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AUSTRALIAN PLANTS SOCIETY

SOUTH EAST MELBOURNE REGION INC.

A00131128P

PO Box 8835 Armadale 3143

Email: aps.se.melb@gmail.com

Or semelb@apsvic.org.au

AUGUST NEWSLETTER 2022

Meetings are held on the first Tuesday of each month, February to December except November. **Visitors are always very welcome**
The venue is the Hughesdale Community Hall, Cnr Poath and Kangaroo Roads, Hughesdale (MEL 69 C7)

COMMITTEE:

PRESIDENT:	John Thompson thomme@netspace.net.au
SECRETARY:	Chris Bain aps.se.melb@gmail.com
TREASURER:	Norm Seaton normarjs@bigpond.com
PUBLIC OFFICER:	Chris Bain aps.se.melb@gmail.com
NEWSLETTER EDITOR:	Marj Seaton normarjs@bigpond.com
APS VIC DELEGATE	Marj Seaton
COMMITTEE:	Amanda Louden amandalouden@icloud.com

Please forward any newsletter contributions, comments or photos to Marj at 36 Voumard Street, Oakleigh South 3167 or to the email address above.

********Note: Deadline for the September newsletter is August 25th********

Meetings
8pm, Hughesdale Community Hall
Cnr Poath and Kangaroo Roads,
Tuesday, 2nd August 8pm
AGM and Members' Slides

Our next meeting will be our AGM. Members are asked to consider whether they can help by standing for a committee position. The task is not onerous and the committee meets only every two months with chocolate biscuits guaranteed. Nomination forms are included in this newsletter or nominate on the night.

We will hold our slide night after the AGM. John will need your photos, either emailed to him (in high resolution) or delivered to his home on a USB stick about one week prior to the meeting. Up to about 15 slides maximum please. Anywhere you've been, insects in your garden, interesting flowers all welcome.

PLEASE NOTE THAT MEMBERSHIPS WERE DUE ON JULY 1st

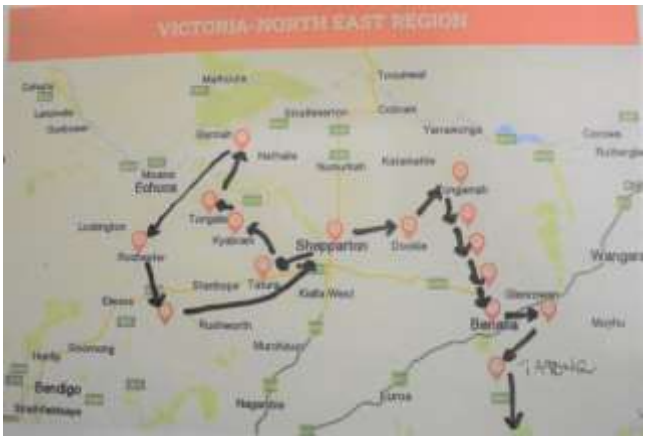
Norm Seaton has individualised membership forms which need to be completed so that updated information can be supplied to the new online database. Would all members please return these to Norm asap.
If you are unable to attend meetings, there is a form at the end of this newsletter. Please complete as far as you are able then post to Norm with a cheque or notification of having paid by electronic transfer.

RAINFALL FOR 2022

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Oakleigh Sth	79.4	6.6	76.8	82	28	72.8							272.8
Highett	64	4	28.5	31	36								163.5
Hampton	59	1.5	46.5	49.75	23.5	42.5							222.75
Cranbourne Sth	63	3	75	74	58	104							377
Elsternwick	81.5	0.6	55.8	69.3	14.6	45							266.8
Ashburton	77	6.2	62.2	84.2	25.2								254.8

It is with great sadness that we learned of the death of one of our longer term members, Peter Baitz.
Peter was a kind, generous and interesting gentleman, now at rest after battling failing health in recent years.
A keen birdwatcher and bonsai grower, Peter liked to cook Japanese, Spanish and Mexican foods at dinner parties. He was also an avid reader of history and a student at U3A in Japanese and Maritime History.
He will be greatly missed.

