**FRIENDS OF BURNLEY GARDENS INC**

# Papyrus
# Autumn Edition 2017

No. 65-Autumn 2017

## PRESIDENT'S REPORT — Michèle Adler

We started the year in style. This is our 20th year of operation and it's is going to be a great one.

First event as always is the Valentine's Day meeting. This year our speaker was Andrew Rogers, Land Art Sculptor and local artist. He showed a video of his work "Rhythms of Life" land art project. He says that for him "the challenge is to use materials in a new and different way to convey meaning and portray form in a manner not previously seen. His work includes land sculptures in Bolivia, Chile, China, Iceland, Israel, Sri Lanka, Nepal, Antarctica and Australia. Wow, what an operator. You can see his art from the air; it is art in space.

Then in March, the talk by John Rayner was very well attended (45 people) They caught a glimpse of John's garden in Emerald. Loved the grasses laid out in spirals, *Calamagrostis* sp. The April talk was a thought-provoking one, presented by Dr John Dwyer on Weeds, Plants and People. Again, this was well attended, so it's pleasing to see more people enjoying our functions.

In May, we decided not to have any evening talks but instead to run a workshop on Kokedama (Saturday 6 May, in the am.) and have a celebration afternoon tea in honour of former Gardens Manager and lecturer Geoff Olive.

The propagation Group had a bumper sale in March, earning nearly $2000 for projects in the Gardens. This hard-working group had to overcome the Christmas holiday absences and

some severely dry weather leading up to it. You can always check out the Propagation Plant list on the FOBG website about a week before each sale. Splendid work Fran, Glenys and team.

Our guided tours continue to be popular. If you are involved with other groups, tennis, golf, embroiderers, birders, walkers etc. you may like to organise a guided tour of Burnley Gardens as an outing for them. We are also interested in new volunteers to learn the history of the Gardens and take part in showing them off to visitors. Judith Scurfield is training up a new band and is looking for some new participants. If you are simply interested in the Gardens' history but don't want to do any guiding, you can still join this group. They meet once per month during the day. Contact us through the Friends email or telephone.

Are you accessing our *Friends of Burnley Gardens* Facebook Page? Just look up the page on Facebook and ask to become a "Friend". Then you'll get snippets of Gardens' activity and information and connect to others interested in our group. Recently I welcomed our 125th member to Facebook, Paula Cave, a former Burnley Gardens gardener but now living in Queensland. Paula has moved into other areas including yoga and accountancy.

The Botanic Art group is keeping busy by sketching up plants for the Burnley Gardens book. We look forward to seeing some of their efforts soon.

So, as I write, the heat of summer is behind us, autumn leaves are colouring up and we still have plenty of action to come. I do hope to see you soon.

Best wishes,
Michèle Adler (President)

https://www.facebook.com/search/top/?q=friends%20of%20burnley%20gardens

## NEWS

## DIRECTOR OF URBAN HORTICULTURE UPDATE — John Rayner

It's been almost a year since I was asked by our Dean, Prof. Karen Day, to take on the role of Director of Urban Horticulture and it has certainly been an interesting journey! The role was established to help lead the discipline of urban horticulture in SEFS (School of Ecosystem and Forest Sciences), the Faculty of Science and more broadly across the University. Much of my work has been in curriculum planning to try and build enrolments, especially options for new subjects in the undergraduate Bachelor of Science (BSci). The BSci has the largest cohort of students in the University, but does not have a single 'horticulture' subject.

Another focus has been to explore new opportunities through engagement to raise the profile of what we do. In this our 125th year of horticultural education we have had a real focus on engagement through activities that have attracted thousands of visitors to the campus. The conferences, seminars, workshops and related events at Burnley in 2016 have had significant community, industry and alumni participation, providing a foundation for future growth. We are planning the development of some form of Burnley Outreach Centre to help deliver more of these activities in the future.

So watch this space!

