SUSTAINING AUTUMN 2018 LIVERPOOL

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Did you know that Grey headed Flying-fox pups are carried by their mother until they are capable of flying by themselves?

Pteropus poliocephalus -Grey-headed Flying-fox mother and baby

LIVERPOOL CITY COUNCIL 6 000 West

In this issue

Flying-foxes at Cabramatta Creek

Garden escapees on the run

Cumberland Plain Landcare Program

What's On & Other Events

MESSAGE THE FROM MAYOR



Welcome to the Autumn Edition of our Sustaining Liverpool newsletter.

At this year's Australia Day awards, one of our valued Bushcare volunteers was honoured with the Fraser Environment Award. At 88 years of age, Ken Dickinson is our oldest Bushcare volunteer and most committed to improving our local areas for all to enjoy. Congratulations and thank you Ken!

In Liverpool we are fortunate to have Cumberland Plain Woodland, the original pre-European native vegetation of Western Sydney. Listed as a Critically Endangered Ecological Community, this grassy woodland ecosystem is home to a diverse flora and fauna not found anywhere else in Australia. The long-term management of our remaining patches is of high priority.

In this issue of the newsletter, you can read more about ways to get involved in the Cumberland Plain Landcare Program that helps protect it.

You can also learn how garden plants escaping from our backyards can have negative consequences on biodiversity.

We have received grant funding to develop a joint Camp Management Plan for the Cabramatta Creek Flying-fox colony in partnership with Fairfield City Council.

The Grey-headed Flying-fox can sometimes be a misunderstood species, but it has an important role in the ecosystem with pollination and seed dispersal. The goal of the Plan is to develop a policy that reflects the needs of the community as well as meeting our management obligations to this protected species.

There are plenty of exciting dates for your diary, with some thought-provoking events and workshops.

Please enjoy them and the newsletter.

Mayor Wendy Waller Liverpool City Council

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RECEIVE YOUR NEWSLETTER VIA EMAIL

Your edition of Sustaining Liverpool can now be sent to your email address.

If you would like to receive it electronically rather than printed, email: **lcc@liverpool.nsw.gov.au**

Printed on recycled paper.



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GET INVOLVED

Community members meet on the last Sunday of the month at Elouera Nature Reserve to undertake environmental restoration activities to protect the local Native Pear population. Everyone is welcome to join – no experience is necessary.

Come along on Sunday 29 April, 27 May and 24 June from 12pm to 3pm.

Meet in the Ireland Park car park on Memorial Ave, Liverpool.



CONSERVATION STATUS: Endangered population

Marsdenia viridiflora subsp. viridiflora

NAI

PEAR

under NSW Biodiversity Conservation Act 2016.

DISTRIBUTION: Found in central and southern parts of Western Sydney.

HABITAT: Grows in open shale woodland on gravelly clay soils or in vine thickets. It can be found in open, exposed sites or close to creeks.

DESCRIPTION: A woody climber with twining stems up to 4 metres, growing over shrubs or along the ground. It has a milky sap when cut and large underground tubers. Young stems are hairy, while older stems and most leaves are not. Leaves are thick, narrow and have a prominent mid-vein. Greenish yellow bell shaped flowers occur in groups during November to December with fruit maturing in autumn. Fruits are large and pear shaped, up to 80mm long. **THREATS:** Threats to the small population include habitat clearing for urban development and unpredictable events such as fire.

RECOVERY STRATEGY: A targeted strategy for managing this species has been developed under the NSW Office of Environment and Heritage *Saving Our Species* program which aims to secure this population in the long-term.

ACTIVITIES TO ASSIST THIS SPECIES:

Management of existing sites to prevent unpredictable events threatening the populations, and prevent further habitat clearing.

Photos showing Native Pear flowers (image courtesy of Michael Streatfeild), fruit, leaves and habit.

CUMBERLAND PLAIN LANDCARE PROGRAM

The Cumberland Plain Landcare Program (CPLP) is a support program for Bushcare and Landcare groups who work on Cumberland Plain Woodland sites (and various derivatives of this Critically Endangered Ecological Community).

