ISSN 1033-6966

Victorian Carnivorous PLANT SOCIETY INC.

Reg No. A0001683Y

SEPTEMBER 2018 **VCPS Newsletter No. 7**

Cephalotus follicularis

Victorian Carnivorous PLANT SOCIETY INC.

Newsletter No. 7 **September 2018**

Office Bearers: July 2018 – June 2019

President	Stephen Fretwell – Tel: (03) 8786 8409 email: stevefretwell24@gmail.com
Vice President	Sean Spence – Tel: (03) 9743 5809 email: spence06@bigpond.com
General/Member Secretary	Peter Bloem – Tel: (03) 9744 2265 email: pbloem@bigpond.net.au
Minutes Secretary	Andrew Gibbons email: agibbons@unimelb.edu.au
Journal Editor	David Petch email: davidpetch@optusnet.com.au
Art Director	Stephen Fretwell – Tel: (03) 8786 8409 email: stevefretwell24@gmail.com
Internet Co-ordinator	Andrew Gibbons email: agibbons@unimelb.edu.au
Treasurer	Ken Neal – Tel: 0425 567 095 email: ken.neal255@gmail.com
Librarian	Peter Nisbet – Tel: (03) 9570 5401
Seedbank Administrator	Ron Abernethy – Tel: (03) 9879 0908 email: rab31451@bigpond.net.au
Other Publications & Journal distributor	Brendan Bok email: brendanb1212@yahoo.com.au
Hardware Co-ordinator	Andre Cleghorn – Tel: (03) 9584 2087 email: andre@alphalink.com.au
Event Co-ordinators	Stephen Fretwell – Tel: (03) 8786 8409 email: stevefretwell24@gmail.com
Open Day Liaison Officer	Stephen Fretwell – Tel: (03) 8786 8409 email: stevefretwell24@gmail.com
	Julian Weston – 0413 041 547 email: julianweston1@optusnet.com.au
Field Trips Organiser	Sean Spence – Tel: (03) 9743 5809 email: spence06@bigpond.com
Public Officer	Alexander Whitehouse – Tel: (03) 9817 3506
Sales Administrator	Ron Abernethy – Tel: (03) 9879 0908 email: rab31451@bigpond.net.au

MEETING TOPICS & DATES for 2018

VICTORIAN CARNIVOROUS PLANT SOCIETY

This year we have scheduled the following discussion topics, and events:

January	**(20th)**	New Year BBQ at Justin Thong's House 12.30pm *Dionaea muscipula* (VFT). (Contact for details)
February	**(28th)**	*Darlingtonia*, *Nepenthes* and *Heliamphora*.
March	**(28th)**	*Sarracenia*, *Dionaea (*VFT), beginners info
April	**(25th)**	*Drosera*, video and information night.
May	**(23rd)**	Growing conditions, 'Best' and 'Worst' plants, pygmy *Drosera* gemmae swap
June	**(27th)**	AGM, plant give-away, any CPs.
July	**(25th)**	Rosetted tuberous *Drosera* judging, Propagation – seed growing, tissue culture, division and cuttings. Potting demonstration.
August	**(22nd)**	Upright tuberous/Winter growing *Drosera*, show preparation, displays, and companion planting.
September	**(26th)**	*Cephalotus, Brocchinia, Catopsis* and swap night.
October	**(24th)**	*Byblis,* pygmy *Drosera, Drosera binata, Drosophyllum, Genlisea,* *Pinguicula, Roridula, Utricularia*.
November	**(25th)**	**Triffid Park Open Day (10am-4pm)**
December	**(1st-2nd)**	**VCPS Annual show** at Collectors Corner.

Please note: All meetings, other than those where a specific venue is given, will be on the FOURTH WEDNESDAY of the month in the hall of the Pilgrim Uniting Church in Yarraville – corner Bayview Road and Montague Street, Melway Map Reference 41K7.

Contents

***Drosea squamosa* photographed by Stephen Fretwell.**

VCPS Growers photos

If you'd like to publish a photo that you took of your plant in the VCPS journal. Please email it to Stephen Fretwell the VCPS editor at: stevefretwell24@gmail.com

Seed Bank

We now have a huge collection of NEW fresh CP seed available, and our seed list has become quite extensive.

With over 250 varieties of CP's, we are now providing the list in PDF format on our website, www.vcps.org

For inquiries or to order seeds, please contact the VCPS Seedbank Officer.

FRONT COVER:

Byblis gigantea the Reserve Champion plant at the VCPS 2017 Annual show.

Photos: Stephen Fretwell

BACK COVER:

Clockwise from top left:

- *Cephalotus follicularis* – 2016 VCPS show. Photo: Stephen Fretwell
- *Cephalotus follicularis* – 2004 VCPS show. Photo: Sean Spence
- *Cephalotus follicularis* – 2009 VCPS show. Photo: Stephen Fretwell
- *Cephalotus follicularis* – 2009 VCPS show. Photo: Stephen Fretwell
- *Cephalotus follicularis* – 2017 VCPS show Photo: Stephen Fretwell.
- *Cephalotus follicularis* "Eden Black" plant grown by seed – September 2010 VCPS meeting. (Plant of the Night) Photo: Stephen Fretwell
- *Cephalotus follicularis* – 2015 VCPS show. Photo: Stephen Fretwell
- *Cephalotus follicularis* – 2017 VCPS show. Photo: Stephen Fretwell

Design: Stephen Fretwell

VCPS News

Nepenthes mollis rediscovered

In May and July this year, two expeditions were undertaken in Borneo to rediscover *Nepenthes mollis,* a species not seen for over 90 years.

