



RAINFOREST STUDY GROUP

NEWSLETTER NO. 18 OCTOBER 1992
ISSN 0729-5413
Annual Subscription \$5

Group Leader
DAVID JENKINSON
"BOOYONG", RMB 155D
BYABARRA 2446

" Never in history will so much depend on what you do or do not do, for yourself, for others, for your children, for your grandchildren, and for life in its varied forms. " U.N. Secretary-General, addressing the Earth Summit at Brazil.

GROUP LEADER'S ANNUAL REPORT 1991 -- 1992

Four Newsletters were prepared and forwarded to each member. In NSW two meetings were held at members gardens, an excursion to a surviving Central coast Rainforest and an 11 day "Ramble" between Sydney and Lismore. Brisbane membership was again very active with meetings/outings held on alternate months, with one - a weekend in Nthn. NSW - in association with SGAP Far North Coast Group. Again our thanks to Ron Twaddle for organising these activities, also to Esther Taylor, who as well as collating members' lists of species in cultivation or otherwise accessible, agreed to be Seed Bank curator which has been keeping her quite busy. We gained 39 new members during the year; one resigned and 9 were deleted as their subs. were well in arrears and I suppose that they were not overly interested in our activities, or maybe in the way the Group is run. There are now 152 members (even more since 30th June), most being active in one or more aspects of our broad interests.

FINANCIAL SUMMARY

	INCOME	\$	EXPENDITURE	
Subscriptions	888		Printing & stationery	516
Donations	121		Postage	301
Bank Interest	20		Sundry	32
	<u>1029</u>			<u>849</u>
Balance B/F 1991	\$509.		Balance C/F 1992	\$689

Bank Balance 30/6/92 State Bank of NSW Eastwood Branch was \$689.

NEW MEMBERS

As is our custom, we warmly welcome the following people to our Group and trust that many mutual benefits will be gained.
Mrs. Rhonda Melzer 35 Lucas St. North Rockhampton 4701
Peter Smith 60 Nathan Tce. Yeerongpilly 4105
Jeremy & Sue Trahair 4701 56 Forestway, French's Forest 2086

PAYING SUBSCRIPTIONS WITH STAMPS

If you don't have an expensive posting cheque account (I don't), and find that bank cheques are prohibitive; don't like sending notes in the post (I think that it is pretty safe with small amounts though) - pay your subs. in postage stamps as I use plenty !. Please stick to ordinary letter rate denominations though (currently 45c) or lower values.

I SHOULD MENTION THIS AGAIN

A lot of members who have joined the Group in the past couple of years would be unaware of my comment in N / L No. 8 of April 1990 - " I make no apology that during my leadership of the Group, much emphasis will be placed on environmental issues ". Trouble is, environmental decisions are very much determined not by ecological or scientific knowledge, but by economic and therefore short-term political perceptions and objectives; so you get some of those subjects, too! While I certainly do concentrate on Rainforest plants, ecology etc. (as I must), there is a need to sometimes touch on these important, but detrimental influences. Also, it is necessary to have a broad coverage as our membership has a wide variety of interests. After all, there is an equivalent of 16 A3 pages per N / L, probably no one is interested in every item included, the intention is that those not interested in a particular matter will pass over it, but still find much of interest to enjoy. And not take umbrage or dudgeon with it !

Anyone with a different opinion, divergent/convergent views to express is more than welcome to send their comments for publication, and maybe initiate a continuing, widespread discussion. After all, this is a MEMBERS newsletter, and I really do appreciate every contribution and comment sent. There have been very many appreciative letters from the membership; but I suspect that there has been a certain amount of head-shaking from one or two people, who are probably now not with us.

NEXT MEETINGS IN BRISBANE

12 TH SEPTEMBER - SHERWOOD ARBORETUM tended by Western Suburbs SGAP with a well established rainforest plantation. Meet there at 10 am - bring lunch as is usual on these outings
2 ND NOVEMBER Details not yet finalised but phone Ron Twaddle 07 379 8105 closer to the time.

NEXT N S W MEETING IS SATURDAY 26 TH SEPTEMBER

At "The Basin" picnic area Watagan Mountain State Forest. Meet there at 10.30am. Map reference NSW Forestry Commission 'Newcastle State Forest'. The venue is approx. 50km NNW of Gosford and travelling time from northern Sydney would be around 1½ - 2 hours. DIRECTIONS - Take the Peats Ridge exit from the Newcastle Freeway. Pass through Central Mangrove & Kulnura. At the 'Letter A', turn north onto the dirt road into the forest. Follow Walkers Ridge Forest Rd for 5km approx. and then turn left onto the Basin Forest Rd. for 1km and you are there! FEATURES - The 8km 'lyrebird' track takes about 3 hrs, follows Wollombi Brook for a good while winding through Gully Rainforest with Coachwood, Calicoma and an abundance of orchids. Hopefully we will see Bulbophyllum & Dendrobium speciosum in flower. BRING - 'Rid' in case there are leaches, lunch, drinks, folding chair and children if you like.

This is the first outing organised by Jeremy Trahair, so go along and make sure it is a big success. For more information call (02) 451 5086 A.H.

FINAL REMINDER - COMBINED NSW & QLD WEEKEND 10 TH & 11 TH OCTOBER

At 'Booyong' RMB 155 D Comboyne Rd Byabarra. DIRECTIONS - (from Wauchope) Travel west along the Oxley hwy for 11½km, turn left at signposts 'Comboyne, Byabarra & Boorgana' for 6.8km to a yellow letterbox on the LHS on a bend - take care turning into our driveway which is opposite. (From Comboyne) it is about 15 km to the village of Byabarra (don't blink) and 4km to our turn-off on the LHS opposite a yellow letterbox. FEATURES - birds, rainforest, swimming in the dam, leeches, ticks, delightful evenings, barbeque facilities and great company. Bring binoculars, plants to swap, food, drink, beverages etc. (no store in Byabarra), energy, good ideas, and oh! drinking water if you have room (it never rains here - maybe you'd like to bring some of that, too). Plenty of good dam water for showers (portable) and washing though. Our phone no. is (065) 87 1268 - please confirm you are coming - before 8am each day or on Sundays are the cheapest rates. If you'd like a map, write ASAP but you could get the NRMA Holiday Map 'Port Macquarie' which is really very well detailed. From Sydney it is a pleasant trip the 'back way' through Stroud, Gloucester and Comboyne although there is a 23km unsealed winding stretch from Winham to Comboyne. Those with a bit of time could stop off at Wingham Brush and see the results of Bush Regeneration using massive amounts of herbicide, and compare the results there with the nearby (to here) Boorgana Nature Reserve in its natural state. Remember, a couple of days on one or either side can be usefully spent here by those with time on their hands.

BRISBANES JULY OUTING TO WARD'S SCRUB

Esther Taylor and Jan Sked both gave brief details on the day which all enjoyed. Jack Mitchell took the Group through remnant rainforest along a dry creek featuring huge *Barklya syringifolia* and *Cryptocaria laevigata* - they were real giants. Jack mentioned in passing that when preparing a site containing Wattles for planting out, leave the stumps in the ground as it is only after the trees die that the roots release plant foods in their roots. If the whole tree is removed, the benefits of stored nitrogen, etc. are lost. Jan compiled a species list of the Scrub from this, and previous visits. If anyone would like details of the vegetation, I feel that contacting Jan for this would be in order. (I hope).