The CPLP drifts between Bushcare and Landcare sites each month, bringing in more volunteers to bolster volunteer group numbers and motivation.

Last year the Program supported Bushcare and Landcare Groups at their sites in the Hawkesbury, Hills and Penrith areas. Over the next few months the Program will be moving into Parramatta, Blacktown and Liverpool.

The CPLP partners with Conservation Volunteers Australia, so that any additional volunteers come with their own supervisor and tools.

CPLP events in Liverpool:

CLINCHES POND

DATE: 12 May 2018, 9-11am VENUE: meet inside the park at the Gloria Taylor Reserve sign on Swain Street, Moorebank

GLEN REGENT RESERVE

DATE: 17 June 2018, 10am-12pm VENUE: meet at the park bench in Glen Regent Reserve below Astley Way, Casula There is also a fauna element added to the day, which can include an activity like guided bird watching, or whatever the group is interested in e.g. reptiles, bats, invertebrates or mammals. Catering and transport are also included in the event, and childcare support is also available if required. Additionally, there is a small amount of money available for the sites if an urgent land management task is required.

The CPLP is an initiative of the Greater Sydney Landcare Network. It receives support from Greater Sydney Local Land Services and financial assistance from the Federal Government.

For more information about coming along to a special CPLP event in Liverpool please contact Xuela Sledge, Local Landcare Coordinator, Greater Sydney Landcare Network on 0410 616 139 or xuela.sledge@ greatersydneylandcare.org.





FRASER ENVIRONMENT AWARD

KEN DICKINSON

Ken is a valued member of Council's Environment Volunteer Program and at 88 he is our oldest bushcare volunteer. He has been attending the Weaving Garden site in Casula adjacent to the Leacock Regional Park every month for the past 12 years dedicating his time, energy and passion to restoring Liverpool's natural environment. Ken has protected, restored and enhanced biodiversity and contributed to reconnecting corridors for wildlife. He is very committed to improving our local areas for all to enjoy.

Congratulations and thank you Ken!

POLLINATOR SURVEYS

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volunteers to help us survey for pollinators and butterflies at our bushcare sites in the endangered Cumberland Plain Woodland. We run two pollinator surveys per year at selected bushcare sites – one in Autumn and another in Spring – to monitor how pollinators and butterflies are responding to bushcare work. The whole family is welcome, but please wear a hat, long sleeve shirt, long pants and enclosed shoes.

We are looking for enthusiastic

AMALFI PARK POLLINATOR SURVEY

6 May 2018, 11am-12.30pm Amalfi Park, Reilly Street, Lurnea

Please RSVP at bringbackthebuzz.org.au if you are planning to come to a pollinator survey – insects are very weather dependent and we may have cancel at short notice. Photo: Opuntia microdasys (Bunny Ears) a Weed of National Significance and Delosperma (Ice Plant) invading the habitat of Pimelea Spicata, a threatened species known only to occur on the Cumberland Plain of Western Sydney. This has escaped from a garden built outside a property boundary and spread into the adjacent public reserve.

A garden escapee is an ornamental garden plant that has escaped their garden boundary and established in nearby areas.

GARDEN ESCAPEES ON THE RUN

In Liverpool, Council's work under the Environment Restoration Plan to restore Cumberland Plain Woodland faces many challenges, one of which is the regrowth and re-introduction of weeds back into areas where investment has occurred to reduce weed populations. Many of these weeds originate from gardens and are deemed 'garden escapees'.

In NSW the Noxious Weed Act 1993 has been repealed and the NSW Biosecurity Act 2015 (the Biosecurity Act) is now in force. This new Act has introduced a 'general biosecurity obligation' to everyone, requiring people to take all practical measures to prevent, eliminate or minimise biosecurity threats (including weeds).

Dumping of garden waste is one of the main ways garden escapees spread into our bushland. Ornamental plants that escape into adjacent Council reserves impact local biodiversity values and can be costly and time consuming to control.

