



BUSHLAND NEWS

*KATANDRA BUSHLAND SANCTUARY NEWSLETTER
Winter 2024*

Greetings from Katandra

Katandra's 2024 Open Season begins on Sunday 7th July. Katandra is then open to the general public every Sunday until the end of October, 10 am to 4 pm.

While there has not been a lot of flora in flower in the Sanctuary over the last few months, there are quite a few plants with many buds ready to burst into flower. These include *Acacia ulicifolia* (Prickly Moses), *Leionema dentatum* (Toothed Phebalium) and *Leucopogon lanceolatus* (Lance Bearded-Heath). Another common sight is the shiny black berries of *Smilax glycyphylla* (Native Sarsaparilla).

Does anyone have, or know of someone who has, an unwanted smart TV that they would like to see put to good use. Katandra is looking for one to put in the Yurt to display photos and videos for visitors to see. Please contact us on 0431857407 if you are able to help.

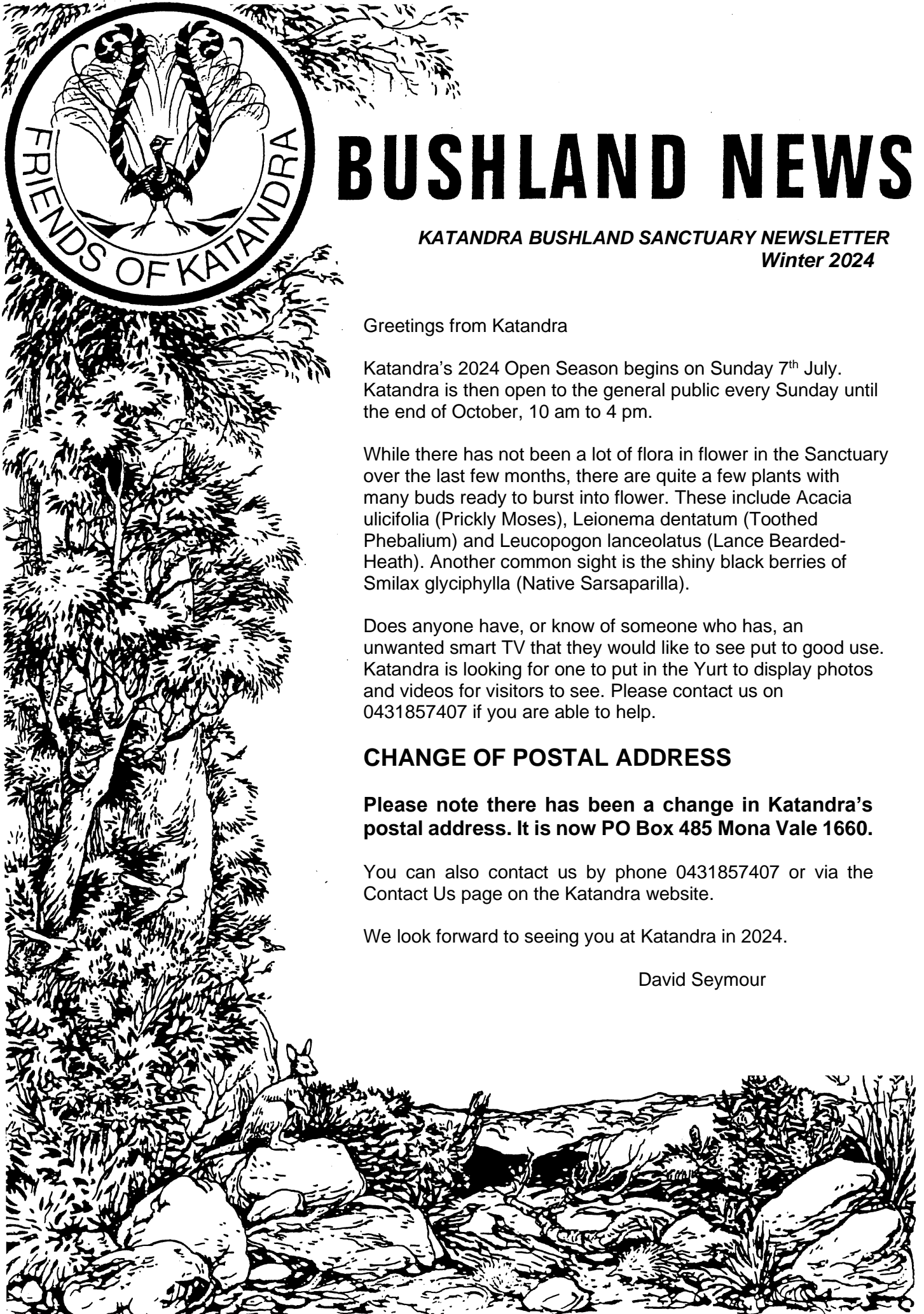
CHANGE OF POSTAL ADDRESS

Please note there has been a change in Katandra's postal address. It is now PO Box 485 Mona Vale 1660.

