





BUSHCARE AUTUMN 2023 – ISSUE 57



Caption: North Sydney Community Awards 2023 | Living Legend Award - Bushcare volunteers with 20yrs + of community service

WINNERS ANNOUNCED: NORTH SYDNEY COMMUNITY AWARDS 2023

From regenerating local bushland to helping skilled migrants find work, there are many ways local volunteers and citizens make a difference to the North Sydney community. The annual North Sydney Community Awards recognises and celebrates their altruistic efforts.

Held on 24 February 2023 in the Hutley Hall, award nominees attended a special presentation ceremony where the winners were announced. There were four categories: Community Builder, Eco Warrior, Next Generation and Living Legend.

Mayor Zoë Baker said: "It is incredibly important to recognise what local citizens and groups are doing within our community to make it a better place for all. The North Sydney Community Awards acknowledges their outstanding contributions and serves as inspiration to others. Thank you to all of this year's nominees, and congratulations to the winners."

Council has revitalised the North Sydney Community Awards, making it independent from Australia Day and overhauling the list of categories. The judging panel consists of North Sydney Council's Mayor and Deputy Mayor, as well as the Community Awards Committee.

AWARD WINNERS FOR 2023

Janice Hui and Linda Bisnette were the joint winners of the Community Builder Award. They were recognised for their work in helping skilled migrants gain employment through a workshop and oneon-one coaching services at Crows Nest Community Centre. More than 70 per cent of participants have found jobs linked to their professional field of expertise as a result. Linda is also President of the Zonta Club of North Sydney.

Honourable mentions went to Matt Dawson, John Hancox and Audrey Tonkin.

The Eco Warrior Award went to both Anne Pickles and Ruth Mitchell for their work with Wildlife Watch – an initiative where volunteers record wildlife observations for North Sydney Council. Anne has added over 7,043 entries into Council's BioCollect database. Meanwhile, Ruth has entered more than 447 historic wildlife records into the database. For the Next Generation Award, there were four winners. First, Patrick Boland who has been helping rehabilitate local bushland through the North Sydney Bushcare Program since 2019. He has logged - 51 hours of voluntary service, mostly spent controlling exotic weeds at Forsyth Park, Smoothey Park, Tunks East and Harry Howard Reserves.

Loreto Kirribilli students Imogen Wills, Lauren Moloney and Olivia Menzies were also announced as winners for this award. The trio have been instrumental in establishing Loreto as a sustainable school by formally setting up an Environmental Sustainability Framework. Before graduating Year 12 in 2022, they initiated programs such as Return and Earn, a 'War on Waste' clean-up day and Plastic Free Canteen.

Finally, there were 29 joint winners for the Living Legend Award – all of whom are volunteers with the North Sydney Bushcare Program. Each have contributed 20 or more years of service. Bushcare celebrates its 30th anniversary in April. LIVING LEGEND AWARDS

BUSHCARE

Donald Melrose (30yrs) George Barbouttis (30yrs) Heather Robson (30yrs) Mary-Lyn Lawrence (30yrs) Nicole Bannister (30yrs) Sissi Stewart Nancy Heywood Anita Semler Andy Craig Ann Lyons Margaret Ryan Rosslyn Young Eddie Tsui Ian Clarke Lynne Cook Michael Young Mart Vesk Hilary Walker Penelope Blau Penelope Erikson Margaret O'Brien Dick Gall Frennie Beytagh Bud Coffey Victoria Whitney Joyce Meyer Jan Thomas John Brewer Kim Shepherd

COORDINATOR'S UPDATE

On behalf of the Bushland Management Team, I'd like to wish all Bushcare program supporters a happy new year for 2023! We are especially looking forward to seeing our fantastic Bushcare, Wildlife Watch and Adopt-a-Plot volunteers, back on site and ready for the year ahead.

The multiple La Nina/IOD events that dominated weather patterns over the past three years are predicted to wane through the coming months. However, residual soil moisture and warmer conditions will continue to drive rapid growing conditions – for both natives and weeds. While our Bushcare sites (and wider bushland reserves) are in great shape, it will nevertheless be a constant challenge keeping the fast-growing and quick-to-seed grasses/annuals in-check, preventing competition and their unwanted contribution to the soil seedbank.