BOTANIC GARDENS, TANKS AND SILOS– Marj Seaton



Marj and Norm's three day trip to the Shepparton and Benalla areas encompassed the Shepparton Botanic Gardens, part of the Silo Art trail and the Winton Wetlands.

Eight years ago we visited the new Shepparton Botanic Gardens which had recently been established on the old tip site just out of Shepparton, an unlikely place on top of a dry hill but next to the confluence of the Goulburn and Broken rivers. What a difference those years have wrought. A Friends group, Shepparton Council and the Australian Botanic Gardens have shaped more paths with gabions and rocks, used aboriginal and irrigation stories and planted thousands of Australian plants. As soon as you enter there is a row of bottle trees and a 'turtle' garden which gives a pleasant resting area, particularly for those people working in the Friends propagating area nearby.

Most plantings are low as would be expected on an old tip site but there is a stand *of Brachychiton rupestris* at the start of the climb to the lookout and a row of *Acacia salicina* beside the Weavers Garden. There are many eucalypts in the bushland surrounding the site – either red gums or grey box (*Eucalyptus microcarpa)* though most of these are relatively young. One however got our attention because of its size and unusual growth.
From the lookout you can see over the surrounding pastoral areas of the Goulburn Valley. From the lookout, a major feature is the irrigation themed garden: grey gravel paths represent irrigation channels supplying water for agriculture, the saltbush (*Rhagodia spinescens)* represent the rivers in the area supplying the water, square and rectangular plots indicate the different pastoral plantings of the Soldier Settlement Period and the redgum sleepers show the channels delivering water directly to the farms.

A long zig-zag path takes you down from the lookout to the Broken River and the weaving garden which depicts a gathering area where aborigines could sit, weave and exchange stories. Notable are the cauldrons containing water plants used for weaving, the cover of the Hills Hoist and the woven seat bases.

A walk beside the river ponds and back to the garden has information signs about the wildflowers that used to be in the surrounding bush – many are gone since irrigation systems stopped most flooding of the area. The only bush still remnant is *Dillwynia cinerescens*. Steps are being taken to replant some of these. There is also a Forest Garden in which the local schoolchildren are planting to replace species lost.

There is a "Care for the Rare Garden" which is at the base of the lookout hill. We have had John Arnott talk to us about this project whereby Cranbourne grows some of the rare plants in the area then feeds them back to the local Botanic Gardens. This is where we found a great variety of species including a variety of daisies, *Eremophila debilis* and *Viola betonicifolia (left).*

A walk before the sun set gave us our first look at street art in Shepparton –a poached egg tree and cockatoo paintings in a car park behind one of the hotels. Before we set out next morning we visited a 'caravan lane' (right0 and a couple of other pieces of street art.

Our second day of exploration involved a lot of driving through towns to the north and west of Shepparton, starting with Tatura where there is an old water tower designed by Sir John Monash in 1911. It is one of the earliest examples of a reinforced concrete tower constructed in Victoria. On the other side of the tower is a waterfall of red poppies paying tribute to the significant Anzac legacy in the region.

In Kyabram we came across our first offering from Jimmy Dvate – a water tank highlighting the fauna of the Kyabram wetlands including the bush stone curlew a Major Mitchell cockatoo, a quoll etc. Tongala was interesting for its street art. One of my favourites would have to be of a Murray Cod. At one end of the main street was a new Town Centre full of art works, painted and sculptural. One of the churches had a splendid representation of Moses parting the waters of the Red Sea for the Israelites to escape the Egyptians and the story of Noah and the Ark on the Sunday School Hall.

Next was Picola near Barmah where another of Jimmy Dvate's specials awaited us. Scenes from the Barmah forest and a magnificent parrot were spectacular. To maintain our loop, we drove through Echuca and NSW as the easiest way to get to Rochester.

Rochester too has work by Jimmy Dvate. One shows a squirrel glider, another an Azure Kingfisher and still another a platypus. Elsewhere in the town is a wall depicting the life of detective Ron Iddles and here is a display of painted murals from the latest Mural festival but we didn't visit these.