ADDITIONS TO OUR LIBRARY

Thank you once more Jan Sked. Jan sent the list of species at Ward's Scrub, together with details on Grace college Littoral Rainforest and the Conference Papers of last years Qld. Region State get-together.

ANY INTEREST IN A SEEDLING EXCHANGE BEING ORGANISED ?

It occured to me that something along these lines would be another very worthwhile activity benefiting members. It would have to be organised completely different to Esther's set-up though, seedlings won't keep too well out of the ground, and I have in mind a direct dealing system - a straight out swap between members or else a listing of available plants from individuals, recompense to be covering of direct costs such as postage, packing materials etc. plus a further small fee to cover incidental costs of growing and time involved in this. If you would be interested in something along these lines, would you contact me with any ideas you may have, and if you would like to be included in a possible register that could be set up ?

I feel that maybe standard sized batches would be the basis, say 5 plants of a species, which would allow for likely losses of seedlings due to time in the post and the traumas of delayed transplanting. Whatever system we decide on though, offers and requests would have to be sent to me just in time to be listed in the current Newsletters. These deadlines would be by the end of Nov., Feb., May, & Aug. to meet my self-imposed deadline in getting out each issue. Love to hear from you.

RARE OR THREATENED AUSTRALIAN PLANTS

Perhaps a follow up from this item in N'letter No. 15 would be in order. You will recollect that John Briggs of the CSIRO's Division of Plant Industry was quoted in the Book of the Month section as wondering whether our Group may be able to contribute details of species that are presently vulnerable, to his organisation. Does anybody out there have any information that they consider may be useful ? Remember that the book 'Rare or Threatened Australian Plants 1988 Revised edition' is available free of charge and that the book is the basis to which further locations (or even extinctions) would be added.

DID THE RIO EARTH SUMMIT ACHIEVE ANYTHING ?

We must all trust very strongly that it did. It was certainly organised on the grand scale though; there were 35,000 delegates from 175 countries, Australia had 49 members at the meeting, Japan had the most representatives with 800 which I suppose is only fair since they are responsible for using so much of the planets resources, and denuding the tropical rainforests, whale stocks, our Eucalypt forests and whatever else countries are willing to give away or sell cheaply.

The previous Summit was held in Stockholm 20 years ago - since then there have been 365,000 species extinctions and by all reports this was not too bad a result and would have been much more except for the measures put in place then. The mind boggles! That is the loss of 50 plants or animals each day. Much concern was expressed by many of the delegates at Rio, but it was obvious that the major consuming countries did not have their heart in implementing measures that would achieve a reduction of such problems as Greenhouse, Ozone depletion, Forest losses, Species extinction and other concerns, while even the developing countries were wary about taking such actions as would jeopardise any "growth" and "development" plans that they consider to be of benefit to their people, and quite justifiably put them at economic disadvantages compared to those that western countries refuse to modify.

SEEDS CURRENTLY AVAILABLE

From Esther Taylor (74 Francis St Raymonds Hill Ipswich 4305) --- *Abutilon auritum*, *Alectryon tomentosus*, *Alpinia caerulea*, *Brachychiton acerifolius*, *Callitris baileyii*, *Cissus antarctica*, *Cochlospermum gillivraei*, *Cordyline congesta*, *C. petiolaris*, *C. stricta*, *Croton verreauxii*, *Davidson pruriens*, *Ehretia acuminata*, *Ellatostachys nervosa*, *Erythrina vespertilio*, *Eustrephus latifolius*, *Ficus coronata*, *F. racemosa*, *F. virens*, *Flindersia australis*, *Geitnoplesium cymosum*, *Gynura drymophyllus*, *Isotoma axillaris*, *Leptospermum flavescens*, *L. liversidgeii*, *Lomatia silaifolia*, *Mallotus philippensis*, *Melaleuca quinquinerva*, *Melia azedarach* var *australasica*, *Pandorea jasminoides*, *P. sp. var. floribunda*, *Petalostigma pubescens*, *Pittosporum phylliraeoides*, *P. rhombifolium*, *Polyscias elegans*, *P. murrayi*, *Stenocarpus sinuatus*, *Syzygium ingens*, *S. oleosum*, *S. paniculatum*, *S. smithii*, *S. wilsonii*, *Toona australis*. The usual SAE with your request please. * Denotes this fruit (once *Acmena brachyandra*?) is big and heavy, so please allow for this in the stamps sent.

Esther mentioned that she has been rather busy with our seeds dept. with many requests being sent out, also with a good few people sending stock for the "bank". It is good that so much interest is now being shown, as it is indeed a most important aspect of any Study Group. Esther asks that each seed donor be thanked for these goodies as it does widen the species available. She also points out that not all of the above seed is of rainforest plants, but no matter, some of us might like to try these.

WOULDN'T HAVE THOUGHT OF ANYTHING LIKE THIS

The above was a comment made by one of the North Qld. ex-timber workers on a recent ABC "Question of Survival" segment. The scene was taken on the Atherton Tableland where a large area of degraded land was being somewhat restored by planting it out with Rainforest species. A number of people are employed on this project; a part of the compensation package that was agreed to when the sensible decision to include the so-called "wet tropics" in a World Heritage Area was forced on the then government of Qld. Replanting of previously logged sites is being carried out in an attempt to secure their viability, while cleared and now degraded land is being reafforested. The team involved in the filming of that item in 'A.Q.O.S.' seemed to be enjoying their new-found occupation, and as the man said - "we'd never have thought of doing anything like this when we worked in a timber mill or were logging in the forest". This is really a wonderful attitude, and contrasts so widely with the opposition and dissension whipped up by such people as that dreadful Geoff Munce, such a needless and blatant political action.

NEWS FROM MEMBERS

A note from Joyce Ward mentions that the Rainforest on Mt. Glorious is as luxuriant now as it was before the drought, with a recent abundance of seeds. Now, seedlings are encroaching into her garden sites featuring over 100 grafted Grevilleas plus other shrubs, although fringe species such as *Ervatamia angustisepala*, *Pavetta australiensis*, *Clerodendron floribundum* (just so touchy) *Tasmannia*, etc. are encouraged to mingle among the cultivated plants.

Fairly new members, Jeremy and Sue Trehair spent a few days in Allyn River State Forest below the Barrington Tops in NSW checking out the rainforests of the area. A highlight was an 8 hour walk along the old Gillwinga track, closed by Forestry in 1985, but a very rewarding effort, passing through Subtropical, Warm and Cool temperate R F located between Mt. Allyn (1000m) and the River.

Yet another of our members has gone into the plant business. Jan Wilton of Austimer and a son have bought an established nursery at Albion Park Rail, south of Wollongong, where they will include a wide selection of R F plants as soon as they settle in. He adds that locally, the past growing season was one of the best ever and his garden looks great. Regarding the Newsletter, Jan particularly enjoys the items "Walking Track", "Book", and "Plant" of The Month and does appreciate the diverse range of subjects covered. (Thank you Jan, your cheque is in the mail. Ed.)