As many of you will know by now, 2023 marks the 30th anniversary of North Sydney Council's Bushcare program. This amazing milestone is only surpassed by the number of Bushcare volunteers that have been actively involved with this program since the very beginning! To document this achievement, several of our 30+ year Bushcare legends have agreed to share their experiences, motivation, and passion for bush regeneration via a series of short video clips that promote the program; encourage greater appreciation of our remnant bushland reserves and (hopefully) increase participation by the North Sydney community, these videos will be shared on Council's social media through April. In addition to this initiative, the Stanton Library will host two displays to commemorate the 30th Anniversary of our Bushcare program, from Monday 24 April and through May. A collection of back issue Bushcare Newsletters for the past 30 years will be held in the library's local history section, they will also be made available in the digital collection. The anniversary coincides with the Living Futures Sustainability Festival at the Coal Loader. Come visit the Bushcare stall on Sunday 30 April.

The Bushland Team have planned a full program of activities, talks and trips for the coming year, ranging from guided walks through some of our amazing reserves; Bushcare exchange visits to Taren Point and Hungry Beach, as well as popular staples such as National Tree Day and our tree planting weekend in Boorowa. Check the Bushcare calendar and Council's website event listings for dates and registration details.

Wollstonecraft locals may already have seen some significant improvements being made to the Gore Cove Reserve walking track off Shirley Rd. Over fifty

by Gareth Debney Bushland Management Coordinator

aging timber box steps have been replaced with large-dimension sandstone block steps, hand-etched to provide a grippy, long lasting alternative to the previous treated pine sleepers. Although marginally more expensive initially, sandstone block steps are an investment in bushland track infrastructure outlasting timber track features by many decades and vastly prolonging the need for future track upgrades. Funding for this two-stage project comes from both Council's Capital Works program, and a substantial grant awarded by the NSW Government's Department of Lands. The second stage of this project will see further sandstone block steps replacing treated pine sleepers elsewhere along a 0.6km section of the 1.1km walking track. Accessing the reserve with these materials in a low-impact manner presents a major challenge to the project, as each sandstone step weighs around 200-250kg. To overcome this obstacle, a specialised heavy-lift helicopter will be used to deliver the blocks in bulka bags to each location along the track where they need to be used. While this method of materials transportation is common in National Parks and some larger Council areas, it's a first for North Sydney and I'd be lying if I didn't admit to being both excited and nervous by the prospect of coordinating it!



WILDLIFE WATCH UPDATE (SUMMER 2022/2023)

We had many sightings this season! From the more obvious, to the smaller and reclusive species that often go unnoticed, such as the Punctate Flower Chafer Beetle pictured above. Of course, there were the familiar brush-turkeys about (including one seen stealing a Raven's take-away

- Red Triangle Slug (Waverton urban)
- Punctate Flower Chafer Beetle (North Sydney urban) feeding on Angophora hispida flowers
- Blue Triangle Butterfly (Neutral Bay urban) feeding on a yellow Lantana species
- Bar-sided Skink (Neutral Bay urban) warming itself on a path, minus tail
- St Andrew's Cross Spider (Cremorne Point, Brightmore Reserve, Waverton urban)
- Swamp Wallaby scat (Tunks Park)
- Long-nosed Bandicoot scat (Tunks Park)
- European Red Fox scat (Cremorne urban)
- Sydney Funnel-web Spider (Tunks Park, Primrose Park) dug up under thick mulch while weeding
- Tawny Frogmouth (Kirribilli urban) resting in the daytime in a Jacaranda tree

lunch), but there were also many other sights and sounds of a typical Sydney summer.

Flurries of butterflies brought colour and delight, after heavy rain some saw red triangle slugs (*Triboniophorus graeffei*) appear, cicadas made their almost deafening calls for a mate when the weather warmed and St Andrew's Cross spiders (*Argiope keyserlingi*) draped their webs from plant to plant, sometimes across our walking path! One lizard was seen with part of its

- Leaf-curling Spider (Cremorne Point)
- Saunders' Case Moth (Cremorne Point)
- Fiddler Beetle (North Sydney urban) feeding on Angophora hispida flowers
- Eastern Water Dragon (Cremorne Point, Lady Gowrie Lookout)
- Australian King-Parrot (Neutral Bay urban, Cremorne Point Reserve) looking for a tree hollow to nest in
- Variegated Fairy-wren (Cremorne Point) a male in bright plumage among White-browed Scrubwrens
- Australian Brush Turkey (Neutral Bay urban, North Sydney urban, Cremorne Point Reserve, Cremorne urban, Kirribilli urban) tending a nest, finding food
- Rainbow Lorikeet (Neutral Bay urban)
- Sulphur Crested Cockatoo (Cremorne urban) eating seeds from

tail missing (likely due to a predator) while other animals left clues behind (such as the Long-nosed Bandicoot and Swamp-Wallaby scats found at Tunks Park)!