Chien Lee, Charles Clark and Mathias Scharmann with the help of the ***Borneo Orangutan Foundation*** first hunted the plant down in East Kalimantan where they found it growing on a remote mountain.

"Sometimes the rediscovery of a "lost" species is even more exciting that finding a new one." said Chien.

In appearance *N. mollis* is closely related to *N. hurrelliana* and *N. fusca* and has similar shaped pitchers.

This pitcher plant was listed as one of Global Wildlife Conservation's 25 Top Lost Species and previously only known from a single partial specimen collected in 1925. Apart from taking the first-ever photos of *Nepenthes mollis*, they also found other new records of *Nepenthes*, orchids, birds, and frogs.

In addition to Chien's expedition, Redfern Natural History's Stewart McPherson and Alastair Robinson also lead a team and undertook a exploratory expedition in Borneo and climbed the Mt Kemul Massif where they too rediscovered *N. mollis* along with several further new discoveries.

Further announcements of their discoveries will be published by both teams in the near future.

www.facebook.com/RHOIForest

***Nepenthes mollis* lower pitcher.**
Photo: Chien Lee

VCPS ANNUAL SHOW

The VCPS annual show is coming up soon and will be held at its usual venue, Collectors Corner in Gardenworld which is always fantastic to visit. Entry is free for all and it's surely going to be another brilliant show full of rare and spectacular species to see and buy.

This year the show starts on **Saturday, December 1st at 9am** and ends on **Sunday, December 2nd at 5pm**.

It's one of the biggest events on the calendar for the society and is a great opportunity for members to meet and greet other collectors, and see and purchase some amazing plants.

TRIFFID PARK OPEN DAY

Triffid Park's annual Open Day is once again being held this **November on Sunday the 25th** at their wholesale nursery in Summerville. The VCPS will have a stand there to meet it's members and to inform the general public about the society and answer any questions they may have.

It's always a fantastic day out and there's always some fantastic plant to see and buy.

Triffid Park only open there doors to the public once a year so make sure that you don't miss out on this great opportunity.

Book News

NEW *CEPHALOTUS* BOOK

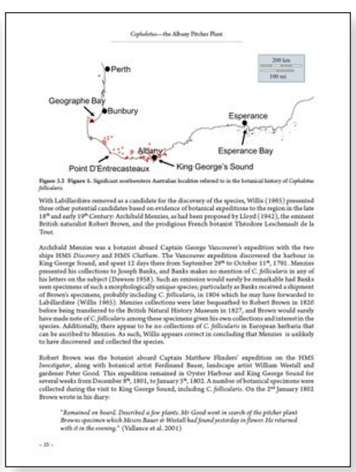
Redfern Natural History Productions have recently announced the production of the first monograph of *Cephalotus*, Australia's most iconic and unusual carnivorous plant. Instantly recognisable for its distinctive and charismatic insect-trapping leaves. This generously illustrated volume features original botanical art and photographs, documenting this remarkable Australian endemic in unprecedented detail, with the most up to date summary of its status in the wild along with new genetic analyses of the majority of known populations.

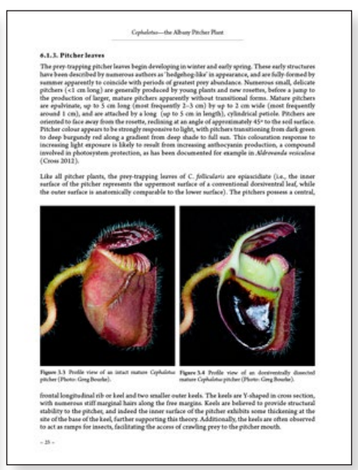
The remarkable *Cephalotus* is a spectacular example of convergent evolution, being more closely related to roses and cabbages than it is to other pitcher plants like *Nepenthes*, *Sarracenia* and *Heliamphora*!

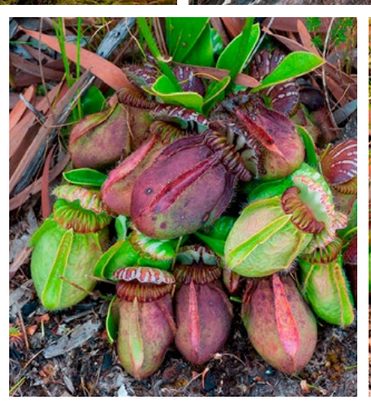
This monograph brings together years of field experience, technical studies and ecological research that amount to the most in-depth treatment of this plant ever published.

Expected to deliver in late 2018, *Cephalotus – the Albany Pitcher Plant*, is a 500 copy, Limited Edition title stemming from the combined work of world experts on the subject. All copies signed by co-authors and priced at £32.99.

To reserve your copy visit www.redfernnaturalhistory.com/books/cephalotus.







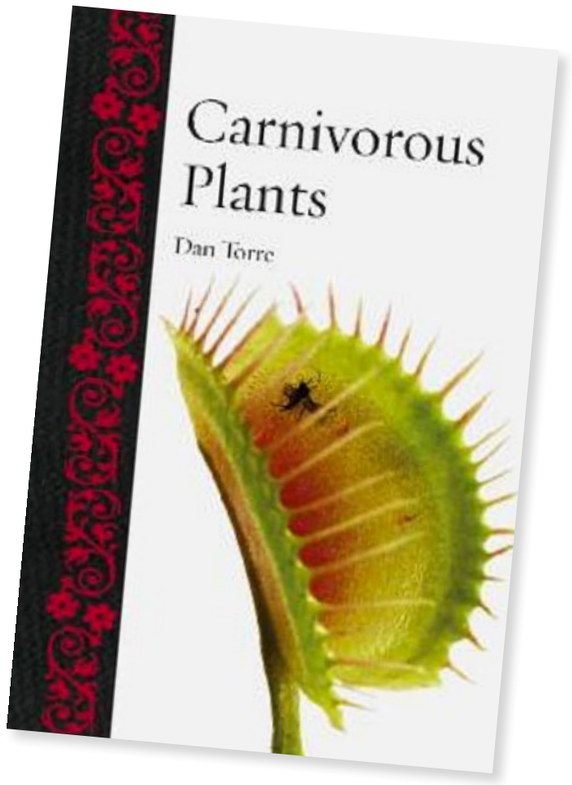
Images from the new Redfern Natural History "*Cephalotus* the Albany Pitcher Plant" book.