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Our last stop for the day was at Colbinabbin. This was well worth it as there were six silos depicting various aspects of life in the region in the early 1900s. A steam train, a tractor pull, a red car, a farmers' picnic and a railway station are all painted in bright colours. These silos were all done by Tim Bowtell who, like Jimmy Dvate, has painted many scenes in the area.

Next day we travelled east from Dookie through to Benalla with many stops on the way. Dookie has several mobile silos – we only saw two.

North east of Dookie is Tungamah, one of a series of tiny towns heading south towards Benalla where silos were originally built by the railways to hold grain but which are now not in use. The Tungamah silos were painted by a Broome street artist, Sobrane Simcock, and features dancing brolgas, and on a separate silo, several birds of the area.

St. James came next. Tim Bowtell painted the story of GJ Coles and the history of wheat farming in the St James area on four large silos. Sepia coloured. They cover four horses carting wheat, a wheat truck, two bag sowers from 1950s and GJ Coles. George Coles senior opened his first store in St. James in 1910 and a branch in nearby Lake Rowan. A storyboard at the site, gives the history of Coles senior and his son, also GJ Coles, and the establishment of the Coles we know today.

The painting of the silos at Devenish coincided with the celebration of 100 years since the end of WWI. The show a nurse, a modern combat medic and a Light Horse man.

Goorambat was next and WOW! The silo art depicts a farming scene, a superb barking owl and three Clydesdale horses owned by the Trewin family and belonging to a family of prize-winning horses going back over 100 years *(photo next page)*.

This was the last of our silos but we had a short walk through Benalla to look at some of the street art – a major feature in the town, before a final visit to Tatong to see a water tank. This last was a bit of a disappointment as it was hiding behind a small outbuilding of the rather magnificent looking Tatong Hotel and was also much smaller than expected. A CFA building opposite the Tatong Hotel however had a spoof of a Frederick McCubbin painting "Down on his Luck" which we enjoyed.
We took a side trip from Benalla to the Winton Wetlands but these were not at all as we'd hoped. Once known as Lake Mokoan, the wetlands have had a checkered past – once agricultural, with landowners setting up home in the area, it was flooded to provide an adequate water supply for irrigation with the added bonus of fishing, duck hunting and sailing on the lake but a political hot potato. As there was a lot of evaporation from such a shallow body of water, it was subsequently drained leaving an ephemeral lake and more controversy. Many dead trees remain and weedy *Cassinia arcuata* is everywhere. It is hard to think of it as a wetland now.

There is another series of silos etc. in the Mallee which we intend to see in spring. This trip will start in Horsham and involve two or three segments. If you google Australian Silo Art you will be able to see some of the other artists' works on silos and tanks throughout Australia and be able to send for any of a series of brochures covering other states as well as in Victoria.

SPECIMEN TABLE – July Meeting

Marj, Mandy and John were our contributors this month. John offered two wattles, *Acacia macrodenia* or "zig-zag' wattle from Queensland. It is insect pollinated and the foliage and bright yellow flowers tend to weep. An open plant, John's is about 3.5m tall, 3m wide and he expects it to grow to about 5m tall. His second wattle was a small plant, *Acacia browniana var intermedia.* His grows in semi-shade to a maximum height of 1m and width 0.5m. He highly recommended this for small gardens.

Amongst Mandy's offerings were two particularly striking plants – a pot of *Conostylis bealiana* (left) which she says lasts for 1 – 2 years then is likely to die. The yellow flowers are set down at the base of the spike-

like foliage. A WA plant from the Esperance/Ravensthorpe region, it was first brought into cultivation by Rodger and Gwen Elliot around the 1960s. If rained upon the flowers have a tendency to rot but it is a great pot plant. Mandy commented that they had tried growing it in soil but without success.
Her second special specimen came from *Eucalyptus preissiana* which is in full glorious flower. It is a small tree with creamy yellow flowers. Her plant is covered in flowers and she has to treat the plant carefully or it is likely to break under the weight of the buds and flowers. Chosen as Pick of the Bunch , see below.

