

TOWNSVILLE ORCHID SOCIETY INC.



June 2018 Bulletin

Full contact details are on our website

<http://townsvilleorchidsociety.org.au>

Postal Address:

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Hall Location:

Joe Kirwan Park
Charles Street, KIRWAN

Patron: Phyllis Merritt

President: Jean Nicholson

Email: townsvilleorchidsociety@gmail.com

Secretary: Jeff Knowles

Treasurer: Ron Scott

Bulletin Editor: Noel Grant Email: grantnml@bigpond.com

Annual Membership Fees are due **1st September** each year
 Family \$20.00 Pensioner Family \$10.00
 Single \$15.00 Pensioner Single/Junior \$7.50
 Country Family: \$10.00

Details for paying membership fees: BSB: - 064823

Account Number: - 0009 0973

Name of Account: Townsville Orchid Society Inc.
Commonwealth Bank, Aitkenvale.

Are you currently un-financial? To remain a member of the Townsville Orchid Society Inc. and to continue to receive the *TOS Bulletin*, you **MUST** pay your annual membership.

Judges for June 2018:

Veterans/ Open
Marie/Charlie

Novice/ Species
Peter /Ted

JUNE

Lyn Carlill	2
Mila Dolan	4
Rob Sweeney	4
Noel Hardwick	7
Graham MacKenzie	8
Ross Tucker	12
Lawrence Piva	13
Joanne Schramm	14
Walter Martin	18
Donna Marnock	21
Allan Hughes	25
Terry Ruxton	26
Betty Sheret	28



President's Comments:

We have a very busy time ahead during the month of July, with our Winter Show on

13-15th July and then our Christmas In July Luncheon on our meeting day,

22nd July. We usually set up and decorate the day before, so all are welcome to come along to help. Time will be announced at this June meeting. A list will be circulated for names of members who wish to attend the Luncheon. We must also stress that payment should be made as early as possible as numbers are required for the company catering – these are usually required one week before the event. See details later in this Bulletin.

I also urge everyone to add their name to the Winter Show Roster and make it easier for the members who work each day. For new members who assist, the kitchen supplies sandwiches etc. for your lunch, so see the kitchen ladies if you have any special requests re diets, when you arrive to work. Members have a Sales Table where they may place ten plants each day for sale.

The Tropical Queensland Orchid Council, which includes Orchid Societies from Atherton to Mackay is due to meet on Saturday, 16th June at our Hall for their quarterly meeting. As the representative from our Society, I had been previously instructed by our Management Committee to put forward the suggestion that the T.Q.O.C. Inc. Conferences be held every three years because of the lack of Societies to host these conferences each year. I think it is a great shame but hosting has become so expensive and some Societies do not have the man-power or the finance to hold them. Will let you know the outcome at our June meeting.

We were happy to welcome more new members at our May meeting and again extend the invitation to new members – do not hesitate to speak to some of our senior members if you have any queries.

Remember you must sign the Attendance Book on arrival at the meetings, so that you are covered by our Insurance.

JULY

Neita Coulson	2
Leonie Johnson	4
Vikki Warren	4
Peter Depperdene	5
Alan Dean	7
Irwin Feldt	7
Beryl Philippi	7
Alan Sheret	10
Marie Condon	13
Jan Allen	24
Alice Siarni	25
John Luecke	31

Yes, we are having some cool breaks in the weather but it is a lovely change. Jean Nicholson

Minutes from the Management Committee Meeting held 25th May, 2018

Meeting opened: 7:36pm by President Jean Nicholson

Present J Nicholson, K Ritchie, G Kelly, J Knowles, T Ruxton, N Grant, L Johnson, C Lee, J Cairns, S Cairns, R Dundas

Apologies R Rasmussen, P Lucke,

Visitors Nil

Minutes

Motion: That the minutes of the previous meeting be accepted as a true and correct record

M: J Knowles S: N Grant Carried

Business arising:

- What to do to remember Life Members Wal, Min and Ray is still under discussion. J Nicholson, after discussion with B Robinson, suggested a "Life Members' Honour Board".

