



ASSOCIATION OF SOCIETIES FOR GROWING AUSTRALIAN PLANTS

## RAINFOREST STUDY GROUP

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Group Leader  
DAVID JENKINSON  
676 COMBOYNE RD  
BYABARRA 2446  
065 87 1268

### GROUP ANNUAL REPORT AND FINANCIAL SUMMARY

The customary 4 Newsletters were produced, and contained the usual balance of rainforest themes - horticulture, ecology, environmental matters, social, economic and political influences, and current conservation issues. As would be expected, some of the more thought provoking items proved to be somewhat controversial and elicited worthwhile points for continuing discussion. I acknowledge, and appreciate the overwhelming support of the membership for my efforts as leader and editor.

Group activities continued to be well supported in Brisbane, and I thank Peter Jurd for his organising of suitable venues, and the work involved in maintaining the enthusiasm of a local diverse membership.

The seed bank continued its popularity, and Patrick Bennett was kept pretty busy in receiving donations and sending out requests. Patrick's contribution is greatly appreciated. Pete Smith's preparation of address labels for each N/L issue is also acknowledged - saves me a lot of time - while Helen Joyce and Neil Marriott both organised RFSG displays during the year.

Membership of 167 remains at the same level as last year, and again it was good to receive many and varied contributions of experiences, reports and interesting observations for inclusion in the newsletter. The receipt of most of the Regions' regular quarterly journals is also appreciated, and it is a shame that limited space prevents the passing on of much more relevant info than I have been able to include.

#### Finances for the year -

Income	\$	Expenditure	\$
Subscriptions	958	Printing & Stationery	450
Donations	30	Postage & phone	380
Bank Interest	<u>16</u>	Bank tax	<u>3</u>
	1004		833
Balance b/f 1995	\$982	Balance c/f 1996	\$1153

Our funds remain sufficient to meet the coming years expected costs, though I must point out that as a number of members have paid advance membership for between one and 4 years, future income will be probably less than 95/96.

### WELCOME TO OUR NEW MEMBERS

CAMERON ATKINSON 5/99A Main Rd Medowie 2318. JOE FRIEND c/- P.O. The Channon 2480  
KIM GOLLAN Bulga Rd Bobin 2429 ("Dingo Ck RF Nursery") E HAYLOCK & D O'GORMAN 33 Lockwoods Rd Boronia Vic 3155  
GRAHAM McDONALD 12 Pharlap Av Mudgeeraba Q 4213 ("Toona RF Gardens") RHYS McGREGOR 14 Bellevue Cr Terrigal 2260  
LENDIA MARSHALL 96 Mt Coxcombe Rd Upper Lansdowne 2430 DARYL O'BRIEN 573 Upper brookfield Rd Upper Brookfield Q 4069  
AUDREY TAGGART 11 Woodview Rd Springfield 2250

### BRISBANES FINAL OUTING FOR THE YEAR IS 9TH NOVEMBER

Meet 9.30 am at Rollo Petrie RF walk - North Pine Country park Petrie. Enquiries Peter Jurd 3345 1445.

### NSW NEXT ACTIVITY IS ON SUNDAY 16TH FEBRUARY AT FOXGROUND NEAR BERRY

Hosted by Geoff and Ann Long to look at their RF property, south of Sydney, a remnant area of the once extensive Illawarra forests. Meet at 10am onwards at the Longs. Directions (travelling from Sydney via Princes Hwy) Go through Kiama and note turnoff to Gerringong and Gerroa. Continue along hwy for 6km and turn right. (Its on a bend). Road sign shows "Foxground 2") Go through that village for another couple of kms to 'Wild Country Park' where the tar ends and continue on the dirt for 600 metres through forest and up a steep hill. Their place is on the right, signposted "Longs". Further details - phone 519 5522 (or on the day - mobile 018 413 587)

### SEED PRESENTLY AVAILABLE IN OUR SEED BANK

Alpinia caerulea Araucaria cunninghamii Archidendron muellerianum Barklya syringifolia Brachychiton bidwillii  
Callicarpa pedunculata Cryptocaria rigida Elaeocarpus bancroftii Elattostachus nervosa Emmenosperma alphonsonioides Erythrina  
sp Pine Mtn Euodia micrococca Eustrephus latifolius Ficus obliqua Flindersia australis Grevillea baileyana G. hillii Lycopodium  
hookeri Marsdenia rostrata Notalaea longifolia Pandorea jasminoides (2 var. - white, normal) Pavetta australis Pisonia umbellifera  
Pittosporum revolutum P. undulatum Planchonella australis Podocarpus elatus Randia chartacea Stenocarpus sinuatus  
Stephania japonica Syzigium apodophyllum Recent donors; Harry Franz, Claire Shackel, Carol Bentley, Paul Brady, Richard Logan,  
Oliver Carter.

All requests to P. Bennett 20 Belmore Court Pine Mountain Q. 4306 with a stamped self-addressed envelope please.

## THE OLD HOUSE ON "BOOYONG" IS NOW AVAILABLE FOR SHORT TERM STAYS

We've had an idea in the back of our minds for some time that we should organise the property as an 'environmental centre', and now that we've basically completed bush regeneration, are declared a 'Wildlife Refuge' and the little cabin is empty, we are proceeding with the plan. The cabin, though basic is quite comfortable (cold water laid on, 'long drop' dunny, pot belly stove etc), and is in a quiet and peaceful spot amidst the trees, 200m from our house.

Byabarra is handy to Pt Macquarie (40km), State Forests, National Parks & various reserves, lots of RF and of course 'Booyong' has numerous RF & other species, birds galore and sundry other joys. There will be no charge to RFSG members as we are only too pleased to meet you, and to renew past friendships. For outsiders, we feel that maybe \$15 a family per night would cover electricity & gas, insurance, general maintenance and intend to advertise in SGAP journals, Birdo clubs etc. You are all welcome, but don't leave it too long - beat the rush!

## RFSG HAS BEEN INVITED TO BECOME INVOLVED WITH SUNRAYSIA OASIS BOTANIC GARDENS AT MILDURA VIC

They hope to include SGAP and affiliated study Groups in establishing comprehensive collections of plants from our native flora. Their invitation includes "We are a new botanic garden that will feature Oz's unique and beautiful arid-zone heathland & salt adapted plants.... However we do not intend to limit our interest to 'dry' plants, our site (152ha) provides near perfect conditions to grow perhaps the broadest spectrum of native plants of any B.G in Oz. from the tropics to the cool temperate zone. Given attention to micro-climate, we would also hope to grow some of the hardest RF canopy species.... For those plants that require it, our state of the art, computer controlled micro irrigation system gives precise control of plant nutrition and insures against water stress as young plants develop deep roots, while delivering just the right amount of water for optimum growth of non-arid adapted plants.... This district's climate produces annual growth rates that are unmatched outside the tropics."

