

Plant Cuttings – June 2024

Small native rat, prose-worthy eucalypt and wrinkled daisy hoisted onto NSW endangered list – About Regional, 2 June 2024

The future is looking increasingly grim for several native species in Southern NSW, including a native rodent in the Snowy Mountains, a rare, fire-sensitive eucalypt endemic to ranges between Canberra and the South Coast and tiny flowering shrub known as wrinkled daisy.

With all three species uplisted to endangered by the NSW Threatened Species Scientific Committee last week, the spotlight was reserved for the broad-toothed rat (*Mastacomys fuscus mordicus*) at last week's NSW Parliamentary inquiry into the proposed aerial shooting of brumbies in Kosciuszko National Park (KNP).

<https://aboutregional.com.au/small-native-rat-prose-worthy-eucalypt-and-wrinkled-daisy-hoisted-onto-nsw-endangered-list/452281/>

Rio Tinto invests \$8 million in Pilbara conservation land management – The National Tribune, 5 June 2024

Rio Tinto will invest A\$8 million over five years in a partnership with Western Australia's Department of Biodiversity, Conservation and Attractions (DBCA) on a new project to enhance conservation land management and support Traditional Owner ranger programs in Karijini and Millstream Chichester National Parks.

The Pilbara Conservation Project will protect areas of high conservation value and integrate Traditional Owners' knowledge of the land into conservation land management. This includes weed management, feral animal control and bushfire management at Karijini, Millstream Chichester and other high conservation value Pilbara sites, through implementation of the Pilbara Conservation Strategy.

<https://www.nationaltribune.com.au/rio-tinto-invests-8-million-in-pilbara-conservation-land-management/>

What will Australia's proposed Environment Information Agency do for nature? – The Conversation, 6 June 2024

Last week, the Albanese government introduced legislation to create a new statutory body called Environment Information Australia. The bill is due for debate in parliament today. The government clearly expects the bill will pass, because the new body has already been allocated A\$54 million over four years in the May budget.

Why do we need it? Australia's natural world is in steep decline – based on what we know. But there's much we don't know. Australia has a fairly poor track record of effectively monitoring biodiversity. It's hard to care for and restore nature if we don't know how we are tracking, where to invest our efforts and into which activities.

The proposed agency will make environmental data more accessible by creating a platform where data from multiple sources can be pooled. These sources include: federal, state and territory governments, universities, research infrastructure platforms such as the Atlas of

Living Australia and the Terrestrial Ecosystem Research Network, industry and citizen scientist data.

<https://theconversation.com/what-will-australias-proposed-environment-information-agency-do-for-nature-231593>

‘Long-term pain’: Scientists warn against WA’s prescribed burn regime – 6 June 2024

State government agencies are amplifying bushfire risk in south-western Australia, say scientists, who further say that government efforts to discredit their research have backfired, resulting in newer and even stronger research.

The original paper by a team of researchers from Curtin University, the Australian National University and the University of Western Australia, published in 2022, examined 55 years of WA’s fire history data.

Research lead, Curtin University Associate Professor Philip Zylstra, a former remote area firefighter in New South Wales, said their analysis of records kept by the Department of Biodiversity, Conservation and Attractions concluded that prescribed burning makes the bush more flammable.

<https://www.smh.com.au/national/western-australia/long-term-pain-scientists-warn-against-wa-s-prescribed-burn-regime-20240603-p5jttl.html>

Baobab trees all come from Madagascar – new study reveals that their seeds and seedlings floated to mainland Africa and all the way to Australia – The Conversation, 6 June 2024

There are eight species of baobab in the world, and they have a surprising distribution. Six are found in Madagascar, an island in the Indian Ocean; one is found on the continent of Africa; and the last is far away in Australia.

The origin of this group of plants has fascinated people for a long time. I joined a global team of plant genetics and genomics researchers led by Tao Wan and Qing Feng Wang of the Wuhan Botanical Gardens in China and Ilia Leitch of the Royal Botanic Gardens at Kew in London to sequence, assemble and study the genomes of all eight baobab species.

Baobabs are a remarkable keystone species, capable of supporting a wide diversity of animals for food and shelter. They can reach huge dimensions (depending on the species) in both height and diameter.