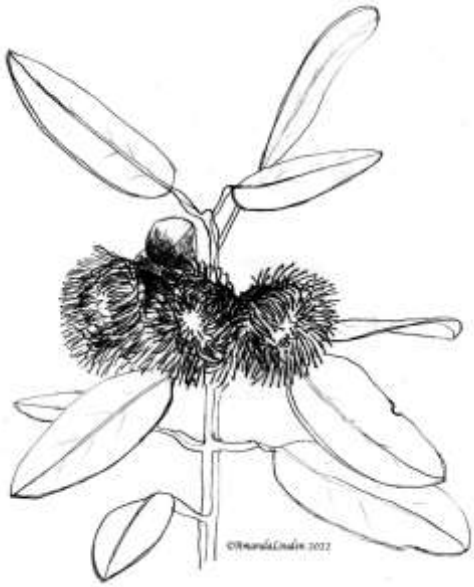
Other pieces in her specimens tonight were a *Zierea (littoralis?),* an olive coloured flowering Correa, *C. glabra "Inglewood Gold"* and *Templetonia retusa*.

Marj had a collection of 'first flowers' for the season: *Alyogyne huegellii, Kunzea baxteri, Chamaelaucium uncinata "Purple Pride",* as well as three correas*, Thryptomene denticulata and T. calicina, Crowea saligna* and the silvery leafed, low growing *Eremophila "Kalbarri Carpet*", right. This last has lemon tubular flowers and makes an excellent groundcover.

PICK OF THE BUNCH -July 2022

Eucalyptus preissiana Schauer Bell-fruited Mallee

Specimen grown by Amanda Louden



Eucalyptus preissiana is a low, sprawling mallee shrub 2-5 metres in height. It occurs from the Stirling Range and Fitzgerald National Park east almost to Esperance in Western Australia. It has smooth bark and stiff grey-green leaves. Large yellow flowers up to 3cm in diameter can occur from June to September. These are profuse and very conspicuous. The flowers are followed by large bell shaped fruit that are ornamental in their own right.

There are two subspecies;
E. preissiana subsp. *preissiana* and *E. preissiana* subsp. *lobata*. Subspecies *lobata* is a lower growing form which is confined to the coast. The fruit have a raised disc very prominently lobed over the valves and are much wider (3.5–5.3 cm) and shallower than in subsp. *preissiana*.

In cultivation it grows well in most well drained soils. A sunny aspect is preferred. Pruning lightly to maintain the shape of the plant is recommended from a young age. It is a mallee eucalypt i.e. any species of eucalypt having multiple stems arising from a lignotuber, or swelling at the base so can be pruned very severely (right down to the ground) if required and it will reshoot. Propagate from seed.

Eucalyptus is a member of the Myrtaceae family, a large family of c.3500 species in c.150 genera with c.1400 species in c.75 genera occurring in Australia. It includes such species as *Angophora*, *Baeckea*, *Callistemon*, *Darwinia*, *Kunzea*, *Leptospermum*, *Melaleuca*, *Thryptomene* and *Verticordia*.

The genus *Eucalyptus* consists of about 900 species most of which are endemic but two species *E. deglupta.* and *E. urophylla* are not present in Australia. *E. deglupta* is distributed as far as the island of Mindanao, in

the southern Philippines which places one eucalypt naturally in the northern hemisphere.

The name *Eucalyptus* is derived from the Greek, *eu*, well; *kalyptos*, covered alluding to the cap or operculum that covers the stamens in bud and *preissiana*: after Johann August Ludwig Preiss (1811–1883). After obtaining his doctorate in Germany, Johann Preiss came to Perth, Western Australia on the 4th December 1838. He spent the next three years enthusiastically collecting plant material and amassed about 200,000 specimens before leaving for London in 1842.

