



BUSHLAND NEWS

*KATANDRA BUSHLAND SANCTUARY NEWSLETTER
Summer 2018*

Best wishes for 2018, I hope your new year has begun in a positive way. This year may see many changes that will have some impact on Katandra.

The widening of Mona Vale Road will most likely begin. The proposed inclusion of a vegetated overpass near Narrabeen Creek could see an overall improvement on the safety for fauna crossing the road between Katandra and Ingleside Chase Reserve..

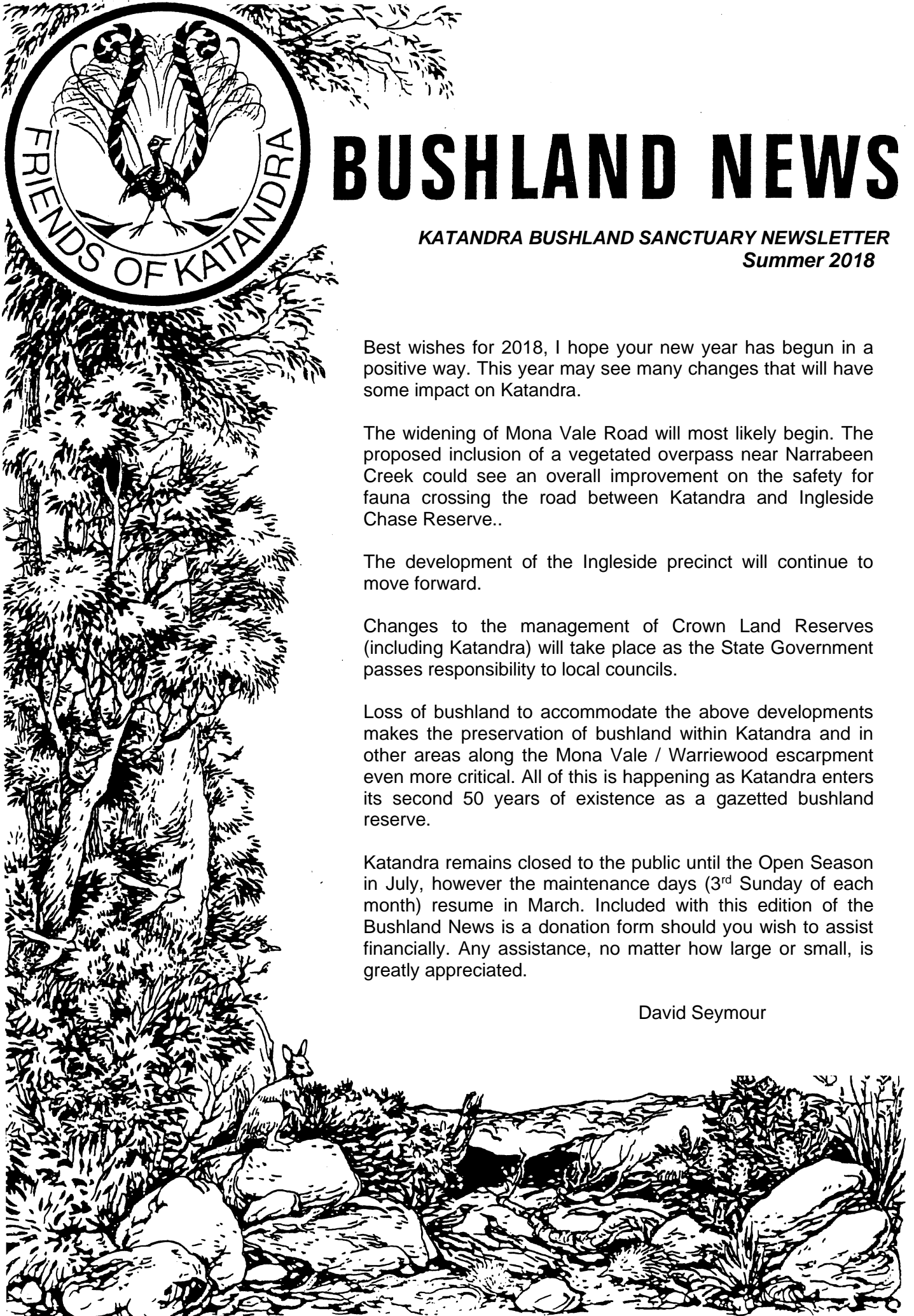
The development of the Ingleside precinct will continue to move forward.

