



Australian Plants Society

South East NSW Group

Newsletter 180

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Corymbia maculata Spotted Gum and
Macrozamia communis Burrawang

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Dear Members,

Welcome to the second newsletter for 2022. We have conducted our Annual General Meeting and have a newly elected committee of seven people. Thank you to everybody who attended and I look forward to seeing more members during the year. The reports from that meeting are contained within this newsletter. I just wanted to let the group know that the committee will do everything we can to keep our outdoor meetings going while considering the current NSW Health guidelines and restrictions. Please continue to provide feedback to the committee either by contacting us directly, attending meetings or via the email address (southeast@austrplants.com.au). We are always open to suggestions and welcome new ideas.

Keep enjoying watching the garden grow.

Next Meeting

Saturday 12th March 2022,

**A.P.S. S.E. Citizen scientists help record impact of
fires on biodiversity in Murramarang BioBlitz**

arrive 9.30 a.m. for morning tea and a briefing

Walk starts at 10.30 a.m.

There are no facilities in the area of our survey, so come prepared

Details of the meeting, of where to meet, are on page 14

Last Meeting

AGM

Twenty two members journeyed to Eurobodalla Regional Botanic Gardens, on a day of fleeting showers and equally fleeting sunshine. With mask wearing required indoors, it was decided that the AGM should proceed outside, to the relief of all present.

Di welcomed everyone, and began the proceedings of the Annual General Meeting. Secretary Paul was a late scratching, so Geoff Gosling was appointed scribe for the official proceedings. A number of apologies were recorded, and as the minutes of the previous AGM had been circulated prior to the AGM, and there being no comments re such, they were adopted without further note.

Following the brief introductions, President Di then presented her report, which has been forwarded to APS NSW Region for inclusion in their business papers.

President Report 2021.

Looking back on 2021 it surprises me that our APS South East Region group managed to meet together 8 times during the year. We had one indoor talk by Lyndal Thorburn at our AGM, depicting the Western part of this country we may not see again. The rest of the meetings were either visits to local gardens, walks out in the bush or involvement in group activities such as the Guerilla Bay Bioblitz or the ERBG Proteaceae Project. We have ~87 people on our membership list and of those people 13.79% attended 5 meetings or more. The majority of our members did not attend any meetings. (50.58%). 24.14% attended between 2 and 5 meetings and 11.49% attended only one. The average number of people attending a meeting was 18.88, including non-members.



President Dianne delivering her report to the gathering Photo Amanda Marsh

I am not sure if these figures tell us which activities are more popular as our numbers were often influenced by what was happening in the community or the seasonal weather. They do tell us that our monthly activities are catering for a small section of our membership and the rest rely on the newsletter and website to keep in touch. The committee has tried to address this issue, but it has been a difficult few years to be striking out and forging strategies when planning seemed impossible and everything was uncertain.

We seem to have the same problems this year and the committee will endeavour to organise simple activities that people should enjoy and that celebrate our desire to learn about native plants either in local gardens or in our environment.

I would like to thank all members of the committee who have contributed this year. John with his outstanding newsletters, Geoff as our trusty treasurer, Paul as secretary and Marjorie as publicity officer in a time when it was impossible to advertise in advance. Jenny John battles the membership lists and lets us know what's happening and Norm and Sally complete the group with their valued input to our sometimes complex discussions.

I would also like to acknowledge Mark Noake for his work on the website and for all those members who contribute to monthly meetings either as activity leaders or participants or via the newsletter.

I would also like to encourage anybody with an interest in this group to think about joining the committee. It is only with new members joining us that we are able to stay dynamic and continue as a group. It really is not an large workload or obligation but it helps to know there are people willing to take your place and contribute when life gets complicated. Please consider joining the committee , for the sake of keeping this group going beyond this year.

Last year the group also conducted a few working bee days for the Proteaceae Project at ERBG. Plants have been propagated and some were planted. We are nearly ready to organise another planting/maintenance day and hope to make these a more regular activity in 2022.