Correspondence

Newsletters/Catalogues: West Brisbane, Sichuan Tour, Neutrog, Childers and Isis, B Maloney, South Coast SA, "Australian Orchid Review", AOS "Orchids", Herb Society x2, Bowen Garden Club, MacLean, Eastern Districts OS x2, Gladstone, Cairns, Ipswich, Ingham, Mackay, Rockhampton, Nightcliff, Orchid Mania, KIP Orchid Nursery

Mail: C Mobile- Invoice of \$49.80, Philosophie - invoice of \$400.00, WeightWatchers Workflow - \$950.0, Nuleaf - invoice of \$92.00, Norm Hyatt Locksmith - Offer to service the safe, Orchids Qld Inc - CD of 2017 Qld awards, Campbells Coaches - invoice of \$1155.00 for Ingham trip, Bowen Orchid AFS - Field day 20th May, Australian Tax Office - Information sheet esp. GST, John Bewert - Bunnings pots, Charters Towers Orchid APSI - New field day date of 16Sept2018, Independent Rentals - Mini bus hire to Mackay, Peter Lucke - replied to Shirley Jackson re visit to TSV in July, Orchids Qld Inc - meeting on 16June, Weightwatchers (Rebecca Burnicle) - Introduction as new Area Manager, Townsville Garden Club - Bowen bus trip on 19August2018, Fair Trading Qld - "go online" information, Dave (Wilson)- possible pot order, Tropical Qld Orchid Council - Meeting and AGM in TSV on 16June2018, Campbells Coaches - invoice of \$1320.00 for Bowen trip, Sloane O'Neill – Noise, ABA Scales and Cash Registers (Brisbane) - Quote for POS, TripleT (Tee Johnson) - Music tent at TOS winter show, Accurate Systems (TSV) - Cash Register price.

New Member Applications: Mark and Diane Davis. Both accepted into the novice section.

Motion: That the inwards correspondence be accepted and the outwards adopted.

M: J Knowles S: T Ruxton Carried

Business arising: Nil

Treasurer's Report

TOS available funds are healthy. Details are available at monthly meetings.

Motion: That the treasurer's report be accepted and accounts be passed for payment

M: K Ritchie S: L Johnson Carried

Business arising: Nil

Vice President's Reports

Show (G Kelly):

- Signs done, chasing boxes, entry fee is per day, free entry to escorted "old peoples" groups, sets of guidelines have been produced, resolved to have advertising the same as last show, opening times are to be clarified with members at the next meeting, only show exhibitors and workers are entitled to free admission.
- P Lucke suggested we liaise with Townsville Photography Club regarding show photography.

Hospitality (R Dundas):

- The "discolor trophy" due to R Dundas is to be followed-up.

General Business

- Kathy Ritchie welcomed to the Management Committee.
- J Nicholson and K Ritchie will organise and be TOS reps at the TQOC meeting here in Townsville on Saturday 16th June, 2018.
- The Point of Sale issue was discussed and current information will be presented at the general meeting.
- J Knowles reported on the gratuities situation and bus drivers. Resolved to discontinue.
- The 2018/2019 committee will need to investigate costings and payment protocols of bus trips to field days.
- J Knowles reported on the "Noise" issue pointing out that investigations have revealed that TOS hall was not responsible.
- Resolved to hold a "Christmas in July" lunch in conjunction with the July general meeting on 22nd July, 2018. J Knowles to source quotes and menus. Members will be subsidised. Plants will be displayed.
- C Lee volunteered to organise talks at meetings. At Sunday's meeting C Lee will talk on miniature orchids and a "question and answer" session will be included.
- Motion "That we purchase 16 plants as lucky door prizes from Aranbeem Orchids"
M: G Kelly S: T Ruxton Carried
G Kelly will organise.
- J Cairns and S Cairns showed samples of a new club shirt design.
- Resolved that the excess books from the late Roy H to be given away.
- J Knowles, R Dundas and G Kelly gave apologies for the July meetings.
- R Rasmussen (via. J Knowles) reminded that we need to seek advice from members at the general meeting for the cooling of the office and kitchen.

