



BUSHLAND NEWS

KATANDRA BUSHLAND SANCTUARY NEWSLETTER
Autumn 2019

The bushland at the entrance to Katandra continues to recover well from the fire last winter with many small seedlings springing up and growing. Hopefully they will put on a good flowering display in the years ahead. Work is being done to keep weeds out of the burnt area and to ensure the walking track is cleared and ready for the open days beginning in July.

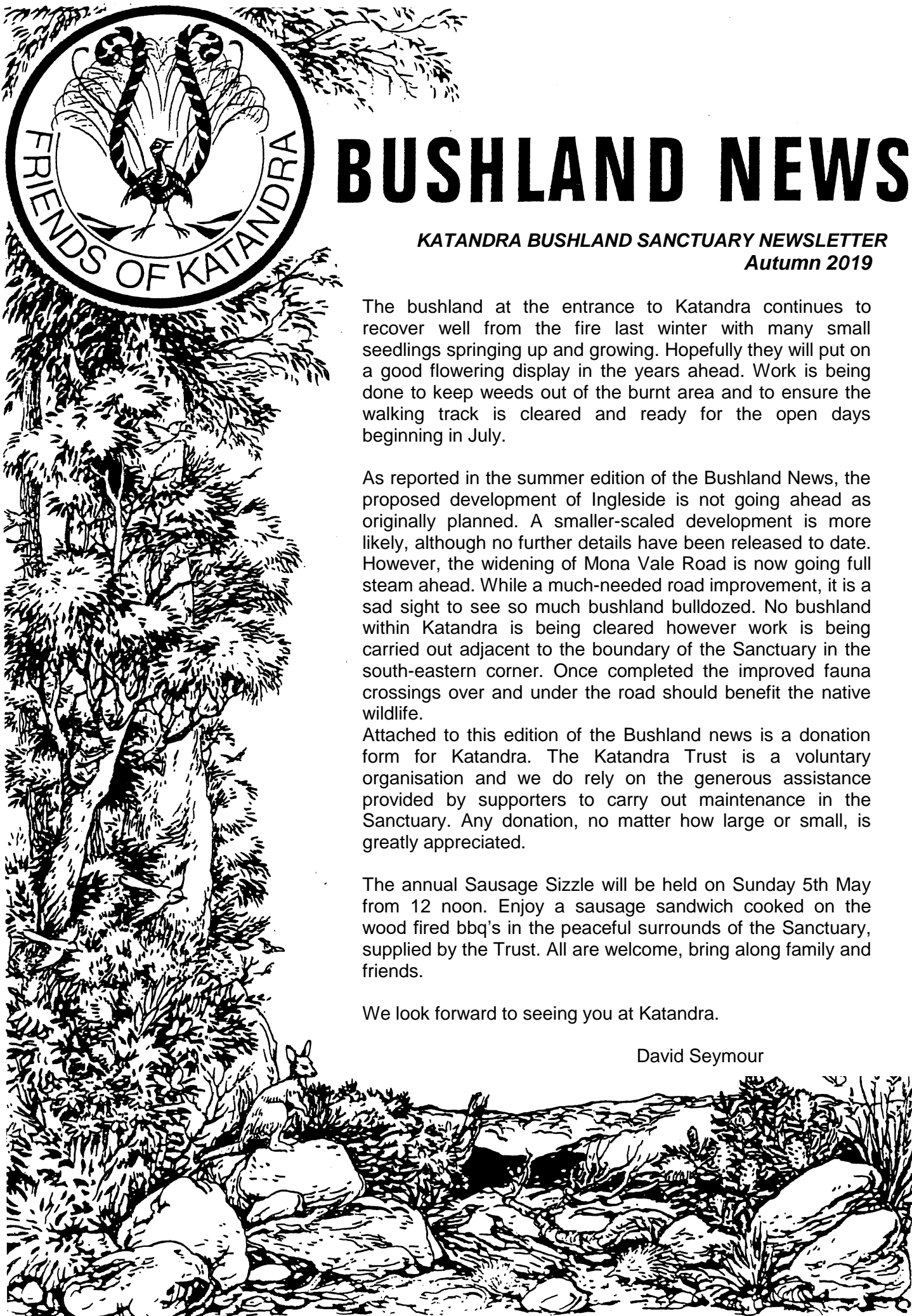
As reported in the summer edition of the Bushland News, the proposed development of Ingleside is not going ahead as originally planned. A smaller-scaled development is more likely, although no further details have been released to date. However, the widening of Mona Vale Road is now going full steam ahead. While a much-needed road improvement, it is a sad sight to see so much bushland bulldozed. No bushland within Katandra is being cleared however work is being carried out adjacent to the boundary of the Sanctuary in the south-eastern corner. Once completed the improved fauna crossings over and under the road should benefit the native wildlife.

Attached to this edition of the Bushland news is a donation form for Katandra. The Katandra Trust is a voluntary organisation and we do rely on the generous assistance provided by supporters to carry out maintenance in the Sanctuary. Any donation, no matter how large or small, is greatly appreciated.

The annual Sausage Sizzle will be held on Sunday 5th May from 12 noon. Enjoy a sausage sandwich cooked on the wood fired bbq's in the peaceful surrounds of the Sanctuary, supplied by the Trust. All are welcome, bring along family and friends.

We look forward to seeing you at Katandra.

David Seymour



Xanthorrhoea (Grass Trees)

One of the iconic sights in the Australian bushland are the Xanthorrhoea grass trees, with their thin green foliage arching out of a fire-blackened stump along with a “kangaroo tail” flower spike. These plants like well-drained soil and full sun, and along with being drought and frost tolerant, will grow just about anywhere.

