

CALEYI



NORTHERN BEACHES GROUP

austplants.com.au/northern-beaches

August 2020

Australian Plants Society Northern Beaches
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CALENDAR

APS Northern Beaches Meetings have been cancelled due to consequence of the corona virus outbreak. Please note that there will be no Stony Range Spring Festival this year.

APS Northern Beaches walk Saturday August 22, 2020. Walk Dobroyd Head. We will meet at 10.30 am. Parking Tania Park, Balgowlah Heights. Anne will send the full details by email well in advance.

APS NSW GTG Southern Highland Group, 14-15 November 2020.

ANPSA Biennial Conference 12-17 September 2021: Australian flora -past present future. In 2021, the conference is being hosted by the Australian Plants Society NSW at the Kiama Pavilion in the beautiful village of Kiama on the pristine south coast. To register an expression of interest, click the '<https://austplants.com.au/event-3403188>'

Many thanks to Russell, Harry and David for their wonderful contributions to CaleyI this month. If you have any articles or photographs (jpgs as attachments please) that you think will interest our members please send them to me.

Editor march@ozemail.com.au 0407 220 380



Social distancing APS style. Pic Russell Beardmore

MESSAGE FROM APS NORTHERN BEACHES PRESIDENT CONNY HARRIS.

Dear Members,

It is fabulous going out in the bush and many enjoyed the flowers on the recent bushwalk.

Of course, not all things are flowers and I thought it might be good to get our books out for a little in between refresher of our knowledge. BTW the mystery flower last month was *Phebalium squamulosum*.

Today I got 3 photos of 3 vines from my bushregen patch which I'd like to share with you. The rain was certainly good for the bush, but I am now so glad to see the sun again and I trust you too.



I hope we can continue with our outdoor gatherings but at the moment everyone is getting a little nervous. Please take a walk with a friend or alone, take a picture or two and enjoy the most beautiful bush flowering ahead.

Regards Conny

JULY ON THE CENTRE TRACK

Russell Beardmore

A selection of blooms from Russell's July 1 walk on the Centre Track at West Head, Ku-ring-gai Chase National Park.



JULY WALK TO THE BLUFF

Harry Loots



Sydney's sandstone bushland is awash with the pink of boronia. It was a joy to just stop and absorb its beauty. The morning's short walk along the Bluff Track might have been too slow for some but I was constantly distracted. There were plenty of nature's wonders to draw me from the beaten path.

It was the first reunion of Northern Beaches APS group since a March meeting. We had been forced into social isolation by the Covid-19 epidemic. It was an opportunity to share knowledge and to be shown something that had been missed. From the Bluff overlooking Bantry Bay Sydney's CBD seemed close by. Middle Harbour shimmered as a mirror's reflection.

Garigal National Park's natural beauty was to be enjoyed on this sunny winter's day. Plant identification was a topic of enquiry and books were researched. While some were interested in sedges and rushes I found what I thought was a *Hibbertia riparia* although on a previous occasion I had called it a *Hibbertia nitida*. I suppose that it doesn't matter to the Hibbertia, nor take away from beauty of its yellow flower, what it is called. Three distinctive Acacia were in flower and they were easy to identify: *Acacia longifolia*, *Acacia ulicifolia* and *Acacia suaveolens*.

Without mentioning absolutely every plant seen, here are some surprising observations. Someone noticed red balls attached to a gum leaf. I thought that maybe they were seeds but upon closer inspection the balls proved to be galls. Galls are abnormal growths caused by burrowing insects and mites. Eucalyptus leaf galls usually contain a single orange or red larva which distinguishes it from most other larvae found in galls which are typically cream or white in colour.

Decorative brown leaves hung from one drooping tree like long tassels. Some She-oaks or Casuarinas are dioecious, meaning they have the male and female reproductive structures on separate plants. The brown leaves were male flowers, flaky growths on long narrow leaves.