<https://theconversation.com/baobab-trees-all-come-from-madagascar-new-study-reveals-that-their-seeds-and-seedlings-floated-to-mainland-africa-and-all-the-way-to-australia-231031>

Only 10% of native plants can be bought as seed – a big problem for nature repair. Here’s how we can make plantings more diverse – The Conversation, 10 June 2024

To kick-start ecosystem recovery, governments, environmental managers and landholders often plant a diverse mix of native species on degraded land. The crucial word here is diverse. Planting a wide variety of species makes ecosystems more resilient, laying the foundation of a healthy environment for wildlife.

But effective biodiverse plantings require large quantities of diverse native seed. Amounts range from 600 to 20,000 seeds per square metre.

The problem is we don't have enough seeds from Australia's endemic plants – species found only in this country (often with very limited distributions). Our new research shows both the quantity and diversity of native seed available for restoration are limited across the country. Only 10% of our native species are readily available for sale as seed.

<https://theconversation.com/only-10-of-native-plants-can-be-bought-as-seed-a-big-problem-for-nature-repair-heres-how-we-can-make-plantings-more-diverse-228899>

Dishing the dirt: The challenges of being an Australian fungi conservationist – About Regional, 10 June 2024

Australia's fungi are as unique, weird and wonderful as its plants and animals. They have been and remain critical to plants adapting to Australia's landscape.

Internationally recognised fungi expert Dr Sapphire McMullan-Fisher says Australia has a much greater diversity of fungi than America or Europe because it has such ancient soils. It is far easier for plants to flourish in young fertile soils so they have less need for fungi.

<https://aboutregional.com.au/dishing-the-dirt-the-challenges-of-being-an-australian-fungi-conservationist/452739/>

Ending native forest logging would help Australia's climate goals much more than planting trees – The Conversation, 14 June 2024

Australia contains some of the world's most biologically diverse and carbon-dense native forests. Eucalypts in wet temperate forests are the tallest flowering plants in the world and home to an array of unique tree-dwelling marsupials, rare birds, insects, mosses, fungi and lichen, many of which have not even been catalogued by scientists. Yet our country remains in the top ten list globally for tree cover loss, with almost half of the original forested areas in eastern Australia cleared.

This loss has been devastating for Australia's native plants and animals and contributes to global warming through vast amounts of carbon emissions. The global biodiversity and climate change crises are inextricably linked – we cannot solve one without the other.

<https://theconversation.com/ending-native-forest-logging-would-help-australias-climate-goals-much-more-than-planting-trees-229487>

Indigenous fire management programs recognised for work to preserve vast Kimberley landscape – ABC Kimberley, 16 Jun 2024

The Kimberley Land Council and Dampier Peninsula Fire Working Group have both been recognised for their fire management work preserving the remote WA landscape.

The Kimberley's tropical savannas are among some of the most fire-prone regions in the world.

A carbon market expert suggests more Australian Carbon Credit Units could be earned from fire management soon.

<https://www.abc.net.au/news/2024-06-16/kimberley-indigenous-fire-management-awards-controlled-burning/103972752>

Rainforest project to create new generation of 'super trees' on rural property near Lismore – ABC North Coast, 16 Jun 2024

The Science Saving Rainforests project has acquired land in northern NSW for its living seed bank.

The plantation will feature stands of 60 types of rainforest trees selected for their resilience and genetic diversity.

Cuttings are being taken and propagated to plant across the 15-hectare site in about 12 months.

<https://www.abc.net.au/news/2024-06-16/resilient-rainforest-project-climate-environment-conservation/103967400>

River Murray ecosystem recovers from major flood to bring new life to Riverland – ABC Riverland, 17 Jun 2024

The River Murray is expected to emit an unpleasant odour this week as blue-green algae makes its way down from the Murray-Darling Basin.

There have been sightings of the Murray-Darling python and other species that haven't frequented the Riverland for years.

Conservationists say more has to be done to look after the land and the water to ensure the new species and wildlife stay.

<https://www.abc.net.au/news/2024-06-17/river-murray-ecosystem-flood-recovery-riverland-sa/103969388>

The Cape York Peninsula has taken its first step to being World Heritage listed – NITV, 20 June 2024

Today the Australian and Queensland Governments, alongside a number of Traditional Owners from the region announced the 120,000 square kilometres of the Peninsula has been submitted to the UNESCO World Heritage Tentative List.

Proud lamalaig woman from the Kulkalgau Clan of lama (Yam Island) and the Kulkalgal Tribe of the Torres Strait, and the State Member for Cook Cynthia Lui, says that protecting the Cape is hugely important to her, to her community and to the government.

“Now, we’re one step closer to having our beautiful region recognised on the World Heritage List.”

“This is a proud day for me and for the people I represent.”