They mention an intention to set up feature areas of "representative or botanical zones where plants of many genera & families would be integrated.... We believe to achieve this aim we would need at least 4, up to 6 plants of each species.... In the past years, we have established \$3 million worth of infrastructure on a rabbit ridden former grazing lease". They would like to show Group leaders (?representatives) over the site at a convenient time, but in the meantime forwarded me a video to give an idea of the project, but which time constraints have added to my 'things to do' pile.

Righto, I'd love to be involved, but ... time constraints ? Distance will prevent so many of us from direct involvement, perhaps some sort of support? Some of our Victorian members be interested? After all you are generally left out of the mainstream of RFSG activities, again through distance. If you can help would you contact Kaye Gambetta, Pres., PO Box 2809 Mildura 3502 and let me know too? Anyone wanting a copy of her complete letter, just ask me.

## BEEN HEAPS OF CORRESPONDENCE LATELY -- TOO MUCH FOR THIS ISSUE

Despite increasing the number of pages, there is just so much news and knowledge to be passed on, that there will be a carry over to the next N/L. So I much apologise to those who have taken the trouble to write, but I will try and ensure that they are included next time. ----- which prompts me to declare

## THE TIME HAS COME TO APPOINT A NEW LEADER

Administering the Group and preparing the N/L are taking up far too much of my time, and I am sure that a couple of you out there with definite views on how not to run a Study Group and what should be excluded from N/Ls would excel in operating the RFSG. I'd appreciate an early offer as I would like to concentrate on gathering the approx 20 local RFSG members into a more active and involved "regional" section and to act in liaison with the new leader.

CONNIE McPHERSON had a couple of winter bushwalks in Sydney's Royal N.P. The 'Walumarra Track' which includes the Bola Creek RF has been fully restored since those dreadful fires created such ruination to the Park. Some once familiar bush plants have not yet regenerated (perhaps they never will), but she will endeavour to note Rf species and their situation for later information.

ROB CROSS (Royal Botanic Gardens, Melbourne) who earlier made a request of us for N.Q. Proteaceae, advised that though he has been able to obtain a few taxa for the project, is still looking for more. If you are able to assist, do let him know. (Contact at the RBG).

VICKIE LLOYD reckons that Olivers Sassafras Cinnamomum oliveri is a perfect replacement for Lantana in RF. It propagates easily from suckers and creates a solid barrier against weeds. Vickie is at Dungog NSW with a fairly cool climate. Any experiences of suitability in warmer regions?

## ANSWERS GIVEN BY OUR CANBERRA CORRESPONDENT - CON MANN TO SOME OF MY QUESTIONS

After the 3 recent elections - what of the forests over the next couple of years ? The votes all counted; hangers of both the vanquished and the victors faded; policies and promises that were so carefully brought out and dusted off put away again, to be duly trotted out next time. Recycling at its best. Anyway you Greenies have nowhere to go now - of the approx. 50 federal electorates north of a line between Newcastle and Perth, just 2 Labor people were elected, and one of those was David Bedall who proved to be no friend of the forests with his woodchip decisions. The northern half of Oz is where all the big developments are, and mate, you haven't seen the start of them yet! (Ed. Since this conversation, that dreadful Cardwell development has been approved, and savage cuts to environmental funding were made in the budget.)

Some of the changes that will affect the environment? The new federal cabinet is made up of 1 medical, 1 diplomat, 1 finance, 8 legal, and 4 farming persons; there is not even one scientist or technical person. The other 13 ministers are also predominantly legal experts. Environment Minister is senator Robert Hill, a lawyer as is his shadow counterpart Carmen Lawrence... Victoria has one Marie Tehan who was moved from her previous portfolio - Health.... Qld too had a change of govt. the new Minister being a grazier, Brian Littleproud.

It will, one day, be mandatory that all Environment Ministers be qualified ecologists or similar experts with proven environmental backgrounds, and with some authority?

Don't hold your breath! The electors just love having lawyers represent them - I was very lucky to get in myself, not having a law degree.

What about this 'mandate' we hear so much of, What was the final vote? 43.66% of the electorate voted for our coalition as their 1st preference; 4.68% did not vote, 3.19% were informal and 48.47% voted parties and independents generally against sale. So, despite having only a large minority of electors favouring us, we ended up with a big majority of members and if anything counts, numbers in parliament has to be it.

You don't have the numbers in the Senate? But we have a mandate. (Ed. I let the conversation lapse at this point).

## BACKGROUNDS OF SOME OF OUR NEW MEMBERS

**GRAHAM McDONALD** of Mudgeeraba (Qld's Gold Coast) for years taught in state High Schools specialising in Biology, Earth Science & Horticulture, developing and implementing both the Earth Science and Horticulture curriculums. Since 1989 has been self employed running a native plant nursery specialising in tropical & STRF plants as well as rare & endangered species. Many of those plants are now growing in the LANDRAP plantings at Lyrebird Ridge Rd & Appletree Park at Springbrook; Boonaroo Park; Campbell Duncan Park, Mudgeeraba; and other places including Murray's Rd at Slack's Creek - the home of the rare Austromyrtus gonoclada... He has written a book 'Growing a Rainforest Garden' ISBN 0 646 18350 8 - first published Dec 1991. It was based on 20 years experience in growing over 500 species of RF trees, hundreds of shrubs and numerous herbaceous plants on their acre of land at Mudgeeraba. It is the most diverse collection of native RF plants anywhere in S.E.Q. As well, Graham regularly participates in plant surveys with other botanists (govt. and amateur) mostly in unexplored remote areas and has discovered several unidentified species. He regularly contributes to publications such as The Aust RF Conservation Society, SGAP Qld, and local associations.

**CAMERON ATKINSON** of Medowie (near Newcastle) was encouraged to join by Paddy Lightfoot who told him the N/I is full of interesting anecdotes concerned with a wide variety of topics in the RF vein. (Ed. Thanks Paddy - your cheque is in the post!) Cameron is another keen Syzigium collector and has about 20 species growing in pots, as well as around 50 other RF species. He has access to a wide range of nursery equipment but I gather has space for growing plants only in pots.

The Channon northern NSW. at the edge of the bygone 'Big Scrub' is where **JOE FRIEND** has settled, after spending a year at Atherton and 4 around Cairns. Much of that time was on research of the Neem tree and the many useful enviro-friendly products obtained from it, as well as 6 months working with Mossman aboriginals (Dept. Environment) and campaigning for the inclusion of the Whitfield Range into the Wet Tropics W H A. His place is an ex-permaculture farm, now overgrown. Plenty of Lantana, Privet & Camphor on course. So much there that he is starting a Landcare group to get quicker results. Has planted over 100 timber and fruit trees in newly cleared areas as well as 150 fruit trees on a cultivated couple of acres.. Joe included a lot of info on Neem that I will pass on in these pages. He trades as Neem Peace some of you will be familiar with that name.