You can also contact us by phone 0431857407 or via the Contact Us page on the Katandra website.

We look forward to seeing you at Katandra in 2024.

David Seymour



Bogong Moths (*Agrotis infusa*)

The Bogong moth is an icon of the Australian landscape. A temperate species of night-flying moth, it is well known for its biannual long-distance seasonal migrations towards and from the Australian Alps. Its swarming masses have been an important food source for thousands of years. Aboriginal peoples would come to where the moths spend the summer to hold intertribal gathering, feasting on the insects.

Adult Bogong moths have a wingspan of 4 – 5 cm and live for about 8 months. In the search for nectar they are often seen feeding at dusk on flowers such as grevilleas during migration, preparing for a summer hibernation by building fat reserves, up to 60 per cent of their bodyweight.



A Bogong moth
(image – Australian Academy of Science)

Residents of Australia's east coast will no doubt have vivid memories of swarms of bogong moths sweeping over the suburbs in clouds, invading homes and workplaces. There are many accounts of the disruptions caused by the seething masses of their teak-brown, furry bodies.

In 1865, Bogong moths invaded a church in Sydney, churchgoers estimating 80,000 moths congregating on the windows, causing services to be abandoned and the church to be sealed to prevent further inundation. In Canberra in the mid-1970s, Bogong moths invaded new, brightly lit buildings in huge numbers, causing lifts to fail. In 1988, vast numbers of moths caused havoc at the newly completed Parliament House and engineers had to reduce lighting and install mesh over the air-conditioning vents. In 2013 the ABC reported that Bogong moths had converged on Canberra's Parliament House in their thousands, settling in the Senate chamber and setting off fire alarms in the building.

"Obviously having moths in almost every nook and cranny is an unpleasant thing for many people." "They land in your tea, your hair, your handbag and litter office ceilings, walls and windows."

"Birds feasting on the moths chase them inside the building".

Bogong moths begin their annual migration in spring in Southern Queensland and north-western NSW, fleeing the summer heat by flying more than 1000km from the open plains where they were born to the cool granite boulders atop the highest peaks of the NSW Snowy Mountains. In years when there are strong westerly winds, many can be blown off course ending up along the coastal areas of NSW or even out to sea.

It is not known how Bogong moths know where to go on this epic journey, having never done the journey before. It is thought that may use an internal magnetic compass to aid in navigation, but no one knows precisely how they navigate, or how they know when they have arrived. Their journey does however, seem to be impacted by light pollution from major cities like Sydney and Canberra, sending many off-course.

From late September onwards young moths arrive at the Alps where they enter caves and crevices, mostly above an elevation of about 1800m. Here they line rock walls in their hundreds of thousands – up to 17,000 per square metre – to survive the hot months in a form of summer hibernation known as *estivation*.

They arrive at the Alps in their billions, representing a huge influx of high-fat, high-protein insect food that's critical to Alpine ecosystems.

Many are devoured by a range of birds and animals, particularly marsupials including the rare mountain pygmy possum. This summertime Bogong moth bounty has also been harvested for thousands of years by Indigenous peoples who feasted on the moths after roasting them whole. In late February–early March those moths that that have survived the summer set off at night to fly back to their breeding grounds where they mate, lay eggs and die. Each female lays up to 2000 eggs in the ground. These hatch after about five days and the resulting larva grow and fatten until they reach a length of about 5cm. Known as cutworms (because they cut plants off at ground level) they can be minor pests for crops and many



Masses of moths congregating on a wall

are killed each year by pesticides applied by farmers. Those that survive pupate in the ground and emerge in early spring to begin their migration to the Alps.