There was plenty of orange bracket fungi to colour the charcoal tree trunks. Tracts of pink *Boronia ledifolia* even became commonplace. Fresh red leaves poked out of the low growing rough *Angophora hispida*. There were interesting patterns in the grey bark of *Eucalyptus haemastoma*. This is a scribbly gum because of graphics found on the bark. One piece looked like the map of India but there are many designs in nature. The *Ogmograptis*, the scribbly gum moth causes these patterns as it burrows through the gum's bark.

I'm sure that we all enjoyed getting out of the house and meeting people again, if only briefly.



Boronia ledifolia. Pic: Ed

Anne admires the *B. ledifolia*. Pic: Ed



Acacia longifolia. Pic: David Drage

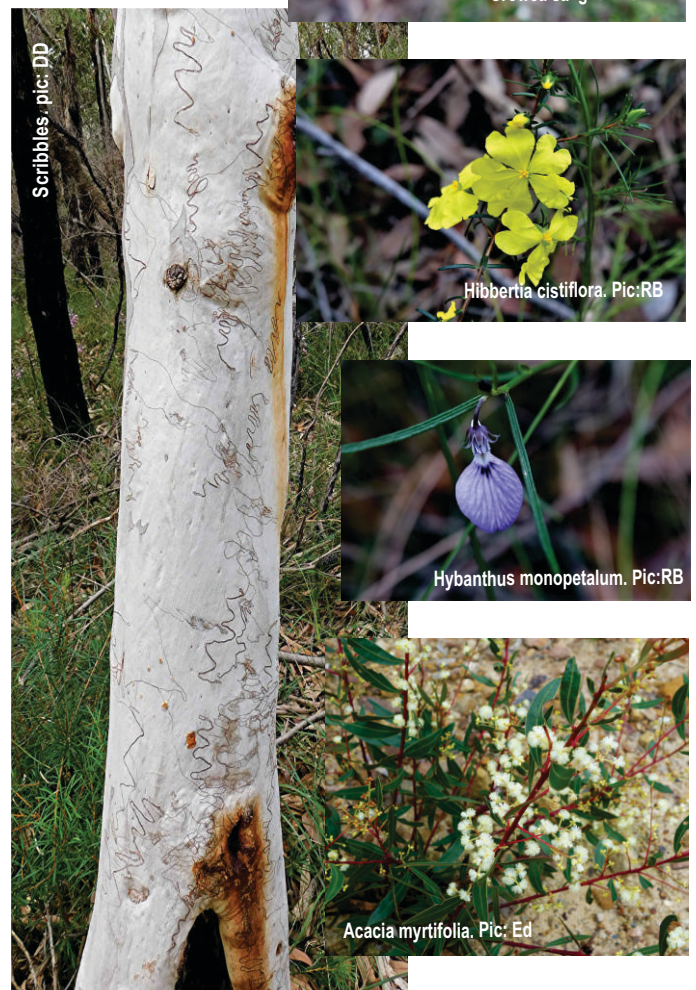
Banksia spinulosa. Pic: Ed

Dampiera stricta. Pic: Russell Beardmore



Conospermum longifolium. Pic: Ed

Crowea saligna. Pic: RB



Scribbles. pic: DD

Hibbertia cistiflora. Pic: RB

Hybanthus monopetalum. Pic: RB

Acacia myrtifolia. Pic: Ed

HOW A SCIENTIFIC SPAT OVER HOW TO NAME SPECIES TURNED INTO A BIG PLUS FOR NATURE

Theconversation.com July 27, 2020

Stephen Garnett Professor of Conservation and Sustainable Livelihoods, Charles Darwin University
Les Christidis Professor, Southern Cross University
Richard L. Pyle Associate lecturer, University of Hawaii
Scott Thomson Research associate, Universidade de São Paulo
Charles Darwin University and Southern Cross University provide funding as members of The Conversation AU.

Taxonomy, or the naming of species, is the foundation of modern biology. It might sound like a fairly straightforward exercise, but in fact it's complicated and often controversial.