Changes to the management of Crown Land Reserves (including Katandra) will take place as the State Government passes responsibility to local councils.

Loss of bushland to accommodate the above developments makes the preservation of bushland within Katandra and in other areas along the Mona Vale / Warriewood escarpment even more critical. All of this is happening as Katandra enters its second 50 years of existence as a gazetted bushland reserve.

Katandra remains closed to the public until the Open Season in July, however the maintenance days (3rd Sunday of each month) resume in March. Included with this edition of the Bushland News is a donation form should you wish to assist financially. Any assistance, no matter how large or small, is greatly appreciated.

David Seymour



Birds of Prey

Taken literally a “bird of prey” is one that hunts and feeds on rodents and other small animals. However, the Ornithological definition includes that a Bird of Prey has very good eyesight for finding food during flight, powerful feet with talons for seizing and holding food, and a strong curved beak for tearing flesh. This then excludes birds such as storks, cormorants and kookaburras that catch and kill prey entirely with their beaks.

Birds of Prey are also often referred to as raptors, derived from the Latin word *rapere*, meaning to seize or take by force.

The diurnal (active during the daytime) Birds of Prey are normally classified into two orders.

- Accipitridae: (includes hawks, eagles, kites and vultures)
- Falconidae: (includes falcons and kestrels)

The nocturnal (active at night) birds of prey – the owls – are in the order Strigiformes.



A Powerful owl perched above Katandra Creek

Most owls fly almost silently and more slowly in comparison to other Birds of Prey. Their soft leading-edge feathers are very effective at eliminating noise, giving them a strong advantage over their prey that are listening for the slightest sound in the night. A silent, slow flight is not as necessary for diurnal raptors

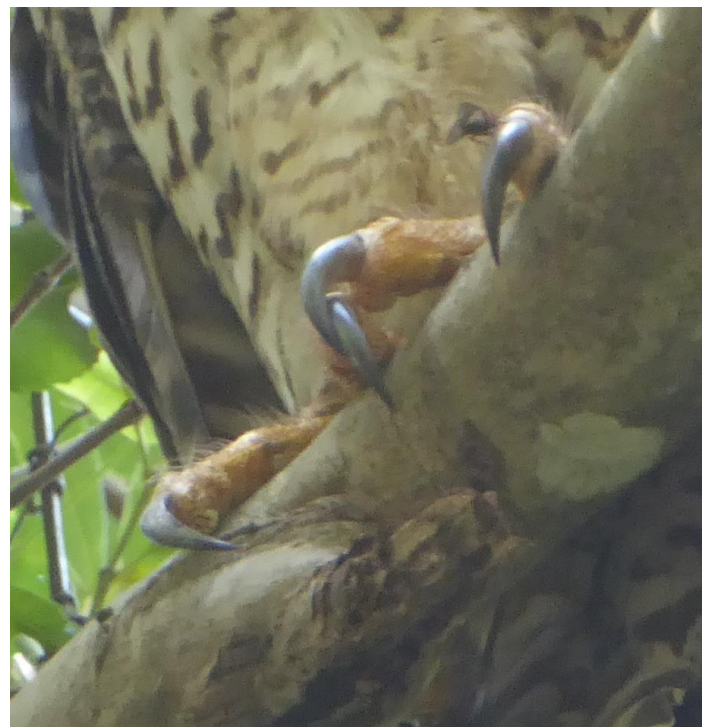
given that prey can usually see them approaching. The feather adaption that allows silent flight means that some owl feathers are not waterproof. This means that in wet weather they cannot hunt. Owls can also struggle to keep warm because of their lack of waterproofing, so they have large numbers of downy feathers to help them retain body heat.

Being at the top of the food chain raptors are particularly affected by the agricultural use of persistent, bioaccumulating insecticides. The use of many such pesticides is now restricted, nevertheless, populations of many birds of prey affected remain perilously small.

Birds of Prey recorded as being seen within Katandra Sanctuary include the Black-shouldered kite (*Elanus notatus*), Collared sparrowhawk (*Accipiter cirrocephalus*), Australian kestrel (*Falco cenchroides*), Powerful owl (*Ninox strenua*), Boobook owl (*Ninox novaseelandiae*) and the Barn owl (*Tyto alba*). Many others have been recorded in flight over the Sanctuary.