Meeting Closed 9:39pm

Jean Nicholson - President

Jeff Knowles - Secretary

Important notice relating to car parking.

The car park in front of the Townsville Orchid Society Hall is a public car park that was upgraded by, and is owned by, the Townsville City Council. It is **not** part of the leased area of the Townsville Orchid Society Inc.



Members are advised to only park in the designated parking spaces as parking elsewhere in the carpark, e.g. down the centre, is illegal, inconsiderate to others and will probably void your insurance.

If the carpark is full, please park legally in the parking bays along Charles Street or in the other, easily accessible public carpark on Bamford Lane outside the Kirwan Sports Club, a short walk across the basketball courts.

Thank you for your co-operation.

Jeff Knowles
Secretary

Results of the Growing Competition Plants for May.

Although not many of the hundreds of growing plants that were issued were actually brought to the May meeting, it was good to see some members making the effort. Your *Vanda* plants may not be in bloom, but many people are interested in seeing how they are growing under different conditions. Why not make the effort to find yours and bring them along?

Congratulations to the following winners from our May meeting. Our guest judges were looking for the "healthiest root system".

2183 – Noel and Maureen Grant

2186 – Tina Phillips

2187 – Tina Phillips

The current plants are:

2183 *Vanda sanderiana* var. *albata*

2186 *Vanda* ((Varut Leopard x Dona Isabel Bosch) x V. (Viboon x Varut Fuchsia)) x V. Mungkud

2187 *Vanda* (Fuchs Harvest Moon x Jukkich Gold) x V. Suksamran Spots

The next set of Growing Competition plants will probably be issued free to members at the August meeting.

Jeff Knowles

Minutes from the General Meeting held 27th May, 2018

Meeting opened: 1:00pm with President Jean Nicholson in the chair

Present 74 as per attendance book.

Apologies 5 as per attendance book.

Visitors Gordon Lamb, Pam Cooper, Jean Dawson, Muriel Sotur.

Minutes

Motion: That the minutes of the previous meeting be accepted as a true and correct record.

M: J Knowles S: R Dundas Carried

Business arising: Nil

Correspondence

Business arising: No new items since Friday night's Management meeting.

Treasurer's Report

President J Nicholson welcomed our new treasurer Kathy Ritchie.

TOS available funds are healthy. Details are available at monthly meetings.

Motion: That the treasurer's report be accepted and accounts be passed for payment.

M: K Ritchie S: M Soper Carried

Business arising: Nil

General Business

1. New members Mark and Diane Davis (novice), John and Maureen Draper (novice) and Barry Woodhouse and Ann Richards (novice) were all welcomed into the Society and presented with their welcome information pack and plant.
2. "Noise" issues explained. Not caused by TOS or our hall hirers.
3. Point of Sale information presented. No decision.
4. Winter Orchid Show information presented, including
 - a. volunteers needed for rosters.

- b. Note that members who do not support the show will be required to pay admission.
 - c. Please note the times that sales area is available for members to purchase plants.
5. We will be holding a “Christmas in July luncheon” at the 22nd July meeting. Book and pay at June meeting.
 6. The new committee will revisit the rules for payment for bus trips.

Meeting Closed 1:45pm

Jean Nicholson - President

Jeff Knowles - Secretary

Afternoon activities included:

- C Lee presented a talk on miniature orchids.
- P Lucke gave an update on current happenings in the greenhouse.
- “Ask an expert” question and answer.
- T Boon gave the plant commentary.
- Afternoon tea (WOW!).
- Lucky doors and raffles drawn.

“Christmas in July” lunch.

Yeah! Celebration time after a successful Winter Orchid Show!

This catered lunch, by *Chef on Call*, will be held as part of our General Meeting in July.

Bookings: Now open – make sure your name is on the list. You can email or phone the Society (see the list of contacts on the front page of this *Bulletin*) to book your place if you cannot make this Sunday’s meeting.