Why? Because there's no one agreed list of all the world's species. Competing lists exist for organisms such as mammals and birds, while other less well-known groups have none. And there are more than 30 definitions of what constitutes a species. This can make life difficult for biodiversity researchers and those working in areas such as conservation, biosecurity and regulation of the wildlife trade.

In the past few years, a public debate erupted among global taxonomists, including those who authored and contributed to this article, about whether the rules of taxonomy should be changed. Strongly worded ripostes were exchanged. A comparison to Stalin was floated.

But eventually, we all came together to resolve the dispute amicably. In a paper published this month, we proposed a new set of principles to guide what one day, we hope, will be a single authoritative list of the world's species. This would help manage and conserve them for future generations.

In the process, we've shown how a scientific stoush can be overcome when those involved try to find common ground.

How it all began

In May 2017 two of the authors, Stephen Garnett and Les Christidis, published an article in Nature. They argued taxonomy needed rules around what should be called a species, because currently there are none. They wrote: for a discipline aiming to impose order on the natural world, taxonomy (the classification of complex organisms) is remarkably anarchic [...] There is reasonable agreement among taxonomists that a species should represent a distinct evolutionary lineage. But there is none about how a lineage should be defined.

'Species' are often created or dismissed arbitrarily, according to the individual taxonomist's adherence to one of at least 30 definitions. Crucially, there is no global oversight of taxonomic decisions — researchers can 'split or lump' species with no consideration of the consequences.

Garnett and Christidis proposed that any changes to the taxonomy of complex organisms be overseen by the highest body in the global governance of biology, the International Union of Biological Sciences (IUBS), which would "restrict [...] freedom of taxonomic action."

An animated response

Garnett and Christidis' article raised hackles in some corners of the taxonomy world — including coauthors of this article.

These critics rejected the description of taxonomy as "anarchic". In fact, they argued there are detailed rules around the naming of species administered by groups such as the International Commission on Zoological Nomenclature and the International Code of Nomenclature for algae, fungi, and plants. For 125 years, the codes have been almost universally adopted by scientists.

So in March 2018, 183 researchers — led by Scott Thomson and Richard

Pyle — wrote an animated response to the Nature article, published in PLoS Biology.

They wrote that Garnett and Christidis' IUBS proposal was "flawed in terms of scientific integrity [...] but is also untenable in practice". They argued:

'Through taxonomic research, our understanding of biodiversity and classifications of living organisms will continue to progress. Any system that restricts such progress runs counter to basic scientific principles, which rely on peer review and subsequent acceptance or rejection by the community, rather than third-party regulation.'

In a separate paper, another group of taxonomists accused Garnett and Christidis of trying to suppress freedom of scientific thought, likening them to Stalin's science advisor Trofim Lysenko.

Finding common ground

This might have been the end of it. But the editor at PLoS Biology, Roli Roberts, wanted to turn consternation into constructive debate, and invited a response from Garnett and Christidis. In the to and fro of articles, we all found common ground.

We recognised the powerful need for a global list of species — representing a consensus view of the world's taxonomists at a particular time.

Such lists do exist. The Catalogue of Life, for example, has done a remarkable job in assembling lists of almost all the world's species. But there are no rules on how to choose between competing lists of validly named species. What was needed, we agreed, was principles governing what can be included on lists.

As it stands now, anyone can name a species, or decide which to recognise as valid and which not. This creates chaos. It means international agreements on biodiversity conservation, such as the Convention on International Trade in Endangered Species (CITES) and the Convention on the Conservation of Migratory Species of Wild Animals (CMS), take different taxonomic approaches to species they aim to protect.

We decided to work together. With funding from the IUBS, we held a workshop in February this year at Charles Darwin University to determine principles for devising a single, agreed global list of species. Participants came from around the world. They included taxonomists, science governance experts, science philosophers, administrators of the nomenclatural (naming) codes, and taxonomic users such as the creators of national species lists.