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Meet the world's largest plant: a single seagrass clone stretching 180 km in Western Australia's Shark Bay

Authors: Elizabeth Sinclair, Gary Kendrick, Martin Breed, Jane Edgeloe

Next time you go diving or snorkelling, have a close look at those wondrously long, bright green ribbons, waving with the ebb and flow of water. They are seagrasses – marine plants which produce flowers, fruit, and seedlings annually, like their land-based relatives.

The shallow, salty waters of Shark Bay.

These underwater seagrass meadows grow in two ways: by sexual reproduction, which helps them generate new gene combinations and genetic diversity, and also by extending their rhizomes, the underground stems from which roots and shoots emerge.

To find out how many different individual plants are growing in a seagrass meadow, you have to test their DNA. We did this for meadows of ribbon weed seagrass called *Posidonia australis* in the shallow sun-drenched waters of the Shark Bay World Heritage Area, in Western Australia. The result blew us away: it was all one plant. One single plant has expanded over a stretch of 180 km making it the largest known plant on Earth.

We collected shoot samples from ten seagrass meadows from across Shark Bay, in waters where the salt levels range from normal ocean salinity to almost twice as salty. In all samples, we studied 18,000 genetic markers to show that 200 km² of ribbon weed meadows expanded from a single, colonising seedling.
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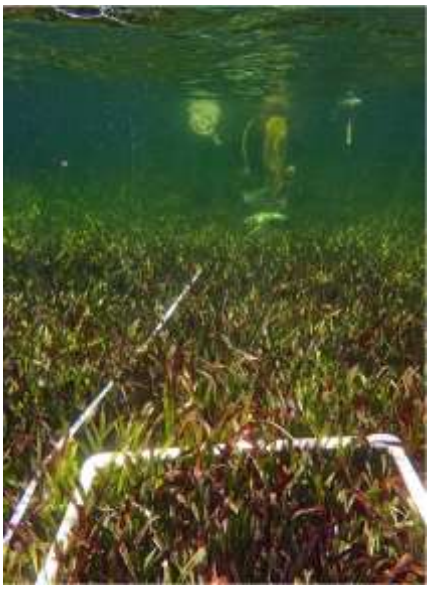

Sampling Posidonia. Rachel Austin

How did it evolve?

What makes this seagrass plant unique from others, other than its enormous size, is that it has twice as many chromosomes as its relatives. This makes it what scientists call a "polyploid".

Most of the time, a seagrass seedling will inherit half the genome of each of its parents. Polyploids, however, carry the entire genome of each of their parents. There are many polyploid plant species, such as potatoes, canola, and bananas. In nature they often reside in places with extreme environmental conditions. Polyploids are often sterile, but can continue to grow indefinitely if left undisturbed. This seagrass has done just that.

How old is this plant?

The sandy dunes of Shark Bay flooded some 8,500 years ago, when the sea level rose after the last ice age. Over the following millennia, the expanding seagrass meadows made shallow coastal banks and sills through creating and capturing sediment, which made the water saltier. There is also a lot of light in the waters of Shark Bay, as well as low levels of nutrients and large temperature fluctuations. Despite this hostile environment, the plant has been able to thrive and adapt.

It is challenging to determine the exact age of a seagrass meadow, but we estimate the Shark Bay plant is around 4,500 years old, based on its size and growth rate. Other huge plants have been reported in both marine and land systems, such as a 6,000-tonne quaking aspen in Utah, but this seagrass appears to be the largest to date. Other huge seagrass plants have also been found, including a closely related Mediterranean seagrass called *Posidonia oceanica*, which covers more than 15 km and may be around 100,000 years old.

Why does this matter?

In the summer of 2010–11, a severe heatwave hit land and sea ecosystems along the Western Australian coastline. Shark Bay's seagrass meadows suffered widespread damage in the heatwave. Yet the ribbon weed meadows have started to recover. This is somewhat surprising, as this seagrass does not appear to reproduce sexually – which would normally be the best way to adapt to changing conditions.