<https://www.sbs.com.au/nitv/article/the-cape-york-peninsula-has-taken-its-first-step-to-being-world-heritage-listed/jj7c5ktad>

Puffballs to polypores: Why we know so little about Australia's fungi – ABC Science, 21 June 2024

In Australia alone, there may be up to 250,000 species of fungus, and less than 12,000 of those have been described. While Australians have a national pride around our unique mammals and plants, Australia's enchanting fungal species just don't hold the same place in our hearts.

So why is Australia — and the world — so far behind in our understanding of this diverse group of organisms? And why are non-scientists having to fill in the gap?

<https://www.abc.net.au/news/science/2024-06-21/australias-forgotten-fungi-mushrooms-and-citizen-science/103972348>

Worries of ‘irreversible’ damage to jarrah forest by Alcoa revealed – Sydney Morning Herald, 25 June 2024

Alcoa’s strip mining will permanently and irreversibly damage the jarrah forest in south-west WA and contamination of the water supply is “considered certain”, according to an internal Water Corporation assessment obtained by this masthead.

The utility’s analysis of the mining Alcoa plans to carry out to 2027 was uncovered after a seven-month wait for a response to a freedom of information request. It concluded bauxite mining in the catchments for its dams was “the single most significant risk to water quality in Perth and the South West”.

<https://www.smh.com.au/national/western-australia/worries-of-irreversible-damage-to-jarrah-forest-by-alcoa-revealed-20240621-p5jnpj.html>

Barmera home owner says transition to native garden benefits wellbeing, environment – ABC Riverland, 26 June 2024

A manicured green lawn, bushes or planter boxes along the fence and a Hills Hoist in the middle might come to mind when picturing a traditional Australian garden.

But in many backyards, native plants and ground covers are settling in for the long haul in a shift hailed as beneficial for the ecosystem and the home owner.

Carmel Marks never considered herself to have a green thumb, but the 72-year-old has been converted.

<https://www.abc.net.au/news/2024-06-26/barmera-transition-native-garden-benefits-wellbeing-environment/104007656>

Creative ambitions pursued as part of Australian Antarctic Division's art fellowship program – ABC News, 26 June 2024

Over the past four decades, an arts fellowship has allowed dozens of artists to pursue their creative dreams in Antarctica and the sub-Antarctic. Botanic illustrator Maura Chamberlain and author Favel Parrett recently travelled to Macquarie Island to work on their projects. Ms Chamberlain is planning to exhibit her work next year, while Ms Parrett is developing a book about a young girl who stows away on an icebreaker.

<https://www.abc.net.au/news/2024-06-27/tas-macquarie-island-illustrator-maura-chamberlain-aad/104023304>

Safeguarding Nillumbik's Charming Spider-orchid from extinction – The National Tribune, 26 June 2024

Council and its project partners are celebrating a significant milestone in an on-going collaborative project to save the nationally critically endangered Charming Spider-orchid (*Caladenia amoena*) from extinction.

The Nillumbik Threatened Orchid Recovery Team came together to plant 400 Orchids at three sites across Melbourne's outer North East, in an effort to increase the wild populations ten times over and reducing the risk of extinction.

This dainty orchid, which grows to just 12 centimetres, is one of Australia's most endangered plants. It is currently only found in Nillumbik across three sites, with less than 50 plants left in the wild.

Scientists from Royal Botanic Gardens Victoria's Orchid Conservation Program have successfully propagated the orchid using seeds collected from the three Nillumbik populations.

<https://www.nationaltribune.com.au/safeguarding-nillumbik-s-charming-spider-orchid-from-extinction/>

Events and Opportunities

NZES and ESA Trans-Tasman Forum “Hope Matters: Climate Change and Ecology” – Online, 23-24 July 2024

We invite you to participate in the 2024 Trans-Tasman Forum, hosted by the New Zealand Ecological Society and the Ecological Society of Australia.

Across the globe, climate change is challenging the structure and function of ecosystems and the services they provide to societies. The consequential effects include species changes that are occurring more rapidly than expected, with evidence of further acceleration to come.

This 2-day online forum will focus on the following four themes: Eco-sanctuaries, Fire ecology, Open session - invasive species, coastal and freshwater ecosystems, biodiversity conservation, Traditional ecological knowledge.