In March last year we were invited to attend the Guerilla Bay Bioblitz organised by the Guerilla Bay Landcare Group. Our group participated in and conducted guided walks and contributed to documenting and identifying the plants in the Burrewarra Point Reserve. Citizen science is becoming useful for increasing the number of people able to monitor what is happening in their local area and to work alongside experts and people of many different skill levels.

In April the group meeting was held at the home of Phil Trickett and Catriona Bate. The visit was part garden visit and part grafting training session. Members always come away from this property inspired and keen to try new skills with their own plants and gardens.

Not all our activities were limited to gardens. **In August**, just prior to entering lockdown, the group met to walk through an area of land at the back of Dalmeny. Paul had provided us with detailed instructions on which paths to follow and we ambled our way through the forest, recording many plants on our way.

Our next visit out the back was to the Deua National Park out past Moruya. This area can be fairly rugged on some cars, so we split into all wheel or four wheel drive and headed out. Once again it was an opportunity to walk slowly through the bush and look in detail at every plant. We visited a few different sites and learnt a lot about the vegetation of the National Park.

The year's activities also included two local garden visits, one being my own. I have been inspired by the input of APS to make some drastic changes to my garden and last week I sprayed out some of the lawn. I have decided that the lawn is my enemy and I am reducing my carbon footprint by not have to mow as much. Fortunately our humble *Dichondra repens* is not killed by Roundup, so I already have some substitute groundcover. Listening to a group discussion led by Shane Doherty was invaluable and thought provoking.

The second garden visit was our last for the year and it was a very relaxing, beautiful property. Mary - Jane O'Brien and Frank kindly opened up their garden and we were all amazed at the work that has been done and enjoyed seeing the lovely natural garden they had created around their house. It was the perfect way to end the year.

We do not know what this year will bring, but we will continue to keep you informed with our newsletter and aim to provide activities that will allow us to keep learning and appreciating this wonderful area in which we live.

Thank you. Di Clark

TREASURER'S REPORT:

Geoff Gosling presented the Treasurer's report and moved it be accepted.

The year opened with a balance of \$2919.45. The Group received \$750.34 and spent \$156.00 thus finishing with a balance of \$3613.79 plus \$100 in petty cash.

There were no questions from the floor, and Sally Power seconded the report.

Membership Report for AGM Feb 2022

Sally Power presented Jenny John's membership report.

Despite the continuing difficult circumstances produced by covid-19 our South East Group has maintained around 83 members who have chosen South East as their Main Group, 38 of whom are in a joint membership and 2 student members. We also have 14 associate members who have shown sufficient interest in our area to choose SE as an extra group, 6 of whom are in joint memberships and 4 student members.

During 2021 we had 7 new individual memberships and 2 members in a joint membership.

We would like to offer a warm welcome to:-

Anna Kearey from Broulee, **Anna Jarrett** from Long Beach, **Dylan Morrissey** from Tomakin
Christina Potts from Mystery Bay, **Sharon Pearson** and **Jason Cockayne** from Narooma
Murray Robinson from Mirador and **Helen Carmody** from St Kilda, who may have found it difficult to get to meetings this year

We also appreciate the interest in our group shown by **Kelly Upton** from Wollongong and **Natalie Filatoff** and **Stephen Balme** from Reidsdale who have chosen South East as an extra group.

Administrative changes at the Regional Office level have kept me on my toes last year but seem to have produced a more generally satisfactory distribution of membership data to the member Groups in NSW.

I am very relieved that I no longer need to distribute name badges, (a responsibility that I fell very short on), finding it hard to keep track of who needed them and not able to persuade people to contact me and ask for one. Now, members can print their own membership card and use that as a name badge. (Anyone who would like a plastic card holder should contact me.)

I am not able to attend meetings at the moment but I will answer any questions that members have, either by e-mail or phone.