Book News

NEW CARNIVOROUS PLANT BOOK

Carnivorous Plants

DAN TORRE



'Dan Torre takes you from Ed Wood to Pokémon, from surrealistic art to synergistic relationships between bats and plants, all without missing a beat. This is one of those books that takes an already fascinating topic – animal-eating plants – and makes it even more exciting, more weird and endlessly fascinating.'
– Tim Entwhistle, Director and Chief Executive, Royal Botanic Gardens, Victoria, Australia

Carnivorous plants are a unique group, possessing modified leaves to trap, kill and consume small creatures. As a result they are often depicted as killers in films and literature, yet others regard them as exotic and beautiful specimens to collect and display.

In this abundantly illustrated and highly entertaining book, Dan Torre describes the evolution, structure and scientific background of carnivorous plants. He also shows how they have inspired our imaginations, examining their cultural and social history and how they have been represented in art, literature, cinema, animation and popular culture.

This fascinating history will appeal to the wide audience interested in these singular, arresting, beautiful yet deadly plants.

DAN TORRE is a Senior Lecturer in the School of Design at RMIT University, Melbourne, Australia. He is an avid grower and collector of cacti, and author of *Cactus* (Reaktion, 2017).

March 2019	Nature
Hardback	216 × 138 mm
110 illustrations, 100 in colour	240 pp
978 1 78914 052 1	£16
eBook 978 1 78914 113 9	

A large clump of *Cephalotus follicularis* pitchers growing in a terrarium under lights.

Cultivating *Cephalotus* in Victoria

Cephalotus follicularis or the Albany pitcher plant is a small, squat plant with 2-7cm pit-fall traps that function similar to those of the *Sarracenia* and *Nepenthes* genera, but is the only species in its genus.

The traps resemble small jugs and have a broad toothed, slippery rim bordering the pitcher mouth that is similar to the peristome on *Nepenthes*. The rim is designed so that insects that may walk upon it fall in. The downward pointing teeth prevent insects that fall in from escaping.

The pitchers develop three hairy ribs on the front and sides of the pitcher and a windowed lid to confuse prey and prevent the pitchers from filling up with water, thereby diluting the viscous digestive fluids found within.

Nectar secretions on the underside of the lid aid in attracting prey and the base of the interior of the pitcher is darkened to enhance the reflective effect of the lid, confusing unwitting insects.

Pitcher colour ranges from green, red, maroon to almost black. The colour may be affected by a range of factors such as sunlight, soil composition and temperature.

CLIMATE

Cephalotus are restricted to a 400km x 80km stretch in the south western region of Western Australia concentrated around the Albany area where the climate is fairly similar to that of Victoria. Yearly temperatures averages range from 8 - 23°C compared Victoria's 6 - 26°C but the Victorian temperatures fluctuates to greater extremes.

The habitat of *Cephalotus* in WA rarely experiences temperatures below 2 degrees and only experiences the occasional frost. Cooler winter temperatures will result in reddish colouration of the traps.

In cultivation the ideal temperature range is from around 5°C to 30°C with cool summer nights and a cooler winter dormancy. Extreme temperatures can stress the plant and weaken the root system which typically leads to the demise of the plant.

LIGHT

Cephalotus can be grown in full sun to part shade. The more sun the plant receives, the redder the pitchers will be. A minimum of 4 hours of direct sunlight is essential to keep plants healthy.

Plants may be grown outside but they also respond incredibly well under artificial lighting too. In these conditions the lights should be kept to a photoperiod of around 14 to 16 hours during the spring, summer and autumn months and 12 hours during the winter. If grown under T5s or heat emitting fluorescent tubes, the plants should be placed around 20cm away from the lights to avoid leaf burn from the lights heat. Plants may be placed closer if using LEDs.

The 2016 Reserve Champion *Cephalotus follicularis* plant grown in small terrarium under fluorescent lighting. Not the drainage pebble system used to ensure that the soil medium remains damp but not wet.

WATERING

The natural habitat of *Cephalotus* receives a high annual rainfall – a yearly average of 928mm. This rainfall has enabled the development of a region rich in swampy heathlands. It is within these peaty swamps, on seeps with a steady flow of fresh cool water that the *Cephalotus* plants thrive.

In comparison, Melbourne receives a considerably lower yearly rainfall average of 648mm at a fairly consistent range of 47-66mm per month. The south west WA region is a lot drier in summer receiving only around 23mm, but it increases substantially to 143mm in winter.

For cultivated plants, distilled water, rain water or reverse osmosis water are the growers best options, as they are mineral free. Plants may be top watered or from below in a tray. In warm summer conditions in Melbourne it is recommended that they are not left sitting in water as sudden death is a strong possibility. The soil media should be kept damp, but not wet as this can lead to the root system rotting.

SUBSTRATE

Cephalotus plants require a nutrient poor, acidic soil mix with good drainage that is typically sphagnum or peat based. A recommended mix is 1 part peat, 1 part perlite or sand.