## UNIVERSITY STATEMENT ON URBAN HORTICULTURE

The University of Melbourne's Burnley campus is renowned for teaching and research programs in environmental and ornamental horticulture. Burnley remains a vital part of the University's plan for horticultural studies.

The University is planning to discontinue intake into the Associate Degree in Urban Horticulture, following a detailed analysis of enrolment patterns into the course and concerns about student completion rates, withdrawals and pathways into further study at the University.

Students who have already started in the course will be able to complete their studies and the Faculty of Science expects no currently enrolled students will be adversely impacted by the change.

The Faculty of Science is seeking to expand opportunities for urban horticulture studies as part of subjects in the Bachelor of Science, Bachelor of Agriculture and Bachelor of Design as well as Breadth subjects and executive education options. The University will continue to offer postgraduate coursework – including a number of certificates, diplomas and a Masters degree in horticulture.

**IMPORTANT POSITION AT UNIVERSITY VACANT**
**THE ADRIENNE CLARK CHAIR OF BOTANY ADVERTISED**

Following the departure of Mark Burgman, to become Director of the Centre for Environmental Policy and Professor in Risk Analysis & Environmental Policy, Imperial College London, the important position of the Adrienne Clark Chair of Botany is now being advertised.

The School of BioSciences at The University of Melbourne is seeking a Professorial appointee in the area of plant science for the Adrienne Clarke Chair of Botany. The appointee will be an internationally outstanding researcher who will provide academic leadership. They will have an excellent track record in teaching and learning and will contribute to teaching at both undergraduate and postgraduate level.

They will contribute to the advancement of plant science by playing a major role in all elements of major research projects. And they will develop a research program with potential for translation and adaptation.

The Chair honours distinguished plant scientist Laureate Professor Adrienne Clarke AC FAA FTSE and is supported by funds from The University of Melbourne Botany Foundation.

For more information:

http://about.unimelb.edu.au/careers

Select the relevant option ('Current Staff' or 'Prospective Staff'), then find the position no.0043099.

**FEATURES**

## AUTUMN IN THE GARDENS

**Andrew Smith**

With the colder mornings and the prospect of a 30 degree day a long way off, you know it has to be autumn. April in the Gardens is full of foliage contrasts, and also a time when some hard decisions need to be made. The native grasslands is one place where a radical visual change takes place. The previous upright, straw coloured grasses bend over and turn into a bit of a mess. Nothing for it but cut then down as low as possible to rejuvenate them, something many are reluctant to do, in the mistaken belief the grass will somehow die. The *Wahlenbergia communis* still has lots left to offer however, so will be left until winter to cut down to ground level. I rather like this feast and famine approach to gardening, it certainly prolongs the life of many plants by promoting their suckering habit and gives an opportunity to clean out any unwanted chameleon weeds that are hiding.

Another autumn feature that has great appeal is the wide selection of berries and colourful fruit that is on display. The *Cotoneaster, Crataegus, Magnolia and Viburnum* are all eye catching at this time of year in the gardens and despite the reputation of *Cotoneaster* and *Crataegus* being weedy, (dispersal by birds) these two cause no problem at Burnley.

## BURNLEY'S AUTUMN GARDEN

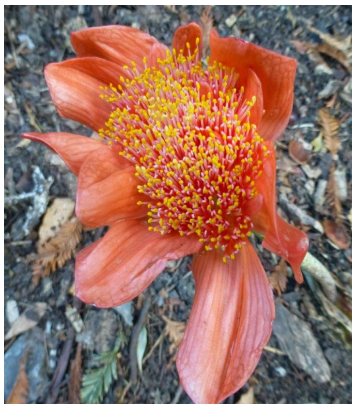
*Seasons of mist and mellow fruitfulness*
*Close bosomed friend of the maturing sun*
*Conspiring with him how to load and bless*
*With fruit the vines round the thatched-eves run;*
*To bend with apples the moss'd cottage-trees,*
*And fill all fruit with ripeness to the core;*

*John Keats To Autumn*

*Figs ripening in the field station*

*Araucaria bidwilli.*

*Remnants of a Bunya Bunya pine cone showing the large seeds that were feasted upon by indigenous people*



*Haemanthus. Blood lily*

Photos by Michèle Adler

**SHOO (FRUIT) FLY DON'T BOTHER US!** **Michèle Adler**

Did you ever wonder why you can't take fruit into South Australia? It's because South Australia is the only mainland State of Australia to be declared fruit fly free.