My contact details are on the last page of the newsletter in the list of Committee members.

Thank you

Jenny John, Report ACCEPTED.

Election of Office Bearers.

There being no questions, discussion or comments from the floor, the President called upon **Mary Harrison to take the chair as Returning Officer.**

Mary thanked the outgoing committee for its efforts in administering the Group's activities and declared all committee positions vacant. She then proceeded to conduct the election of a new committee.

Written nominations had been received and no further nominations were made from the floor. Therefore the following office bearers were declared elected:

President – Dianne Clark nominated by Mary Harrison, seconded Anne Phillips. **Elected unopposed.**

Vice President – No nominations received.

Secretary – Paul Hattersley nominated by Jenny John, seconded Barry Hart. **Elected unopposed.**

Treasurer – Geoff Gosling nominated by Dianne Clark, seconded by Norm Hulands. **Elected unopposed.**

Membership officer – Jenny John nominated by Paul Hattersley, seconded Catriona Bate. **Elected unopposed.**

Committee members John Knight nominated by Geoff Gosling, seconded Phil Trickett;
Norm Hulands nominated by John Knight, seconded by Lyndall Thorburn.
Sally Power nominated by Norm Hulands seconded by Anne Phillips.
All elected unopposed.

Last Meeting

Post fire vegetation monitoring Paul Martin Invasive Species Supervisor and Senior Biosecurity Officer at Eurobodalla Shire Council.

With his background in threatened species management, weed management and catchment management, Paul is well qualified to discuss the intricacies and difficulties encountered as Council staff attempt to quantify the damage to local bushland, and prepare restoration plans which could or should be implemented.



Paul Martin was an entertaining and authoritative presenter, despite the mask.

He began with discussion on his team's bush fire recovery processes, defined by spatially capturing the recovery of, and changes in, our vegetation across multiple communities. Findings to date will better inform future decision making with respect to weed burden and management and assist recovery of vegetation. Their investigations also attempted to detect any previously unrecorded species, including plants of concern with respect to biosecurity.

14 fire affected sites between Bodalla and Batemans Bay were selected as representing a broad cross section of the forest types of the Eurobodalla

Tuross River (1): Riverine Forest of *Casuarina cunninghamiana*

Bodalla -Gannons Point (1): **Swamp Oak Floodplain Forest EEC**

Moruya -Yarragee(1): Previous Agricultural –**Black wattle dominated and weedy, previously Riverine Forest of *Casuarina cunninghamiana***

Broulee -St Peters (1): **Bangalay Sand Forest EEC**

North Broulee dune swales (2): **Coastal dune open scrub**

Rosedale headland (1): **Coastal headland scrub**

Rosedale creek (1): **Wet Sclerophyll Forest**

Malua Bay –Pretty Point (3): **Coastal headland scrub**

Malua Bay –tennis courts (1): **Swamp Oak Floodplain Forest EEC**

Runnyford Road (1): **Swamp Oak Floodplain Forest EEC / Coastal Saltmarsh / Mangrove ecotones**

Surf Beach, near tip (1): **Dry Spotted Gum Forest**

APS member and consultant botanist **Jackie Miles** was used to obtain completely objective data, and Council's in-house botanist Lily Berry, accompanied Jackie as her assistant. Funding was via Council's invasive species budget.

Monitoring photo points and plots were set up in February 2020. Steel posts with a holder to take a mobile phone were installed at several locations to allow Council staff and local residents to repeat photos of the same scene at regular intervals to follow the recovery of the vegetation from fire.

Monitoring plots were set up at each post, running on the same bearing as the photo direction (roughly south in most cases). A tape was run out for 25 metres from the post and an area 4 metres wide on either side of the post was surveyed, giving a total plot size of 200 square metres.



Jackie and Libby in typical survey pose, close to the ground inspecting and recording myriad seedlings. What appears as water in the background is actually ash bed, the result of a very hot fire.