POT SIZE

It's generally best to use a large deep pot that is slightly oversized for the plant as this will help maintain consistent moisture and temperature levels. Larger pots are easier to keep just moist which prevents the need for frequent repotting should the substrate break down over time.

Plastic pots are satisfactory unless they are placed in direct sunlight. If the sunlight is unavoidable a terracotta pot may be a better option to insulate the substrate and roots from overheating.

REPOTTING

Cephalotus have fragile roots disturbance can affect the performance of the plant, so great care should be taken to ensure that the roots don't get damaged during the process. Repotting generally sets the plants back for a while so is best done when the plant has slowed growth in winter or early spring. This gives the plant the opportunity to recover before the warmer, more stressful temperatures arrive.

FEEDING

Fertilising should only be applied to the foliage and not the roots. Good quality orchid fertilisers work best diluted to 1/4 to 1/2 strength every fortnight as a foliar feed. Feeding should be confined to the active growing period of the plant.

PESTS

Cephalotus are susceptible to several pests that can thrive in greenhouse conditions. Scale, thrips, aphids, mealy bugs and occasionally caterpillars can attack plants. A preventive spray is worth considering to protect your plants as they form tight clumps which can make it difficult to identify pests before they have established and proliferated.

In conditions with poor lighting and stagnant air flow, fungal growth in the form of mildews can also be an issue. Increasing airflow and lighting levels can rectify this problem but occasionally the use of a fungicide may be required.

PROPAGATION

The easiest method of propagating *Cephalotus* is leaf cuttings. Preferably, the non-carnivorous leaves are used, however pitchers also strike easily in suitable conditions.

The key is to pull the leaf away from the plant while trying to include as much of the white leaf petiole base as possible (similar to taking VFT leaf cuttings). A recommended method is placing the cuttings in live sphagnum moss and placed in warm, bright, humid conditions out of direct sunlight. A clear plastic container is a great way to create humidity and a stable environment.

Dividing plants when they have several growing points is another way of increasing plant numbers. This is often best done when repotting plants during the cooler part of the year and ideally a significant portion of roots are attached to each part of the division.

Propagation by seed is also possible but plants can be slow to reach maturity. Plants in a greenhouse can be hand pollinated to produce seed. Self-pollination is possible, but seed set results are much better when using different clones.

To successfully cultivate *Cephalotus* there are a number of key requirements that should be met to increase your chances. You should provide your plants with lots of light, good air circulation, a potting medium that drains well, damp but not wet soil, no extreme heat or freezing temperatures with a moderately cold winter period. If you are able to meet these requirements, you have a strong chance of long term success.

A huge thriving plant displayed at the 2008 VCPS show

CLIMATE MONTHLY STATISTICS FOR ALBANY

Site name: ALBANY **Site number:** 009500 **Commenced:** 1877
Latitude: 35.03° S **Longitude:** 117.88° E **Elevation:** 3 m **Operational status:** Open — Map

View: Main statistics / All available — Period: Use all years of data — Text size: Normal / Large

Statistics	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	Years	
Temperature															
Maximum temperature															
Mean maximum temperature (°C)	22.8	22.9	22.3	20.9	18.6	16.6	15.8	16.3	17.3	18.5	20.4	21.8	19.5	101	1880 2018
Highest temperature (°C)	41.7	44.8	40.8	37.7	35.2	24.6	22.8	27.3	30.6	36.2	41.1	42.2	44.8	74	1907 2018
Date	12 Jan 1958	08 Feb 1933	14 Mar 1922	06 Apr 1959	04 May 1916	02 Jun 1914	21 Jul 1921	29 Aug 2006	10 Sep 1916	05 Oct 1914	25 Nov 1936	27 Dec 2003	08 Feb 1933		
Lowest maximum temperature (°C)	15.3	15.9	14.7	12.2	10.6	9.7	9.1	7.3	10.0	9.7	12.8	14.5	7.3	74	1907 2018
Date	19 Jan 1925	17 Feb 1914	17 Mar 1911	28 Apr 1928	31 May 1928	30 Jun 1910	17 Jul 1928	14 Aug 1920	10 Sep 1925	06 Oct 1928	02 Nov 1948	31 Dec 1959	14 Aug 1920		
Decile 1 maximum temperature (°C)	19.9	20.0	18.9	17.2	15.6	13.9	13.2	13.3	13.9	15.0	17.1	18.6		72	1907 2017
Decile 9 maximum temperature(°C)	26.7	26.9	26.7	25.4	22.7	20.0	19.0	20.1	21.2	22.7	24.4	25.5		72	1907 2017
Mean number of days ≥ 30 °C	1.1	1.1	1.3	0.7	0.0	0.0	0.0	0.0	0.0	0.2	0.6	0.8	5.8	74	1907 2018
Mean number of days ≥ 35 °C	0.3	0.3	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	1.5	74	1907 2018
Mean number of days ≥ 40 °C	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	74	1907 2018
Minimum temperature															
Mean minimum temperature (°C)	15.2	15.6	14.8	12.8	10.8	9.1	8.2	8.4	9.3	10.5	12.5	14.0	11.8	101	1880 2018
Lowest temperature (°C)	7.8	7.2	6.1	4.8	2.4	1.7	0.1	1.6	2.0	3.4	5.6	6.7	0.1	74	1907 2018
Date	13 Jan 1941	23 Feb 1941	24 Mar 1908	12 Apr 1933	31 May 1927	21 Jun 1931	25 Jul 1943	26 Aug 1943	05 Sep 1908	05 Oct 1939	06 Nov 1930	02 Dec 1952	25 Jul 1943		
Highest minimum temperature (°C)	22.3	22.2	21.5	19.9	17.9	16.9	15.8	16.0	16.1	18.4	20.0	22.8	22.8	74	1907 2018
Date	19 Jan 1961	14 Feb 1916	13 Mar 2019	13 Apr 1910	01 May 1917	17 Jun 1962	02 Jul 2014	07 Aug 2006	27 Sep 1961	01 Oct 1918	21 Nov 2010	13 Dec 1927	13 Dec 1927		
Decile 1 minimum temperature (°C)	12.2	12.5	11.8	10.0	7.8	6.4	5.6	5.6	6.7	7.4	9.4	11.1		72	1907 2017
Decile 9 minimum temperature (°C)	18.1	18.4	17.8	16.0	14.1	12.2	11.1	11.2	12.2	13.5	15.4	16.7		72	1907 2017
Mean number of days ≤ 2 °C	0.0	0.0	0.0	0.0	0.0	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.1	74	1907 2018
Mean number of days ≤ 0 °C	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	74	1907 2018