<https://kaigi.eventsair.com/nzes-esa-trans-tasman-forum/>

11th Australian Stream Management Conference and Awards Gala – Victor Harbor SA, 11-14 August 2024

The 11th Australian Stream Management Conference and Awards Gala provides an exciting opportunity to share the knowledge and practice within waterway management in Australia and celebrate these incredible achievements. Held in the beautiful Victor Harbor in South Australia, the ASM Conference and Awards Gala will come together for the first time. The hope is that we can braid Australia’s numerous threads of waterway knowledge together to revive our river basins for a brighter future.

<https://www.11asm.org.au/>

Annual Dieback Information Group (DIG) Conference – Perth WA, 20-21 August 2024

This conference will bring together the latest in scientific knowledge, best land management practices and industry innovation in the Phytophthora science and management space.

This year’s theme “Seeing the Forest for the Trees” - has been selected to recognise the importance of holistic management for Australia’s forest ecosystems, and the pivotal role that environmental biosecurity and disease hygiene play in the health of these landscapes.

The Conference Day 1 is available in person and online with optional field trips on Day 2.

<https://www.dwg.org.au/dig-2024/>

Australian Association of Friends of Botanic Gardens (AAFBG) 2024 Conference – Sunshine Coast QLD, 23-26 August 2024

Join us as we tackle the big issues and explore solutions:

- to create rewarding relationships

- to work well with volunteers
- to identify opportunities within a changing climate
- to employ technology that enhances our message and effectiveness.

<https://friendsbotanicgardens.org/2024-conference>

23rd Australasian Weeds Conference – Brisbane QLD, 25-29 August 2024

Invasive Species Queensland (formerly the Weed Society of Queensland) is excited to collaborate with the Council of Australasian Weed Societies (CAWS) in hosting the 23rd Australasian Weeds Conference (AWC). Join us from August 25 to 29, 2024 at the Brisbane Convention and Exhibition Centre for this significant national event.

<https://icebergevents.eventsair.com/awc24/>

Australasian Soilborne Diseases Symposium 2024 – Kingscliff NSW, 26-30 August 2024

The Australasian Soilborne Diseases Symposium is a unique, biennial event that brings together leading researchers, practitioners and primary producers to discuss the latest trends in the diagnosis, prevention, and management of soilborne plant diseases.

The ASDS has been promoting the latest soil health and integrated disease management advances to the world since 2001.

<https://www.asds-apps.com/>

3rd Australian Biosecurity Symposium – Gold Coast QLD, 27-29 August 2024

Building upon the groundbreaking ideas and enriching conversations that marked the success of the 1st and 2nd Australian Biosecurity Symposiums, #BioSym2024 is set to delve even deeper into the future landscape of Australian Biosecurity. This is your chance to be a part of shaping that future. Seize the opportunity to connect with key decision-makers, trailblazing innovators, influential voices, and dedicated researchers within the realm of Australian biosecurity. Mark your calendar, because this is an event you won't want to miss!

<https://www.biosym.com.au/>

8th International Orchid Conservation Congress – Perth WA, 3-6 September 2024 (post-congress fieldtrip 8-10 September)

Welcome to the 8th International Orchid Conservation Congress (IOCC).

A Minute to Midnight theme reflects the global rates of biodiversity decline. Never before in human history have so many wild species been faced with habitat loss and decline. Orchids have not been spared, and IOCC8 is dedicated to understanding the threats and the solutions that are needed to arrest the decline of orchids. Speakers will present a range of relevant topics with the field trip visiting the global biodiversity hotspot of Southwest Australia.

<https://iocc8.com/>

ANPSA Biennial Conference: Gardens for Life – Melbourne VIC, 30 Sep – 4 Oct 2024

Australian Plants Society Victoria (APS Vic) will host the biennial national conference of the Australian Native Plants Society (Australia) (ANPSA). The Conference is being held in excellent facilities at The Round in Nunawading, near Melbourne. Registrations are now open.

<https://www.anpsa2024conference.com/>

New Zealand Plant Conservation Network (NZPCN) 2024 Conference - Whangārei NZ, 6-9 Oct 2024

Early bird registration discount extended to 31 July!

The New Zealand Plant Conservation Network is excited to announce its next conference for 6–9 October 2024, at Forum North, 7 Rust Avenue, Whangārei 0110. We will be reflecting on the past, present and future of plant conservation in Aotearoa New Zealand with our theme “*Ka mua, ka muri – walking backwards into the future*”. With this we will be able to celebrate 21 years of NZPCN, and hundreds of years of plant conservation in Aotearoa, and reflect on how all that has happened informs the future.

<https://www.nzpcn.org.nz/nzpcn/events/conference-2024/>

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/>