The timing of the first survey, on 17 and 21 February 2020 was a little early for identifying many species which were only present as small seedlings or in the early stages of re-sprouting. Some of these were recorded as a best guess with a question mark, some were identified just to genus where that is certain but species is not (e.g. *Acacia* sp.) and some were just recorded at this stage as “unidentified dicot seedling” or unidentified grass or sedge.

The identity of many became apparent over time, and names were changed as a result, if it was apparent that the initial guess was wrong.

All sites except for the one on Gannon’s Point wetland were repeated on 11 and 15 May 2020, and all sites were repeated on 14-16 September 2020, and again on 2-4 March 2021, at around 14 months post-fire. The plots will be re-surveyed in another year’s time.

Where significant weeds were detected on the plots they were generally removed if this could be done by hand, but in some locations they were too numerous, or too difficult to pull.

Any additional weed control required was recorded on the site notes. However, as Paul noted, it might be better to wait a while to gauge just how problematic the weed populations might be.

What comes first?

Species in the Solanaceae family tended to germinate earlier than anything else (Feb –May) and dominated many post fire landscapes, species included:

Solanum aviculare (Kangaroo Apple); *Solanum mauritianum* (Wild Tobacco), weed sp;

Solanum chenopodioides (White Tipped Nightshade), weed sp;

Solanum prinophyllum (Prickly Nightshade); *Solanum pungetium* (Forest Nightshade).

Another very strong germinator was *Phytolacca octandra* (Ink Weed) which totally dominated some sites. In some areas weed removal was encouraged and actively pursued.

However...

On 17 Feb 2020, most sites were blank slates, by May 2020 groundcover recovery was well advanced except in wetter ground, with many native groundcover species present, as well as the post-fire ephemeral weed, **Inkweed**.

By Sept 2020 Inkweed was dominating drier sites of drainage lines, and the waterlogged lower part of sites were well covered with small sedges such as *Isolepis inundata* and the forb *Hydrocotyle sibthorpioides* (a pennywort).

By March 2021 Inkweed has been largely replaced by native grasses forming a dense mat and suppressing many smaller species. So wholesale weeding might not be necessary, or indeed suggested for some sites, as native plants come to dominate the landscape.

Plants that germinated/regrew earlier across most sites

<i>Acacia mearnsii</i> (Black Wattle)	<i>Homalanthus populifolius</i> (Bleeding Heart)
<i>Goodenia ovata</i> (Hop Goodenia)	<i>Sigesbeckia orientalis</i> (Indian Weed)
<i>Lomandra longifolia</i> (Spiny Mat Rush)	<i>Microlaena stipoides</i> (Weeping Grass)
<i>Imperata cylindrica</i> (Blady grass)	<i>Pteridium esculentum</i> (Bracken)
<i>Trema tomentosa</i> (Poison Peach)	<i>Calystegia marginata</i> (Forest Bindweed)
<i>Kennedia rubicunda</i> (Running Postman)	<i>Smilax australis</i> (Wait a While)
<i>Glycine clandestina</i> (Twining glycine)	<i>Hardenbergia violacea</i> (Native sarsaparilla)
<i>Clematis glycinoides</i> (Old Man's Beard)	<i>Dichondra repens</i> (Kidney weed)
<i>Scaevola aemula</i> (Fan Flower)	<i>Pseuderanthemum variabile</i> (Pastel flower)

Some sites were dominated by weeds, especially where those weeds had been present pre-fire, and the first reaction is to kill them, so that native species can flourish.

However, it is quite clear that where regrowth is dominated by ephemeral weeds like *Phytolacca*, it would be prudent to invest precious resources elsewhere, leave nature to do its thing and wait for the dominant species in that vegetation community to re-establish.

Clearly this appears to be the case for Floodplain Forest EEC with respect to Ink Weed and other ephemeral weeds.