Tip: you can find funny/interesting comments attached to many species' sightings on the Wildlife Watch page on Council's website. Your sightings help to inform others and build up a picture of what is living in the North Sydney Council area, to better enable species management.

a Streets Alive garden

- Blue-banded Bee (North Sydney urban) feeding on purple salvia flowers
- Australian Raven (Neutral Bay urban) pecking at a brush-turkey after its food
- **Common Myna** (North Sydney urban) taking nesting material to a set of traffic lights

For a full list of species, go to: https://www.ala.org.au/biocollect/ Under 'Citizen Science projects', search for NSC Wildlife watch.

If you wish to contribute a sighting of wildlife, or have related comments about what you have seen, from the unusual to the funny, please contact Council's Bushland Project Officer via **council@ northsydney.nsw.gov.au** or 9936 8100. Find out how to get involved by searching for Wildlife Watch on our website: www.northsydney.nsw.gov.au

by Karina Hanemann - Bushland Projects Officer

ROCKS AND DIRT OF NORTH SYDNEY

Describing the rocks and dirt in North Sydney sounds like a simple topic but given the density of urban development across the suburb it is challenging to get a clear picture. There are four published geology maps that cover North Sydney, and they all differ especially in the placement of rock unit boundaries and the presence or absence of volcanic dykes. These discrepancies indicate that the accuracy of the maps is questionable and whenever possible you should only use them as a guide at their published scale and confirm the rock or soil type in the field.

Geological time line - North Sydney



Caption: Geological timeline – North Sydney

The geology is a simple layering of Triassic sedimentary rocks. On the ridge crest along the Pacific Highway and Military Road is the Ashfield Shale of the Winamatta group. Grey shales and laminates, about 240 million years old, have been deposited in a deltaic environment.

Below the shale ridges on steeper slopes down to the harbour, Hawkesbury Sandstone outcrops. A medium grained quartz sandstone with some discontinuous shale interbeds and occasional quartz pebble conglomerates. The sandstone may be massive facies (homogenous) channel fills deposited during flood peaks, or sheet bedded units deposited by waning floods flows in a very large, braided river. The shales represent quiet water deposition in billabongs. Between the Hawkesbury Sandstone and the Ashfield Shale, a few metres of transition zone rocks called the Mittagong Formation may occur. These vary in thickness and are difficult to identify but may be exposed in the Warringah freeway cuttings although they have not been depicted on the current geologic map.

Going deeper, the early Triassic Narrabeen Group rocks are present and deeper again at about 1.5km the sequence passes into the Permian coal measures after crossing a marker unit where the fossils shift from Glossopterris swamp forming plants to sterile sediments, only containing Dicroidum. This change marks the 'Great Dying' 252 million years ago when about 80% of all species on Earth were killed.

Drill holes at Cremorne in 1890/91 penetrated 2 and 3m thick coal seams at 854 and 889m. A coal mine was proposed for a site near Taronga Zoo but local opposition was loud enough to stop it -a win for conservationists in the 19th Century! The company then moved to Balmain where a mine operated under the Harbour quite unprofitably on and off for 25 years.

Volcanic dykes (basalt) come and go on different maps. They are not accurately placed and there are more of them than we know about as they are difficult to identify except in road cutting and quarries. In the sandstone, dykes are altered to a smooth white clay to depths of 12-20m and you rarely see fresh rock. They are only 2-4m wide and occur as a vertical sheet so do not have much influence on the soil mantle. Four dykes are known with north-westerly trend and one with a north-easterly trend. Their ages are unknown but Och et al (2009) suggest 150-50 mya. These authors also recognised major fault zones across the CBD and North Shore including the Luna Park fault zone that extends from Heathcote Road to at least Dee Why Lagoon. These had not previously been mapped and may be responsible for unstable cliffs where they intersect the coast (Mitchell and Illingsworth in Conroy et al 2022).