During 2016/17, Council completed bush regeneration projects across 59 hectares of reserves tackling widespread weeds that degrade bushland, reduce habitat for local wildlife, choke waterways and impact biodiversity. In addition to this, dedicated community volunteers also contributed over 1500 hours in their own neighbourhoods to tackle the weed problem.

BECOME A WEED WARRIOR AND PROTECT CUMBERLAND PLAIN WOODLAND:

- Join Council's Environment Volunteer Program and help fight the weeds in your local neighbourhood.
- Be a responsible gardener download the Sydney Weed Committee Guide to responsible gardening in the Sydney Region (sydneyweeds.org.au)
- Replace invasive plants in your garden with native alternatives (growmeinstead.com.au)
- Do not dispose of any garden waste over the back fence, on roadsides or in bushland.
- Dispose of plant bulbs, tubers and seed heads in your general waste red lid bin NOT the green waste bin.
- Do not plant exotic plants outside your property boundary or in an adjacent bushland reserves.





Photo: Council's Bush Regeneration team tackling woody weeds along Maxwells Creek at Elouera Nature Reserve in Liverpool.

FLYING-FOXES AT CABRAMATTA CREEK

GRANT PROJECT

Liverpool City Council successfully received grant funding to develop a joint Camp Management Plan for the Cabramatta Creek Flying-fox colony in partnership with Fairfield City Council. The flyingfoxes pay no regard to which Council's land they roost on, preferring one side of Cabramatta Creek over the other as the conditions at the time suit them. Thanks to Local Government NSW, we are able to put in place a management framework that addresses the conservation concerns of the flyingfoxes that is agreeable to both Councils.

We have engaged one of the top consultants in the field of Flying-fox ecology to deliver the Plan. Through a combination of desktop research and community engagement we hope to develop a policy that reflects the needs of the community as well as meeting our management obligations to this protected species.

The plan will outline the future management direction for the Camp to ensure the success and security of the colony into the future. It will also identify a range of land management options to ensure that the colony does not encroach on urban areas and impact local residents unnecessarily.





GREY-HEADED FLYING-FOX

The Grey-headed flying-fox (*Pteropus poliocephalus*) is the dominant species present in the Cabramatta Creek colony, with smaller numbers of the Little Red Flying-fox also having been observed. Both of these species are megabats native to Australia, though only the Grey-headed flying-fox is listed as a threatened species.

The Grey-headed flying-fox is found along the eastern coast of Australia from Bundaberg in Queensland down to Victoria and west to Adelaide, preferring rainforest, woodland and swamp type vegetation. They range from the Great Dividing Range east, travelling up to 50 kilometres a night to feed. Having low site fidelity, flying-fox populations migrate based on food availability, favouring available resources over specific locations.

Contrary to popular belief not all bats are blood-suckers and this is true of Grey-headed flying-foxes. Their diet consists of pollen, nectar and fruit. Their diet also helps them deliver important ecological services as a pollinator and seed disperser. They are responsible for the pollination and dispersal of seed for over 100 native plants. Their incredible nocturnal range helps the spread of genetic diversity across the landscape. For this reason they are considered a keystone species, particularly for canopy species.

Greys are noted for the dusky grey fur covering their head and bodies, broken by a mantle of orange-red fur around their shoulders and necks. Adults can weigh up to a kilogram with a wingspan of over a metre, males being generally larger than females. Despite being known to live to over 20 years in captivity, it is uncommon for wild flying-foxes to live past seven.

Flying-foxes spend much of their time upside down, using an interesting physiological adaptation to achieve this without needing to spend energy. The way their tendons connect their claws to the body only rely on the animal's bodyweight while hanging to maintain a grip. This makes it easy for them to launch into flight, using a drop to 'fall' into flight. Much of their time and activity is spent upside down, including reproduction. One notable exception: bats will turn 'right-way-up' to evacuate their bowels. The idea that they are unclean animals is a myth!

Females control reproduction, determining mating pairs. Gestation typically lasts 29 weeks, giving birth to a single pup in the spring (late September – November). Until they are old enough to crèche (about 4-6 weeks), pups are carried by the mother with the young latching onto one of the mother's teats. They are capable of sustained flight before they are finished weaning in autumn.