Every vehicle is inspected at the borders and fruit and veggies must be discarded as you enter the state. So, if you are traveling to Adelaide or beyond, then wait until you enter SA before stocking up on provisions.

This little fly, Queensland fruit fly (Q-fly) costs the Australian horticulture industry more than $300 million per year. It also affects the home gardener in areas all up and down the east coast of Australia (as well as the west).

Fruit flies destroy fruit and vegetables in commercial crops, home gardens and impact trade access. They lay eggs in developing fruit; the eggs hatch into maggots that then proceed to consume fruit. You end up with a seething mess of inedible mush.

But there is good news. A new centre in Port Augusta (SA) will produce and release 50 million sterile male Q-flies each week. The sterile males mate with females, collapsing wild populations in fruit fly affected horticulture growing regions.

“It is a critical breakthrough for our horticulture industries and has the potential to mitigate Q-fly as a major pest problem, reduce the use of toxic sprays and increase returns. This is a great environmental win.

## HOW FAR HAVE WE COME WITH AUSTRALIAN PLANTS? Bev Hanson

In 1959 to 1961, I did the full time 3 year Diploma course at Burnley Horticulture College. I recall we had very little exposure to Australian plants. Each term we would be tested on a range of plants where we would have to name the genus and species with accurate spelling. Almost all were exotics as were the plants in the gardens at the College.

After graduating, I was most, most fortunate to work with Ellis Stones full time as his assistant. At 18 and recently obtaining my driver's license, I found myself driving Ellis to the various gardens as he always had a problem with one leg which was severely injured at the Gallipoli landing. My job entailed running the office, doing the wages for the men (usually 4 or 5), and also, drafting the plans. Ellis would pencil the design in and I would finish them sometimes in colour before copying them. With my horticulture background, I was also the plants person. So while Ellis and the men were constructing gardens for clients (pre-bobcat days!), I would be visiting nurseries, then helping with the planting on site.

Ellis always leaned towards Australian plants but the problem was that so few nurseries stocked them in the 1960s. The species that were available were not suitable for home gardens. They generally grew too big, became leggy and people were put off. Nurseries, I remember visiting at this time, included Schubert's in Noble Park, Natural Resources Conservation League and Treeplanters, both in Springvale. Sparkes and McAlpine nursery in Boxhill had some native plants amongst the exotics. Sometimes, I would go all the way to Geelong, to Bodey's nursery. They had an exciting range of plants in beer cans, some I had never heard of. They even travelled to Western Australia seeking new species.

Ellis liked to use a lot of ground cover plants to create drifts, repeating the same plant in another part of the garden to give a harmonising flow to the landscape. For ground cover plants, I would visit Koonung nursery in Belgravia St in Boxhill North where Mr Allsop had thousands of ground cover plants in recycled dog food containers in his back yard. Most of course were exotic plants but he did grow some Australian plants, all at 40cents each. These included *Anigozanthus*, *Dichondra*, *Frankenia*, *Helichrysum*, *Isotoma*, *Myoporum*, *Scleranthus*, *Viola* and *Wahlenbergia*.

With the opening of Austraflora Nursery in 1968 and with improved selections and cultivars, and books like those of Betty Maloney, began a new era in people's perception of our Australian flora. *Article by Bev Hanson Published in APS Newsletter.*

**FOOTNOTE**

For those not in the know (and I am one of them), Betty Maloney (1925-2001) and her sister Jean Walker were pioneers of Australian bush gardening design. Betty's garden was in Frenchs Forest (Sydney) it was one of the most celebrated and best-known bush gardens in Australia.