Statistics	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	Years	
Rainfall															
Mean rainfall (mm)	23.9	22.7	38.3	68.7	115.4	131.4	142.8	126.2	101.7	78.5	44.6	30.4	928.8	139	1877 2018
Highest rainfall (mm)	217.0	161.4	166.0	233.9	289.4	292.6	269.3	285.5	202.2	189.2	226.1	116.6	1395.2	142	1877 2018
Date	1939	1955	1917	1961	1923	1920	1935	1886	1905	1976	2008	1901	1956		
Lowest rainfall (mm)	1.0	0.0	2.5	4.9	35.8	40.3	52.1	34.0	20.3	14.2	4.8	1.5	620.5	142	1877 2018
Date	1897	1879	1889	1950	1996	1944	1881	1987	1877	1881	1891	1915	2015		
Decile 1 rainfall (mm)	4.9	3.8	10.0	25.9	57.7	77.8	83.9	78.1	53.4	37.6	15.2	9.2	740.7	112	1877 2018
Decile 5 (median) rainfall (mm)	15.4	15.2	31.8	62.2	110.2	124.1	142.8	117.2	93.1	70.6	39.5	24.8	922.9	112	1877 2018
Decile 9 rainfall (mm)	45.6	53.3	77.0	119.3	178.2	196.6	203.2	186.7	160.0	125.5	75.5	64.0	1112.0	112	1877 2018
Highest daily rainfall (mm)	87.6	58.7	89.7	80.6	103.6	72.4	83.8	73.0	79.8	46.7	113.6	59.9	113.6	112	1877 2018
Date	21 Jan 1939	03 Feb 1967	10 Mar 1917	02 Apr 2005	06 May 1921	01 Jun 1928	20 Jul 1991	05 Aug 1979	20 Sep 1970	21 Oct 1949	21 Nov 2008	02 Dec 1942	21 Nov 2008		
Mean number of days of rain	7.9	7.6	11.0	14.1	18.1	19.9	21.6	21.0	18.3	16.3	12.1	9.5	177.4	112	1877 2018
Mean number of days of rain ≥ 1 mm	3.4	3.4	5.4	8.1	11.2	12.5	14.1	13.2	11.4	9.6	6.4	4.4	103.1	112	1877 2018
Mean number of days of rain ≥ 10 mm	0.4	0.5	0.7	1.5	2.9	3.6	3.9	3.0	2.5	1.8	1.0	0.5	22.3	112	1877 2018
Mean number of days of rain ≥ 25 mm	0.1	0.1	0.2	0.3	0.5	0.5	0.6	0.5	0.3	0.2	0.1	0.1	3.5	112	1877 2018

CLIMATE MONTHLY STATISTICS FOR MELBOURNE

Site name: MELBOURNE REGIONAL OFFICE **Site number:** 086071 **Commenced:** 1908
Latitude: 37.81° S **Longitude:** 144.97° E **Elevation:** 31 m **Operational status:** Closed 06 Jan 2015 — Map

View: Main statistics / All available — Period: Use all years of data — Text size: Normal / Large