Flying-foxes are threatened by clearing of land containing their roost and foraging trees. The increasing pressure on their food sources brings them into closer proximity with humans in urban areas where there is a constant food supply. Climate change is also increasing the incidence and severity of mass die-off events due to heat stress. This close proximity strains their relationship with the community with the calls while foraging and musky odour upsetting many people, as does the fear of disease.

Negative perceptions of flying-foxes include the fear of zoonotic diseases, diseases that are transmitted from animals to people. Less than one percent of the flying-fox population carries the Australian Bat Lyssavirus. Fewer still carry Hendra virus, which cannot be directly transmitted from bats to humans. Still, caution is advised: Do not handle sick or injured wildlife unless qualified to do so.

KEYSTONE SPECIES

A keystone species is a plant or animal that plays a crucial role in an ecosystem and how it functions. Without the keystone species an ecosystem would be drastically different or even collapse entirely, much like an arch from which the term is borrowed.

Keystone species have a disproportionately large impact on their environment compared to their relative abundance. They also play a significant role in defining the variety and abundance of other species in the ecosystem. For this reason, we often see apex predators like wolves listed as keystone species. However, other ecological services can make an organism a keystone species.

BLIND AS A BAT?!?

Flying-foxes, while members of the bat family, do not rely on echolocation to 'see'. They have good eyesight, estimated to be 20 times better than humans, which they use to locate their food. They also have a good sense of smell to help them locate food.



In fact, Flying-foxes have a similar hearing range to humans and even share our dislike for similar noises – like the recycling bins getting emptied before dawn or a neighbour's loud and obnoxious music!

SICK OR INJURED FLYING-FOXES

If you see what you think is a sick, injured or orphaned Flying-fox please DO NOT approach, touch or try and contain it. While the chance the bat is carrying a virus is low, the effect of the virus is very harmful. Wildlife rescue organisations have trained and vaccinated staff capable of handling the rescue. Sydney Wildlife: (02) 9413 4300 WIRES: 1300 094 737

SPEAKING 4 THE PLANET SOUTH WEST SYDNEY COMPETITION



Tuesday 5 June 2018 The Bowden Centre at the Australian Botanic Garden, Mount Annan 9am – 2.30pm

To celebrate World Environment Day on 5 June, 4Sustainability Education and four South West Sydney councils are inviting high schools in Liverpool, Campbelltown, Camden and Wollondilly local government areas to join us for the Speaking 4 the Planet competition. The United Nations World Environment Day is celebrated in over 100 countries each year to raise awareness for the need to take positive environmental action – locally, nationally and globally.

There will be 3 categories to the competition:

- 1. Art
- 2. Drama
- 3. Public Speaking

Student works will be focused around the 2018 theme of: **BEAT PLASTIC POLLUTION IF YOU CAN'T REUSE IT, REFUSE IT**

REGISTER YOUR SCHOOL Places are limited.

To register your school, or to find out more information about this competitions contact Phil Smith – 4Sustainability Education Consultancy on 0412 338 687.

Entries open on 1 March 2018 and close on 4 May 2018.













REACHING FOR THE STARS

COUNCIL'S MAIN BUILDING REACHES 4 STARS

In February of this year, Liverpool City Council's head office at 33 Moore Street was awarded an energy efficiency rating of four NABERS stars, an increase from a two star rating.

NABERS is a national rating system that measures the energy efficiency, water usage operational performance of a building and its impact on the environment. The higher the rating the more the building is energy and water efficient. To achieve the four star rating, a new air-conditioning system, new smart elevators, internal tinted window film (saving 48,000 kWh or \$8500 per annum) and a power factor correction unit (saving \$10,000 per annum) were installed.

Council plans to reach 4.5 stars in the second half of the year by fitting LED lights in the 33 Moore Street building car park, representing a 111,631 kWh per annum saving in electricity use.

The table below represents monthly spending on electricity. The energy-saving measures represent a \$96,060 or 42.8% annual reduction in annual spending.



DID YOU KNOW?