This post fire management activity would certainly change if the dominant weed was a species that is long lived and transformative in nature, e.g., *Asparagus aethiopicus* (Ground Asparagus), *Lantana camara* (Lantana) or *Chrysanthemoides monilifera / rotundata* (Bitou Bush).

Robust spatial data is therefore required to understand what is on each asset prior to disturbance, therefore enabling managers to make informed decisions when required. The survival of mangroves appears to be correlated with the state of the tide when the fire came through –those in deeper water are ok, those in shallow water are dead, or recovering very slowly.

Grazing pressure was much reduced, and this allowed many native species to get up and going quickly.

Replanting of burnt areas, while largely unnecessary, was an important part of the healing process for some communities.

Council has started pulling together a germination timeline associated with a weed control cost structure, so we know what to expect in future events, thus the data should be useful for modelling resource requirements for future events.

Post fire transitional communities?

We have observed changes in some communities that would appear to be early indicators of transition from one community to another –at least in the short term.

The site at Runnyford is Swamp Oak Floodplain Forest EEC, however we are seeing what we think is a transition to a Coast Grey Box (*Eucalyptus bosistoana*) dominated sclerophyll forest. We suspect this is due to *Allocasuarina glauca* seedlings failing to progress post germination due to dry conditions, allowing Grey Box seedlings to continue growing alongside *Goodenia ovata* which then appeared to smothered everything else. Conversely, at the **Rosedale Creek site** –formerly wet sclerophyll forest, is now dominated by black wattle, bracken and *Kennedia rubicunda*, with no seedlings from *E. bosistoana* surviving within the monitoring plot. It appears that *K. rubicunda* at least in the short term, is a major contributing factor to the early success of some species.

Pretty Point showed a marked decline in *Pittosporum undulatum*. Where once it was a dominant species within the Coastal Headland Scrub community, it is now almost absent, perhaps allowing a natural return to this vegetation community's natural composition?

Continued monitoring will no doubt reveal if these are longer-term trends or simply short lived, episodic changes.

“A rare native, *Hibiscus richardsonii*, was discovered on a burnt headland at Malua Bay, which was totally unexpected. I didn't even know this species existed until I started to identify the specimen I brought back –it was definitely exciting.

There have been only four records from the far south coast so it's not common that's for sure.”

Jackie Miles –11th August 2020





These photos of Pretty Point -Middle section show the regeneration from

February 2020 to March 2021



Pictures of similar examples from Broulee Dunes, Gannons Point, Rosedale Creek, Rosedale Headland, Surf Beach, Tuross River and Yarragee demonstrated equally impressive results.

Followed, an entertaining and detailed questioning of the information Paul had imparted and to which Paul was able to offer impartial and thoughtful responses. Di thanked Paul for putting so much time into his presentation, and called for a members to show their appreciation with warm applause.

After the lunch break, members visited the Proteaceae garden to see how the plantings survived during the summer break. We were delighted to see nearly all the plants have grown well, and a couple were even flowering. Thanks to Dianne and Dylan, who took



responsibility on behalf of the group to see that any required maintenance was taken care of, this embryonic project has made positive gains.

We then walked across to the recently established **Naturescape gardens**, and were delighted with the results.



Ideas for our own back gardens and courtyards

Joan and Mary-Jane absorb information from a detailed sign, while in the background Sally and Di discuss planting choices

The new plantings are thriving, and the story these gardens are designed to tell was already becoming evident. Well done to the ERBG team for this work.



Although still a young garden, the pond area has already attracted Striped Marsh Frogs, which let us know we were a bit close for their comfort



Purple Loosestrife, *Lythrum salicaria* is a hardy and long flowering plant, quite at home at water's edge, but also tolerating drying out.

In my garden Norm and Lesley Hulands

Summer has been kind to everyone's garden this year, and we must say that we are impressed with the second flowering this year of *Hakea archaeoides*, seed of which was collected when we visited Denise and Graeme Krake's garden in 2015. This Hakea occurs naturally in the forests of the NSW north coast, and with the wet and humid weather to its liking, the plant is thriving in our heavy soil.