**AUDREY TAGGART'S** interest in RF developed when she moved to NSW central coast in 1991 and found the property bordered **Rumbalara Reserve at Gosford** and after doing some bush regeneration was delighted to find most replacements were RF species. The area is a sheltered gully facing NE with a Euc/Turpentine canopy over developing RF. (Audrey included a species list of plants naturally regenerated as well as those RF plantings on her block. I shall list these in a later N/L.)

(I've often wondered whether SGAP local groups merely subscribe to Study Groups as a gesture of support, or whether some of their members genuinely refer to those N/L's). Among those who have had their interest stimulated are **ELIZABETH HAYLOCK & DON O'GORMAN** who wrote that they were delighted to find an avenue for information exchange & discussion for our wonderful RF plants and habitat. They live in the foothills of the Dandenongs near Melbourne, on a suburban block, close to the Ferntree Gully NP and only 10 minutes from Sherbrooke. the local CTRF which they greatly value. Holidays always include visits to Nat. Parks & Bot. Gardens and we now try to learn about local species and the marvellous wonders of our unique natural heritage....Are actively involved in a local community indigenous plant nursery (Operation Revegetation P/L - 60,000+ plants p.a.) as well as SGAP (Foothills Group) and issues associated with appropriate management and conservation of our unique timber resources. Our garden, never big enough, is continually evolving. We now have 3 distinct areas - local indigenous flora, Oz RF, and other. Hopefully one day, we will acquire some acreage with remnant RF and practise good stewardship over our own "Bit of Bush". In the meantime we contribute to conservation at the local level and hope to both learn from, and contribute to your N/L. "

**KIM & PETER GOLLAN** also run a nursery - 'Dingo Creek RF Nursery' - near Wingham (Taree/Byabarra area). They specialise in NSW coastal RF species but also offer fruit trees and shrubs, timber tree species and ornamentals. Kim teaches horticultural subjects at the local TAFE, while both are consultants in landscape design, farm planting projects and regeneration (bushland, RF and farm regen.) Kim was in one of our Bush Regeneration teams (at Dee Why Lagoon, Sydney) in the '80's when we all worked for the National Trust, so it was good to regain contact through our local SGAP Spring Wildflower Festival.

Also joining us while visiting the Flower Show was **JENNIFER DALY**, en route from South Aust to the wonderful RF National Park at Dorrigo. Jen loves RF, as she was raised in SE Qld, and now spends a lot of her time in NSW. I think she might like to contact some of our members for appropriate assistance on places to see.

Though not actually a member, we now have a great correspondent in Canberra. I first met **CON MANN** in 1960 when we both commenced as 'operators' at the Sydney Stock Exchange - they were exciting days. Our first large oil discovery at Moonie set a boom going but of course it was short-lived. Con had made a few contacts in the oil game and floated his own oil company which lasted only a few years before running out of money. He was keen though, and was back in the frenzied 70's, tied up with a nickel group. He did well there but I lost touch with him after being retrenched - lost my job at the same time the speculators lost their dough.

However I met up with him again during a recent visit to Sydney. Always the opportunist - though his wonderful personality, charm and wit opens many doors - and sure enough, through some of his influential contacts "got elected" last March. He has offered to pass on some environmental news and non-confidential discussions for me to publish in the N/I. Some of the stuff he has mentioned would curl your hair! (Obviously those uninterested in the topic will skip these reports, but most members will find them both interesting and amusing.)

**JOY & FRED MCKEW HAVE BEEN TO COOKTOWN CAPE TRIB & DAINTREE** Joy wrote that the area is certainly of such beauty it is well worth the long trip. They arrived home just in time to catch the May big wet which saturated their sandy ground at Logan, causing a lot of trees and shrubs to fall over. Looks like a lot of repair work in hopes of saving them. (Some of their souvenir local press cuttings and publications from NQ they thought would be of interest are quoted further on.)

**CHRISTMAS ISLAND WAS THE DESTINATION FOR GEOFFREY & ANN LONG** who very briefly commented that it is a very unusual RF. Especially noteworthy was an endemic (?) Gyrocarpus sp. and many fine Dysoxylon gaudichaudi. The bulk of the Islands vegetation was destroyed during previous Phosphate mining.

#### JAN SKED RELATES SOME OF HER CURRENT R F ACTIVITIES

"My own RF is static at present, as I just cannot fit any more plants in! I was given a nice little Cleistanthus apodus by Graham Pike of Cairns way. He grows and sells an interesting range of tropical RF species. Don't know whether to keep it in the pot, or try to squeeze it into my garden somewhere. It has very attractive weeping pinnate foliage and is, I think, an understory shrub.

Just finished revising our Pine Rivers SGAP booklet, "The Flora of the Pine Rivers Valley", it now has over 1,000 species listed. This last year or so I have been getting out and about in the Shire, both with SGAP and also doing some vegetation surveys for the Shire Council. This has enabled me to find another about 200 species to include in the book. These also include the environmental weeds that are increasing rapidly.

I have now set up a database on my computer, which makes it easier to pinpoint where specific plants have been found, both in Pine Rivers Shire, and elsewhere. I still have a lot of work to do on it, but it is very useful for quick printouts of vegetation of various areas. I have also created a database for the Rollo (Petrie Rainforest) that will enable me to locate every tree that has been planted there and check if it has actually survived and how it is growing. I particularly want to list fruiting times for all RF species, as this is very important for propagation purposes. With locations and fruiting times available, it should be possible to go out and collect whatever fruits are needed at the right times.

Son, Russell's backyard hasn't yet been planted out as a grove of Jacarandas & Camphor Laurels that have self-seeded in the area have yet to be removed. Some are quite large and will require an effort to remove them, so I am still holding the primary plantings in pots - about 50 species - and generally holding well. After that lovely lot of rain we had earlier in the year, hardly had a scrap since and the garden is bone dry again. However the countryside is still looking good. (In mid-July)

Have booked for the region SGAP conference at Rockhampton. Travelling by train, and am really looking forward to the activities, especially the camping excursion to Blackdown Tableland.

You previously mentioned our new Conservation Legislation in Qld. passed by the previous Labor government just before they went out of office. However the new Nat/Lib coalition govt do not seem to be very interested in administering it; so we now don't really know what is going to happen.

Had a lovely day last week - we left home early and drove to the **Goodnight Scrub** west of Bundaberg for the day and despite limited time there, was able to have a bit of a walk in areas near the road. It is that wonderful dry vine forest that is a feature of Central Qld. A great range of plants that would make wonderful horticultural subjects. (I am particularly attracted to the species from these dry scrubs - they are tough little trees and shrubs, many with prickly leaves and foliage). I think this scrub would make an excellent venue for a RFSG weekend. It is in the Kallewa State Forest and it may be possible to overnight camp. Must talk to Peter Jurd about it."