In the soil mantle, Chapman et al (1989) recognised soil landscapes rather than soil profiles. Their mapping closely follows the geology map so if that map is inaccurate, so too are the expected soil materials. We also have the situation where most soils in a densely settled area are rather messed up and contain a lot of industrial debris such as concrete, bricks, glass, and you name it.

The natural soil pattern is that the shale ridge crests carry Blacktown and Glenorie Soil Landscapes – almost all texture contrast profiles with sandy loam surface horizons, over pedal clay weathered from the bedrock. Flatter lands on sandstone and perhaps the Mittagong Formation carry Gymea, or Lambert Soil Landscapes – more gradational and uniform profiles with the occasional texture contrast profile on thin shale beds. The steeper slopes with rock outcrop around the harbour carry Hawkesbury Soil Landscapes – profiles here are very similar to those in the Lambert Soil Landscape with the difference being because of the steep slope. None of the rocks or the natural soil materials are very exciting so far as plant nutrients are concerned, but there are important topographic differences in nutrient status driven by the downslope movement and accumulation of plant litter as well as considerable variations in soil moisture availability. These variables, plus fire, largely controlled the original vegetation which according to Benson and Howell (1990) was Sydney Blue Gum and Blackbutt High Forest on the shale ridges, smooth bark angophora, red bloodwood, Sydney peppermint, she oaks, grey gums and banksia on the sandstone slopes, and rainforest elements such as figs, cheese trees and blueberry ash in the moist gullies.

Peter was the Head of Physical Geography at Macquarie University back in the dreamtime and has a long history of teaching geomorphology, pedology and environmental management in Australia and New Zealand. Since retirement he has worked with archaeologists and Aboriginal communities interpreting past environments and trying to make sense of Pleistocene and Holocene landscapes.



Caption: Texture contrast profile on Ashfield Shale. A sandy loam topsoil (biomantle) with a bleached base, over a structured red-brown clay weathered in place from bedrock.



Above: A more complex situation where a texture contrast soil profile with a mobile biomantle (1), covers structured clay (2), weathered from a thin shale bed (3). This sits on an iron cemented sandstone (4), then two quartz sandstone beds (5 and 7) with a very thin clay seam between them (6). Where unit 4 outcrops on the slope it will break up and form an ironstone lag gravel.

Another way to look at the soil pattern is to consider how the different bodies of soil material form and how they can be assembled as strata because some layers are linked and others stand alone. In the diagram four sets of materials are recognized which make independent strata. The top three of these are subject to physical mixing by organisms (ants, echidna, plants etc) and to downslope movement by erosion processes. These mobile biomantles cover other materials weathered in place and create either texture contrast or fabric contrast soil profiles. (For more detail see Mitchell in Conroy et al 2022).



Soil materials derived from sandstone and shale

Caption: Soil materials derived from sandstone and shale

References

Benson D. and Howell J. 1990. Taken for granted. The bushland of Sydney and its suburbs. Kangaroo Press.

Chapman G.A., Murphy C.L., Tille P.J., Atkinson G., and Morse R.J. 1989. Soil landscapes of the Sydney 1:100,000 sheet. SCS of NSW

Conroy R.J., Bonzol U.A., Illingsworth J.J., Martyn J.E. Mitchell P.B., Percival I.G., Robinson A.M., Robson D.F. and Walsh J.B. 2022. The Natural and Cultural History of the Ku-ring-gai GeoRegion, New South Wales. Proceedings of the Linnean Society of New South Wales 144, 129-226. https://linneansocietynsw.org.au/ symposia/Ku-ring-gai%20GeoRegion/Conroy%20et%20al..pdf

Och, D.J., Offler, R., Zwingmann, H., Braybrooke, J. and Graham, I.T. 2009. Timing of brittle faulting and thermal events, Sydney region: association with the early stages of extension of East Gondwana. Australian Journal of Earth Sciences, 56 (7) 873-887

Pitman E.F. 1903 Geological sketch map of the country in the vicinity of Sydney.

https://search.geoscience.nsw.gov.au/report/Rooo30367

Willan T.L. 1925 Geological map of the Sydney District

https://digs.geoscience.nsw.gov.au/api/download/ e6905deb825c82262cad8d47062a01a3/Map_Geological_map_of_the_Sydney_ District%2C_1925.jpg

