



BUSHLAND NEWS

KATANDRA BUSHLAND SANCTUARY NEWSLETTER
Spring 2023

Greetings from Katandra.

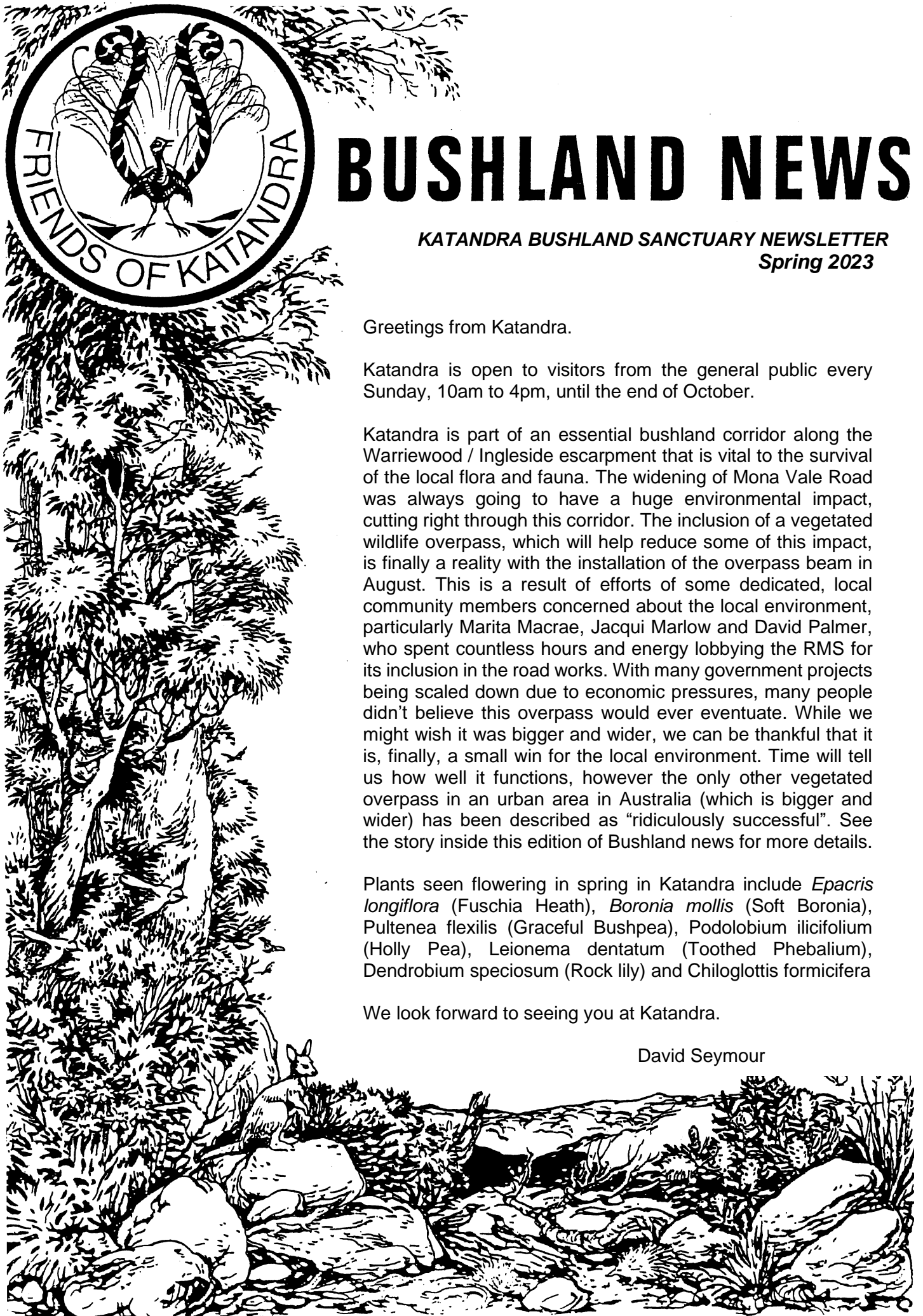
Katandra is open to visitors from the general public every Sunday, 10am to 4pm, until the end of October.