Peter Hendry of Sheldon Q. penned a short note saying that he had a wonderful day at Nicholson's Nursery & Terania Creek in May, and that it was a pleasure to meet so many NSW SGAP and/or RFSG members. It was great to meet more Queenslanders and to catch up with others that some of us had previously met too Peter.

"There's not much Rainforest around here" says Dave Bray who is currently teaching at Warialda High School in the mid North of NSW. However he has located Red Ash, *Pittosporum*, *Alectryon* and *Pandorea* growing in rocky creek beds where they have been sheltered from fire, and noticed that Silky Oaks in cultivation grow well, despite locally heavy frosts and dry, hot summers. Dave is busting to get back to Elands so that he can complete the walking trail through Rainforest on his property that they marked out last Xmas. (I can hardly wait either - might get a good contribution of a "Walking Track of the Month" because Dave really does have some nice Rainforest there. Ed.)

Our newest recruit Peter Smith of Yeerongpilly Q has sent some background of his interest in Rainforest. Although now living in Brisbane as he works there, he was brought up in the Eumundi area of the Sunshine Coast, where the family still have a farm. It still retains some remnant patches of Rainforest and I am interested in expanding some of these as well as establishing a few other sites on places such as railway side verges. "Quickly realising that one could go broke buying plants, I've begun to grow them myself. I am a real novice and need all the help and advice that your Newsletters seem to offer. Fortunately there are still plenty of trees in the area to provide seeds. I just love to get them to grow!"

Regretably, Inez Armitage has decided to resign from the Group as she is still having problems from a recent illness and wants to wind back some of her activities. Although Inez has trouble getting about, she sounded her usual enthusiastic self when I phoned her recently and which quite pleased me. Inez wishes our Group well, and I am sure that we all reciprocate.

"Greenhouse" seems to be rather kind to Sweden. Thomas Carlsson reports that it was really hot there in May/June, 30c degrees for 5 weeks ! So it is really no surprise that one of his specimens of *Trema aspera* was flowering as he wrote, and that his R F garden has grown really well. He has had some good results from seed that both Esther and I have sent him. Wonder whether he has an advantage from the (unknowning) use of Stratification ? (See later item, Ed.)

Jan Sked says that she is now fully recovered from her operation, although it took quite some time to recuperate. However Jan is back at work again and is involved with an interesting project - a small botanic gardens at the Gold Coast. "We are proposing that many of the plant communities of the Gold Coast and Hinterland be recreated. Amongst the various plant communities to be featured, I have taken four particular Rainforest remnants and hope that they will be able to be reproduced. They are Bahr's Scrub near Beenleigh, Nicholl's Scrub in the Currumbin Valley, The littoral rainforest at Burleigh Heads and a strand community such as used to occur at Surfers Paradise. All these areas contain a number of rare and endangered species. We are also intending to take various species from these natural areas and show how they can be used in ornamental horticulture. This project will take many years to develop, but I hope they are able to keep to the original concept that we have designed for them."

Oliver Carter who recently joined the Group writes that he enjoys the Newsletter very much and hopes that we can maintain the standard (so keep your contributions coming, folks. Ed.) but feels that we should constantly stress that because R F trees are so valuable environmentally, they should be grown wherever conditions are suitable, while Eucalypts and other species be planted in areas unsuitable for rainforest. (Yes Oliver, very soon there must be a massive effort to commence replacing those vast areas of Rainforest destroyed by logging and other activities, Ed.)

Someone asked about Gary Sankowski and Zodiac Nursery. He sold his nursery to Yuruga and now works for them. (From Maria)

I overlooked a letter from Sam & Betty Jack in the previous N/L telling us that his new place at Bowraville (NSW Nth coast) is 6 acres ex-cattle property and that they intend to change this in due course. By early this year, they had put in over 150 plants with more to go.

Another I should have mentioned earlier is that Neil & Jane Marriott have started to plant on their new block near The Grampians, Victoria. They chose a large sheltered gully about 300 m long, with a permanent spring at the top as the site for the rainforest garden. As it is high up on a hillside it is completely frost free, and soil is a rich, chocolate decomposed granite. Even during the middle of summer, the subsoil is moist, so they are hoping for great success. Be good, having rainforest again in Victoria after all these thousands of years !

One of our stalwarts, Bill Tubbenhauer was hospitalised in Brisbane for a considerable time after fairly hefty throat surgery. Complications set in soon after the operation, but things now seem to have settled down. Bill is now having, almost daily, radiotherapy which will require he and Alison to remain in Bris. for a lengthy time. They managed to get down to Meerschaum Vale for a long weekend in August, catching up with the local SGAP Group and checking up on their own rainforest garden.

We all, of course send our very best wishes to everyone who is on the sick list, and trust that recoveries will be speedy as well as permanent.

Even more news from Maria Pesavento ! There is a proposal for a Tropical Botanic Gardens at Mareeba, NQ. which I should probably go into more detail in a later N'Letter, But briefly, Maria says that Geoff. Tracey is still lobbying the Federal Govt. for funding. The idea is exciting, there is a suitable site at Mreeba, and some committed and knowledgeable workers are just itching to start work. Presently the site is used as the governments Wet Tropics nursery, at least that is a beginning.

BIG BUSINESS IS GOING GREEN ?

I almost fell off my chair when ABC news reported that members of the Business Council of Aust. realised the importance of the environment and would ensure that future decisions and activities would be influenced by Green concerns. My surprise was further increased when the name of a person who greatly influenced the groups' decision was mentioned; the wealthy and influential Hugh Morgan an outspoken head of a string of large mining companies who, so often in the past, has been most critical of many measures that were proposed to protect our environment. His outlook and attitudes have previously been extremely "dry" with strong "new right" and economic rationalist connections.

During a follow up radio interview the next morning, Council's spokesman almost immediately criticised our present Federal Government for its past decision to protect Coronation Hill and that area of Kakadu National Park that would probably been affected by its exploitation, and for the Governments refusal to approve APM's highly polluting Wesley Vale paper mill because of the poor technology that was to be used.

Industry should certainly get our full support when it does prove, by action instead of words, that it is indeed genuine in its

POLLINATION OF PAW PAWS / TROPICAL RAINFOREST / AND HAWK MOTHS — A SYMBIOTIC RELATIONSHIP ?

We have received some very interesting information, together with a request for further assistance on this relationship, from Anne Garrett of Rockhampton. Local member Neil Hoy suggested that she write to us because of the long and deep involvement of many of our Group in Tropical Rainforest and its ecology. Anne advises -

" I am currently studying the pollination of papaws (*Carica papaya*) here at the University of Rockhampton. Common belief is that wind brings about the transfer of pollen from male to female flowers. Besides tests for windborne pollen and apomixis (fruitset without fertilisation) I was able to observe and catch 5 different hawkmoth species (Sphingids) and am convinced of their pollination involvement, if not even being sole pollinators. These species which all belong to the subfamily Macroglossum are *Macroglossum hirundo* *Macroglossum micaceum* *Hippotion velox* *Nephele subrana* *Theretra oldenlandiae firmata*.

All have been observed flying at dusk, collecting nectar from male papaw flowers and paying occasional visits to female flowers (nectarless). I could observe these moths from February (first sighting) until early June, although hawkmoths would be around well before february.