#### STEVE SINCLAIR TOOK A BREAK FROM HIS UNI COURSE TO WRITE

"My first 1/2 year has passed, my exam results were pretty pleasing, and I feel much more confident now and should be able to cope with things from now on. Botany is starting to get really interesting and I am already looking at things in the garden in a whole new light. It is miserably cold here in Melbourne (end July) and all the RF plants haven't grown for months. Surprisingly, I have trouble with mould on a few things - hope the warmer weather in summer will get rid of it.

Of the seeds collected in your area during my visit in January, successes have been - Alyxia ruscifolia (4), Gymnostachys anceps (5), Eustrephus latifolius (11), Pothos longipes (3), Linospadix monostachya (5), Endiandra discolor (1), Euodia micrococca (1), and 5 Cupaniopsis parvifolia (?). Hibiscus heterophylla & Cryptocaria rigida also germinated but were lost to the mould.

Planning to go to Tassie in summer - another cycling trip on a shoestring - to visit a good friend who is a field botanist, currently working in the famed Tarkine. Should get some useful tips and be shown some exciting things! Though the arrangements are shaky at present, I could be heading up to Iron Range/MacIwraith Range/Cape York with an acquaintance in a 4wd. Be great if it comes off, but the logistics could be difficult.

**ROBERT PAYNE HAS BEEN INVOLVED WITH CROMMELIN NATIVE ARBORETUM (NEAR GOSFORD NSW)** since its inception 20 years ago and writes on how the windbreak Eucalypts that were planted at that time have fared. **Crommelin** is situated on poor coastal sands (poorly fertile Quaternary Sands with phosphorus levels of only 3ppm), so those protective trees attaining heights of 15-25m is rather remarkable.

E. grandis was the fastest grower (5 plants) with an average diameter - breast height - of 318cm, closely followed by E. microcorys at 305cm (37 trees), though Brush Box Lophostemon confertus with 27 specimens only made 180cm, and E. eximia averaged just 174cm with 10 survivors. Rob added that "those mycorrhiza must be doing a great job on Flooded Gum & Tallowwood on the poor sands. Note the E. eximia is doing most poorly even though it grows locally on these soil types."

**OUR ACTIVE TASMANIAN MEMBER PHIL PARSONS** reports "summer has been warm and wet, and for 2 years running Milletia megasperma has flowered and set a few fruit. Ficus have done well with F. watkinsiana now over 2m tall. Rubus hillii is growing well, but not R. rosifolius. Backhousia myrtifolia grows well in the open and is certainly beautiful in flower. Unfortunately possums broke off the top of my Diploglottis cunninghamii. Another 2 'mainlanders' proving hardy are Cupaniopsis anacardioides (are others in the genera as tough?), and Prumnopitys ladei (is it the same as P. amara). The supposedly hardy Syzygium oleosum is struggling though S. australe have germinated from seed of my specimen.

Locally, the SCTRIF is fruiting generally, especially Nothofagus gunnii, Athrotaxis spp, and Diselma archeri. Hope to collect over Easter.

Logging madness through clearfelling and some plantation conversion continues. The famed road through the Tarkine is now open - cost is \$34 million for a gravel road to nowhere - but surprise, surprise the miners have become as keen as the loggers. Anthropocentric non consequential thinking based on prejudicial perceptions equals loss of biodiversity, environmental destruction leading to worse case?

Am planning to come north next autumn to see what I can and to collect and/or organise some RF seed, especially those with southern relatives e.g. Acradenia, Anstotelia, Anopterus & Tasmannia, as the Tas. Arboretum is beginning to develop this section. I am involved in this - we are currently maturing some stock for an initial planting of Toona australis and a Livistonia from 'Palm Valley' near Wyong NSW, followed by a range of locally successful species to try and improve the micro climate so the collection's range can widen. (Ed. As are all members, you are very welcome at 'Booyong' and I am sure other RFSG people will be of assistance during your visit.)

One of our Wollongong NSW enthusiasts, **GEOFF WARN**, mentioned that due to a local 'development', he has acquired some fill to flatten out an extreme backyard slope, a good opportunity to plant out all those potted specimens he listed in a previous N/L. He has already put in a few Wombat Berries (Eustrephus latifolius) that he finds are good eating.

"Keep up the good work with the 'environmental agitating'. It is vital that people know what is going on & don't bury their heads in the sand", says **RUTH MELZER** in a very brief note.

Fairly new member **IAN DYER of Craignish Q** senses that there is some disquiet over 'political type comments' at times but believes that the perilous state of Oz RFs means we must all be political to some extent. He suggests, as a compromise, that such comments be restricted to RF related topics. (Ed. Perhaps we should get this straight. There are few "comments" - mainly such items are reports that I pass on. Such reports are taken from one or more of the media.)

Longstanding Victorian member **LEONIE MORGAN** did appreciate the articles on Vic RFs and on species being grown in local situations.

**NOWRA (NSW) SGAP** have had to resign membership of all Study Groups this year due to small numbers and tight funds. "Our members have found the contents of your N/I both informative & interesting and hope we can renew our membership in the not too distant future"

**SHIRLEY JOHNSTON HAS MOVED TO ADELAIDE** from her northern NSW property, where she will no doubt find the vegetation somewhat different. All in this Group would wish her every happiness at her new home - and lots of luck with the new RF! Shirley also mentioned that she finds the contributions to the N/L from so many members of great interest.

Talking of moving, the rush to Byabarra is gaining momentum! **GWYNNE HOLDGATE** and **MAX** have bought a lovely 680 acres down the road from 'Booyong', a stone's throw from **Comboyne Plateau** and moved up from Wyong, near Sydney. Also **VAN KLAPHAKE** spent 3 months closer to our village, and after a brief return to Sydney, plans to be back here on a permanent basis. The rest of you desiring to move up this way had better hurry. else the place might be overcrowded.

**HELEN JOYCE** feels that SGAP's Sydney Wildflower Spectacular was another success with high public enquiry. Helen and Allan put up a RFSG display and manned it with the assistance of Audrey Taggart, Ted Teutsch and Carol Bentley. Patrick Bennett sent down a lot of surplus seed, with Audrey, and Rhoda Jeavons supplying specimen plants. Our stand was centred between a display by "Annangrove Grevilleas" (always a wonderful selection of advanced RF plants from them) and of the Fern Study Group. Helen thanks all who assisted, and so do I - particularly to the Joyces for their efforts on our behalf each year

#### BRIEF COMMENTS FROM MEMBERS ON PLANTS -- SPECIFIC AND GENERALLY

**ALANNA MOORE**, also from **The Channon** said she has 5 acres of sandy soil with remnant RF species. White Beech, Gmelina leichhardtii, are big and fast growing trees in frosty sites, even with poor soil conditions. Finger Limes are amazing this year about 50 large, thin fruits were on just one of these shrubs growing on a sandstone cliff. Seed is easy to grow (unlike Gmelina that were scrubbed, soaked, sun-dried, again soaked and dried prior to planting in autumn, finally coming up in spring). However the Beech is an excellent cabinet timber well worth the effort for germination, and deserving widespread plantation growing.