Statistics	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	Years	
Temperature															
Maximum temperature															
Mean maximum temperature (°C)	26.0	25.8	23.9	20.3	16.7	14.1	13.5	15.0	17.3	19.7	22.0	24.2	19.9	160	1855 2015
Highest temperature (°C)	45.6	46.4	41.7	34.9	28.7	22.4	23.3	26.5	31.4	36.9	40.9	43.7	46.4	160	1855 2015
Date	13 Jan 1939	07 Feb 2009	11 Mar 1940	05 Apr 1938	07 May 1905	02 Jun 1957	18 Jul 2013	29 Aug 1982	28 Sep 1928	24 Oct 1914	27 Nov 1894	15 Dec 1876	07 Feb 2009		
Lowest maximum temperature (°C)	14.6	14.7	12.0	8.9	8.3	5.3	4.4	6.7	8.3	9.0	11.0	10.4	4.4	160	1855 2015
Date	18 Jan 1923	18 Feb 1951	21 Mar 1931	15 Apr 1900	31 May 1977	23 Jun 1878	04 Jul 1901	09 Aug 1872	11 Sep 1999	29 Oct 1922	04 Nov 1913	12 Dec 1867	04 Jul 1901		
Decile 1 maximum temperature (°C)	19.4	19.6	18.2	15.7	13.3	11.4	10.9	11.8	13.1	14.5	16.3	18.1		160	1855 2015
Decile 9 maximum temperature(°C)	35.6	34.7	31.7	26.3	20.9	16.9	16.2	18.5	22.2	26.4	30.1	33.1		160	1855 2015
Mean number of days ≥ 30 °C	7.8	7.0	5.0	0.5	0.0	0.0	0.0	0.0	0.0	0.8	3.1	5.8	30.0	160	1855 2015
Mean number of days ≥ 35 °C	3.6	2.7	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6	2.0	10.0	160	1855 2015
Mean number of days ≥ 40 °C	0.7	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.3	160	1855 2015
Minimum temperature															
Mean minimum temperature (°C)	14.3	14.6	13.2	10.8	8.7	6.9	6.0	6.7	8.0	9.6	11.2	13.0	10.2	160	1855 2015
Lowest temperature (°C)	5.5	4.5	2.8	1.5	-1.1	-2.2	-2.8	-2.1	-0.5	0.1	2.5	4.4	-2.8	160	1855 2015
Date	28 Jan 1885	24 Feb 1924	17 Mar 1894	24 Apr 1888	29 May 1915	11 Jun 1866	21 Jul 1869	11 Aug 1863	03 Sep 1940	03 Oct 1918	02 Nov 1896	04 Dec 1870	21 Jul 1869		
Highest minimum temperature (°C)	28.8	30.5	26.5	23.0	18.0	16.1	14.3	16.2	20.5	24.1	26.2	26.6	30.5	160	1855 2015
Date	21 Jan 1997	01 Feb 1902	13 Mar 2013	02 Apr 2014	25 May 2009	07 Jun 2001	19 Jul 2013	20 Aug 1885	29 Sep 1999	13 Oct 1977	25 Nov 1901	12 Dec 1998	01 Feb 1902		
Decile 1 minimum temperature (°C)	10.6	10.7	9.2	6.9	4.9	2.8	2.1	3.1	4.3	5.9	7.6	9.4		160	1855 2015
Decile 9 minimum temperature (°C)	18.3	18.7	17.3	14.6	12.3	10.4	9.4	10.1	11.6	13.5	15.1	16.7		160	1855 2015
Mean number of days ≤ 2 °C	0.0	0.0	0.0	0.0	0.4	1.9	3.0	1.7	0.5	0.1	0.0	0.0	7.6	160	1855 2015
Mean number of days ≤ 0 °C	0.0	0.0	0.0	0.0	0.0	0.3	0.8	0.3	0.0	0.0	0.0	0.0	1.2	160	1855 2015

Statistics	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	Years	
Rainfall															
Mean rainfall (mm)	46.8	48.0	50.1	57.3	55.7	49.5	47.5	50.0	58.0	66.0	60.3	59.1	648.3	159	1855 2015
Highest rainfall (mm)	176.0	238.2	190.7	195.0	142.5	116.8	178.4	110.8	201.6	193.3	206.1	197.4	967.5	160	1855 2015
Date	1963	1972	1911	1960	1942	1991	1891	1939	1916	1869	1954	1993	1916		
Lowest rainfall (mm)	0.3	0.5	3.7	0.0	3.8	8.0	9.4	12.4	12.0	7.5	6.5	1.7	332.3	160	1855 2015
Date	1932	1965	1934	1923	1934	1858	1979	1903	2008	1914	1895	1972	1967		
Decile 1 rainfall (mm)	9.4	6.9	11.8	17.8	21.3	25.6	22.0	23.6	27.9	26.9	21.7	17.8	467.8	160	1855 2015
Decile 5 (median) rainfall (mm)	36.6	32.6	36.8	49.8	54.9	43.2	44.4	49.2	52.9	65.6	53.8	51.5	644.2	160	1855 2015
Decile 9 rainfall (mm)	99.2	107.9	104.6	114.4	91.0	85.6	72.1	77.7	92.4	111.2	114.5	110.2	824.9	160	1855 2015
Highest daily rainfall (mm)	109.0	113.4	90.2	80.0	51.2	44.2	74.4	54.4	58.7	61.4	72.6	99.6	113.4	159	1855 2015
Date	29 Jan 1963	03 Feb 2005	05 Mar 1919	23 Apr 1960	15 May 1974	22 Jun 1904	12 Jul 1891	17 Aug 1881	23 Sep 1916	31 Oct 2010	21 Nov 1954	04 Dec 1954	03 Feb 2005		
Mean number of days of rain	8.3	7.5	9.4	11.8	14.6	15.4	16.1	16.1	14.9	14.2	11.8	10.5	150.6	160	1855 2015
Mean number of days of rain ≥ 1 mm	5.6	5.1	6.1	7.9	9.7	9.4	9.7	10.4	10.4	10.2	8.3	7.2	100.0	159	1855 2015
Mean number of days of rain ≥ 10 mm	1.4	1.4	1.5	1.6	1.4	1.1	1.0	0.9	1.5	1.8	1.8	1.7	17.1	159	1855 2015
Mean number of days of rain ≥ 25 mm	0.5	0.4	0.4	0.4	0.2	0.1	0.1	0.1	0.2	0.3	0.3	0.5	3.5	159	1855 2015

Statistics taken from the Australian Bureau of Meteorology website. www.bom.gov.au

At TRIFFID PARK'S Annual
Carnivorous Plant Nursery
OPEN DAY.

Sunday 25th November 2018
10am - 4pm
(no early callers please)

103 Dandenong-Hastings Road,
Somerville, Vic
Btw Queens Rd & Eramosa Rd East

www.triffidpark.com.au

Cash, Visa and Mastercard accepted
Free carnivorous plant for every child. They can pot it themselves.
Vic Carnivorous Plant Society will have a club info stand.

TRIFFID PARK

**FOR ALL YOUR CARNIVOROUS PLANT REQUIREMENTS INCLUDING:
PLANTS, POTS, LABELS, BOOKS, SEEDS, SPHAGNUM MOSS AND PEAT MOSS.
VISIT OUR COMPREHENSIVE WEB SITE.**

Owned and operated by Jason and Donna Smith

103 DANDENONG-HASTINGS ROAD, SOMERVILLE, VIC, 3912, AUSTRALIA
EMAIL: triffids@triffidpark.com.au WEB: www.triffidpark.com.au



Meetings highlights & Plants of the night!