Katandra is part of an essential bushland corridor along the Warriewood / Ingleside escarpment that is vital to the survival of the local flora and fauna. The widening of Mona Vale Road was always going to have a huge environmental impact, cutting right through this corridor. The inclusion of a vegetated wildlife overpass, which will help reduce some of this impact, is finally a reality with the installation of the overpass beam in August. This is a result of efforts of some dedicated, local community members concerned about the local environment, particularly Marita Macrae, Jacqui Marlow and David Palmer, who spent countless hours and energy lobbying the RMS for its inclusion in the road works. With many government projects being scaled down due to economic pressures, many people didn't believe this overpass would ever eventuate. While we might wish it was bigger and wider, we can be thankful that it is, finally, a small win for the local environment. Time will tell us how well it functions, however the only other vegetated overpass in an urban area in Australia (which is bigger and wider) has been described as "ridiculously successful". See the story inside this edition of Bushland news for more details.

Plants seen flowering in spring in Katandra include *Epacris longiflora* (Fuschia Heath), *Boronia mollis* (Soft Boronia), *Pultenea flexilis* (Graceful Bushpea), *Podolobium ilicifolium* (Holly Pea), *Leionema dentatum* (Toothed Phebalium), *Dendrobium speciosum* (Rock lily) and *Chiloglottis formicifera*

We look forward to seeing you at Katandra.

David Seymour



Fauna Overpasses – Do they work?

The vegetated fauna overpass over Mona Vale near Katandra is now closer to completion after the installation of the main beam across the road in mid-August (see photo below).



This is the first of two planned overpasses for Mona Vale Road, the second to be constructed near the Kimbriki Recycling Centre turn-off. These parts of Mona Vale Road have for a long time been known as road-kill hot spots with the sad sight of victims too often seen.



*A crane was used to lift the bridge beam into position
(Photo – Marita Macrae)*

Will these overpasses make a difference? Will the fauna use them?

Currently there are only about five other vegetated fauna overpasses across Australia – compared to hundreds in Europe with over 130 in France alone. Years of monitoring and research overseas have shown that these crossings are used frequently by local fauna. The Compton Road overpass in Brisbane, the only other overpass built in a suburban area in Australia, was described as “ridiculously successful” by Professor Darryl Jones from Griffith University during a presentation given 10 years after its completion date of 2006.

“During that first summer, every night, 45 animals

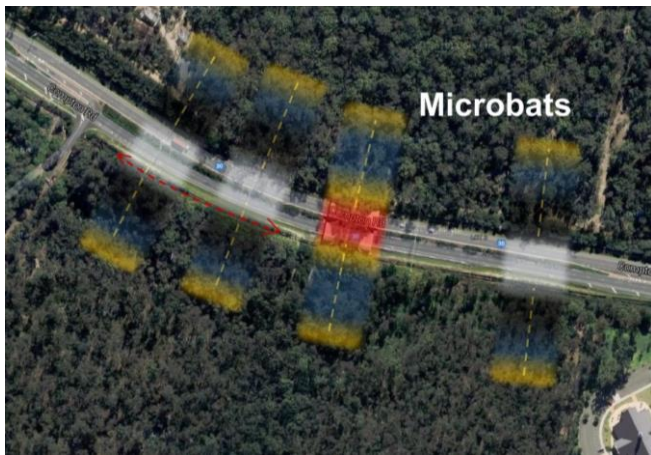


The fauna crossing over Compton Road Brisbane

were using the structure” Prof Jones was quoted as saying. “And 10 years later there’s entire generations of little birds, little animals and all sorts of big animals who use it naturally – they don’t even know there is a road there.”

An important part of the design for the success of these road crossings is the provision of wildlife fencing along the road to help guide fauna towards the overpass. It is often argued that this funnelling of animals to a narrow crossing provides an opportunistic bonanza for predators such as feral cats and foxes to wait nearby and pick off unsuspecting prey. Many studies, both in Australia and overseas, looking at a variety of road crossings that use fencing (including overpasses, underpasses and rope crossings) have found no evidence of predators taking advantage of the crossing design. There seems to be no general increase in predator numbers near the crossings compared to the other areas of nearby bushland.