Date: **Sunday 22nd July, 2018**

Food served: 12:30pm (Note the earlier start)

Drinks: Soft drinks will be on sale. BYO wine. Tea and coffee will be available.

Cost: Members pay only \$25. Guests of members pay \$32.

How to pay: 1 Pay treasurer Kathy at the meeting this Sunday.
2 Pay directly into the TOS bank account. Make sure you send your name as a reference. (TOS bank details are on the front page of this *Bulletin*.)

Setup: The time at which the hall will be set-up, and nibbles organised, will be announced at the June meeting.

- **WINTER SHOW 2018**

The Townsville Orchid Society Winter Show will be held from Friday 13th July to Sunday 15th July with set-up of the hall commencing at 11am on Thursday, 12 July 2018.

If you are coming to help with the set-up of the hall, you can bring your plants in at that time - otherwise no plants in the hall prior to 1pm, please.

The use of plant name labels on plastic tridents will continue at this Show. Labels are available on the TOS website <http://townsvilleorchidsociety.org.au> and will also be available at the June meeting. Don’t forget to put your TOS member number on the back of the label.

Please remember that there are no plant sales out of Show times and that members need to be actively supporting the Show to gain free entry to the Show.

Greg Kelly, Show Vice President

If unable to attend as shown below, please try to find a replacement and inform Greg Kelly (Show Chairman). Thank you

SHOW DUTY ROSTER
TOWNSVILLE ORCHID SOCIETY INC. - WINTER SHOW, 2018
 Friday 13th July, Saturday 14th July, Sunday 15th July

Complimentary tea, coffee and plain biscuits are available throughout your rostered shift.

DATE and TIME	DOOR	RAFFLE	SHOW SECURITY and ENQUIRIES	CLOAKROOM ATTENDANT	CASHIER	ASSISTANT CASHIER	SALES SECURITIES and ENQUIRIES
FRIDAY 13 th July 9AM – 12 NOON	1.R Whiting S Cairns	1. L Johnson A Skinner	1. T Hobden	1. M Soper	1.A Zierk 2. J Johnson	1. R Dundas 2. N Parker	1. D Hobden 2. T Phillips
			2. T Zierk				
FRIDAY 13 th July 12 NOON – 3PM	1. B Hughes	1. B Sheret	1. W Sewell	1. P Lucke	1. R Whiting	1. R Dundas	1. B Figuera 2. A Knowles
			1. J Nuss				
SATURDAY 14 th July 9AM – 12 NOON	1. B Hughes	1. W Martin	1. B Robinson	1. M Soper	1. J Johnson	1.N Parker	1. T Phillips 2. G Lamb
			2. K Day				
SATURDAY 14 th July 12 NOON – 3PM	1. B Hughes	1. J Nicholson	1. T Zierk	1. L Johnson	1.S Cairns	1. A Zierk	1. N Grant 2. K Day
			1. K Day.				
SUNDAY 15 th July 9AM – 11.30AM	1. B Hughes	1. P Valmadre	1. L Johnson	1. M Soper	1.	1.	1. C Truscott 2. A Hughes
			2. K Day				
SUNDAY 15 th July 11.30AM – 2PM	1. B Hughes	1. R Scott	1. J Nuss	A Punchard	1.R Dundas	1. R Whiting	1. K Day
			1. J Nuss				

Add your name if you require a sales area: A: I prefer a hanging space: TOS members, A Hughes,

B: I have no preference for a hanging space: TOS Members, T&D Hobden, B Figuera, G Kelly, A Zierk, T Zierk, C Truscott, K Owens, N Grant, P Lucke, R Scott, R Dundas, R Whiting ½, J Nicholson, P Valmadre,

Tabled Plants for May, 2018.

Bold Type indicates a correction using Orchidwiz.