BY ANDREW GIBBONS

PLANT OF THE NIGHT, ANY CP's:
1st place: ***Drosera erythrorhiza***

PLANT OF THE NIGHT, ANY CP's:
2nd place: ***Drosera macrophylla***

PLANT OF THE NIGHT, ANY CP's:
3rd place: ***Drosera collina***

July 25th VCPS meeting

ROSETTED TUBEROUS DROSERA JUDGING & PROPAGATION

Our AGM was held at the June meeting. The 2018-2019 committee members can be found on the Committee page of our website.

We would like to thank the outgoing committee for their contribution to running the society. Notably Gordon Ohlenrott has stepped down from his position co-ordinating the society's publications and journal distribution.

Gordon has been a long serving member of the VCPS committee and we are very grateful the contribution he has made to the society.

We would like to welcome Brendan Bok to the committee, who will now be publications and journal distribution coordinator.

After over a decade in the role, Steve Fretwell has stepped down as Journal Editor. Steve has done an outstanding job in this position, creating a high quality, modern journal for the society. David Petch will be taking over from Steve as the society's new Journal Editor.

Topic plants for the meeting were open to any genera. Sean brought several stunning tuberous *Drosera* into the meeting. His *Drosera erythrorhiza* was voted plant of the night. It was a colourful, well grown plant but interestingly it was producing a carnivorous leaves on the flower stem. Also benched was a pot of *Drosera macrophylla* that was producing an impressive number of flower stems and a very colourful pot of *Drosera collina.*

The species benched at the June meeting included:

Drosera collina
Drosera erythrorhiza
Drosera gracilis
Drosera macrophylla
Drosera squamosa
Drosera whittakeri

PLANT OF THE NIGHT, ROSETTED TUBEROUS *DROSERA*:
1st place: ***Drosera squamosa***

PLANT OF THE NIGHT, ROSETTED TUBEROUS *DROSERA*:
2nd place: ***Drosera browniana***

PLANT OF THE NIGHT, ROSETTED TUBEROUS *DROSERA*
3rd place: ***Drosera aberrans***

Drosera prophylla

S. psittacina var. heterophylla

Utricularia arnhemica

July 25th VCPS meeting

ROSETTED TUBEROUS *DROSERA* JUDGING *& PROPAGATION*

Dates have been confirmed for two 'must see' events in the carnivorous plant enthusiast's calendar. This year's VCPS Annual Show dates have been confirmed as the weekend of the 1st and 2nd December at Collector's Corner in Braeside. Entry is free to the public and we expect a wide variety of plants on display as well as lots of plants for sale.

Triffid Park will also be holding their Open Day on Sunday the 25th November. In addition to the unique opportunity browse and buy from their impressive number of carnivorous plants, members of the VCPS available on the day for advice on growing carnivorous plants.

Show judging for rosetted tuberous *Drosera* was held at the July meeting. Steve won first place for his impressive pot of *Drosera squamosa*. Formerly included as a subspecies of *Drosera erythrorhiza,* this species produces a striking red band along the edges of it's leaves. Equal 2nd place went to Sean's *Drosera browniana*, a pink flowered species from the regions bordering WA's Mallee Coolgardie and Avon Wheatbelt, and Peter's *Drosera aberrans* from the Kyneton area.

The species benched at the July meeting included:

Darlingtonia californica, Dionaea muscipula, Drosera aberrans, *D. browniana, D. bulbosa, D. collina, D. erythrorhiza, D. fulva, D. hilaris, D. lanata, D. lowriei, D. macrophylla, D. major, D. aff major, D. monantha, D. aff petiolaris, D. praefolia, D. prophylla, D. prostratoscaposa, D. rosulata, D. trinervia, D. squamosa, D. tubaestylis, D. whittakeri, D. zonaria, Heliamphora nutans, Nepenthes distillatoria, Pinguicula agnata, Sarracenia alata, S. flava var atropurpurea, S. leucophylla, S. moorei, S. psittacina var heterophylla, S. purpurea ssp venosa, S. purpurea ssp venosa var montana, Utricularia arnhemica, U. leptoplectra, U. livida*

PLANT OF THE NIGHT, FAN/CLIMBING TUBEROUS *DROSERA*: 1st: *D. stolonifera*

PLANT OF THE NIGHT, FAN/CLIMBING TUBEROUS *DROSERA*: 2nd: *D. rupicola* "Red x Green"

PLANT OF THE NIGHT, FAN/CLIMBING TUBEROUS *DROSERA*: 3rd: *D. macrantha*

August 22nd VCPS meeting

UPRIGHT TUBEROUS/WINTER GROWING DROSERA JUDGING

The August meeting focused on tuberous and winter growing *Drosera*. Sean brought in several fan-leafed *Drosera*, including a *Drosera stolonifera* that was producing lots of flowers and was voted plant of the night.

A lot of the fan-leafed *Drosera* Sean brought in were flowering prolifically without much leaf growth. Sean fertilises his plants and suspects the fertiliser maybe causing this type of growth. Second place went to Sean's pot of *Drosera rupicola*, a cross between the red and green forms of this species with the resulting plants showing a lot of variation in colour.

Sean's *Drosera macrantha*, a plant he originally got from Peter Bloem was voted third place. Several plants from the *peltata-auriculata* complex were brought in and there was a discussion about the recent taxonomic research into this complex, including where they grow and how to identify them.

