

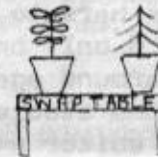
NOV.1990 No. 107

Our meetings are held in the first year centre, Trinity Bay High School, Hoare Street, Manunda. Committee/General Meeting begins at 7.00pm. Guest Speaker 8.00pm. Supper follows and visitors are most welcome.

Next COMMITTEE Meeting 27th November, 5.30pm at the Botanic Gardens.

The next GENERAL Meeting will be held on 4th December, at 7.45pm. As mentioned in our last newsletter, this will be the last meeting for the year and is planned as an informal occasion with a PLANT SWAP, trivia quiz, SLIDES (not necessarily of plants), nibbles and drinks.

QUESTIONS
???



NOTICE BOARD.

FRIENDS OF THE GARDENS are having a Christmas Party at the gardens on the 2nd December from 3 - 5pm. A monster plant sale will be conducted, admission and nibbles are free and drinks may be purchased.

ROB HINXMAN has seeds of Acacia paniculatum (White Bark Wattle) available. If you want any give him a ring on 562305 ah.

EXCURSION - Yes there is one for this month, see page 3 for details and give Theo a ring if you are going.

Following December's meeting the next SGAP meeting will be held on 5th FEBRUARY, 1991 at 7.45pm.



Brachychiton
acutifolius
(maple like
leaves)



ray-like leaves



thorny
leaves

Schaefferia actinophylla

Grevillea acutifolia

CHAIRMAN.....Dave Warmington (502482)
 HON. SECRETARY.....Elaine Pike (511422) B.H.
 TREASURER.....Peter Robbins (535036)
 NEWSLETTER.....Helen Moody (554982)
 LIB. & SALES.....Frances Boyd (552550)
 EXCURSIONS.....Bob Jago (552266)
 PUB. OFFICER.....Theo Utzinger (545266)
 DISPLAYS CO-ORD.....Dave Warmington
 TUCKEROLOGIST.....Graham Pike (511422) B.H.

EDITOR'S SPOT.

This is the final newsletter for 1990 so I will take the opportunity to wish everyone a Happy Christmas and all the best for 1991. The year has gone very quickly, hasn't it, it's hard to believe I have published nine newsletters with only one more to go (in February) before the AGM comes around again. As I have recommenced my Associate Diploma studies I will not be renominating for newsletter editor next year.

Leasie Felderhof gave a very interesting and entertaining talk on co-evolution of plants and insects at our last meeting. This field of biology is only in its infancy and there is a lot to be learnt and unravelled. It seems plants have evolved much better defense systems against insects than animals (including humans) have developed. We have to resort to man made formulae - which were probably derived from plants in the first place - to ward off midges, mosquitoes, march flies, etc. as well as the diseases they spread.

October's meeting also saw Mary Gandini stagger in under the weight of the fruit of the Nypa fruticans palm. It was literally an armful. Mary also brought in a Panadus gemmifer fruit and we also saw seed from Nauclea orientalis, Archidendron hendersoni and Pittosporum.

Many thanks to Graham Bennett for the loan of his

electric type-writer. Now if you're wondering why I'm not using it, the reason is simple, it's Saturday afternoon and the ribbon has run out.

PLANTS ON THE SWAP TABLE

Quite a diverse variety were on the table, ranging from ground covers to trees, heathland as well as rainforest.

Melaleuca compacta, *Gilbeea* sp., *Stenocarpus sinuatus*, *Uncaria glomulifera*, *Adenanthera pavonia*, *Archidendron lucyi*, *Lebrassia australiana*, *Eucalyptus miniata*, *phoenica*, *oligartha*, *Callistemon salignus*, *Doryphora aromatica*, *Gilbeea adenopetala*, *Proiphys amboinensis*, *Syzygium papryaceum*, *Euodia haplophylla*, *Archontophoenix* sp. Mt. Lewis, *Viola hederacea*, *Pratia* sp., *Erigeron karvinskianus*.

REMINDER: BRING YOUR PLANTS FOR OUR MONSTER SWAP AT DECEMBER'S MEETING.

EXCURSION DETAILS.....THEO UTZINGER

This month's excursion will be held on SATURDAY 24th November, at the southern end of Wangetti Beach at 9.00 am. Look for the signs before Hartley's Creek.

Andrew Mitchell will lead us through a complex of Mangroves, paperbarks, open forest and coastal heath. Andrew, one of our newer members, has a degree in Botany from JCU in Townsville. He has lived here for 5 - 6 years and has a keen interest in bushland and strand vegetation.