Although the construction of overpasses for providing safe passage across roadways has usually focussed on medium to larger animal species, there appears to be many advantageous benefits for smaller species as well, including birds and microbats. Studies of the Compton Rd overpass showed three times more species of birds crossed the road on or above the overpass compared to those crossing away from the overpass. Those using the overpass were generally the smaller bird species while some that crossed the road both near and away from the structure were more than twice as likely to cross near the overpass. A survey of microbats clearly showed much higher bat activity, both in number and variety of species, over the crossing and in the adjacent forest areas compared to areas away from the structure. The photo on the next page shows a heat map prepared by Griffith University representing the recorded microbat activity associated with the Compton Rd facility. Plans show that the use of the vegetated overpasses across Mona Vale Road will be supplemented by the provision of a series of rope crossings and underpasses. The existing culvert



A heat map showing recorded microbat activity associated with the Compton Rd facility (Griffith Uni)

through which Narrabeen Creek flows under the road near the eastern end of Lane Cove Road has been widened. Many studies of these types of crossings traversing highways around NSW have shown them to be extremely beneficial to local fauna, including swamp wallabies, quolls, pygmy possums, gliders, larger possums, echidnas, snakes, goannas, monitors, frogs and others – species which are the targeted beneficiaries for the Mona Vale Road crossings. One study by the University of Melbourne used motion-triggered cameras to monitor rope bridges and glider poles installed along the Hume Highway. Focussing on squirrel and sugar gliders, this study found that after a few years these crossings were very popular and well used by a variety of fauna. Within four years of installation regular glider movement across the freeway was reestablished, whereas sites without crossing structures remained a barrier. However, even with the structures installed, gliders were still only about half as likely to cross the freeway as they were to cross narrow, quiet roads – suggesting the barrier effect of the freeway was only partially repaired.

Monitoring of roadkill rates has shown a dramatic decrease in areas where fencing and road crossings have been provided. However continued maintenance and repair of the fence will be required to maintain its integrity. Fencing cannot be provided near road intersections and property entrances so motorists will still need to be on the lookout for fauna crossing the roadway. Keeping this fauna movement open is vital for the survival of local fauna species. It is necessary to maintain the genetic diversity within and to avoid fragmenting fauna populations to provide for healthy local ecosystems.

Fern Allies

Fern allies are diverse group of fern-like plants that are not true ferns. Like ferns, these plants reproduce by shedding spores to. Unlike ferns

they do not possess a distinctive frond and their spore-containing sporangia are usually found along the simple or branched stems. Fern allies are considered to be direct descendants of some of the most primitive of the vascular land plants that were found on Earth over 400 million years ago. Most species of this once dominant group of plant are now extinct, with relatively few surviving today. One such group of fern allies are the whisk or fork ferns in the Class Psilopsida. Today this class consists of just a single family Psilotaceae. There are only two living genera in this family, Psilotum and Tmesipteris, both of which are represented by the following species found in Katandra.

Tmesipteris truncata is a delicate plant that has stems up to 30 cm long with 2cm flattened branches that form narrow leaf-like appendages. It is usually found growing on the trunks of *Todea barbara* (King Fern). It is considered uncommon in the Sydney area.

Psilotum nudum (Skeleton Fork-fern) is a brittle, leafless plant with much-forked stems that can be found growing in crevices in damp sandstone cliff faces.



Tmesipteris truncata growing on a King fern in Katandra Creek (above) and *Psilotum nudum* (below)



Katandra website -
katandrabushlandsanctuary.com

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 365 Mona Vale NSW 1660

President: David Seymour
Vice-President: Roberta Conroy
Secretary: (acting) David Seymour
Treasurer: Peter Hammond
Minutes Secretary: Julie Emerson
Bushland News Editors: Marita Macrae

(Cover Design by the late Walter Cunningham)

**Enquiries: phone 0431857407 or by email
information@katandra.org**

PUBLIC OPEN DAYS 2023

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 2023

SANCTUARY MAINTENANCE 2023

(3rd Sunday March–November)
9 am Sunday 19 March
9 am Sunday 16 April
9 am Sunday 21 May
9 am Sunday 18 June
9 am Sunday 16 July
9 am Sunday 17 September
9 am Sunday 15 October
9 am Sunday 19 November

Volunteers are needed

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

Katandra Bushland Sanctuary Trust
PO Box 365 Mona Vale NSW 1660