There are 66 different species of Xanthorrhoea, all of which are endemic to Australia, the smallest growing to about 1 metre in height while others may grow up to 6m in height. Plants begin as a crown of rigid grass-like leaves, with the main stem developing underneath. The stem may take twenty years or more to emerge above the ground. Many species develop a ‘trunk’ from old leaf bases stacked on top of each other and stuck together by a naturally occurring resin (see picture below). Some species have a branched trunk, while others don't form an above-ground trunk at all.



A broken Xanthorrhoea trunk showing its internal leaf-base structure.

Most Xanthorrhoea are very long-lived and extremely slow growing, with the trunk increasing in height by only 0.5 to a few centimetres each year, depending on growing conditions. Tall specimens can therefore be many hundreds of years old.

Xanthorrhoea are monocotyledons, flowering plants whose seeds typically contain only one embryonic leaf, or cotyledon. Other monocots include grasses, palms, bamboo, sugar cane and lillies. Xanthorrhoea leaves are narrow, linear and stiff. Where present, old leaves often dry out and hang down and form a ‘skirt’ around the base of the trunk. The length of the skirt is a



*A flower spike on a Xanthorrhoea arborea showing regrowth after the recent fire in Katandra
INSET - a blackened specimen after the fire*

good indication of the time since the last fire – the longer the skirt, the longer the time without fire. Many species of Xanthorrhoea have evolved an amazing ability to survive fire. A fire may burn their leaves and blacken their trunks, but the trees usually survive: the living growth-point is buried underground, protected by the tightly packed leaf bases. Some grass trees are stimulated to flower by fire, however, not all species are fire-tolerant.

Species of Xanthorrhoea are commonly referred to as “Grass Trees”, however this term is also used to describe a number of unrelated plants including Kingia australis, which grows only in the southern half of Western Australia. When not flowering, Kingia australis looks very similar to and is often mistaken as a species of Xanthorrhoea, however, the flower stalks of Kingia australis are completely different. Its flowers occur in egg-shaped clusters on the ends of numerous shorter curved stems growing from the top of the trunk. True Xanthorrhoea produce a single flower spike or “spear” that can grow up to 4m or more in length. Due to its physical similarity, Kingia australis was for many years thought to be a female form of a Xanthorrhoea species.

The flowers on a Xanthorrhoea spike are white or cream and very small, arranged in a spiral up the spike, producing a great amount of nectar which attracts a wide variety of insects, birds and mammals.

Once pollinated, the flowers form a tough, pointed fruit capsule that's typically matt-black. One flowering stem can produce up to 10,000 seeds. Grass trees have a shallow root system which enables it to easily access nutrients from decaying leaf litter and so grow in soils low in nutrients. They have a symbiotic relationship with Mycorrhiza, a fungus that lives in a mutually beneficial relationship with the grass tree roots. The fungus increases the tree root's access to water and nutrients and therefore increases tree growth especially in poor conditions. The importance of this symbiotic relationship with the soil fungi is clearly spelt out by the very low survival rate of grass trees that have been removed (often illegally) from bushland. Along with many other native plants, grass trees also suffer from a condition known as phytophthora dieback. Phytophthora cinnamomi is a discrete soil borne pathogen that attacks and destroys vascular root systems,



A Western Australian Kingia australis, similar looking but unrelated to the Xanthorrhoea species of grass trees. Note the different flower stalks.



Silvereyes feeding on a Xanthorrhoea flowers

causing hosts to perish through lack of nutrients and water. It is spread through infected plants and the movement of contaminated soil.

The word Xanthorrhoea comes from the Greek *xanthos*, which means 'to flow' and refers to the yellow gum or resin that flows from the stem. This resin is a highly valued resource to aboriginal people, being used for many things including spear-making and as an adhesive to patch up water containers. Nectar from the flowers can be extracted by soaking them in water, giving a sweet-tasting drink. Flower spikes can be used to make fishing spear shafts and firesticks and the tough seed pods are used as cutting implements. The flower spikes can even help with directions as the flowers on the warmer and sunnier northern side often appear earlier than those on the opposite side. The resin from xanthorrhoea has also been used in wood varnish and burned as incense, while the dried leaves have been used to make brooms.

There are two species of Xanthorrhoea growing in Katandra, *X. arborea* and *X. media*.

Katandra website: www.katandra.org

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: \$3 donation

KATANDRA BUSHLAND SANCTUARY TRUST PO Box 365 Mona Vale NSW 1660

President: David Seymour
Vice-President: David James
Secretary: (acting) David Seymour
Treasurer: Peter Hammond
Minutes Secretary: David Malin
Bushland News Editor: Marita Macrae

(Cover Design by the late Walter Cunningham)

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

Volunteers are needed

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

DIARY DATES 2019

SAUSAGE SIZZLE

Sunday 5th May, 12 noon

Enjoy a sausage sandwich and
drinks provided by the Trust.

FOUNDER'S DAY

Sunday 18th August, 12 noon

Bring your lunch to cook on the wood burning
BBQs. The trust will provide 'dessert', drinks, tea
and coffee.

CHRISTMAS PARTY

Sunday 1st December, 4.30 pm

Cold meats, drinks and salads are provided, but
please feel free to bring along some sweets or
savouries to share before or after. Also enter the
raffle to win one of Ruth's sort-after Christmas
cakes.

SANCTUARY MAINTENANCE 2019

(3rd Sunday March–November)

9 am Sunday 17 March

9 am Sunday 21 April

9 am Sunday 19 May

9 am Sunday 16 June

9 am Sunday 21 July

9 am Sunday 15 September

9 am Sunday 20 October

9 am Sunday 17 November

PUBLIC OPEN DAYS 2019

Each Sunday of July–October

10 am – 4 pm

Katandra Bushland Sanctuary Trust
PO Box 365 Mona Vale NSW 1660