These species are wet season and temperature connected. Egglaying (singular), larval development (and maybe even mating of these hawkmoths) takes place predominantly on native but also with some imported plant species. Being tropical moth species (all species known to occur in North Eastern Qld) host plants most likely will be tropical rainforest species.

I would be most interested to know if anyone in your Group would have any information about the following:

1. papaw patches or individual plants in the vicinity of tropical rainforests
2. if hawkmoth larvae/-eggs have been observed on host plants mentioned
3. or on other host plants
4. if host plants are in flower, while moth reproduction takes place
5. if host plants have white/light yellow flowers- are scented- are dioecious/monoecious etc. If dioecious, does flower dimorphis occur (eg o flower maybe bigger than o flower?), are they nectar secreting (if dioecious: both or individual sex only), flowershape (if funnel shape how long approx. corolla tube and how many petals).

Hawkmoths lay their eggs singly on the underside of host plant leaves and larval stages always show a dorsal 'horn' on last abdominal segment (very distinct).

If it should turn out that hawkmoths, either generally or of a particular individual species, are sole pollinators of papaws, it should very well have an influence on the perception of native rainforest amongst the farming community and their values towards it

MOTH SPECIES	HOST PLANTS (known, probable or --- any ideas ???)
<i>Macroglossum hirundo</i>	<i>Morinda jasminoides</i> , <i>Canthium odoratum</i> , <i>Coelospermum reticulatum</i> , <i>Pavetta australiensis</i> , <i>Psychotria loniceroides</i> , <i>Coprosma repens</i> . ALL IN FAMILY RUBIACEAE.
<i>Macroglossum micaceum</i>	Not known. No records available - would members be aware of host species ?
<i>Hippotion velox</i>	<i>Ipomea batatas</i> (Sweet Potato - Fiji) <i>Pisonia aculeata</i> , <i>P. umbellifera</i> , <i>Alocasia indica</i> (Fiji), and most likely spp. in the families RUBIACEAE, APOCYNACEAE, VITACEAE, ONAGRACEAE, DILLENACEAE, BIGNONIACEAE, BALSAMINACEAE, LECTYTHIDACEAE, & POLYGONACEAE.
<i>Nephele subrana</i>	<i>Carissa ovata</i> is the only host known to me.
<i>Theretra oldenlandiae firmata</i>	<i>Coelospermum reticulatum</i> , <i>Richardia brasiliensis</i> , <i>R. scabra</i> , <i>Pentas lanceolata</i> , <i>Alocasia macrorrhizos</i> , <i>Arum Lily</i> , <i>Cayratia clematidea</i> , <i>Cissus oblonga</i> , <i>C. opaca</i> , <i>Ampelocissus acetosa</i> , <i>A. gardeneri</i> , <i>Vitis rinifera</i> (Ornamental Grape), <i>Ludwigia hyssopifolia</i> , <i>Epilobium</i> spp., <i>Fudua</i> sp., <i>Clarkia</i> sp., <i>Ludwigia octoralis</i> , <i>Planchonia careya</i> , <i>Hibbertia scandens</i> , <i>Clystostoma callistegroides</i> , <i>Balsam/Impatiens balsamina</i> , <i>B. oliveri</i> , <i>B. wallerana</i> , (and probably) <i>Ipomea batatas</i>

FOR A RAINFOREST ENTHUSIAST : Are there, on first sight of this hostplant list, overall patterns in hostplant choice ? (e.g. flower colour, scent, diocey, mainly shrubs or herbs, flowertiming seasonal, flowers opening daily, nectar, flower shape, leaf shape, any other common attributes ?) And are these plants common in Rainforest ?

Any information towards this subject is most welcome. ANNE GARRETT DEPT OF BIOLOGY UNIVERSTY OF CENTRAL QLD. ROCKHAMPTON Q 4702 "

Members able to help this lady in her research should contact her direct, but please send details to me so that I may publish additional information in later Newsletters. Ed.

TREATMENT OF SEED BEFORE SOWING -- TRY " STRATIFICATION "

Hands up those people who know what stratification means. I do (now) because I have just read about it in a book all about growing nuts in Australia. Among much of the useful information available in this reference was the comment that seed from most temperate fruits, including nuts, usually does not readily germinate immediately after removal from a parent plant but requires stratification. This occurs in nature by the fruit falling into a litter layer, often fallen leaves from the parent plant for in many cases fruit is held on a shrub or tree until it goes into dormancy when the fruit drops off, and is soon covered by leaves from its deciduous habit.

It was suggested that very good results can be achieved from either commercial or amateur propagation attempts by placing collected seed in the 'fridge (NOT the freezer section) for 6 - 8 weeks. Place the seed in a plastic bag with some moist sawdust, seal, and check regularly to ensure that seed is in good condition - and neither too wet or it will most likely rot, nor too dry which will prevent germination after sowing. Do not freeze.

Sounds pretty logical to me. Has anyone had any experience of this method, and how was the success ? My one and only attempt using this idea was somewhat inadvertent; I collected some seed of *Geissos benthami*, put it aside, came across it about 6 months later, placed it in a plastic bag in the freezer over winter and sowed a quantity in early spring. Results were great - almost 100% germination but I soon blew it by allowing the seedlings to dry out. However one has managed to survive to this day.

The theory sounds good to me. Perhaps some of you out there may care to try out this idea during the present peak growing season and send your results to me so that we can recommend or otherwise pass on any comments to our members.

ROOT KNOT NEMATODES OR EEL WORMS CAN BE A BIG PROBLEM

Has anyone else had any experiences with these ? Articles on Nematodes often appear in "Australian Plants", "NSW Plants", and "The Organic Growing" journals and various ways to reduce their effects are suggested, ideas such as particular fertilizer formulas, growing Marigolds and/ or Stinking Roger, crop rotation, etc. We suffered from this scourge at Eastwood in the vegie garden, and it certainly reduced the range of species we could grow, and often reduced the yield of our produce. We made sure that we would not bring them up to Byabarra so scrubbed all the garden tools, didn't transplant anything for here and sterilized whatever we thought could hold soil and thus transfer any dormant nematodes or their eggs (that are able to remain in the soil for up to ten years) But to no avail; they were here all the time! Looking through a CSIRO booklet "What is wrong with my soil", I came across another recommendation - the use of a plant as a "trap crop" - *Crotalaria spectabilis*. The problem here is that none of the commercial seed suppliers stock this species and the local rural stores are unable to help. Would any of you members be growing this *Crotalaria* or know of a source of seed ? I'd be everlastingly grateful to be able to buy or otherwise obtain some to try out and if it does work to eventually successfully grow Silver Beet, Tomatoes and Cucumbers and obtain reasonable crops from them.

As you will gather from the previous mention of Nematodes, we grow a fair few vegies and hope to eventually be almost self-sufficient here at "Booyong" and from time to time have a surplus which we would sell locally at weekend markets and maybe a roadside stall. We've always tried to avoid using chemicals and have used very little of these over the years, and always use animal manures so we are almost 100% organic. To match this we tend to grow mostly from seed of the old varieties such as Burwood Prize Tomatoes, Mignonette Lettuce, Brown Beauty Beans etc. and subscribe to 'The Seed Savers Network' of P O Box 975 Byron Bay 2481 who, as the name implies, have created a network of growers who one way or another acquire old varieties of seeds, mainly vegetables but also other plants. These people grow from seed of their choice (or which may have been sent by the Network) and leave some plants until maturity, harvest the seeds which are then passed on to others and an increased quantity returned to the Network for distribution to additional people, any surplus is then sent overseas to third world countries to help them improve their lot. (Seed Savers have probably around 1000 varieties/species on their accession book, none of them hybrids and many that have been handed down over the generations and remaining in the one family until acquired by the SSN and more widely distributed). The Network issues 2 useful journals each year to members.