In mentioning this, I am reminded how lovely it is to walk around the garden and recall places we have visited.

During our trip to Western Australia in 2017, we were impressed with the many Banksia species which grew in seemingly inhospitable places, and thought it might be possible to grow some back here in Moruya.

We have had success with *B. menziesii*, *B. praemorsa* and *B. media*, which have flowered well for the past couple of years, but this year our prize is *Banksia baxteri*, Bird's nest Banksia, which we found growing profusely on the south coast of W.A.



Some suggested that we would find this difficult to grow with our heavy soil and humid summer, but plants have thrived in a well-drained spot close to a steel garage, which may offer some protection from humidity.

B. baxteri has very hairy new growth, and is susceptible to damage when the foliage gets wet. So far so good though, with multiple flowers.

Also on this trip we met with John Cullen who lives at Jurien Bay and introduced us to the delights of Mt. Lesueur N.P. and nearby Green Head with its floriferous heathland. On leaving, John offered a piece of *Cymbidium canaliculatum*, an orchid from the drier regions of Australia. We are pleased that after 4 years the orchid has decided to reward our patience with a lovely display of perfumed flowers.

Mystery Lasiopetalum

Lyndal picked up a cutting of *Lasiopetalum* at one of our meetings in 2020, which she successfully propagated, and has in the past, through this newsletter, been seeking identification since, without success from our members.



Cymbidium canaliculatum

The photo shows it has relatively large leaves and it also has clusters of pink flowers.

Lyndal has now had it identified by the ANBG/CSIRO as *Lasiopetalum* sp. 'Proston', a "known and soon to be described species from Queensland".

CSIRO has asked Lyndal for more info about where this specimen has come from and hence if you happen to be the originator of the cutting material she would appreciate any more information you might have. You can contact her on lthorburn@viria.com.au or phone 0418 972 438

THE IMPORTANCE OF ANCIENT TREES

Geoff Gosling

I didn't write the story that follows. It was written by Elizabeth Pennisi who writes articles for *Science* magazine. I found it reprinted in *Nature* and thought it was worth bringing to our members' attention. We are all fascinated by old trees but rarely know just how old they are. Over the years, I have read about various methods of calculating the ages of big trees. I even applied one technique to a huge red box (*Eucalyptus polyanthemos*) growing on our previous property and came up with a figure of 200 years, give or take. A pretty old tree, but is it ancient? It is not in the same class as some trees mentioned in Ms Pennisi's article where she is talking 1000 plus years. She also reinforces things that members know and generally strive for but gives reasons for keeping up the good work.

**From this point on, it is all Ms Pennisi's work.
Read on ...**

... ancient trees—some dating back more than 3000 years—are key to the survival of their forests, new research shows. Rare trees ... are also critical to forest health, another new study reveals.



Cultivated trees in Australia do not qualify as 'Ancient', but they are none the less venerable and worthy of protection. Conifer at Retford Park Bowral planted circa 1840. Photo Geoff Gosling

Together, the research suggests conservationists should do more to protect the world's oldest and rarest trees, says William Laurance, an ecologist at James Cook University, Cairns, who was not involved with the work.

Because forests are such important ecosystems—storing carbon, curbing water runoff, and providing food and shelter for many species—such a strategy isn't just good for the health of the forest ecosystem, he argues, it's critical for the health of the planet.

In the old trees study, Charles Cannon, who researches ecological evolution at the Morton Arboretum, wanted to get a sense of the percentage of ancient trees in an average forest. "Ancient" is a matter of perspective and species, however. In oak forests, where most trees live less than 100 years, the ancient ones survive to almost 1000; with longer lived bristlecone pines, ancient trees can exceed 3000 years.

