

## September 2011

### General Meeting

8.00pm Wednesday  
14<sup>th</sup> September

Community Centre,  
Annandale Shopping  
Centre

### Committee Meeting

7.30pm Monday  
26<sup>th</sup> September 2011

2 Hoya Court  
Annandale

### Dates to Remember

*To be advised*

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*Abelmoschus moschatus*  
subsp. *tuberosus*

# The Native Gardener

Newsletter of the  
Society for Growing Australian  
Plants

Townsville Branch Inc.

PO Box 363, Aitkenvale, Qld. 4814.  
[sgaptownsville.org.au](http://sgaptownsville.org.au)

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<b>Committee</b>			

Wednesday 14<sup>th</sup> September 8pm

## ***Keith Townsend***

*will present*

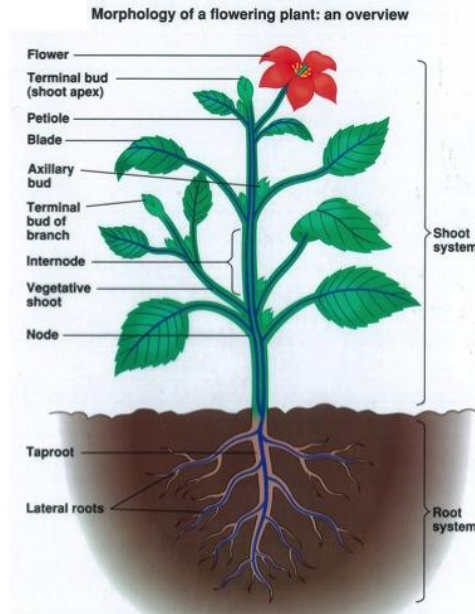
***A Feast of Green and Gold ...and other Delicacies***

*A photographic record of a recent trip to southern Queensland*

*plus*

***John's 'tech-spot' on 'Townsville Terminalia'***

# Plant Structure and Function – Root Systems

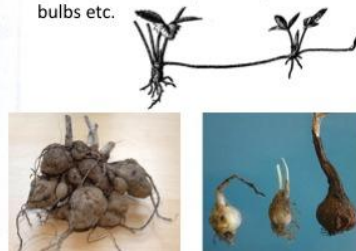


Plant Morphology is the study of the structure of plants.

The diagram shows clearly the main features of a typical plant.

Plants may reproduce sexually or asexually, and some can reproduce in both ways.

Asexual reproduction may be by such features as runners, stolons, tubers or bulbs etc.



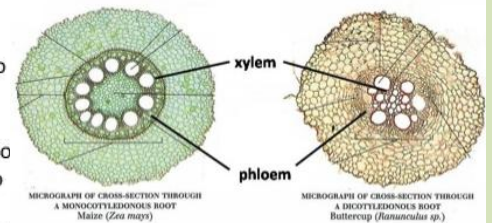
MONOCOTS				
EMBRYOS	LEAF VENATION	STEMS	ROOTS	FLOWERS
One cotyledon	Veins usually parallel	Vascular bundles usually complexly arranged	Fibrous root system	Floral parts usually in multiples of three
DICOTS				
Two cotyledons	Veins usually netlike	Vascular bundles usually arranged in ring	Taproot usually present	Floral parts usually in multiples of four or five

## Root Systems

1. Xylem cells conduct water and nutrients from the roots up to other parts of the plant.
2. Phloem cells conduct nutrients produced by photosynthesis, from the leaves down to other parts of the plant.

Note the solid band of strong cells surrounding the conductive tissue – roots are subject to high pressures and need to be able to force their way through soil structure, rocks etc. to seek water and food sources, and to strongly anchor the plant.

Note the difference in structure between these and a trunk, which has a relatively thin sapwood, but a heavy and strong heartwood to support the above ground portion of the plant.



- Apart from the primary root system, some plants develop other types of roots for special purposes.

- Adventitious roots are those which arise from stem tissue.

Pandanus and many mangroves have prop roots which assist to hold the plant upright in moist or muddy conditions.



Climbing plants often develop roots from the nodes to enable them to cling to any available surface.

Large figs grow aerial roots from overhanging branches for both support and to widen the area of nutritional search.