Surveys show Bogong moth numbers have been decreasing from about 1980. In 2016 suddenly numbers plummeted, and by 2018 numbers had decreased by 99.5%. On Mount Morgan (near Thredbo) where moths use to congregate in their hundreds of thousands, only a single live moth was reported. On Mount Gingera three moths were seen. The International Union for the Conservation of Nature (IUCN) formally listed the Bogong moth as endangered in 2021.

In an essay titled 'Noiseless Messengers' published in Emergence Magazine in 2022, Perth-based Rebecca Giggs discusses this sudden, dramatic and alarming population decline of this once prolific icon of the Australian landscape.

What has caused it – Drought??

Climate change??

Loss of habitat??

Society use of pesticides??

Is it a natural variation in population??

Is it a combination of these??

How could this happen so suddenly??

What will be the consequences on the other native wildlife that depended on this seasonal influx of a nutritional food source??

What does the future hold for the Bogong moth??

Could other fauna face a similar fate??

There don't yet seem to be answers to these questions. What this does highlight, however, is our very limited understanding of the impact of human activity on the natural environment, and the importance of implementing strategies for environmental conservation.

2017-2019 did see one of the most severe droughts known across Eastern Australia. The last three years of La Nina-powered wet weather has seen some recovery of Bogong moth numbers. Hopefully, in the future, we will again be able to witness the "clouds" of moths migrating across our skies.

Smilax glyциphylla (Native Sarsaparilla)

Smilax glyциphylla is a small scrambling vine with wiry stems commonly found in woodland and heath on the Qld and NSW coast and tablelands. Commonly known as **Native Sarsaparilla** or **Sweet Tea**, it has a famous history as a bush tea in early colonial times.

Although the drinking of tea was considered a very British ritual, it was not considered a "necessity" and so was not included in convict's rations. Rather than going without early colonialists found

their own alternative in **S. glyциphylla** which became known as sweet tea. A few leaves boiled in a pot and then allowed to steep for a while would produce a pleasant brew with a bitter-sweet, liquorice-flavoured taste. Commercially available sarsaparilla soft drink is made using the root of another Smilax species, **Smilax ornate**, also known as **Jamaican sarsaparilla**.

Found growing in Katandra, the leaves of **S. glyциphylla** are tough and stiff, dark green above, silvery below, alternate with three prominent longitudinal veins. Young leaves are smooth and softer with a pinky-red colour. There are a pair of short tendrils at the base of each leaf stalk where it joins the vine stem. The flowers are tiny and yellowish, growing in terminal umbels (see photo below). Flowers are unisexual, with male and female flowers appearing on different plants.



Image – Northern Beaches Council

Bunches of black, glossy berries appear in autumn-winter. The wiry stems do not have thorns, unlike the closely related **Smilax australis** which also grows in Katandra. Commonly known as **Barbed-wired vine**, **S. australis** is well known for producing treacherous entanglements in bushland. Its leaves have 5 prominent longitudinal veins and are broader than those of **S. glyциphylla**.



Black fruit of Smilax glyциphylla in Katandra

KATANDRA BUSHLAND SANCTUARY

Foley's Hill, Lane Cove Rd, Ingleside NSW
Department of Lands Reserve No 86487
Founder: the late Harold Alfred Seymour
Managed by Katandra Bushland Sanctuary Trust.
Phone: 0431857407

OPEN: Every Sunday: July, August, September,
October

HOURS: 10 am — 4 pm

ADMISSION: \$5 donation

KATANDRA BUSHLAND SANCTUARY TRUST PO Box 485 Mona Vale NSW 1660

President: David Seymour

Vice-President: Roberta Conroy OAM

Secretary: David Seymour

Treasurer: Peter Hammond

Minutes Secretary: Julie Emerson OAM

Bushland News Editors: Marita Macrae OAM

David Seymour

(Cover Design by the late Walter Cunningham)

**Enquiries: phone 0431857407 or via the
Contact Us page on the Katandra website**

Katandra website -

katandrabushlandsanctuary.com

PUBLIC OPEN DAYS 2024

Each Sunday of July–October

10 am – 4 pm

Picnic tables are available for use should you wish to bring along a picnic lunch to enjoy in the Sanctuary.

DIARY DATES 2024

SANCTUARY MAINTENANCE 2024

Maintenance days are generally once a month from March to November.

The schedule of days for 2024 is currently under review. Dates for the maintenance days will soon be available on the Katandra website.

Volunteers are needed

If you can assist on maintenance days or with welcoming visitors to Katandra on open days, please phone 0431857407