VETERANS PAPHIOPEDILUM	1 st 2 nd 3 rd	Paph Prim N Proper	C Lee
CATTLEYA over 115mm	1 st 2 nd 3 rd	Rlc Doctor John Baker	C Truscott
CATTLEYA 74mm to 115mm	1 st 2 nd 3 rd	Rlc Village Chief North 'Green Genie' Rth Burdekin Imp x Rlc Burdekin Velvet Rth Burdekin Diamond	W&C Sewell G&S Kelly G&S Kelly
CATTLEYA Cluster	1 st 2 nd 3 rd	Rth Burana Beauty Pcv Golden Peacock C Orglade's Delight	W&C Sewell N&M Grant N&M Grant
CATTLEYA Other	1 st 2 nd 3 rd	Bc Hippodamia 'Hunabu' Eyy Grapelade Eyy Grapelade	W&C Sewell W&C Sewell N&M Grant
CATTLEYA Any Other Hybrid	1 st 2 nd 3 rd	Gct Cluster Bomb Ctna Jamaica Red	W&C Sewell N&M Grant
VANDA 65mm and over	1 st 2 nd 3 rd	V Jiraprapa x V Tokyo Delight V Tangerine Stars x V Fuch's Sunset	N&M Grant N&M Grant
VANDA under 65mm	1 st 2 nd 3 rd	V Roslyn's Best V Fiftieth State Beauty V Ann Hayes	N&M Grant G&S Kelly G&S Kelly
DENDROBIUM Spatulata	1 st 2 nd 3 rd	D Speewah Storm x <i>D. tangerinum</i>	C Truscott
TOLUMNIA	1 st 2 nd 3 rd	Tolu Capalaba Sun	N&M Grant
OPEN CATTLEYA 115mm and over	1 st 2 nd 3 rd	Bc Mount Hood Rth Orglade's Tradition C Unknown	P&M Cooper K Owens S McKeich
CATTLEYA 74mm to 114 mm	1 st 2 nd 3 rd	Hksa Sogo Doll 'Little Angel' Rlc Village Chief North 'Green Genie' Ctt Sesall's Supernova x C Chocolate Drop	R&E Dundas R&E Dundas Cairns Family
CATTLEYA Any Other Hybrid	1 st 2 nd 3 rd	Bct Sun Mei Gold Bc Yellow Bird	R&E Dundas Cairns Family
CATTLEYA Cluster	1 st 2 nd 3 rd	Ttna Dark Prince	K Owens
DENDROBIUM Any Other Hybrid	1 st 2 nd 3 rd	D Arideng Green D Burana Green Star	Cairns Family K Owens
DENDROBIUM Spatulata	1 st 2 nd 3 rd	D John's Charm D George Sax x <i>D gouldii</i> D Toro's Lassie x <i>D. johannis</i>	K Owens K Owens K Owens
VANDACEOUS 65mm & over	1 st 2 nd 3 rd	V Somsri Pink	N Palin