The idea of using the old varieties of seed is that they are very much more hardy and vigorous, more reliable and don't need the chemicals that modern day hybrids and other overdeveloped forms really do require. You all must have heard of the increasing tendency of the chemical giants to acquire seed companies so that captive markets can be gained, where the mutual development of plants, fertilizers, pesticides and herbicides creates dependency and greater profits, yet less flavoursome food. Anyone for Bowen Tomatoes?

Anyway, this massive preamble merely leads up to an offer. Is anyone interested in trying some of the seed that I have available? Either on a "swap" basis which I'd appreciate, or otherwise just send a SAE to cover the postage and your request and let's get some more varieties into wider circulation. Available are a number of tomatoes, climbing beans, lettuce, pumpkin, cucumber and sundry other salad and cookin vegetables. Be a good idea to list some alternatives though as some stock is rather limited. We need a good strong, sturdy and healthy membership to be able to handle all the trials & tribulations of Rainforesting!

A PROBLEM SOLVED --- SCALE AND SOOT ON EUGENIA WILSONII

Betty Rymer of NW Sydney wondered if anyone could help with this particular ailment on otherwise healthy and well-flowering plants. Norm McCarthy of Toowoomba writes, listing three separate methods that work quite well.

1. During the cooler months use Lime sulphur. Available at nurseries & supermarkets in 500ml containers. Mix 30mls per litre of water and drench foliage (above and below leaves and branches) using a reasonably fine spray. Repeat in 3 weeks if required. As this product can burn the leaves in warmer weather, only winter application is advisable unless your local climate is reasonably cool. As this material can burn the eyes and exposed skin, use it carefully, but with common sense it is quite safe and effective.

2. 1% White Oil and 1% Malathion in water can be used in similar fashion and is very satisfactory. Malathion in this dilution is very safe, but use carefully anyway.

3. Ordinary household bleach is yet another way to treat black smut, which is the secondary process of white scale. Ants feeding on the white scale eat the honey dew, and so disfigure the leaves with the resulting "black smut". I use "Sno-White" bleach. It's a good brand, I find! Bleach deteriorates as it ages and so becomes weaker. However a 10% solution sprayed on foliage cleans up black smut. The sprayed foliage must be hosed down after half an hour as it can burn if left on longer. Protective clothing should be worn and goggles used as this solution can burn skin and eyes as well. Common sense again prevails.

Any of these three methods do their job quite well, but with any one you choose, always spray on windless days. I remember my Dad used Mum's washing water on the fruit trees and roses to keep them clean and I guess it still works.

P.S. I hope this helps lots of people with their plants!

Ed. Thank you for this information Norm, it should be of assistance to many members and I too shall note it carefully.

AND ANOTHER ONE RAISED --- WEBBING OF LEAVES

Jan Wilton asks if we could help with this problem that is presently affecting his rainforest garden at Austinmer, actually for the past year. It seems that a very small insect has been webbing masses of leaves together in tight bunches, which makes the plants look terrible as lots of dead leaves get bound up as well. Any suggestions on this one?

Ed. My only experience of this sort of thing was that a number of Tasmanian Blue Gum (or maybe Southern Blue Gums as they are very similar) *Euc. globulus* (?) saplings had bunches of leaves bound up in a type of web which turned out to be the daylight shelter of small colonies of caterpillars, that I assumed to be a species of "Bag Moths". They certainly made a mess of the foliage and eventually we rid the Reserve of them by hand removal. The larvae were from memory mid green with orange/red markings and about 15 - 20 mm long, in late winter/springtime.

DID ANYBODY SEE IT GO PAST ?

"It" was a dust storm of 3 million tonnes estimated by an erosion scientist, of valuable topsoil mostly from Nth-west NSW, but also from Sth-west Qld. that "blew away" on 13th August. Reports on that day said that the soil reached as high as 7000 m into the atmosphere and was observed from Mooree to as far as Townsville. One can only hope that some of our now arid lands that were not all that long ago covered in Rainforest may have enriched our present Tropical Rainforest or even the northern pastoral regions instead of making the oceans shallower. Think of all those oil tankers running aground, leaking their cargoes, polluting everything and destroying plant and animal life!

FROM OUR TERMEIL, NSW SOUTH COAST CORRESPONDENT

Actually it is from our member down there, Steven Tornquist. It is a delightful area near the almost untouched Durras Lakes so I'd have to assume that there is a very strong Anti-progress association there. Anyway Steve has written much that will be of interest to you all so I pass it on. Firstly Steven has sent some local *Polyscias* seed to Esther, but also has available *Ficus virens*, *F. racemosa* and a limited amount of *Cochlospermum gillivraei* & *Brachychiton australis* that a friend recently collected in Nth. Qld. Anyone wishing to try any of these should write with SAE to c/- Post Office Termeil 2539. He had good results in germinating the Figs and *Brachychiton* but a bottom heat propagator recently acquired would have helped. Fig seed was placed on top of peat-moss in small pots with a little *Osmocote* mixed in; took 2 - 3 weeks for the first seedlings to appear and they are still coming. Also had a lot of success with *Elaeocarpus* spp. *reticulatis*, *kirtonii* and *grandis* using a mix with plenty of peat-moss and putting the pots inside supermarket type plastic bags with the tops tied and kept in a warm place. It may take anywhere from 3 to 12 months to germinate, with some stragglers 2 years! I remove the bag only when the young plants need room to grow upwards. After initial watering when setting up, little attention is needed; only an occasional inspection for dryness and watering. Now have many spare *E. grandis*, although the others are locals and went to a rehabilitation project near Milton.

Steve asks "have you ever seen drying *Baloghia inophylla* (used to be *B. lucida*) fruit explode to scatter the seeds in all directions? It makes an impressive "crack" - like a firecracker. Just leave fruit in the sun for an hour or so." (Ed. Many other *Euphobiaceae* also explode - very frustrating if you've forgotten to put them into a lidded container)

He hopes to make it here for our October get-together weekend and says he has many spare plants to give away and trade as well. We'd better make it a Bring / Buy / Swap / Sell weekend.

ANYONE USED WALLABY MANURE AT ALL ?

Someone mentioned the other day that although it can be difficult to collect, it is a very good garden fertilizer and is particularly good for Hops.

HOW GREEN ARE OUR POLLIES ?