**ROD COOK** mentioned that seed of Morinda jasminoides he obtained from our previous Eastwood garden has in turn grown, flowered and seeded so was able to send seed to Patrick. In addition they are spreading plants in suitable locations through their involvement in 3 local planting/regeneration organisations, which takes up much time in their retirement.

**SUE WALSTON** called in the other day and said they recorded 31 frosts this winter on their **Marlee** property. A group of local 'landcarers' looked over the place recently, and it appeared that there was not one RF planting that looked alive. All the leaves had been burnt off everything, but it looked worse last year and almost everything recovered... Another disappointment was a winter epidemic of 'Black Death' fungal type that hit their well stocked propagation area. Many losses, and a lot of the survivors still look rather listless.. An earlier letter included - "We have mega planting plans for the next few years and have put in nearly a km of windbreak plants to start the ball rolling. Of the seed from 'Booyong'; Austromyrtus bidwillii continue to germinate; Cupaniopsis parvifolia appeared to have 100% germination and are all doing magnificently. Sadly the Endiandra sieberi got redistributed around the nursery during an invasion of rats or mice! Have replanted retrieved seed and await results."

**DEAN PRYKE** also mentioned frost problems and wonders how to overcome it, saying "My poor old Syzgium paniculatum plantings in the Southern Highlands (NSW Illawarra) have all been charred by frost despite having a green Growbag around each one. The only plants surviving are those under 2 giant Euc. fastigata trees. Perhaps Blackwood (Acacia melanoxylon) to plant first? Would shadecloth work? Does anybody have an idea to protect plants? Over to you RFSG".

**ALAN BATLEY** related the situation on Austromyrtus bidwillii seedlings that I included with a letter to him earlier this year "I was away for 2 weeks and am not sure how long your packet was sitting quietly, waiting to be collected, but the seedlings were in excellent order and are now (9th May) looking very happy in their tubes. Will keep you posted on their progress."

**MAL CULLEN** from **Maclean way (Nthn NSW)** was in the midst of the mid year floods. He feels that they were good for the river systems, giving the rivers, creeks and sundry watercourses a good flush out... He's had reports of plants surviving and thriving in very wet soil, even some that were under water for up to 8 days. Those inundated included Buckinghamia celsissima, Ficus coronata, Xanthostemon chrysanthus, and a number of Lilly pillys.

While **STEVE SINCLAIR** was here, escaping from the **Melbourne summer** earlier this year, he arrived back from **Werrikimbie way** with a heap of various seeds and fruits, with subsequent generally good propagation results. One lot was typical 'Bathurst Burrs' - those egg shaped, hairy and spiky dark brown things that collect on tents, clothes and whatever in the bush that he said were 'everywhere' After my expression of concern, Steve discarded them but since wonders whether they may have actually been Sloanea woollii fruit. He has seen drawings and descriptions of these in a couple of books and feels that I may have misguided him. Is anyone able to describe the differences in the two entirely different species?... He has also asked whether there is a smooth leaved form/species of Davidsonia after recently coming across a specimen that he collected in N.Q. earlier. (At the edge of a RF in full sun at that depressing subdivision around Hutchinsons Creek, about 20km north of Daintree.) We haven't been able to find such a plant described in likely references. Anyone help here?

## OBSERVATIONS ON GROWING PROTEACEAE IN THE GOSFORD AREA (NEAR SYDNEY)

HELEN JOYCE looks forward to the forthcoming "Aust Plants" feature on the family and relates experiences with some species they planted in their "remnant/replacement RF pocket" in a pre European-RF dominated area.

"I have about 6 Grevillea robusta, a similar number of Stenocarpus sinuatus, and one S. salignus which all grow well in the district. Have had no luck with N.Q. species Grev. baileyana or G. hilliiana. G. shiressii (a local, but perhaps not strictly RF) grow well in heavy shade here. An 18" Athertonia diversifolia is doing well since planting last spring, but we lost a 5' plant last winter, possibly because of frost in our valley. (It was not protected). Also lost at that time were a Cardwellia and Darlingia darlingiana. Buckinghamia celsissima grow slowly, but in semi-shaded areas have not flowered though 5' high. Lomatia arborescens in heavy shade is growing extremely slowly after 5 years and has never flowered.

Macadamia, both seedling and bought plants of integrifolia & tetraphylla were protected with straw the first few years and are now growing well and producing ample fruit.

Alloxylum flammium (?) was Oreocallis wickhamii - has been planted about 3 years in heavy shade, growing tall but not yet flowered. Did get a tip borer 2 years ago, a larger grub than the Waratah borer and I wonder if it is the same species that attacks Red Cedar' ( 3 Toonas close by are too tall to inspect the tips).

The Currawongs have arrived in Eastwood this week (end May) in their dozens. They sound wonderful."

## CAN MEMBERS ASSIST IN OBTAINING PLANTS SEEDS OR OFFER ADVICE

Elizabeth Haylock is particularly interested in obtaining plants, or seed to propagate Buckinghamia celsissima and an Acronychia - preferably indigenous to SE Qld, tolerant of cool winter temperatures and with edible fruit? Maybe suberosa, pubescens, imperfurata. "Our copy of RF Plants of Aust by David Jones suggests that Acronychia are hard to propagate. Does anyone know why, or what special requirements they have?"

(Ed. How about A. oblongifolia? Grows well on 'Booyong' and in the frigid heights of Boorgana and Barrington. Seems to germinate reasonably well from fresh seed, and I'd say would give good results from cuttings. A most attractive plant in the bush, and in cultivation

## A THREAT TO LITTORAL FORESTS AND OTHER COASTAL ENVIRONMENTS

There has been a fair amount of recent local publicity on the dreaded Bitou bush (Chrysanthemum monolifera). In this area a regular attack on the weed is undertaken by several voluntary community groups. Similar civic actions occur in other coastal areas in NSW while in Victoria the similar plant - Boneseed - that tends to grow further inland also attracts voluntary attempts at its control.

An item in a 'Port Macquarie Express' gave an excellent history of the plants saying - "Introduced into Victoria from South Africa more than a century ago and cultivated in the Melbourne Botanic Gardens, it was also grown in private gardens and admired for its yellow daisy-like flowers and luxuriant green foliage. By 1910 it was well established in the suburbs of Cheltenham and Brighton Beach and then spread to Mornington Peninsula.