VANDACEOUS under 65mm	1 st 2 nd 3 rd	Rhrds Bangkok Sunset x V Mahogany Gem V unknown V unknown	F Parker Cairns Family Cairns Family
VANDACHOSTYLIS	1 st 2 nd 3 rd	<i>V coerulea</i> v Van Prapin Rhrds Bangkok Sunset x V Mahogany Gem Rhrds Bangkok Sunset x V Mahogany Gem	D Dattinger R&E Dundas Cairns Family
PHALAENOPSIS Large	1 st 2 nd 3 rd	P Shu Long Golden Star	N Hardwick
ONCIDIUM	1 st 2 nd 3 rd	Burr Eye Candy 'Pinkie' Zed Calico Gem 'Green Valley'	R&E Dundas D Dattinger
ANY OTHER GENERA	1 st 2 nd 3 rd	Fdk After Dark 'Black Pearl' Bulb Wilmar Galaxy Star Calanthe William Murray	P&L Lewis J Johnson T Phillips
NOVICE CATTLEYA Large	1 st 2 nd 3 rd	Rlc Dal's Dynamite 'Bette' Rlc Tainan Gold x Rlc Burdekin Delight Rlc Chief Butterfly 'Dragon'	K Day K&L Wedel K Day
DENDROBIUM	1 st 2 nd 3 rd	D Maynin Uraivan (Not on Orchidwiz) D Red Apple	R Sweeney R Sweeney
PHALAENOPSIS	1 st 2 nd 3 rd	Phal Pinlong Cheris x Phal Strawberry Gem	R Tappenden
CATASETUM	1 st 2 nd 3 rd	Cyc Jumbo Puff Cyc Wine Delight Unknown	R Sweeney R Sweeney M&M Dolan
DENDROBIUM	1 st 2 nd	Unknown	R Tappenden
ANY OTHER HYBRID	1 st 2 nd 3 rd	Psychopsis Mariposa Alba 'Three Lips'	B Hughes
SPECIES CATTLEYA	1 st 2 nd 3 rd	<i>C maxima</i> <i>C maxima</i> <i>C warneri</i>	N&M Grant N&M Grant N&M Grant
CATTLEYA ALLIANCE	1 st 2 nd 3 rd	<i>B nodosa</i> <i>C luteola</i>	N&M Grant N&M Grant
DENDROBIUM	1 st 2 nd 3 rd	<i>D lineale</i>	J Johnson
MISCELLANEOUS	1 st 2 nd 3 rd	<i>V luzonica</i> <i>Ang eburneum</i> <i>V falcata</i>	N&M Grant R&E Dundas N&M Grant
PHALAENOPSIS	1 st 2 nd 3 rd	<i>Phal pulcherrima</i> <i>Phal deliciosa</i> <i>Phal pulcherrima</i>	N&M Grant N&M Grant N&M Grant
PAPHIOPEDILUM	1 st 2 nd 3 rd	<i>Paph spicerianum</i>	C Lee
BULBOPHYLLUM	1 st 2 nd 3 rd	<i>Bulb lilacinum</i> <i>Bulb lasiochilum</i> <i>Bulb lilacinum</i>	P&M Cooper J&M Draper J Johnson
BARKERIA	1 st 2 nd	<i>Bark dorotheae</i> <i>Bark dorotheae</i>	N&M Grant N&M Grant

	3 rd	<i>Bark whartonianum</i>	N&M Grant
AUSTRALIAN NATIVE SPECIES	1 st	<i>D lichenastrum</i>	N&M Grant
Dendrobium	2 nd	<i>D bigibbum</i>	N&M Grant
	3 rd	<i>D bigibbum</i>	N&M Grant
FIRST FLOWERING		Nil this month	
<u>POPULAR VOTE</u> VETERANS	1 st	C Doctor John Baker 'Charlie'	C Truscott
	2 nd	Bc Hippodamia 'Hunabu'	W&C Sewell
	3 rd	Rlc Burdekin Imp x Rth Burdekin Velvet	G&S Kelly
OPEN	1 st	Cal William Murray	T Phillips
	2 nd	Rhds Bangkok Sunset x V Mahogany Gem	F Parker
	3 rd	V unknown	Cairns Family
NOVICE	1 st	Unknown	M&M Dolan
	2 nd	Unknown	S Hague
	3 rd	Psychopsis Mariposa Alba 'Three Lips'	B Hughes
SPECIES	1 st	<i>V luzonica</i>	N&M Grant
	2 nd	<i>Phap spicerianum</i>	C Lee
	3 rd	Bulb Unknown	K Turner
FIRST FLOWERING		Nil this month	



Registrar's Choice

Hybrid (left)

D Speewah Storm x *D. tangerinum*

84 Points C Truscott

Registrar's Choice

Novice (right)

Rlc Dal's Dynamite 'Bette'

80 Points K Day





Registrar's Choice

Species (left)

Vanda luzonica

79 points

N & M Grant

Registrar's Choice

Specimen Plant (right)