Legs and Feet

Birds of Prey have powerful leg and toe muscles that, when combined with their sharp talons, make their feet lethal weapons, perfectly designed to catch, hold, and carry prey. The length and size of a raptor’s toes, and the curvature and thickness of its talons are related to the type of prey it pursues.



The talons of a Powerful owl

Talons, like all claws, are made of a hard protein called keratin, the same material that makes up our fingernails. The keratin fibres are arranged differently to form two different layers, a harder middle top layer (the unguis) and a thicker softer underlayer (the subunguis). The unguis grows outward faster to produce a curve. The softer sides of the claw then wear away faster than the harder top producing a sharp point. Cats are often seen keeping their claws sharp by scratching wood to wear away softer or older layers.

Most Birds of Prey will have three toes pointing forward and one pointing backward. These toes can apply an extremely powerful grip on their prey. Ospreys have two toes facing forward and two facing backward. This allows them to hold the fish they catch with four claws, two on each side for a secure grip. Owls also have four toes. However, one of the toes is very flexible and can be rotated forward or backward for a two plus two or a three plus one toe arrangement.

Vision

Bird of Prey are believed to have the keenest eyesight in nature because of the relative size of the eyeball and the eye muscles designed for rapid focus. They also have a much higher concentration of light-sensitive cells on the retina of their eyes than humans.

There are two main type of light-detecting cells in the eye, rods and cones. Rods are more sensitive to light but cannot detect colour. Cones detect colour however they require higher levels of lights to function properly. The number and ratio of rods to cones varies among animal species, dependent on whether an animal is primarily diurnal or nocturnal.

Diurnal raptors have full colour vision and usually have two concentrations of cones in each eye, giving them accurate depth perception, which is very important when chasing moving objects. When a bird bobs its head, it is using its eyes like a range finder and focusing in on a specific target. Birds cannot move their eyes so must move their whole head to change a field of view.

Nocturnal raptors have a single concentration of mostly rods in each eye that is essential for seeing under low light conditions, hence their remarkable sharp night vision. An owl's eyes are also located in the front of their heads, much like humans, giving a greater sense of depth perception. By contrast, the night vision of diurnal raptors is no better than a human's vision at night. Owls can rotate their heads and necks as much as 270°. They have 14 neck vertebrae compared to seven in humans, which makes

their necks more flexible. They also have adaptations to their circulatory systems, permitting rotation without cutting off blood to the brain. Interestingly owls are farsighted, they are unable to clearly see anything within a few centimetres of their eyes. Caught prey can be felt by owls with the use of hairlike feathers on the beak and feet that act as "feelers". When humans close their eyes to blink and sleep the upper eyelid closes. Depending on the species, raptors have eyelids that close from either the bottom or top. Raptors also have a special third transparent eyelid that closes laterally across the eye and is used to keep the eyes moist and protect the eyes during flight and when feeding.



Sharp claws don't only belong to raptors. This impressive set belongs to another Katandra resident.



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 2018

SAUSAGE SIZZLE

Sunday 6th May, 12 noon

Enjoy a sausage sandwich and
 drinks provided by the Trust.

FOUNDER'S DAY

Sunday 19th 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 2nd 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 2018

(3rd Sunday March–November)

9 am Sunday 18 March

9 am Sunday 15 April

9 am Sunday 20 May

9 am Sunday 17 June

9 am Sunday 15 July

9 am Sunday 16 September

9 am Sunday 21 October

9 am Sunday 18 November

PUBLIC OPEN DAYS 2018

Each Sunday of July–October

10 am – 4 pm

Katandra Bushland Sanctuary Trust
 PO Box 365 Mona Vale NSW 1660

Friends of Katandra

PO Box 365 Mona Vale NSW 1660



I / We,
(full name)

of
(address including postcode) (phone)

Email : (please print clearly).....

- would like to join the Friends of Katandra mail list and receive copies of the Bushland News quarterly newsletter
- would like to make a donation to assist in caring for the sanctuary. I enclose a cheque / money order made payable to the Katandra Bushland Sanctuary Trust for
- \$10.00 \$15.00 other (please specify).....

Alternatively donations can be made by direct deposit into the Katandra Bushland Sanctuary Trust account BSB 082132 Account No. 509347998

Signature.....

Date.....