Herbert C., and West J.L. 1983. Geological Map of Sydney, Sheet 9130, 1:100 000 first edition 1983. Geological survey of NSW.

https://search.geoscience.nsw.gov.au/report/Rooo27964

NEW SITE: LITTLE WONGA BUSHCARE AT BRIGHTMORE RESERVE

Brightmore Reserve Bushcare Group will start working a new site below Little Wonga Road, Cremorne on the 3rd Sunday of the month from 9am-12pm. The Bushland Team decided to include an additional site as the existing site below Little Young Street is in a maintenance phase. The two sites will alternate between the first and third Sundays of the month. By starting work on this new site, we have doubled the amount of bushland that volunteers will be rehabilitating in Brightmore Reserve.

The vegetation community of the Little Wonga site is Angophora Foreshore Forest, it has good resilience and regeneration potential, however a variety of herbaceous annuals and weedy grasses are encroaching from surrounding properties and lawn areas. Some of the high value natives on this site that we will be protecting include - Narrow leaved Geebung (*Persoonia linearis*), Black Bog Sedge (*Schoenus melanostachys*) and Sydney Peppermint Gums (*Eucalyptus piperita*).

Tom Windon – Bush Regenerator/ Brightmore Reserve Bushcare Supervisor



Since 1994, Bushcare volunteers have been working to regenerate the small bushland remnant at Brightmore Reserve, though much improved there is still more to be done. Residents are invited to join our team in maintaining this precious area of bushland. North Sydney Council's Bushland Team will provide all tools, equipment, and training in bush regeneration, all welcome.

Supervisor, August 2022 by Andrew Scott.

Apply to volunteer with North Sydney Council's Bushcare Program here: www.northsydney.nsw.gov.au/volunteerapplication

NATIVE PLANT PROFILE *Dodonea triquetra* (Common Hop Bush)

Family: Sapindaceae

Name: *Dodonea* = in honour of Dutch-Flemish physician and botanist Rembert Dodoens (1517-85); *triquetra* = 3-cornered (Latin), referring to the fruit



Although found in all North Sydney bushland reserves, this soft, leafy shrub is frequently overlooked until female plants catch the eye in late spring with their dense clusters of winged fruits.

Growing 2-3m high, *Dodonea triquetra* is common in wet and dry sclerophyll forests along the Australian east coast. It often occurs in dense colonies after fire or disturbance, in the company of other pioneer species such as acacias.

Leaves are mid-green, hairless, thin-textured, elliptic in shape, up to 10cm long x 4cm wide. Juvenile leaves are lobed and emergent seedlings bear a surprising resemblance to the introduced weed *Bidens pilosa*.

The inconspicuous flowers are unisexual (either male or female) and plants are dioecious (male and female flowers borne on separate plants), although bisexual flowers are sometimes produced.

Flowering is followed by terminal clusters of 3-winged capsules, about 1cm long, which change from green to purplebrown before turning papery and releasing tiny, black seeds.

Propagation: grown from seed, which germinates easily after fire or heat treatment to soften the hard seed coat

In the garden: *Dodonea triquetra* is a fast-growing, adaptable garden plant that thrives in cultivation and deserves to be more widely grown. Although not especially showy, the interesting fruits and soft green leaves provide a foil for more colourful natives.

Although the flowers produce no nectar, *Dodonea triquetra* is a valuable food source and host plant for a wide range of insects. Leaves are a larval food source for the Fiery Jewel Butterfly (*Hypochrysops ignites*) and seeds are eaten by Eastern Rosellas (*Platycercus eximius*) and King Parrots (*Alisterus scapularis*).

BAT COUNT - CENTENNIAL PARK 2023

This year's bat count held on Saturday 11 March at Centennial Park was a great success with 32,120 Grey Headed and Black Flying-foxes recorded. Twelve North Sydney Council participants joined Dave Harrington – Centennial Park Volunteer Coordinator and two long time volunteers Tony Spira and Graham for the count.

After our activity briefing, Dave provided a guided tour of Lachlan Swamp where the bats are camped. We were

interested to see figs and palms emerging from the paperbark forest, Dave said this was due to the Flying-foxes regurgitating the fruit seed and pulp on which they feed. Although not part of the quarterly NSW State census, the data collected will contribute to overall monitoring efforts of Flying-fox conservation.