Bct Sun Mei Gold

R & E Dundas



Points for Tabled Plants after May 2018

Name	Vets	Open	Novice	Species	Aggregate
Berzinski C & Mutch L		8			8
Bloom M	4				4
Boon E				1	1
Bowler N				4	4
Cairns Family		87		1	88
Cooper P&M		26		9	35
Dattinger D		7			7
Day K			22		22
Dolan M & M			10		10
Draper J & M			1	3	4
Dundas R&E		85		12	97
Dylejko Z & B		4			4
Fighera B	42			10	52
Gibson C			5		5
Grant N&M	123			115	238
Hague S			2		2
Hardwick N		4			4
Hardy A		2			2
Hobden T&D				4	4
Hughes A	4				4
Hughes B			79		79
Johnson J		11		18	39
Joynson L				1	1
Kelly G&S	55			3	58
Knowles J&A	6			28	34
Laing E				1	1
Lee C	16			5	21
Lewis P & L		4			4
Lucke P&J	3			27	30
McKeich S		2			2
Nicholson J	56			24	80
Owens K		22		2	24
Palin N		4			4
Parker F		4		1	5
Phillips T		2		10	12
Ruxton T&S		12		4	16
Ryan L			32	5	37
Sanim M		4			4
Serra P				2	2
Sewell W&C	74				74
Sweeney R			20		20
Tappenden R			12		12
Truscott C	23				23
Turner K		29		4	33
Watt G			4		4
Wedel K&L			11		11
Whiting R		50		4	54
Woods S			1		1

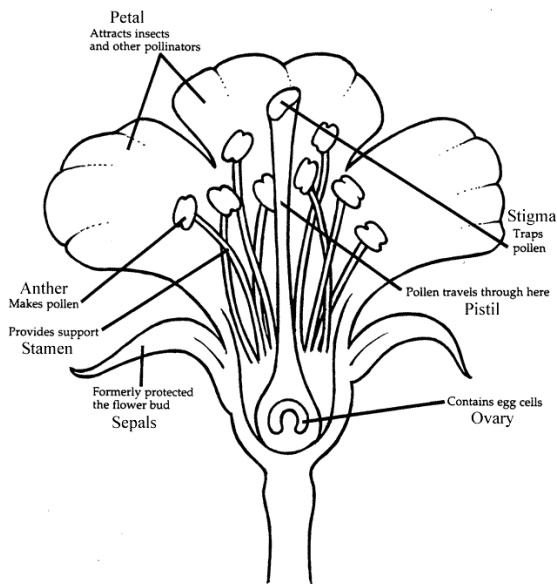
Why is this flower an Orchid?

Orchids belong to the smaller of the two great groups of flowering plants - the monocotyledons (or monocots), which include lilies, orchids, palms and grasses. The larger group contains the dicotyledons (the dicots). The majority of common garden plants, most trees and broad-leaved flowering plants, such as roses and geraniums, are dicots.

Monocots are distinguished by having only one seed leaf in the embryo contained in the seed (dicots have two). Most of you will have grown peas or beans (which are dicots) at some time, and I am sure you all remember those two leaves breaking the ground surface as the young plants sprouted.