We have observed seagrass flowers in the Shark Bay meadows, which indicates that seagrass is sexually active, but their fruits (the outcome of successful seagrass sex) are rarely seen. Our single plant may in fact be sterile. This makes its success in the variable waters of Shark Bay quite a conundrum: plants that don't have sex tend to also have low levels of genetic diversity, which should reduce their ability to deal with changing environments. However, we suspect that our seagrass in Shark Bay has genes that are extremely well-suited to its local, but variable environment, and perhaps that is why it does not need to have sex to be successful.

Even without successful flowering and seed production, the giant plant appears to be very resilient. It experiences a wide range of water temperatures (from 17℃ to 30℃ in some years) and salt levels. Despite these variable conditions and the high light levels (which are typically stressful for seagrass), the plant can maintain its physiological processes and thrive. So how does it cope? We hypothesize that this plant has a small number of somatic mutations (minor genetic changes that are not passed on to offspring) across its 180 km range that help it persist under local conditions.

However, this is just a hunch and we are tackling this hypothesis experimentally. We have set up a series of experiments in Shark Bay to really understand how the plant survives and thrives under such variable conditions.

Transplant experiments. Martin Breed, Author provided

The future of seagrass

Seagrasses protect our coasts from storm damage, store large amounts of carbon, and provide habitat for a great diversity of wildlife. Conserving and also restoring seagrass meadows has a vital role in climate change mitigation and adaptation. Seagrasses are not immune from climate change impacts: warming temperatures, ocean acidification and extreme weather events are a significant challenge for them. However, the detailed picture we now have of the great resilience of the giant seagrass of Shark Bay provides us hope they will be around for many years to come, especially if serious action is taken on climate change.

NEXT MEETING

Supper: Marj Seaton (please bring milk)
Write-up: Minutes by Chris Bain

DIARY

APS South East Melbourne Meetings:

August 2nd AGM and slides. Get your photos to John a week beforehand please.
August 29th Committee Meeting, Chris Bain's home.
September John Thompson and Mandy Louden – North Queensland Tour
October Chris Bain – Desert Trek (Tentative)
November Lunch at Kuranga. Details later.
December Raffle extraordinaire, members' slides, Christmas break-up and supper
February 2023 Speaker: Phoenix Wolfe – Dandenong Wetlands

APS Victoria

27, 28 August – APS Yarra Yarra Australian Plants Expo, Eltham Community & Reception Centre 10 - 4
3 Sept – APS Wilson park (Berwick) Plant Sale Cancelled
23 – 25 September – APS Vic Comm and AGM – hosted by APS Loddon Murray, Swan Hill Pioneer Settlement
26 to 30 September – 7th Global Botanic Gardens Congress, Melbourne. *Influence and Action: Botanic Gardens as Agents of Change.* Includes a youth program for future gardens' leaders aged 18 to 24.
15 & 16 October – 14th FJC Rogers Seminar. Topic: Fabulous peas (the typical 'pea-flowered' plants from the sub-family Faboideae). York on Lilydale in Mt Evelyn. Expressions of interest and queries to fabulouspeas2022@gmail.com

22 & 23 October - Cranbourne Friends RBGV Spring Plant Sale. 10 am to 4 pm.

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PROMOTIONS

Two Open Gardens coming up:

OPEN GARDENS VICTORIA

Mullum Waters
Open Garden

Donvale

Sat 3 - Sun 4 September, 2022

Open 10.00am - 4.30pm

13 Conos Court, Donvale

Mullum Waters provides excellent habitat for many native species from native bees to frogs and birds. There is a strong emphasis on indigenous plants.

Entry $10 Students $6 U18 free via Trybooking
https://www.trybooking.com/BZMXP
opengardensvictoria.org.au

OPEN GARDENS VICTORIA

The Hanson garden
Open Garden

Warrandyte

Sat 3 - Sun 4 September, 2022

Open 10.00am – 4.30pm

104 Webb St, Warrandyte

Enjoy this natural bush walk which highlights the love of native orchids, wildflowers, birdlife and possums all accompanied by the sound of pond life.