A big thank you to Dave, Tony and Graham for looking after our group, we hope to do it all again next year.

GREEN EVENTS CALENDAR

Bookings must be made for all events at: www.northsydney.nsw.gov.au/bushcareevents or 9936 8100 unless otherwise stated.

MARCH

- 18 Cuttings Workshop | Saturday 9.30am to 12.30pm
- 18 Produce Markets Bushcare Stall | Saturday 8am to 12pm
- 25 Eucalyptus Day Walk & Talk | Saturday 10am to 1pm

APRIL

- 6 Growing Native Plants | Thursday 9.30am to 12pm, Lane Cove Bookings: www.lanecove.nsw.gov.au/bushcareevents or 9911 3583
- 18 Family Bush Walk | Tuesday 10.30am to 12pm
- 19 Family Kayak | Wednesday 10.30am to 12pm
- 20 Family Spotlight Walk | Thursday 5.30pm to 8.30pm

MAY

- 12 Bushcare Visit Kurrajong | Friday 7.30am to 3pm
- 14 Trees for Mum | Sunday 9.30am to 11am
- 26-28 Boorowa Tree Planting Weekend | Friday to Sunday Enquiries: Bushland Management Coordinator on 9936 8224

JUNE

- 3 Growing Ferns & Groundcovers | Saturday 9am to 12pm Bookings: www.lanecove.nsw.gov.au/bushcareevents or 9911 3583
- 17 Working with Woody Weeds | Saturday 10.30am to 1.30pm
- 22 Battlers for the Bush Tour | Thursday 9am to 3.30pm
- 25 Aboriginal Cultural Heritage Walk | Sunday 9am to 2pm

GREETINGS FROM THE FrogID Team

We kick off 2023 feeling grateful for all your FrogID submissions over the past five years. This month we reached over 800,000 scientific records of frogs – absolutely amazing! Our team are back from holidays and are busy listening to every croak, click, bleat and whistle.

Our team have also validated all your recordings from FrogID Week 2022. Between 11-21 November, more than 17,700 submissions were received, resulting in over 32,000 frog records from 111 species! Stay tuned for a summary over the coming weeks, which will also announce the winner of our Top Frogger Competition. Thank you for all your incredible efforts!

Closer to home in North Sydney, 19 FrogID users have helped gather 28 scientific records of frogs across 3 species in 2022: the Common Eastern Froglet (*Crinia signifera*), Striped Marsh Frog (*Limnodynastes peronii*), and Peron's Tree Frog (*Litoria peronii*).

The Green Stream Frog (*Litoria phyllochroa*) is likely to occur in our area and we encourage you to listen out for



Did you know North Sydney Council Bushcare has a Facebook page? Like us at www.facebook.com/bushcare

their high-pitched call to record with FrogID and to help add a new species to our Wildlife Watch records.

To date, a total of 73 FrogID users have gathered 215 frog records across 4 species since 2017 when the FrogID project started.

Another frog species that we are concerned about and would love FrogID recordings of is the Green Tree Frog (*Litoria caerulea*). This iconic species occurs in many different habitat types, such as swamps and woodlands, and prefers to lay its eggs in flooded ditches and small temporary ponds. Keep an ear out for their loud, low-pitched croak in spring and summer and record with FrogID.

Please record with FrogID as often as you can, even if it is the same frog at the same location each day. Every call contributes to our understanding of frogs and the health of our environment.

Download the FrogID app today: https://www.frogid.net.au/



By Nadiah Roslan

Project Coordinator: FrogID

Caption: Green Tree Frog (*Litoria caerulea*) rescued from a stairwell at Nicholson St Car Park, photo taken by Tristram Thomas, 22 Feb 2023.



Visit regenTV the Australian Association of Bush regenerators video platform, view recordings of webinars, field days and forums. www.aabr.org.au/regenTV

For more information or to make a booking for any of these workshops or special events please contact the Bushcare Officer on 9936 8100. Printed on 100% recycled paper.

Gratitude to all our contributors who take the time to put ideas and research into words so we can learn. Thank you. Would you like the newsletter emailed to you instead? www.northsydney.nsw.gov.au/subscribe