(Much of this segment has been extracted from the "Australian Financial Review" of 17 / 8 / 92 which had a small ENVIRONMENT SURVEY in its pages)

Australian politicians of all major parties constantly refer to their green credentials (remember the ads. for Labor prior to the 1990 Federal elections?) The Liberals extolled their virtues in a published "Environment Policy" brochure; they found it difficult to advertise blatantly as they had dropped their shadow Environment Minister, the very able and genuinely environment-ally aware Senator Chris Puplick to an unwinnable spot on the NSW Senate ticket. Both organisations have embraced the "all things to all people" Ecologically Sustainable Development both in the Federal and State spheres and signal that ESD is being taken seriously in many sectors of the economy. Unfortunately some members of the community see environmentalism as the ideological foe, the next target now that communism has faded as a threat. Most sensible commentators, however, recognise that environmentalism is a product of the Earth's condition, not a subversive plot.

Our present Federal Government well ought to be seen to be Green and to act accordingly - a recent ANOP poll conducted for them showed that 65% of those polled believe that the global environment continues to deteriorate. In a 10 year time frame 49% of respondents believe the state of the environment to be the most important issue, followed by unemployment (40%) and financially secure retirement (26%).

The Coalition, presently in opposition does not appear to be very Green at all, Chaney a small L liberal has just resigned as Shadow Environment Minister; this has gone to one of their long-time economic dries, Jim Carlton. Despite the Fightback! Policy's acknowledgement of some environmental concerns, like "steps Australia can take to ameliorate the worldwide impact of the Greenhouse effect", "reduction of 20% of Greenhouse gases by the year 2000", "great scope for saving in energy consumption", the Lib./NP included a 16 page analysis on why petroleum excise should be abolished (reducing its cost by 19c per litre to plebs. like you and I, and 25c to business users and reducing Government revenue by around EIGHT BILLION DOLLARS). So, of course, seeing it is so much cheaper we will use more of it, won't we ?

Most countries have fuel excise taxes or their equivalent even higher than our averages. Greenhouse gases include C O₂, nitrous oxides and other components of vehicle exhaust gases. The rate of growth of these emissions can be slowed by, among other things, more efficient use of fuel, reduction of transport needs through better planning policies, diverting travellers to more fuel-efficient public transport. or INCREASING the cost of fuel and thus encourage frugal use. However, not only is it proposed to drop the price of fossil fuel and so increase the use of cars, public transport fares will INCREASE by 15% which is the service tax component. This 15% tax will also apply to any goods being transported by rail of course, thus making railways even less competitive than currently and increasing the number of trucks on the road, resulting in a nett increase in fuel emissions.

There is one thing that we can be sure of though; neither major Party is anywhere as Green now as it will be immediately an election date is announced.

WHILE WE ARE DISCUSSING A 15% TAX ON GOODS AND SERVICES -- BEAR THIS IN MIND

This Newsletter is a service, I think it is also good but fortunately not goods, otherwise you might have to pay an increase of 30%. But seeing it is a service you are all going to have to pay a goods & services tax of 15% on your subscriptions, you know don't you ? So that's 75c on the annual subs. presently, so the cost will go up by \$1 to \$6 p.a. If that is the case the govt. will get 90c of that and for the extra dollar you pay you will receive an extra 10 cents in value. In addition, I will become a (very) unwilling tax collector for a Federal Government. And bear in mind everything you purchase, including food and clothing and whatever other necessities you choose to buy will cost all of us a minimum of 15% more; there will certainly be a mark-up for an increased profit margin and a bit more on top to cover the added costs to traders for keeping the appropriate records and collecting the taxes and passing them on to the authorities.

So go to it all you members of the Liberal Party and any of you who can grab a pollie's ear and tell them - "It's not on, pal !" If you've got plenty of money or are just too embarrassed to voice your complaint, just don't blame me, but I really hope that any economies that you may have to make doesn't include having to cut out your subscription to this Study Group.

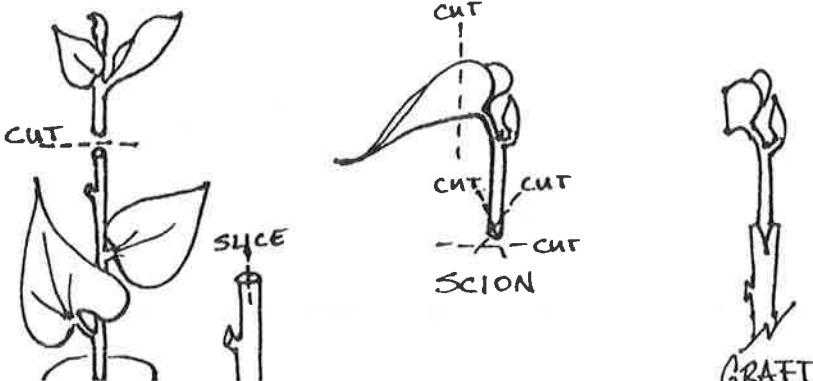
ADVANCE NOTICE -- WEEKEND CAMPOUT BARRINGTON TOPS (ALLYN RIVER STATE FOREST) MARCH 1993

Jeremy Trahair is organising this for a Group outing, tentatively 13th & 14th March plus a day or so either side. Location is on the Ranges around 3 1/2 hours north of Sydney and the camp will be at a Forestry Commission Rest Area "White Rock", right at the River among some spectacular trees - Stingers, Figs, Tamarind, Cedar and River Oaks festooned in Orchids & Ferns. Pit toilets are there, also some fireplaces and picnic tables and wonderful fresh, clear, unpolluted river water. Jeremy goes on further to extol the virtues of this place, which I will go into further detail in our next Newsletter. In the meantime, if you do need more details, phone Jeremy or Sue on (02) 451 5086 after hours.

WHAT DO ARISTOLOCHIA TAGALA, BUTTERFLIES AND GRAFTING HAVE IN COMMON ?

Very much, writes Maria Pesavento from Atherton N.Q. Maria is currently grafting these Rainforest vines for a local butterfly farm, as A. tagala, the preferred foodplant of the huge, beautiful, green Cairns Birdwing Butterfly is very susceptible to root rot. One can easily drench plants with fungicide and possibly poison themselves, the soil and the larvae as well. Or, graft A. tagala onto the resistant A. elegans (a South American species). The grafting is dead easy.

- 1: Select root-stock with a stem diameter of 3 -5 mm, use green vine not brown wood. Choose scion (top) material of the same thickness.
- 2: Using a sharp, clean razor knife, cut off the top of the root-stock 10 -20cm above ground. Leave 2 - 4 big leaves on but remove growing tips. Make a vertical slice through the cut - perhaps 1 cm deep
- 3: Matching diameters, cut a 2 - 4 cm tip of the scion (top material). Cut a deep V on bottom
- 4: Insert the V into the root-stock's vertical slice. Match at least one, preferably 2 cambium layers. Wrap graft with plumbers Teflon tape, cover tape with grafting mastic.
- 5: Place in a spot protected from sun and wind. If the scion is still green & firm after 2 weeks, you've got a " take ".



Maria, thank you very much for this detailed information on grafting. I've been wondering whether I would be able to attempt this sort of thing for a long time now, but have not had the confidence to try it out. Found the books rather confusing on their instructions for grafting techniques, but after this description I now feel that I could do it and expect to achieve a fair strike rate. (Ed.)