I have just recently been to the area with Andrew and can say that it is an extremely interesting place to see. My favorites were a stand of Scolopia braunii and

Myrtella obtusa. If anyone would like to read about the area, the DPI has published the Queensland Botany Bulletin No. 2, 1984, titled "The Coastal Vegetation of Mulgrave Shire" (Ellie Point to Buchan Point) which covers basically the same types of vegetation.

I hope that many members are interested and will join us on the excursion. Bring along a hat, insect repellent, water and perhaps a picnic for afterwards. Thank you, Andrew for volunteering to lead us. IF you are going on the excursion please give me a call on 545266 ah.

FLOWERING THIS MONTH,

November must be the month for blooms, there was a full page of flowers in the attendance book.

Cymbidium suave, *Austrasteensia blockii*, *Dipodium ensifolium*
Pongamia pinnata, *Grevillea robusta*,
Thyssonotus chinensis, *Murraya paniculata*, *Vittadenia australis*
Xanthostem chrysanthus, *Commersonia bartramia*

Syzygium forte, *Callistemon Ebor*, *polandi* (C. Flattery), *Injune*,

C. Wilder ness White, *Tinaroo*, *salignus*, *Cananga odorata*

Pandorea pandorana, *Jasminum aemulum*, *Dendrobium discolor*

Cananga odorata, *Archidendron lucyi*, *hendersoni*, *Randia*

fitzalanii, *Faradaya splendida*, *Leptospermum flavescens*,

Walsh's Pyramid, *petersonianii*, *wooroonoorum*, *Oreocallis*

wickhamii, *Curcuma australasica*, *Kreyagigia multiflora*

Eustrephus latifolius, *Hibiscus superbus*, *geranoides*,

splendens, *Hibbertia banksii*, *scandens*, *Grevillea Honey Gem*,

Ned Kelly, *Banksii (red)*, *Phaleria octandra*, *Eugenia reinwardtia*

Euc. curtisii, *torrelliana*, *Syzygium cormiflorum*, *Grev. baileyana*,

Hoya, *macgillivrayi*, *nicholsoniae*, *australis*, *Dischidia major*.

FERTILISATION.....Helen Moody.

This article is the final in a series of three and is a follow-up to Pollination in October's newsletter.

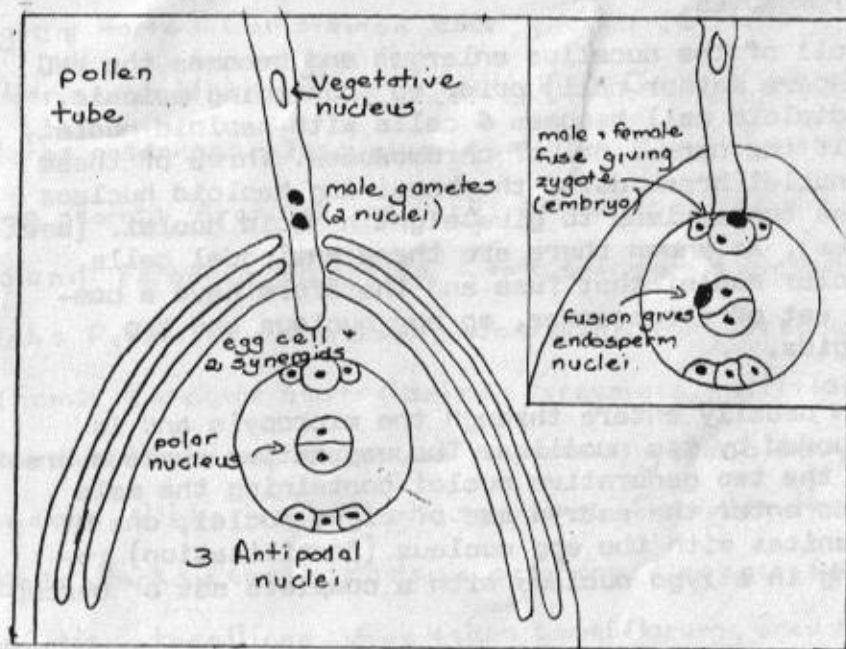
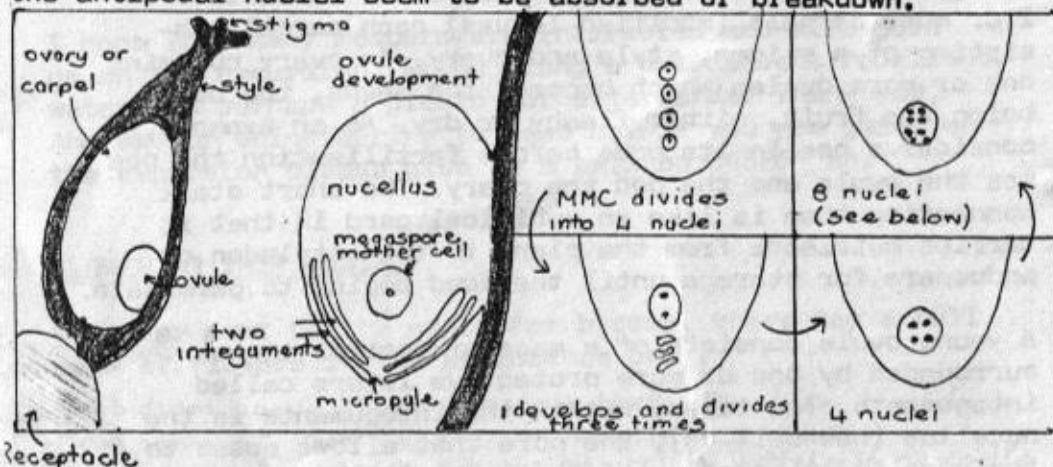
The gynoecium or female part of a flower consists of 1 or more carpels (modified leaves) each carpel consisting of a stigma, style and ovary. An ovary contains one or more ovules which become the seeds, the ovary being the fruit, either fleshy or dry. As an example, consider a pea in its pod: before fertilisation the pea was the ovule and the pod the ovary. The short stalk connecting them is like an umbilical cord in that it carries nutrients from the plant to the cotyledon or endosperm, for storage until the seed begins to germinate.