If all of Australia's commercial office tenants were to achieve a NABERS Energy tenancy rating of 4 stars or higher,

960,000 tonnes of CO2 could be saved each year. That's the equivalent of taking 200,000 cars off the road!





X

X

At 8:30pm on Saturday 24 March 2018, hundreds of millions of people around the world turned off their lights for one hour, for the Earth Hour event.

Earth Hour is an annual global event encouraging individuals, communities, corporates and residential households to turn off their lights to show support and commitment towards a better planet and to take responsibility towards a sustainable future. Over 170 countries and over 7 000 cities, with over six million Australians took part in the event.

This year, Liverpool City Council participated in Earth Hour by ensuring that non-essential lighting

The NSW Government's guide to sustainable living www.environment.nsw.gov.au/households

The Australian Government's energy efficiency rating for consumers www.energyrating.gov.au/consumers

X

and electrical appliances at Council's Civic Centre were switched off between 8.30pm and 9.30pm. However, Earth Hour encourages participants and households to go 'beyond Earth Hour' for lasting change.

Reduce your energy use at home beyond Earth Hour.

If you want to know what else you can do to become a more sustainable citizen beyond Earth Hour, you can find some useful information below to help you reduce energy consumption in your household.

Australian Government's Your Energy Savings yourenergysavings.gov.au

Your Home - Australia's guide to environmentally sustainable homes www.yourhome.gov.au/energy



You are invited to take part in a research study being conducted on Eastern Water Dragons. Eastern Water Dragons are impressive semi-aquatic lizards (up to one metre long) found near freshwater and in patches of bushland along the eastern coast of Australia. Although many native reptile populations have declined due to loss of habitat, Eastern Water Dragons have managed to

thrive in urban landscapes, and are often observed in Sydney's backyards! We need your help to find out what features of private outdoor spaces are correlated with the presence (or absence) of Eastern Water Dragons. This project is conducted across Sydney. If you want to get involved, jump online and fill out the survey: http://bit.ly/dragonsurvey.

9 TIPS FOR LIVING WITH LESS PLASTIC



glass jars



BEE ALERT

Large earth bumblebees are an invasive exotic bee from Europe, and are much larger than honeybees with a distinctive loud buzz when flying.

If large earth bumblebees were to establish in NSW, they could increase spread of many weed species. They can also compete with honeybees for floral resources, causing negative impacts for beekeepers.

If you see a bumblebee, report it using the online form, a photo can be sent to biosecurity@dpi.nsw.gov.au, or call 1800 084 881.

WIRES WILDLIFE RESCUE SMARTPHONE APP

Get wildlife advice and rescue assistance for native animals from the WIRES rescue team 365 days a year.

The WIRES app provides a quick and easy way to find out how you can help sick, injured and orphaned wildlife. You can report a rescue directly from the app and access some of the most important information you need to know if you find native animals in distress.

Find your nearest vet, access wildlife rescue information for common species, register for rescue story updates and be part of a community of thousands of supporters

Bumblebee

www.wires.org.au/rescue/rescue-app.





ENVIRONMENT ACTIVITIES CALENDAR: MAY - JUNE 2018

WHAT'S

Join our enthusiastic volunteers who beautify their local parks and bushland by removing weeds and litter and planting native plants. Meet like-minded people, increase your knowledge of the environment and create habitat for local wildlife. Don't have any experience? Don't worry - our qualified staff are happy to provide training. All equipment is supplied.

Collimore Park Environment Group

Meet in the Collimore Park car park on Collimore Avenue, Liverpool Saturday 8am-11am: 5 May 2 June

Cessna Reserve

Environment Group Meet in the reserve at the intersection of Hemsworth Ave and Stanley Ave, Middleton Grange Sunday 9am-11am: 13 May 10 June

Light Horse Park

26 May

30 June

Environment Group

Voyager Point

19 Mav

16 June

Amalfi Park

6 May

3 June

Chauvel Park

Environment Group

Meet at the park entrance

at the end of Sammut

Cres, Chipping Norton

Saturday 8am-11am:

Environment Group

Meet inside the park

near the footpath on

Reilly Street, Lurnea

Sunday 9am-11am:

Meet in the Light Horse Park car park, Riverpark Drive, Liverpool Saturday 9am-11am:

Environment Group

Meet in the car park at Voyager Park on Orlando Crescent, Voyager Point Sunday 9.30am-11.30am: 27 May 24 June

Clinches Pond Environment Group Meet inside the park

at the Gloria Taylor Reserve sign on Swain Street, Moorebank Saturday 9am-11am: 12 May 9 June

Weaving Garden **Environment Group** Meet at the seats inside

the reserve at the end of Casula Road, Casula Saturday 12pm-2pm: **12 May** 9 June

Streamwatch

Come along to investigate the water quality of the Georges River. Meet in the Light Horse Park car park, Riverpark Drive, Liverpool Saturday 8.30am-9am: 26 May 30 June

Streamwatch

Leacocks Lane

Environment Group

below Astley Way, Casula

Sunday 10am-12pm:

20 Mav

17 June

Meet at the park bench in Glen Regent Reserve

Come along to investigate the water quality of Cabramatta Creek. Meet in the Ireland Park car park on Memorial Avenue, Liverpool Sunday 12pm-1pm: 27 May 24 June

Elouera Bushland Reserve **Environment Group**

Meet in the Ireland Park car park, Memorial Avenue, Liverpool Sunday 1pm-3pm: 27 May 24 June

For more information, call 1300 36 2170 or visit www.liverpool.nsw.gov.au













PETER MILLER PARK

SUNDAY 13 MAY, 9AM-11.30AM Meet in the park at the end of Witchhazel Place, Casula

IRELAND PARK

SATURDAY 23 JUNE 9AM - 11.30AM

Meet in the park on Memorial Ave, Liverpool



There will be a free BBQ lunch for all participants after the tree planting.

No experience is necessary. Council provides all tools and plants. Make sure you have closed-in shoes, a hat, gloves and long-sleeved shirt.

Love Food Hate Waste

1st and 3rd Saturday of the month from January to June 2018, 8am to 12 noon

FOR YOUR

Chipping Norton Growers Markets Childs Park, Ascot Drive, Chipping Norton

DATES

Come and learn about planning meals, including portion control, helpful hints and tips as to how best to store food so that it will have the longest shelf life and tasty meals that can be made to use up foods that you already have in your fridge, freezer and pantry.

National Volunteer Week "Give a little, Change a lot"

21 – 27 May

This is the largest annual celebration of Australia's volunteers who generously give their time to various causes and activities. The *Give a little, Change a lot* theme represents the millions of volunteers who make a significant impact in their communities and on society, by giving a little of their time. For more information visit www.volunteeringaustralia.org

World Environment Day Tuesday 5 June

Celebrate our planets biggest day for positive environmental awareness and action. For more information visit worldenvironmentday.global/

FREE SUSTAINABILITY WORKSHOP

Places are limited. To book your place call Council on 1300 36 2170.

IDENTIFYING PLANTS ON THE CUMBERLAND PLAIN Saturday 19 May (9.30am-12.30pm)

Do you enjoy walking in the bush but would love to be able to name more of the plants you see? This morning workshop will take you on a guided walk through endangered Cumberland Plain Woodland providing an insight into its diversity and uniqueness. You will develop skills in recognising and naming common tree, shrub and groundcover plants using simple plant keys, descriptions and photographs. No experience required – notes will be provided. Bushland walking tracks are generally flat and hardened dirt or gravel tracks. There may be some possible loose and slippery surfaces and some gentle slopes to traverse. Please wear enclosed nonslip footwear and bring a hat.

PICKLING AND PRESERVING Saturday 23 June (10am – 1pm)

Pickling and preserving is an age old practice to sustainably keep food and reduce household waste. This workshop is interactive, hands on fun where participants will learn about food preservation and the current trends, techniques, the pantry toolbox, fermenting and salting, drying, homestead pickling, jams, relishes, stocks, dressing and seasoning, plus the working pantry – how to keep it, store it and use it principles. You will be making your own preserves and pickles from seasonal food, with plenty to take home and enjoy.