Also benched were plants of *Drosera pauciflora*, its much smaller relative *Drosera zeyheri*, and *Drosera cistiflora*. Like tuberous *Drosera*, these South African plants come from seasonally wet areas, where the go dormant during the dry summers by dying back to fleshy roots rather than tubers.

The species benched at the August meeting included:

Drosera aberrans
Drosera andersoniana
Drosera auriculata
Drosera basifolia
Drosera bulbigena
Drosera cistiflora
Drosera erythrogyne
Drosera graniticola
Drosera gunniana
Drosera heterophylla
Drosera hirsuta
Drosera indumenta
Drosera macrantha
Drosera menziesii
Drosera modesta
Drosera moorei
Drosera pallida
Drosera pauciflora
Drosera peltata
Drosera platypoda
Drosera porrecta
Drosera ramellosa
Drosera rupicola
Drosera stolonifera
Drosera stricticaulis
Drosera zeyheri
Heliamphora nutans x heterodoxa
Nepenthes hookeriana

PLANT OF THE NIGHT *CEPHALOTUS FOLLICULARIS*: (From left): 1st, 2nd and 3rd places

PLANT OF THE NIGHT *BROCCHINIA/CATOPSIS* (From left): 1st *C. berteroniana*, 2nd: *B. reducta*, 3rd: *B. reducta*

PLANT OF THE NIGHT *NON TOPIC PLANT* 1st place *Drosera platypoda*

September 27th VCPS meeting

CEPHALOTUS, BROCCHINIA AND *CATOPSIS*

The topic plants for the September meeting were *Cephalotus, Catopsis* and *Brocchinia*. *Cephalotus* and the carnivorous bromeliads were voted on separately for topic plant of the night.

Several *Cephalotus* were brought into the meeting. *Cephalotus* have a reputation of being finicky to grow. Some well grown plants were brought in that were being grown under different conditions. Andrew brought in two plants that were producing a lot of large pitchers, one of which was voted topic plant (*Cephalotus*) of the night. Andrew grows his *C*ephalotus in an indoor terrarium under fluorescent lights.

Jason also brought in two pots of *Cephalotus* that were being grown in a coldhouse. One was producing large pitchers with lot of good colour. The other had died back about 2 years ago but had since bounced being moved to coldhouse and had produced a large number of new crowns. While a lot of the bromeliads gain nutrients from detritus that falls into their tanks a few members of *Catopsis* and *Brocchina* have been shown to trap insects and are considered subcarnivorous. Andrew brought in a large plant of *Catopsis berteroniana* which was voted topic plant(bromeliad) of the night. *Catopsis bertoroniana* is an epiphytic bromeliad that grows from southern Florida through into Central and South America.

Steve brought in a large plant of *Brocchinia reducta* that had produced several growing points over the years. This terrestrial bromeliad is a predominantly Highland species from South America's Guiana Shield region.

Steve's *Drosera platypoda* was voted non-topic plant of the night. This is one of the fan-leaved tuberous *Drosera* from WA and produces short, single stems with the carnivorous leaves arranged alternately along the stem. Also benched as *Drosera murfetii*. Like it's smaller relative *Drosera arcturi, Drosera murfetii* comes from colder alpine regions of Australia and keeping it cool during Melbourne's hot summers can be challenging.

Several varieties of *Sarracenia purpurea* were also brought into the meeting. Steve brought in a *Sarracenia purpurea ssp venosa var burkii* that was in flower and finished the meeting with a demonstration of how to pollinate Sarracenia. The VCPS seedbank is always looking for fresh seed and *Sarracenia* seed is very popular. If you have any *Sarracenia* in flower, please consider setting a few seedpods and donating the seed to our seedbank.

The species benched at the September meeting included:

Brocchinia reducta
Catopsis berteroniana
Cephalotus follicularis
Dionaea muscipula
Drosera murfetii
Drosera platypoda
Nepenthes jamban
Nepenthes lingulata
Sarracenia psittacina var heterophylla
Sarracenia purpurea ssp purpurea
Sarracenia purpurea ssp venosa var burkii
Sarracenia purpurea ssp venosa var montana

Steve giving a pollination demonstration with a small artists paint brush on a *Sarracenia purpurea var. venosa.*

Victorian Carnivorous PLANT SOCIETY INC.

Annual Subscriptions

Australian membership $28.00
Overseas membership $28.00
Electronic membership $18.00
Mail & Electronic Membership $30.00

All cheques or money orders should be made payable to the Victorian Carnivorous Plant Society Inc (VCPS). Payment can be made by Cheque, Money Orders, Direct deposit and Paypal. Payment from overseas must be in Australian dollars. (Payment by Credit card is also available for international members only.) Please visit vcps.org for further details

Correspondence

Please forward all correspondence regarding subscription, change of address, articles for the journal and back issues to:

The Secretary VCPS
1 Pollard Place,
Sunbury, Victoria 3429.
AUSTRALIA

Journal articles, in MS-Word, ready for publication, may be Emailed to the Editor or Secretary.

Meetings

Most VCPS meetings are held in the hall at the rear of the Pilgrim Uniting Church on the corner of Bayview Road and Montague Street, Yarraville – Melway map reference 41K7. These meetings are on the fourth Wednesday of the month at 8 PM.

However, some meetings may be at the home of members during a weekend. Details of meeting dates and topics are listed in each journal.

If unsure of the location or date of any meeting, please ring a committee person for details.

The VCPS Annual General Meeting, usually held at Yarraville in June, provides substantial benefits for each and every member able to attend.

Cephalotus follicularis

Cephalotus follicularis

Cephalotus follicularis

Cephalotus follicularis

Cephalotus follicularis

Cephalotus follicularis

Cephalotus follicularis **“Eden Black”**

Cephalotus follicularis