A young ovule consists of a mass of central tissue surrounded by one or more protective layers called integuments. The tissue within the integuments is the nucellus (new-cell-us), the pore that allows access to the nucellus through the integuments is the micropyle. All of these tissues are diploid ie possess a full set of chromosomes.

One cell of the nucellus enlarges and becomes the MMC (Megaspore mother cell) prior to undergoing meiosis. This diploid cell becomes 4 cells with haploid nuclei, ie half the normal no. of chromosomes. Three of these four nuclei break down, the remaining haploid nucleus divides three times to give eight haploid nuclei. (see diagram). As shown there are three antipodal cells, two polar nuclei that fuse and therefore have a complete set of chromosomes, an egg nucleus and two synergids.

Pollen usually enters through the micropyle and is surrounded by the nucellus. The vegetative nucleus breaks down, the two generative nuclei containing the male gametes enter the embryo sac of eight nuclei, one of them unites with the egg nucleus (fertilisation) resulting in a zygote nucleus with a complete set of chromo-

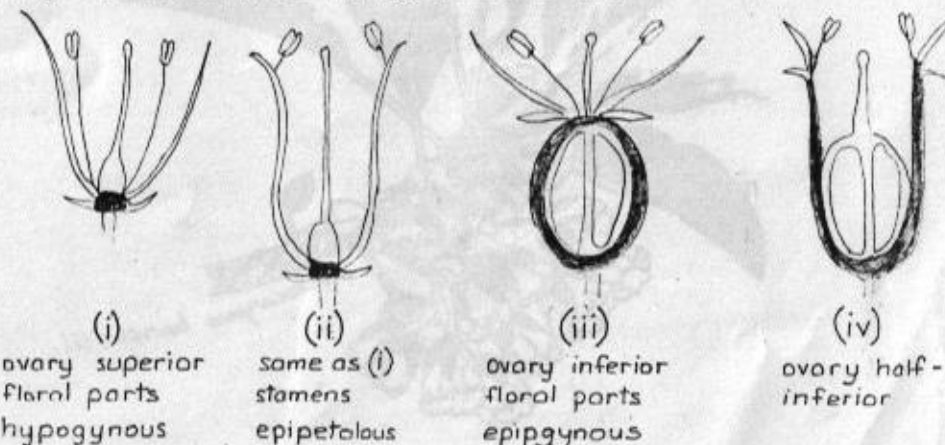
somes. This then can develop into the embryo and ultimately a new plant. The other gamete nucleus combines with the two polar nuclei to form a single triploid nucleus, which then divides to form the endosperm of the seed. After fertilisation the synergids break down and the antipodal nuclei seem to be absorbed or breakdown.



Illustrations from "Plantwatching" by M. Wilkins

Ovaries.

Flowers can have superior or inferior ovaries depending on the arrangement of the floral parts (sepals, petals and stamens). The following diagrams illustrate this, the receptacle being coloured in.



Illustrations from "How to Identify Plants" U.N.E.

Superior ovary: when the floral parts are on the receptacle beneath the ovary. The floral parts are hypogynous, literally under the gynoecium.

Inferior ovary: when the receptacle is fused to the sides and often over the top of the ovary. The floral parts arise on the top of the ovary and are said to be epigynous, i.e. upon the gynoecium.

NEWSFLASH..... A get-together in the form of a barbeque will be arranged for sometime in the new year, possibly at Glenoma Park. Stay tuned for further details.



MERRY CHRISTMAS