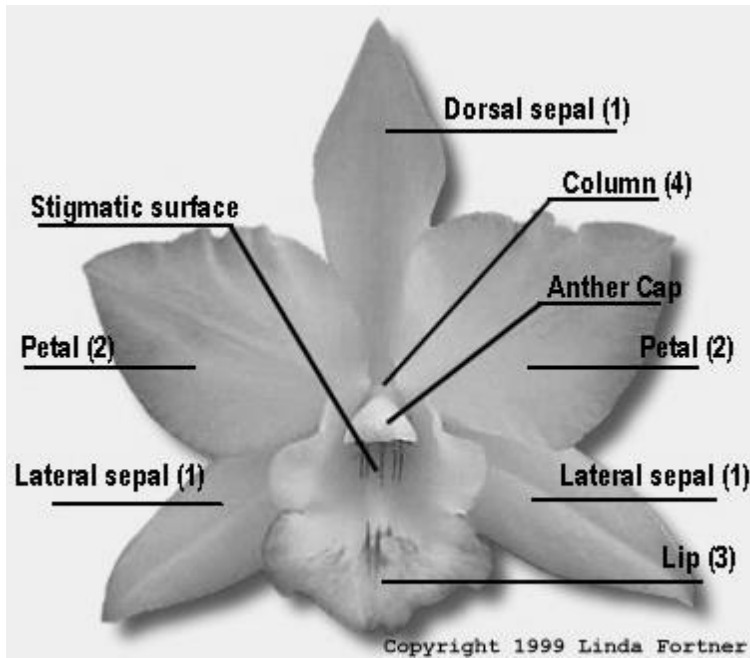
Monocots typically also have flower parts, such as sepals and petals, based on a plan of three (imagine a typical orchid flower), whereas dicots have parts based on a plan of four or five (or multiples thereof). Most monocots have leaves with parallel veins, while dicots usually have a meshlike pattern. The stems of monocots do not have a continuous cambium layer, or region of new growth, so they do not increase in stem thickness, produce annual growth rings or have woody stems, as do typical trees, which are dicots.

The primary characters that distinguish the orchids as a group are found in the flower.



At the bottom of an unspecialized **non-orchid flower** is the stem that supports it, called the **pedicel**. Directly above, and at the base of the flower itself, is a whorl of green, leaflike organs called **sepals**. Above and inside the sepals is a second whorl of coloured **petals**. These are the asexual parts (“asexual” means NOT sexual) and they are developed to protect the flower or to attract a pollinator. Inside (also arranged in whorls) are the sexual portions of the flower. First are the male **stamens**, which consist of a **filament** (the slender stalk that supports the anther) and an **anther** (usually an arrangement of four sacs filled with loose pollen grains).

There may be several whorls of stamens. In the centre of the flower is the female **pistil**, which is composed of an enlarged portion (the **ovary**) topped by a stalklike **style** with a **stigma** at its apex. The **pollen** in the anther is powdery and is usually carried from the anther of one flower to the stigma of another flower by a pollinating agent (moth, fly, bird etc).



The usual **orchid flower** is also supported on a pedicel. The ovary, however, with its ovules, seems to be an integral part of the pedicel because it is embedded within the upper portion of the pedicel below the attachments of the petals. The orchid flower is thus said to have an **inferior ovary**. The sepals and petals are usually similar, often highly coloured, and in sets of three. One petal is developed as a landing platform for the pollinator and is called the **lip** (or **labellum**). Most orchids can be divided by a line from the top of the dorsal sepal to the centre of the lip, where the portion of the flower on the left side of the line can be seen as

a mirror image of the right side. This is described as making the flower **bilaterally symmetrical**.

The sexual portions of the orchid flower are quite different from other generalized flowers. All of the male organs and the female organs (the filaments, anthers, style, and stigma) are reduced in number and are usually fused into a single structure called the **column**. Most orchids have a single anther at the apex of the column. The pollen grains are bound together with a sticky substance in masses called **pollinia**. As a visiting insect backs out of the flower, the pollinia are picked up from the anther and stick to the body of the insect.

One of the characteristic differences between the orchid family and other advanced monocots is that the fertile stamen or stamens are all on one side of the flower opposite the lip. The lip is oriented upward in the bud, but as it later develops, twisting takes place in the pedicel or ovary so that the lip is usually oriented downward by the time the flower opens, a process called **resupination**. The lip becomes a handy landing platform for pollinators.

Orchid seeds are extremely small and contain an embryo that lacks endosperm (starchy nutrient tissue). In nature, orchid seeds need the presence of a fungal mat called mycorrhiza in order to germinate. Happily, a method has been found in the laboratory where seeds can be germinated without the fungus, which is why so many orchid seedlings are now available.

It is interesting that all the special characters of orchid flowers, such as the joining of the male and female organs to form the column, the masses of pollen called pollinia, and the tiny seeds without endosperm, are found individually in other groups of flowering plants. However, it is through the combination of all of these characters that we now know the family of flowering plants called the Orchidaceae.

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