The book referred to above was *Designing Australian Bush Gardens* (1966). Betty, also a botanical artist illustrated the book as well and wrote 15 books, some with her sister. For more information about Betty Maloney, see the ABC Gardening Fact Sheet http://www.abc.net.au/gardening/stories/s818849.htm

*Anigozanthos humilis*

**DOES THIS CHIME WITH YOU?**
Michèle asks if this is the answer to discouraging those pesky possums

About a year ago I watched an ABC TV programme about a woman who hung wind chimes in trees to deter possums. Now, I'm wondering if anyone has tried that. And does it work? Possums seem to be a perennial problem in suburban gardens and nothing people try to deter them seems to work.

Of course, relocating possums is illegal. Possums are protected under the Wildlife Act of 1995. We now know that possums are extremely territorial and will always try to return to their place of origin. In the process many are killed on roads, killed by foxes or by other possums whose territories they must pass through. A study by Pietsch, a researcher from Deakin University in 1994 is worth reading.

I've heard of possum deterrent success with low voltage electric fences but the wind chime option seems preferable and more "charming' if it works.

Reference: Pietsch, R.S. 1994. 'The fate of urban common brushtail possums translocated to sclerophyll forest', Serena, M. (ed.) *Reintroduction biology of Australian and New Zealand fauna*. Surrey Beatty & Sons, Chipping Norton.)

**A NEW USE FOR A PESKY WEED!**
NEW RESEARCH FINDS A GREAT BENEFIT IN AN UNLIKELY PLACE FOR THE PESKY DANDELION

*Taraxacum officinale, better known as the common dandelion, is a much-maligned weed cursed the world over for its ability to infest lawns and crops. The plant's paratrooper-like seed dispersal system makes it difficult to eradicate, even for those with the greenest thumbs.*

However, new research from an engineer at Washington University in St. Louis finds a great benefit in an unlikely place for the pesky dandelion: each of its tiny seeds can be used as a perfect pipette in the laboratory setting.

"We found you can actually use dandelion seeds to perform precise droplet handling. There aren't many tools that exist for this," said Guy Genin, Professor of Mechanical Engineering.

Genin worked in tandem with horticulturists at Washington University's McDonnell International Scholars Academy partner Xi'an Jiaotong University in China. The team examined the wettability of dandelion seeds, or how they are saturated by a liquid. While most materials can be wetted only by water (hydrophilic) or oil (oleophilic), the researchers found the pappus of a dandelion -- the fluffy, white structure surrounding the seed -- is omniphilic, able to be saturated by both materials. That rare trait makes it an extremely useful lab tool, especially when it comes to moving tiny amounts of either liquid from one setting to another.

"These dandelion pappi are chemically and structurally composed so that they will collapse in a special way if you dip them in either oil or water," said Feng Xu, Genin's collaborator and director of the Bioinspired Engineering and Biomechanics Center at Xi'an. "Using the pappi, you can lift up a drop of water and deposit that drop of water into an oil bath. And you can go back into the oil, use the pappi to retrieve the drop of water, and move it elsewhere." This, said Genin, allows for precise handling of minute amounts of liquid, something especially important for the tiniest of experiments.

"Because it has this special omniphilic property, the seed provides us a new way of handling nanoliter-sized droplets in the lab. They are a beautiful controlled environment; they basically seal off the work around them so we can run a very controlled chemical reaction with them. The dandelion comes self-assembled, naturally grown, and its seeds are able to reliably and repeatedly pick up these tiny volumes of fluid that we need to transport in a lab setting."

The seeds can be used either individually or in large assays to collect greater amounts of liquid. Genin said the next step is to replicate the pesky dandelion's omniphilic properties in human-made materials.

"We hope to be able to develop bio-inspired omniphilic surfaces to create additional options for handling liquid for lab experiments," Genin said.

*Science Daily May 2nd 2017. Story source: Materials provided by* ***Washington University in St. Louis****. Original written by Erika Ebsworth-Goold.*