The result is a draft set of ten principles that to us, represent the ideals of global science governance. They include that:

1. *the species list be based on science and free from "non-taxonomic" interference*
2. *all decisions about composition of the list be transparent*
3. *governance of the list aim for community support and use*
4. *the listing process encompasses global diversity while accommodating local knowledge.*

The principles will now be discussed at international workshops of taxonomists and the users of taxonomy. We've also formed a working group to discuss how a global list might come together and the type of institution needed to look after it.

We hope by 2030, a scientific debate that began with claims of anarchy might lead to a clear governance system — and finally, the world's first endorsed global list of species.

The following people provided editorial comment for this article: Aaron M Lien, Frank Zachos, John Buckeridge, Kevin Thiele, Svetlana Nikolaeva, Zhi-Qiang Zhang, Donald Hobern, Olaf Banki, Peter Paul van Dijk, Saroj Kanta Barik and Stijn Conix.

Louisa Anne Meredith (Anglo/Australian artist) 1812 - 1895

facebook female artists in history.

Albums Louisa Anne Meredith (Anglo/Australian artist) 1812 - 1895



Gum Flowers and Love, 1860 coloured lithographic print Tasmaniana Library, Tasmania.

Louisa Anne Meredith, also known as Louisa Anne Twamley, was an Anglo/Australian writer and illustrator. Louisa Anne Twamley was born in Birmingham, England, the daughter of Thomas Twamley and Louisa Ann née Meredith.

She was educated mainly by her mother, and in 1835 published a volume, *Poems*, which was reviewed favourably. This was followed by *The Romance of Nature* (1836, third edition 1839), mostly in verse. Another volume was published in 1839, subtitled *An autumn ramble on the Wye an account of a tour on the River Wye from Chepstow to near its source at Plylmon*.

On 18 April 1839 Louisa married her cousin, Charles Meredith at Old Edgbaston Church, Birmingham. Charles had emigrated to Van Diemen's Land (now Tasmania) in 1821 with his father George and family. They had been pioneers of grazing, whaling and other activities around Swansea on Tasmania's East Coast.

Charles had become a squatter in the Canberra district of New South Wales. Louisa and Charles Meredith sailed for New South Wales in June 1839, and arrived at Sydney on 27 September 1839. After travelling into the interior as far as Bathurst, Mrs Meredith returned to the coast and lived at Homebush for around a year. By the time of his return to New South Wales, severe economic depression caused by excessive land speculation had destroyed the value of Charles' property, and towards the end of 1840 they relocated to Tasmania. An interesting account of her first 11 years in Australia is given in her two books, *Notes and Sketches of New South Wales* (1844), reprinted at least twice, and *My Home in Tasmania* (1852), which was soon republished in the United States of America under the title *Nine Years in Australia*.

For most of her life Louisa Meredith lived on properties around Swansea. In 1860 she published *Some of My Bush Friends in Tasmania* which contained elaborate full-colour plates printed by the new chromolithography process. The illustrations were drawn by herself, and simple descriptions of characteristic native flowers were given.

In 1861 an account of a visit to Victoria in 1856, *Over the Straits*, was published, and in 1880 *Tasmanian Friends and Foes, Feathered, Furred and Fined*. This went into a second edition in 1881. In 1891, Meredith ages in this album will be ordered chronologically.

went to London to supervise the publication of *Last Series, Bush Friends* in Tasmania. Published at the beginning of a severe financial depression in the Australian colonies, this project and the collapse of the bank where most of her savings were held ruined her financially.

In her final years Louisa suffered from chronic sciatica and became blind in one eye. She died in Collingwood, Victoria (a suburb of Melbourne) on 21 October 1895 and was survived by sons Owen and George.



