2024

Scientists from Royal Botanical Gardens, Kew, in the UK have worked with a team of Brazilian paramotorists in the Peruvian desert to recover and study endangered species from fragile and inaccessible ecosystems. “The idea was to use them to travel to areas that we could not get to, and collect samples and [cause] very little damage,” says Justin Moat, senior research leader at Kew and lead author of the study.

<https://www.newscientist.com/video/2451159-paramotorists-collect-rare-plant-species-from-peruvian-desert-oases/>

Bad smelling flower found near Aussie road reveals 'rampant' problem: 'Emerging threat' – Yahoo News, 25 October 2024

An “attractive” and “strongly aromatic” flower found growing on the side of a rural Aussie road has revealed a “growing problem” that is “hard to control”. A council worker was conducting vegetation surveys this week in the northern agricultural region of WA, about two hours from Perth, when she saw the patch of bright yellow emerging from the ground. Rachel Walmsley told Yahoo News Australia she “hadn’t really noticed” the plant before embarking on her project. “Only a couple of patches but you can see it spread broadly through adjacent waterways and paddocks,” the Moore Catchment Council employee said.

“It is creeping into the district,” she warned.

Ms Walmsley explained that despite its lovely appearance, the flower is actually an invasive weed that is a well-established problem in the state’s east and South Australia. Globe chamomile, otherwise known as *Oncosiphon piluliferum*, is one of two species of what farmers call matricaria — a South African plant that first started appearing in WA’s eastern wheatbelt in the late 1960s. Now widespread in the area, the pest is on the move, with locals telling Ms Walmsley the issue is “becoming more rampant”.

<https://au.news.yahoo.com/bad-smelling-flower-found-near-aussie-road-reveals-rampant-problem-emerging-threat-235628497.html>

Events and Opportunities

AABR Fest II – Return of the Regenerators – Central Coast NSW, 1-3 November 2024

AABR Fest II – Return of the Regenerators is a spring gathering for bush regenerators and all those interested in ecological restoration to learn and connect with one another. AABR Fest is an opportunity to connect with the wider bush regeneration community, forge new connections and rekindle old friendships. This family friendly event offers a rejuvenating, enlightening and entertaining experience at the Scout Camp Kariong, on the Central Coast of NSW.

<https://www.aabr.org.au/event/aabr-fest-return-of-the-regenerators/>

Rally For Native Forests – Nationwide, 3 November 2024

Bob Brown Foundation is hosting nationwide rallies for native forests in 10 locations across the country.

<https://rallyforforests.org/>

Territory Natural Resource Management Conference – Darwin NT, 19-21 November 2024

The Territory Natural Resource Management Conference is the NT's leading conference on natural resource management expertise, on-ground activities and community engagement.

The three-day conference provides critical professional development and engagement opportunities through tailored and inclusive workshop sessions, a diverse range of informative and thought-provoking presentations, engaging poster presentations and interactive exhibitions.

<https://www.tnrmconference.org.au/>

ESA 2024 – Melbourne VIC, 9-13 December 2024

The conference will showcase the science of ecology in Australia – across all its varied forms – and be an opportunity to explore the connection between science theory, science research, science policy and science on-ground outcomes.

The conference of the Ecological Society of Australia (ESA 2024) will be an in-person conference but a limited number of online options will be offered, including live-streamed plenaries, some live-streamed symposia and some of the presentations being made available online after the conference.

<https://esa2024.org.au/>

NSW Nature Conservation Council, 14th Biennial Bushfire Conference – Surry Hills NSW, 21-23 May 2025

Can we burn to learn? Sustaining people, nature and Country

This will be an in-person event held in Sydney, at the Teachers Federation Conference Centre, 37 Reservoir St, Surry Hills NSW 2010.

There will also be hybrid options available, however we would encourage you to attend in person in order to fully enjoy the conference offerings, with a conference dinner, poster session and field day to be included.

https://www.nature.org.au/bushfire_conference_2025

15th Biennial International Society for Seed Science Conference 2025 – Perth WA, 15-19 September 2025

The International Society for Seed Science fosters research, education, and communication in the scientific understanding of seeds, and the ISSS 2025 will bring together, for the first time, two of the Society's premier events as a joint conference to celebrate seeds and to inspire synergies across the seed science community.

<https://isss2025.com.au/>

5th International Congress on Biological Invasions – Perth WA, 21-24 September 2025

From Threats to Solutions: Advancing Biosecurity

The 2025 Congress program builds around the following core themes:

- Advancing Global Biosecurity Policy
- Addressing the Impact of Climate Change on Invasive Species Threats
- Engagement of First Nations in Invasive Species Management
- Citizen Science Engagement for Effective Invasive Species Management
- Technological Advancements in Invasive Species Management
- The Ecology and Evolution of Invaders
- Emerging Biosecurity Threats/Issues.

<https://www.icbi2025.com/>

2025 National Landcare Conference – Gold Coast QLD, 24 September 2025

The program dates for 2025 are:

Sunday 21 September – First Nations Gathering and NextGen Summit

Monday 22 September – Conference and Welcome Reception

Tuesday 23 September – Conference and 2025 National Landcare Awards Gala Dinner

Wednesday 24 September – Field Trip Program.

We welcome Landcare champion and ABC TV presenter, Costa Georgiadis, as the master of ceremonies for both the National Landcare Conference and National Landcare Awards events.

<https://nationallandcareconference.org.au/>

Australasian Seed Science Conference 2025 – Horsham VIC, 22-25 September 2025

Hosted by the Australian Grains Genebank and Australian Seed Bank Partnership, the ASSC2025 is a leading conference exploring research and innovation across the agricultural and biodiversity conservation sectors. This conference provides a platform for Australasian seed researchers, industries, policymakers, and communities to promote research, insights, technologies, and exchange ideas on how we can address similar scientific, legal and policy challenges.

<https://www.seedpartnership.org.au/events/assc25/>