In the early 1950's bitou bush took off for no apparent reason \* Only in Victoria has it been proclaimed a noxious weed. In NSW, it now infests 60% of the coastline, having quickly adapted to the environment. It grows readily on frontal dunes and dominates the vegetation, having no natural predators. Also contributing to its success is the extensive root system which extends several metres around the plant enabling rapid vigorous growth, and the high seed production - 50,000 in one season!

\* Co-incidentally the mineral sands industry also 'took off' in the 50's and one of the recommended species to stabilise mined beaches and dunes was bitou bush. Yet another example of our cultural cringe (exotics are always better than natives in land reclamation), associated with the greed of exploiters and associated incompetence of those nominated to regulate and administer such operations?

## UPDATE ON RALPH WOODFORD'S FIND -- ELAEOCARPUS SP. 2 'MINYON'

Ralph's original discovery of an individual specimen of this tree at Rocky Creek Dam near Lismore NSW was mentioned in a previous N/L. The current issue of the NSW NP&WS "News" Vol 2 No 2 includes an item on 2 rare plants of northern NSW Ziera prostrata and the Elaeocarpus and goes on "Until 1995 this species was only known from one tree on the edge of Rocky Creek Dam in Whian Whian SF. This specimen was located close to the water and a proposal to raise the dam would have flooded the tree. In October 1995 a further 60 trees were found along the foreshores of the dam in Compartment 79 of the Forest. Subsequently, in Nov 1995, approx 200 trees were found in Compartment 61 of Nullum SF where logging was occurring. Nearly 50% of those trees had been damaged during the logging operations, causing about 15% mortality. (Ed. Bloody disgraceful!)

This species has been predominantly found in transitional zones between RF and drier Euc. forest. It has been found at an elevation from 180m to 400m. It appears to be absent from areas that have been subject to tractor clearing and burning, indicating that it is not a widely dispersed species and its ability to colonise a site is limited.

The tree bears fertile seeds, with 3 embryos in most. Seeds have been sent to two nurseries specialising in endangered RF plant propagation, and hopefully these will germinate. Plants appear to coppice after fire damage and the seeds appear to be fire resistant. Two or 3 seasons seeds have been found in the soil surrounding mature trees. About 90% of seedlings are lost as stem diameter increases, however this needs further analysis of the data to include all known sites.

The recovery potential for this species appears to be good, given the current status. Tenders were recently called to conduct surveys for the species and to prepare a Recovery Plan. Landmark Ecological Services, who were awarded the tender, will work closely with both NP&WS and SFNSW to locate potential areas where the species occurs and to develop management prescriptions to ensure that plants are not damaged during logging operations."

## REPLANTING RAINFOREST ON THE NSW NORTH COAST -- AT GOONENGERRY NEAR MULLUMBIMBY

Ted Teutsch sent an item from 'Trees By the Million' (it was also in Big Scrub's N/L) on the regeneration of a 2 acre site along a creek line by an aware owner who is committed to ecological restoration and wants to see biodiversity on his property similar to the original Big Scrub RF. A government grant supported a team of 12 people to remove weeds and establish site specific species. A local wildlife expert recommended using fig trees to boost the rate of natural regeneration, saying "Figs are an all year-round bird attractor - the birds will bring RF seeds so eventually the site will look after itself once I've planted and maintained it." 2,000 trees of 95 RF species were planted over 4 days with help from Greening Australia and EnviTE.

## BUTTERFLY FOOD PLANT OF THE MONTH -- CAPPARIS ARBOREA THE NATIVE CAPER

While planting out a RF garden, spare a thought for attracting butterflies to the area. Often, we think of flowering plants as attractants - but of course these insects have a larval stage and often very specific host plants on which they feed. One of the best is C. arborea native from N.E. Qld to NSW central coast, upon which 5, and possibly 6 species of butterflies of the Whites & Yellows family Pieridae feed. These are 3 Pearl Whites - Eludina egnatia, E. padusa & E. parthia; the Caper White Glycestha java; Australian Gull Cepora perimale; and possibly the Albatross Appias paulina.

There is an interesting situation in the Sydney area as the Capparis extends as far south as Newcastle way, whereas all these butterflies reach Sydney at times. So a well placed Caper tree there becomes especially attractive. As this plant is slow growing, start early!

It would be interesting if anyone has experience in growing this tree, including tips on speeding its growth? Is it available in any nursery? Results of seed obtained from our Seed Bank?

(Submitted by Van Klaphake of Byabarra and/or Sydney.)

## SOME COMMENTS ON TRISTANIA NERIIFOLIA AND HAKEA TRINEURA

NORM McCARTHY offers further details on these 2 species that he earlier described. Re Tristania. He is grateful for the info that a member obtained on this plant and also thanks Paddy Lightfoot who generously presented him with a tube specimen a few years ago. This was potted on progressively, and in 1995 it flowered very well in a 25cm pot. It was then planted into a large well watered sandbed in mixed sun and shade, growing well and expected to soon flower again. Cuttings from this plant, and others from Rhoda Jeavons were slow to strike and grow, but 3 healthy plants have been obtained.

Two Hakeas are 7 years old, that with green/yellow toothbrush flowers exquisitely formed is a beauty to behold. The other is taller and broader, in full sun is heavily in bud and with expected red toothbrushes. He updated this info early October saying it was in full bloom and a beautiful sight, flowering on old wood, and well worth the 7 years of patient-expectation plus nursing them through 5 1/2 years of drought. He also mentioned Tecomanthe hillii has masses of flowers and sent a species description that will be included in a later N/L. Norm somehow picked up the C.M. Virus, similar to Ross River that is slowing him down somewhat - we all hope that he makes a full & speedy recovery.

## TO AVOID THE TICKS AND OTHER NASTIES WHILE YOU RESTORE THE BUSH

Vicki Lloyd passes on this recipe to make life easier. Buy a cheap brand of Hand and Body Lotion (500 ml pack), tip a little out and replace with 50ml TeaTree Oil (she uses 'Eureka'). Before venturing into the Bush, apply the material liberally to neck, waistline, hairline, groin and calves - as well as reducing ticks, good for leeches, mozzies, flies etc. An added bonus, spouses often reckon it improves the after effects of a hard day's work!

## THE VALUE OF MULCH CANNOT BE OVER-EMPHASISED

Member, David Noel, wrote a very informative item in WANATCA'S journal "Quandong" Vol21 No4 1995 that he has kindly allowed us to reprint in our N/L (in an abridged form).