Cannon and colleagues decided to define a forest's most venerable trees as those 10 to 20 times older than their brethren. They used statistics to predict how many ancient trees they would expect to find in forests with different tree death rates. Unlike animals, which tend to have specific life spans, trees can grow indefinitely until felled by lightning, fire, chainsaws, or disease. So, using forest death rates ranging from 0.5% to 5% per year, as measured by foresters, Cannon ran a computer program that calculated the age distributions that would be achieved through time in a simulated forest.

Each year a certain percentage of trees die. Over time, therefore, Cannon knew there would be few trees that reached old age. But he says he was surprised just how few survive to be "ancient."

When annual death rates exceed 3%, no trees make it to an "ancient" age, he found. When mortality hovers between 1% and 2%, just 1% or fewer of the trees become that old, Cannon and his colleagues report today in *Nature Plants*.

That could be bad news because these trees harbour genes critical to the survival of the entire forest, Cannon says. Ancient trees may contain DNA that makes them less likely to be toppled by wind, for example, or more resistant to fungal diseases. And because these individuals have survived hundreds—if not thousands—of years of climate fluctuations, old-timers that sprouted in a very different environment provide a way for the forest to survive should climate swing back to former times.

"Once they are gone, they are gone," Cannon says. "We can't just replant ourselves back to a healthy forest."

"Ancient trees are an irreplaceable hub of biodiversity," agrees conservation ecologist Gianluca Piovesan, a co-author at the University of Tuscia. Unusual insects and other species make their homes in them, he says. "We absolutely must preserve old-growth forests and ancient trees to transition to an ecologically sound future."

"That's a message that needs to go out not just to the scientific community, but to the whole world," says David Milarch, co-founder of the Archangel Ancient Tree Archive. For several decades, Milarch, who was not involved with the work, and his group have been cultivating and planting clones of ancient trees from 130 species, including oaks, maples, and redwoods, hoping to ensure their genes are perpetuated.

Meanwhile, Peter Reich, an ecologist at the University of Michigan, Ann Arbor, and the University of Minnesota, Twin Cities, has homed in on the diversity of tree species found in forests. He and scores of collaborators have compiled a data set of 40 million trees from more than 90 countries, coming up with what they say is the first scientific estimate of the total number of tree species.



River Red Gum, *Eucalyptus camaldulensis* near the Murray River Echuca, believed to be 400-500 years old

In all, the world hosts approximately 73,000 tree species, of which about 9000 have yet to be named and catalogued, Reich and his colleagues report today in the *Proceedings of the National Academy of Sciences*. Surprisingly, one-third of the known species are rare, with just one or two individuals in a survey, as are even more of the unnamed ones. And because rare trees, like ancient ones, may hold genes that can benefit the entire forest, conserving these species is critical as well, Reich says.

Making sure ancient trees survive could help preserve forest diversity, Cannon says. That diversity is the difference between new species evolving and old ones going extinct. The longer a tree lives, the less likely its species is to go extinct and the more likely that new species will arise in its lifetime.

So, when places like the Amazon rainforest are stable, they accumulate more diversity through time even if rare trees are not reproducing very well, Cannon explains.

Thus, “Ancient trees delay the extinction process,” he says, particularly if they belong to a rare species: They may live long enough for the climate or environment to once again allow these genetically rich trees to share their bounty with the rest of the forest—a bit like the famed outlaw of yore.

Status upgrade for the Dryandra



Showy Dryandras come in a huge variety of form and habit within the Banksia family. Photo credit: Jacki Baxter, DBCA

The Dryandra Woodland, home to some of Australia’s rarest and most vulnerable wildlife, has been formally declared the WA Wheatbelt’s first national park.

This important and scenic nature conservation area is located about 180 kilometres south-east of Perth, near Narrogin. It is a rare remnant of the open eucalypt woodlands which covered much of the wheatbelt prior to land clearing which started from the 1890s and is known particularly for its extensive stands of wandoo, powderbark wandoo and salmon white gum.