Entry $10 Students $6 U18 free via Trybooking
https://www.trybooking.com/BZMXM
opengardensvictoria.org.au

CRANBOURNE FRIENDS

Royal Botanic Gardens Victoria

Growing Friends Winter Plant Sale

Come along and select from a range of small and large plants many of which you will find in the Australian Garden

Saturday 23 & Sunday 24 July 2022

10am to 4pm

Australian Garden - Cranbourne

Grasses, climbers, border-plants, ground-covers, small & large bushes and trees, plants for wildlife

Plant list available 1 week before sale:

FABULOUS PEAS
F. J. C. Rogers Seminar
15th & 16th October 2022

Mt Evelyn, Melbourne

Learn about Australian pea flowers! The fabulous plants of the Faboideae sub-family.

Speakers from interstate and local.
Topics include:

- Identification
- Propagation
- Horticulture
- Research

Pea plants and books for sale
Garden bus tour
Australian pea art exhibition

Hosted by Australian Plants Society Maroondah
Contact: fabulouspeas2022@gmail.com
apsvic.org.au/fjc-rogers-seminar-2022

AUSTRALIAN PLANTS SOCIETY

South East Melbourne Region Inc A00131128P

APPLICATION FOR MEMBERSHIP/RENEWAL

Rates current from 1st July 2022

	APS SE Melbourne	**APS Victoria**	**TOTAL**	**Optional annual subscription to Australian Plants magazine (4 issues)**	**Total with Optional subscription**
A Single	$10	$35	$45	$15	$60
B Household	$15	$40	$55	$15	$70
C Student ***Full Time, under 16***	$5	$26	$31	$15	$46
D Member of another group	$5		$5	$15	$20

- Membership of APS Victoria is required for all members of APS South East Melbourne
- Membership includes subscription to the APS Vic magazine "Growing Australian" (4 issues per year)
- If you pay your APS Vic membership through another group, sign on with us as **D.**
- You may pay for 2 or 3 years in advance. Simply multiply your chosen annual total by the number of years
- New subscription paid after February 1st runs automatically until June 30th of the following year.

……

☐ I wish to join/rejoin the Australian Plants Society as (circle one) **A B C D**

☐ I wish to join for (circle one) **1 2 3** years

☐ I agree to be bound by the Rules and Bylaws of the Society

☐ I wish to subscribe also to Australian Plants Magazine

Amount due $.....

Signed .....Date.....

Title(s)..... First Name(s) ……

Surname(s) ……Membership No……

Postal Address.....

Email .....Phone……

APS Vic Membership paid at other APS Group……

PAYMENT METHOD (Tick one)

☐ Direct bank deposit (CBA) with email notification to Norm Seaton at normarjs@bigpond.com

BSB 063 209 Account No. 1002 6413 Include your surname as a reference.

OR

☐ Cheque for APS South East Melbourne Region posted to:

Treasurer, APS South East Melbourne, 36 Voumard Street, Oakleigh South, VIC 3167

OR

☐ Pay by cash or cheque and deliver by hand to the Treasurer at our next meeting

AUSTRALIAN PLANTS SOCIETY SOUTH EAST MELBOURNE REGION INC
ANNUAL GENERAL MEETING

Notice is hereby given that the AGM for APS South East Melbourne Region Inc will be held at 8pm on Tuesday 2nd August 2022 at the Hughesdale Community Hall, corner of Poath and Kangaroo Roads, Hughesdale.

Agenda items: 1. Presentation of Reports by the President, Secretary and Treasurer
2. Election of Office Bearers for 2021/2022.

The following positions are declared vacant: Leader, Secretary, Treasurer, Committee Members (3), Newsletter Editor.

If you are able to nominate for one of the above positions, please complete the form below. Nominations can also be made at the meeting.

The AGM will be followed by our regular members' slide night. Please get your slides to John in the week before the meeting.

NOMINATIONS FOR POSITIONS

I wish to nominate ……

For the position of ……

Nominator: …… **(Name and signature)**

Seconder: …… **(Name and signature)**

Date: ……