BUTTERFLY OF THE MONTH - BLUE TRIANGLE GRAPHIUM SARPEDON CHOREDON

The Blue Triangle is black above, with a blue triangular patch covering much of each wing's upper surface. Below, it is dark-brown with paler blue triangles, and red spots on the lower wing. It occurs along the East coast from Cape York to about 160 km south of Sydney. Also found in New Guinea and nearby islands

Larva are interesting green to yellowish hump-backed caterpillars. They feed on the introduced camphor laurel (Cinnamomum camphora) as well as the native rainforest species Cinnamomum oliveri, Cryptocaria triplinervis, C. hypospodia, Litsea reticulata, Neolitsea dealbata (all Lauraceae), Doryphora aromatica (Monimiaceae), and Planchonella laurifolia. Sometimes they are found on Avocado trees. The Pupa is bluish-green or plain green, and is attached either to the underside of a leaf or a nearby object.

REFERENCE: Common and Waterhouse 1972 Butterflies of Australia Angus and Robertson Sydney
From Judith Brass Karallee Qld.

BUTTERFLY PLANT OF THE MONTH - BROAD LEAF PAPERBARK MELALEUCA VIRIDIFLORA

Broad leaf paper barks must be the most butterfly attractive plants in my garden. This form grows about 6m tall, is dense and bushy, and has beautiful white papery bark. Flush after flush of bright red brushes show off in Autumn and Winter.

Ever seen a cloud of Birdwings, Ulysses, Jezabels and other Lepidoptera fluttering and dining on this Butterfly Bistro ? (I haven't, but gee, I'd like to. I pinched this gem from Maria Pesavento's catalogue. Thanks Maria, I hope you don't mind ? Ed.)

GARDEN OF THE MONTH - TULLYMORGAN, NEAR MACLEAN N S W (NORTH COAST)

Mal Cullen writes - "My property is about 70 km N.E. of Grafton and 35 km N.W. of Maclean, where most of my rainforest plants are growing on a south facing, gentle slope with a small, wet weather only stream. The plants are growing under an open canopy of Gums, Red Ash, Forest Oaks & Brush Ironbark Wattle (Acacia aulocarpa). "Soil" is mostly heavy clay, but while growth rates are slow, survival is quite high. From the original planting around 5 years ago of over 100 plants, I have lost less than 15. Many suffered "incredible near death experiences" during last years drought, but recovered better than I had expected since the rains arrived early this year. These are the species being cultivated -

- | | | | |
|----------------------------|------------------------------|----------------------------|--------------------------|
| Arytera divaricata | Acmena smithii | A. smithii var. minor | Acronychia laevis |
| Agathis robusta | Alocasia macrorrhiza | Araucaria cunninghamii (2) | Austromyrtus dulcis (2) |
| Backhousia citriodora | Brachychiton acerifolius (3) | B. bidwillii | B. discolor |
| Buckinghamia celsissima | Carnarvonia sp. | Ceratopetalum apetalum (3) | Cissus hypoglauca |
| Cissus sp. | Commersonia bartramia (3) | C. fraseri | Cordyline sp. (3) |
| Crinum pedunculatum (2) | Cupaniopsis foveolata | Cyathia cooperi | Davidsonia pruriens |
| Dendrobium spp. (5) | Dioscorea sp. (2) | Diploglottis australis | D. campbellii |
| Dysoxylum fraserianum | Elaeocarpus grandis | E. obovatus | E. reticulatus (2) |
| Emmenosperma alphitoniodes | Euodia elleryana | Eupomatia laurina | Ficus benjamina |
| F. coronata | F. macrophylla (2) | F. watkinsiana | Flindersia bennettiana |
| Grevillea baileyana (2) | G. hilliana | G. robusta | Harpullia arborea |
| Hibiscus geranioides | Hoya australis (2) | Hymenosporum flavum (2) | Jagera psuedorhus (2) |
| Lomandra sp. | Lepidozamia peroffskyana (2) | Livistona australis (3) | Lomatia arborescens |
| Lophostemon confertus | Melia azederach (2) | Melicope micrococca | Milletia megasperma |
| Omalanthus populifolius | Pandorea jasminoides | P. pandorana | Pittosporum ferrugineum |
| P. undulatum | Podocarpus elatus | Schefflera actinophylla | Stenocarpus sinuatus (2) |
| Syzygium moorei | S. deosum | S. bamangense | Toona australis (3) |
| Toechima dasyrrhache | Tristaniopsis laurina (2) | Zieria smithii (2) | |

NURSERIES IN NORTH QLD STOCKING RAINFOREST PLANTS

A correction to the list in Newsletter 17. Maria Pesavento points out that "Diversiflora" is wholesale only, and is not set up to sell to southern areas. However the following people may be able to ship plants elsewhere.

- Anderson Road Natives, Val Robbins, Cnr. Bruce H'way & Anderson Rd. White Rock, 4868
- Cairns Development & Export Nursery, 4 Giffin Rd. White Rock, 4868
- Green Frog Nursery, Regil Jensen, PO Box 434, Malanda, 4885
- Yuruga Nursery, Ann & Peter Radke, PO Box 220, Walkamin, 4872

CHANGES IN THE NSW TIMBER INDUSTRY.

The largest processor in the State - Boral - has just acquired the second largest (Duncans) - so placing it in a near monopoly situation and giving them very, very much power over our forests and their managers. An estimate indicates that the merged organisation will control 74% of our Northern saw milling exploitation and almost all of a proposed woodchip capacity on the North Coast. Perhaps Boral, who paid \$158 million for the forestry businesses would be a kinder operator, as Bruce Kean, the managing director stressed the company was acutely aware of environmental concerns about the timber industry saying "We are very green. We draw timber from sustainable yield forests and refuse to process limited or endangered species timbers". But a further statement "I'm sure we can develop a decent export market out of the amalgamation" is of some concern.

Still, one has to wonder about the ethics and honesty of Dunlop, as they are currently being investigated, and possibly face legal action over allegations of having socks made in China, bringing them here and labelling them "Made in Australia" prior to supplying retailers. I wonder how they used to label their rainforest timbers?

FERAL PLANTS A HUGE PROBLEM - FROM FINANCIAL REVIEW 17/8/92

"One of the next major environmental issues that is expected to be raised in Australia is the problem of noxious weeds. While this issue may not be as controversial as wood chipping, it is one of the biggest environmental problems facing Australia, according to a report commissioned by the Endangered Species Programme of the Australian National Parks and Wildlife Service.

The report, Plant Invasions: The Incidence of Environmental Weeds in Australia, says feral plants have been escaping from garden and pastures since European settlement in Australia. It estimated there were between 1,500 to 3,000 species of plants, from trees to herbs to seaweed, growing in Australia that have been introduced from other countries - some deliberately, some accidentally.

Co-author of the report, CSIRO ecologist, Dr Stella Humphries, said: 'It appears that every major ecosystem in Australia is invaded by weeds'. The 'spectacular, insidious invasion' of introduced plants are displacing native species in some habitats.

The report calls for a national co-ordinated attack although, according to Dr Humphries, prevention is the key. 'Every (foreign) species should be excluded unless it can be shown not to be harmful,' she said. The report also suggests greater restrictions need to be placed on plant imports. It describes as 'unsatisfactory' the Quarantine Act of 1908.

Many species of commercial weeds are still commercially available. For example, some 50 per cent of introduced plants found wild in Victoria were still being sold in nurseries and garden centres."