His research was gained from tree 'crops', but it obviously has similar useful values for gardening. David states that much of the pioneer work on plant mulches was done by organic growers, though their main emphasis was on fast growing annual crops (vegetables) and mulch preferred was such as straw, grass cuttings and manure which 'break down quickly' and are basically used in a compost heap as is generally understood. Many different creatures are involved in mulch or compost breakdown - including earthworms, bacteria, algae, protozoa, nematodes, actinomycetes, and fungi. There is also involvement of larger creatures (snails, slaters, insects, and smaller reptiles or mammals) which may eat organic material and deposit it as droppings.

What makes tree crop mulching different is two things. First, trees are long-lived organisms, and effective tree crop mulches need to allow breakdown mechanisms which work over a much longer time scale than you normally think about. Second, the materials making up a tree-crop mulch should be suited to this slower time scale, which means in practise that they contain a lot more woody material. In fact, they have a much stronger resemblance to forest litter than to normal garden mulches.

All the creatures mentioned above are active in tree crop mulches, but as mulches age, earthworms and bacteria give way in importance to the true tree mulch processors - fungi. David quotes from a scientific reference how a leaf, or dead branch falling from a tree is subjected to sustained and preferential attacks by different groups of fungi, working over a period of years.

The first fungi in look for sugars and starches, mostly in sap and soft tissues. The next target, for other fungal types, is protein materials followed by hemicellulose (softer wood material). Cellulose, the main component of woody tissues, is attacked, perhaps years later, by a different group of fungi. Finally, when almost everything else is gone, another lot of fungi come in to use up the lignum, the gummy brown wood binding material (this is what discolours newsprint when exposed to light).

From go to whoa may take a long time - often 7 years, and with difficult material such as pine needles, ten years. And there are many elaborations - one of the fungi may be the preferred food of a beetle, and another fungus may live mostly on the droppings of that beetle. Many trees are known to grow far better in conjunction with 'beneficial fungi', typically referred to as mycorrhiza, which means root fungi. These fungi are actually symbiotic, or can be regarded as part of a composite tree/fungus entity, their presence may be essential to tree growth.

Virtually all nut trees are symbiotic with fungi, with the symbiotes differing from species to species - the fungus which produces Black Truffles is usually found with oaks, chestnuts, or hazelnuts. Some trees may have many fungal symbiotes - Douglas Fir is symbiotic with around 2,000 different fungi.

Everyone is familiar with the mushrooms or toadstools which show up above ground; these are only a special fruiting part produced by the main fungus, which consists of a vast penetrating mass of threads (hyphae). These threads grow within and around plant roots and throughout soil masses, and effectively transfer nutritional materials (especially phosphorus and nitrogen) between living and dead plants and the soil, over surprisingly long distances.

In my case, this mulch seems to provide the bulk of the nutrition which my trees (Macadamias) need. What I seem to have worked towards this coarse 'forest-litter' mulching system has a number of outcomes. Our native WA forests each year drop around 2 tonnes of litter per hectare, and this provides all their nutrition. My system mimics this. In addition, many of the actively growing tree roots are now in the mulch itself; the tree roots are effectively growing on top of the soil rather than within it.

This appears to make conditions in the underlying soil less important for good tree growth and yields - that is, sensitivity to soil ph, fertility, and even drainage seems to become less relevant.

Ed. Thank you David - most interesting and useful.

## FOR CONFIRMATION OF DAVID'S FINDINGS - MANY FAUNA SPECIES INHABIT "BOOYONGS" WOODHEAP

Over the years, a fair amount of debris - sawdust, rotted wood termite affected remnants, bark, small bits of wood, timber rounds, odd lengths and whatever - have built up. In the past 2 years dwellers have included - a Land Mullet's hideaway, a small Black Snake hibernating in a block, several small lizard species, scorpions & centipedes, many beetles and larvae. heaps of spiders (mostly Huntsmen) and their egg sacs, bush cockroaches, frogs, termites.

One can only imagine how vital is the habitat of forest litter to native wildlife. As well as providing food and shelter to so many insect, reptile and amphibian species, larger animals as quolls, native rats & mice, birds and very many other life forms. It is therefore a bit rich for those who exploit our forests in one way or another to constantly decry anyone trying to protect some of the undoubted ecosystems, that everything must be woodchipped 'because we can't leave logging waste to rot on the forest floor'. Even if they are totally unaware of the biodiversity value, do they have any conception of where the nutrition to nurture following generations of trees originates? Perhaps they could ask David Noel for some facts to ensure the oft-repeated term 'sustainable harvesting' does actually happen.

## DO YOUR OWN BUSH REGENERATION -- REPORTS ON THREE SUCCESSFUL PROJECTS

Val and Brian Collis of Beechwood NSW state - "After 4 years we can at last see some reward for our efforts at regenerating that part of our 3ha block which was overgrown with Lantana, large leaf and small leaf Privet, Tobacco Bush & Wandering Jew.... 90% weeds and 10% RF species..! After removing the Lantana and Privet from the tree line it was obvious there was a good mix of varieties including Acmena smithii, Alectryon subcinereus, Alphitonia excelsa, Aphananthe philippinensis, Capparis arborea, Citriobatus pauciflorus, Cryptocaria microneura, Daphnandra sp., Ehretia acuminata, Elaeocarpus obovatus, Eupomatia laurina, Ficus coronata, Flindersia schottiana, Hymenosporum flavum, Jagera pseudorhus, Mallotus philippensis, Melia azedarach, Mischocarpus sundaicus, Neolitsea dealbata, Polyscias sambucifolia, Rhodamnia rubescens, Streblus brunonianus, Tripladenia cunninghamii, and that delightful grass Stipa ramosissima.

Tackling the steep southern slope was more of a challenge - a wall of Lantana, and closer to the river flat wild Tobacco, Privet & Wandering Jew. Much of this was burnt rather than composted because of the sheer volume. During the wet summer, weeds like Bidens pilosa (cobblers peg) grew in the newly cleared areas. Despite many advocates suggesting that tobacco bush be left as a cover plant, because of its vigour we decided not to leave any of them relying instead on natural regeneration of native pioneers. This tactic appears to be producing good results and after 2 years of good autumn rains, many endemic RF trees and shrubs are now appearing and the annual weeds in the most intensive regrowth have lost their vigour. This is most apparent in areas where Omalanthus populifolius, Trema aspera, and Commersonia fraseri have grown.

There has been good germination of species within the tree line including many Mallotus philippensis despite the only seed tree being away from that area. **Being a difficult species to grow, are we on the wrong track? - it seems that seeds must have been in the ground for a year or more.** Perhaps this is part of the answer, not fresh seed, but more than a year old and going through some form of stratification prior to widespread germination?

In the meantime, follow up removal of perennials is constant but under control. Wandering Jew is another story - just continual effort we expect. Many RF species have been planted out including 70 Gmelina leichhardtii, compliments of the RFSG leader. Some are thriving while others planted in similar conditions are not. We will observe this situation and pass on the notes for inclusion in a N/L in due course."