Woylie Walk, Dryandra Woodland National Park.

Photo credit: Department of Biodiversity, Culture & Attractions

Its best known inhabitant is WA’s animal emblem, the elusive numbat. Among many other animals and birds seen in the woodland are woylies, brushtail wallabies, chuditch, quenda and the mound-building malleefowl.

In winter and spring, its wildflower displays are a delight.

The conversion of the former State forest to national park, including the creation of two class A nature reserves, will help ensure the future protection of native animals living in this biodiverse and beautiful woodland.

Numbats numbers have increased in the Dryandra in recent years with the help of the Department of Biodiversity, Conservation and Attractions, Western Shield conservation initiative. This program has been operating for 25 years, aiming to protect WA’s native wildlife through broad scale management of introduced predators, including foxes and feral cats. It has achieved significant conservation outcomes for many vulnerable native species.

The Dryandra Woodland National Park (a formal park naming process is underway) is also home to Barna Mia, a predator-proof animal sanctuary where visitors can see rare and protected wildlife, including numbats, in their nocturnal environment.

Now that Covid restrictions are lifting, and Western Australia has finally decided to allow visitors, the Dryandra Woodland should be high on your list of places to visit.

Numbat populations and other native species are on the rise in the Dryandra Woodland, aided by a program to reduce feral cat numbers.
Photo credit: Trails WA



WAParksFoundation info@ourwaparks.org.au



THRIVING TOGETHER
Resilience and Renewal in a Changing World

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Friends of
EUROBODALLA
REGIONAL
BOTANIC
GARDEN

29 April
- 1 May 2022

We invite ERBG Friends to the 2022 AAFBG Conference at the Eurobodalla Regional Botanic Garden. The theme for this year's conference is "Thriving Together: Resilience and Renewal in a Changing World". Since arriving at this theme two years ago we certainly have lived in a changing world, but we remain optimistic and continue to plan for a conference that will give Friends across Australia a chance to connect and grow.

Our program will showcase inspiring speakers including Keynote Speaker Professor Tim Entwisle, Director and Chief Executive at the Royal Botanic Gardens, Victoria who will bring his global and local experience and insights.

Speaking on the idea of resilience and renewal will be Michael Anlezark who has led our Garden for the last 10 years through the redevelopment, 2019/20 fires and the pandemic.

The team from Community Greening at the Royal Botanic Garden Sydney will share their innovative outreach programs that recognise the benefit of gardens for both physical and mental health.

There will also be the opportunity for Friends to build connections with other groups and share their stories of resilience and success through interactive presentations and workshops.

Over the weekend there will be plenty of time to socialise. ERBG Friends are invited to take part in the whole conference or to register just for the social activities.

Registrations are now open and can be found at:

erbg.org.au/News-and-events/Upcoming-events/calendar/aafbg-biennial-conference

Enquiries can be directed to the Convenor, Lynne Anlezark, at aaby2022@erbg.org.au

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Next Meeting, Saturday March 12th

A.P.S. S.E. Citizen scientists help record impact of fires on biodiversity in Murramarang BioBlitz

arrive 9.30 a.m. for morning tea and a briefing

Walk starts at 10.30 a.m.

There are no facilities in the area of our survey, so come prepared

At this stage we have not been advised of the specific location of the surveys, so cannot specify a meeting place at Murramarang. So it was decided to meet a little early, 9.30am at Batemans Bay, where we can pool cars before heading to the survey site. As work continues around the bridge, the Wharf Road carpark is unavailable, so to avoid any confusion we will meet in the Bridge Plaza carpark near KFC, where cars are able to be left for the day.

Turn off the highway at North St traffic lights, and immediately into the first driveway directly behind KFC.

With continuing wet weather, we have no idea whether the bioblitz will be held, however our walk is independent of the bioblitz, so we still plan for our activity to proceed.

If there is any late change to this information, a notice will be sent to members advising such.