USING LANTANA EXTRACT FOR APHIDS

Did anyone else try this recipe ? I boiled up a batch and sprayed aphids that were ruining some carrot seed-heads. It was unsuccessful, so I tried again; but as the stored "juice" was somewhat scummy I had to strain it first, but this attempt, too, was ineffectual again. The aphids were grey-green and I recollect that these are difficult to control. Maybe this product will be somewhat more effective on the more common black species ?

A THREAT TO THE FOREST (AND EVERYWHERE ELSE !). CATS -- FERAL AND OTHERWISE

Has anyone else been following this sorry saga on "Australia All Over" over the past few weeks ? There was also a segment on "Green & Practical" in August. Some of the findings, surveys, statistics etc. that are being given include the following - There are an estimated six million of them in Australia : The average domestic cat is credited (a bad word, that) with killing around 30 vertebrate animals per annum : These kills are 8 reptiles, 16 birds, & 8 mammals or marsupials - not all being natives of course, there are items such as introduced birds, rats and mice. Feral cats are even worse-they kill more animals because that is their sole food source, domestics are usually well fed so they tend to kill because that is their instinct, additionally they are natural hunters - and extremely efficient ones at that. Actually the 30 animals per domestic cat are almost certainly understated, for these were actual corpse counts ; bodies that were brought home or seen in the vicinity of the dwelling, so there would have been a number of others either unseen, or eaten. These figures would be pretty factual, for the researcher received returned surveys from 709 owners during the course of his studies.

One in 3 people own a cat, plus the ferals of which there are vast numbers in some areas although they are now found everywhere in our country. Many concerned cat owners "bell" their animals which is a most thoughtful action. Unfortunately it doesn't make any difference at all - belled and unbelled figures average the same.

So - is your cat well-behaved, gentle, and well fed ? Everyone I have spoken to tells me that that is the description of their moggy, and what is more never ever kill, "and anyway they hardly ever go out of the house".

Some further details on feral cats. They weigh around 4½ / 5 kgs, but one was recently shot near the Bilby colony in western Qld. that was 8½ kg. They need to eat about 300 gms of protein each day to survive; that is a lot of small animals. Full sized wallabies are known to have been hunted and actually killed. Seventeen cats were seen in just one Coolabah tree on the Diamantina.

Governments are at long last becoming aware of these grave problems and some have even made noises about requiring cats to be registered, in the same manner as dogs. The Victorian state government was about to bring in some fairly tough legislation but the announcement of their election has brought about its deferral, or even cancellation. It is no secret that the pet food manufacturers, mostly multinational companies - bless their little souls - are deeply opposed to any controls that may curb cat ownership because that is against all of our democratic freedoms, and anyway it might even decrease their sales and cause them to reduce employment. Possibly even lead to a reduction in profits ? You old cynic !

SOME COMMENTS ON SEED COLLECTION

Dave Bray mentioned that particular trees vary in their production of viable seeds. Specifically, a *Gmelina leichhardtii* at Elands has supplied much seed over the years but few germinate. Others that he has collected from on occasions have given a good rate of success.

I wonder why this is ? Have you other, similar experiences ? These variances would make a fertile field for research.

I have found that owning your own rainforest is a big advantage in seed collecting. Probably a major one is the easy conscience that quickly develops - eases that stealing feeling ! On a more serious note though, it seems that certain species (many ?) are very frugal in seed availability at any given time; the basis may be little but not even often. Dave pointed out during a recent visit that *Elatostachys nervosa*, the green tamarind, never seems to have ripe fruit in reasonable numbers. At that time, we found only 2 seeds on a good sized plant, and a further 3 visits over the next 8 days netted one, nil, and 2 fruits respectively from it, while nearby bushes bearing fruit had none that ripened during that time, apparently.

Is ripe fruit rationed out over a very long time to ensure that some, at least, will meet ideal germination conditions, or can they be so palatable to fruit-eating birds (as *Ficus coronata* obviously is due to the few delectable, dead ripe figs generally found) that they are picked off as soon as the green casing (in the case of *E. nervosa* anyway) splits to reveal the fleshy, red aril? This aril is certainly colourful, and may be quite edible although I found the flavour rather bland, but the seed is like a small pebble - just as soft. Perhaps the birds use these seeds to define the dot of their exclamation marks when making various points to their fellows ? Anybody with other theories on such frugal fruiters as these ? Do you know of other species that offer few seeds at any particular time ? Being on the spot does enable one to watch until seed ripens, and also to make regular visits to collect enough to make sowing worthwhile.

STOP PRESS ! INFORMATION ON HEATED PROPAGATORS FROM STEVE TORNUST.

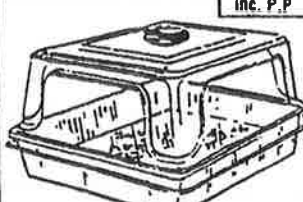
" I have enclosed an advertisement for the one that I bought by mail order. I have since learned of a four-tray model made by "Thermofilm Australia" (03 562 3455 for information) which is cheaper than my "Sage" 2 tray one. The Thermofilm models also come in 2 tray and 8 tray sizes (a tray is about 1 ft. square - or 30cm x 36cm)

I put seeds in small pots, 50cm or 75cm dia. inside the covered trays; in this way I can remove and/or add pots as seedlings reach the top. They use only a very small amount of power, but a thermometer should be used to keep temperature about 30c, + or - 5c; obviously a thermostat model is best. They come with a mat of felt-type material which goes between the propagator base and the trays, and which should be kept damp. I have found that for sub-tropical species, 25c is adequate, but 30c is faster and also suited to tropics.

Since I started using my propagator (which is always full) I have had very high germination rates - 90% usually. This of course varies with seed type and quality. My only regret is that it is only a 2-tray model which limits me to 2 dozen pots at a time. I had the space I would go for an 8 tray machine. I keep the unit in the house, on a small table under a north-facing window - the curtains cut the light about 50%. One disadvantage is that I have had to spray with Folimat insecticide every few days, as such an environment seems irresistible to insects and other pests, particularly small black flies whose larval/ grub stage in the potting mix attacks young plants at soil level. I hope these details are useful to members." Yes Steve, thank you muchly. (Ed.)

GROW TOP PROPAGATOR

ONLY \$18.50 Inc. P.P

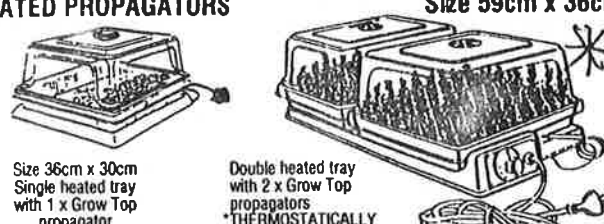


Size - 36cm x 30cm

Suitable for seed raising and propagation of cuttings

HEATED PROPAGATORS

Size 59cm x 36cm



Size 36cm x 30cm
Single heated tray with 1 x Grow Top propagator
NO THERMOSTAT
\$66 incl. P&P

Double heated tray with 2 x Grow Top propagators
*THERMOSTATICALLY CONTROLLED
\$226 incl. P&P

SAGE HORTICULTURAL
121 Herald St, Cheltenham Vic 3192
Tel. (03) 553 3777 Fax (03) 555 3013