- Other types of roots may include –
- Buttress Roots to assist in anchorage and support.



- Some mangroves have pneumatophores, or breathing roots to allow gas exchange in tidal situations.

- Food storage is a function of specialised roots such as tubers, eg. Sweet Potato, some Dianellas, and Dahlias.
- (Some tubers eg. Potato, are actually stem tubers rather than root tubers)



Last but not least –  
the roots which grow when we propagate from a stem cutting are  
– adventitious roots



## Ben Watts' Garden

For our August outing, Ben Watts, kindly invited us to visit his large bush garden on the bank of Black River. A long serving member of Townsville SGAP, Ben has for years treated us to a fine display of native flowers during the 'show and tell' segment of our monthly meeting and on occasions he has even eclipsed our resident horticultural guru Don Glasgow! So it was a great pleasure to see the plants in situ, and to get a feel for the amount of work and determination Ben has put in to his garden.

In order to water his garden through the long dry spells, he has excavated a dam of prodigious proportions, which is filled directly from the river by pump, and the edges of the dam have been planted with a variety of suitable species, notably *Melaleucas*, including a range of those we previously knew as *Callistemons*.

Ben with a large amount of work

A rainforest block sits adjacent and is well developed, although a little depleted courtesy of Cyclone Yasi. In fact Cyclone Yasi provided throughout the garden, not only in rehabilitation of those plants needing straightening etc., but in removing or heavily pruning those with severe damage. The whole garden is framed by quite a number of pre-existing *Eucalypts*, including *Eucalyptus platyphylla* and *Corymbia clarksoniana*, which provide a natural and complementary background for the further plantings.

The front of the block is laid out in a more formal manner and hosts a grand display of *Grevilleas* and other nursery species, which were in full flower at the time of our visit, as well as other local species such as *Bursaria tenuifolia* and *Mimusops elengi*. A particularly fine example of *Grevillea venusta* was in evidence.

Ben's layout also boasts a large shed for potting and storage, as well as extensive shelving for propagation of the plants he is so in tune with, and facilities for handling propagation and mulching materials.

Many thanks Ben, and best wishes for the continued development of a fine garden.



*Grevillea venusta*

## In flower for August

Acanthaceae

*Graptophyllum excelsum*  
*Graptophyllum ilicifolium*

Labiatae

*Westringea fruticosa*

Myoporaceae

*Eremophila maculata*

Myrtaceae

*Kunzea graniticola*  
*Melaleuca 'Hinchinbrook'*  
*Melaleuca 'Yuruga pink'*  
*Melaleuca 'Yuruga red'*  
*Sannantha papillosa*



*Grevillea pteridifolia*

Proteaceae

*Grevillea banksii* (red)  
*Grevillea 'Ivory Whip'*  
*Grevillea 'Lana Maree'*  
*Grevillea 'Pink Surprise'*  
*Grevillea pracina*  
*Grevillea pteridifolia* (NT form)  
*Grevillea venusta*

Rubiaceae

*Gardenia psidioides*  
*Gardenia 'Wenlock River'*

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**Society for Growing Australian Plants, Townsville Branch Inc.**  
**P.O. Box 363 Aitkenvale, Qld. 4814**

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**Membership Application or Renewal Form**

Membership Year is from 1<sup>st</sup> April to 31<sup>st</sup> March  
(Initial half yearly membership is available for those joining around October)

Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Email address: \_\_\_\_\_

Fee: \$ \_\_\_\_\_

If claiming full time student fee please quote Student No.....

Additional household members may be registered for a nominal fee  
of \$2.00 per person but they will not receive newsletters or magazines.

**Society for Growing Australian Plants Townsville Branch Inc ABN 32 302 397 597**  
**Membership Fees:**

New Ordinary Member	\$45.00
New Student Member	\$35.00
Renewal Ordinary	\$40.00
Renewal Student	\$30.00
New Member (Half Year from Oct.)	\$25.00
Additional Household Member	\$ 2.00
Queensland Bulletin subscription only	\$30.00

If paying electronically please quote 'Membership and your name'  
Bendigo Bank BSB 633-000 A/C 113462386

**The Society for Growing Australian Plants promotes**  
**the conservation of Australian native flora**  
**by encouraging its introduction into gardens.**