Waratah and Native Arbutus, 1860 coloured lithographic print Tasmaniana Library, Tasmania

Meredith was the author of two novels, *Phoebe's Mother* (1869), which had appeared in the Melbourne weekly *The Australasian* in 1866 under the title of *Ebba, and Nellie, or Seeking Goody Pearls* (1882). Meredith took great interest in politics, her husband Charles being a Member of the Tasmanian Legislative Council for several terms between the mid-1850s until just before his death in 1881.



Blandfordia and Box, 1891 coloured lithographic print Tasmaniana Library, Tasmania.

She was an early member of the Society for the Prevention of Cruelty to Animals and influenced her husband to legislate for preservation of native wildlife and scenery. Meredith often wrote unsigned articles for the Tasmanian press. This was no new thing for her as in her youth she had written articles in support of the Chartists. When she visited Sydney in 1882, Sir Henry Parkes told her that he had read and appreciated her articles when a youth. After her husband's death she was granted a pension of £100 a year by the Tasmanian government. Many of her books were illustrated by herself. Her volumes on New South Wales, Tasmania, and Victoria in the 1840s and 1850s, will always retain their historical significance.

MAGPIE SONG RESEARCH REVEALS DIFFERENCE BETWEEN THE SEXES

abc.net.au July 2, 2020 Anna Hartley



Researchers say magpies are one of the most vocally complex songbirds in the world. (Supplied: Tiffany Lait)

Rod Shaw can't stand magpies — he's been swooped, attacked and spends most days cleaning his outdoor furniture after their visits.

"They sing their heads off and poo all over our furniture, so they're not welcome visitors here," Mr Shaw said.

Just down the road from Mr Shaw in Logan, south of Brisbane, Audrey Roberts said she took the opposite view of the iconic Australian birds. "They're gorgeous. They sing a beautiful song," Ms Roberts said. "They just about eat out of your hand. I think they're very intelligent and friendly."

Love them or hate them — there's no denying Australia would be a very different place without the distinctive dawn chorus of the pesky black-and-white bird.

Landmark research has found male and female magpies don't have the same song, with the louder, chattier birds more likely to be female.



Rod Shaw reckons magpies just leave his backyard in a mess. (ABC News: Anna Hartley)

'Most vocally complex songbirds in the world'

Researcher and Associate Professor with the University of Western Australia, Amanda Ridley, said there was still much more to learn about how the birds communicate.

"It's really fascinating that a bird that's so iconic in Australia hasn't had all that much research done on them," Ms Ridley said. "It's not always obvious to the human ear, but we've found females call a lot more often and at much higher maximum and minimum frequencies."

"This is new information. Magpies are famous for their song — it's such an evocative Australian thing. But not much has been looked into around differences in their calls and this is the first time it has been reported that males and females call differently. They can tell if another magpie is lying."

Ms Ridley has been studying the well-known birds for eight years and has made some surprising discoveries. "They are one of the most vocally complex songbirds in the world," Ms Ridley said.



Associate Professor Amanda Ridley says research shows a magpie can tell when another magpie is lying. (ABC News: Jon Sambell)

"They have really complex communication compatible to rudimentary human language. We're looking more and more into the vocals and what we've also found is that magpies can tell the difference between individuals who give them reliable information and those who don't."

"So they can tell if another magpie is lying."

Ms Ridley recorded two magpies in the wild, one that was signalling/warning other birds in its group when it saw a predator, a snake, and another that signalled when it did not actually see the predator or was not sure there was danger.

Both calls were played to several groups of magpies they have been studying and the call from the bird who saw the predator — the reliable call — was passed on and the birds responded as if there were danger.

The second call was not passed on and the birds ignored it.

Ms Ridley said Australians will be hearing the magpie song for many months to come as breeding season will continue until it peaks around August and September. She said many people didn't know magpie songs could last up to 70 minutes and achieve volumes in excess of 80 decibels — as loud as a lawn mower."

"There's a lot more to learn," Ms Ridley said.

"I think magpies can still teach us a lot about communication, cognition and cooperation."