The second project is a patch of RF within a volcanic crater in Kuringai NP near Sydney. A keen bush regenerator colleague we worked with for many years, Toni Stephenson, has been keeping records of the volunteers work there since Beryl and I left Sydney and she has summarised - "The work commenced in 1986 at the urging of several people involved in Bush Regen with the National Trust. Fortunately we were able to persuade the appropriate NP&WS people of our competence and enthusiasm and approval to commence weeding was given. Quite a few RFSG people have been involved at various times and all found the Crater a delightful and unique location, located in a comparatively small 'hollow' within a large expanse of magnificent sandstone heath flora so typical of Sydneys north. (A detailed description was included in an earlier N/L).

The first 2 years were the most intensive - 13 sessions totalling 519 person hours spent on mainly Crofton Weed removal and some patches of dense Lantana. Follow-up work from 1988 to now involved 414 person hours work over 14 days. In all, about 60 individuals were involved, though many spent just one day there, mainly to look at the place I suppose. Few Lantana seedlings were found, but Crofton is bad news - even detached leaves with roots developing from the petiole were often found. (Crofton would have taken up over 95% of the time in weeding. Interestingly, it is toxic to horses, but here it is frequently browsed - by Wallabies?)"

Ed. Since my early involvement in this project where there was a virtual forest of Native Peach Trema aspera regeneration and Trevor Dean's comment that on the last visit, seedlings of Red Cedar Toona australis were evident, there have been considerable changes and I wonder whether anyone has a detailed record of the plant succession that has occurred over the past 11 years?

Finally, after 5 years activity restoring 'Booyong's' vegetation, Beryl and I are so pleased that it is now in such a state of natural structure as it seems possible to achieve, after the vast changes our predatory society has caused to Oz. over the previous mere 200 years. Our 100 acres includes around 70% of original or re-established forest (mainly RF, but some dominant Euc. areas). Of this, some 50 acres was degraded to some extent by exotics - mainly Lantana, though small patches of Cape Ivy Senecio mikanoides required constant work. Occasional Privet, Wild Tobacco, Fireweed and Farmers Friends were removed.

The Lantana varied from occasional plants to dense thickets, particularly where past logging had caused major disturbance and at boundaries, track and paddock edges, etc. We spent 899 hours on Lantana and 67 on Senecio in bush regeneration and appreciated the assistance of quite a few visitors conned into helping. A rough estimation is that we took out 54,000 individual Lantanas, together with 203 Ticks and 327 Leaches. Probably 20 acres were badly infested with Lantana, and one patch of maybe 3 acres adjoining a dry RF was virtually all L. camara with 2 knocked about Stingers Dendrocnide photinophylla emergents, a few sundry seedlings and Commersonia fraseri suckers in that place.

Our records indicate that an average of over 1,000 Lantana plants were found per acre. And this property would be one of the least degraded freehold areas on the NSW North Coast! One can only imagine the condition of the bulk of those intensively exploited and disturbed over the years.

I tell you, we are both so glad that we are at the end of 5 years effort rather than just commencing! The older you get, the harder it is. Now we can walk through our bush at a leisurely pace on minor maintenance, and spend the bulk of the time in getting more familiar with established species, identification, and observing the different patterns of regeneration in various places.

(To date, follow-up time has been 51 hours in checking much of the forest, and removal of exotic seedlings.)

## WERRIKIMBIE (N S W) NATIONAL PARK - IT'S ALWAYS BEEN CONTROVERSIAL

The first proposal to reserve the area was made in the 1960's by the old Fauna Protection Panel (the guardian of NSW's environment!) which recognised its high conservation values. Subsequently the NP&WS investigated the area, and also recommended its dedication. As there was a counter-claim by Forestry who were interested in logging the Rf, protection was deferred. Eventually the prime target - Coachwood - earmarked for defence purposes (rifle butts) was no longer necessary, seeing that the war had ended 20 years previously, and it was decided that the locality should be preserved for posterity rather than exploited for its timber resource. Accordingly 14,253 ha was dedicated in 1975 by a newly elected State Labor govt despite opposition by the usual vested interests.

The northern half was a broad plateau, the upper catchment of the Hastings River with grassland, heath and woodland. The balance was once plateau, now deeply cut by river and streams and containing over 1,000 ha of luxuriant Rf, one of the largest stands then reserved in NSW. Around 80 ha of Antarctic Beech is somewhat unusual, as it occurs low, in the valley floors rather than higher on ridge sites where it has generally survived.

Subsequently, large additions were made in 1983/4 from vacant Crown land and revoked state forests. This resulted from the 'Rainforest Policy' (protection of) decision of the Wran govt in 1982. This was an extremely controversial policy, and though welcomed by the majority of people, was opposed by the usual vested interests. This location was included in the 203,000 ha successfully nominated for World Heritage listing in 1985 despite the customary resistance. By 1989, the Park comprised 34,914 ha - made up of 4,086 of RF. 15,322 'Moist Open Forest' (basically RF/wet sclerophyll), 844 previously cleared & 552 of disturbed remnant vegetation, and 14,110 ha of mainly Dry Open Forest, some plateau sclerophyll and a little woodland. So we have over half of the Park as pure RF or with RF affinity: the bulk of this is in the southern two thirds.

A revered guru of Rf - Alex Floyd - did extensive surveys of the higher catchments of the river system in 1980 with Parks and Forestry personnel. Four major Rf subforms were determined, made up of various associations that were grouped for simplicity under these descriptions -

(a) Subtropical/Warm Temperate Rf: Yellow Carabeen - Sassafras - Coachwood Association. Structurally this is the best developed forest, though floristically poor. Some common species are Back Booyong & Red Carabeen. Five sites were investigated. The site 'Flat Top' has several species such as Crabapple, Callicoma, & Lilly pilli more common than elsewhere and of considerable age, thereby suggesting considerable disturbance possibly up to 200 years ago. Sassafras are very tall and are becoming emergents as other trees die

(b) Subtropical/DryRf: Giant Stinging Tree - Black Booyong Association. Grading from moister sites down to grey myrtle/shatterwood on steep hot dry aspects.

(c) Warm temperate Rf: Coachwood - Sassafras Association

(d) Cool Temperate Rf: Antarctic Beech dominated. A very limited distribution of this species now remains - the few locations where it survives are Barrington/Gloucester, Hastings, Dorrigo, New England, & McPherson Range. There is about 490 ha near Banda Banda FR and 2260 ha further west in the head of the Forbes River. These upper Hastings stands contain some of the largest Nothofagus trees in existence, and is the only region where a continuous warm temperate understorey occurs under these ancient veterans.

The district was first botanised in 1884 by J H Maiden, which gives an indication of its earlier inaccessibility. Even today there are few roads or tracks penetrating its splendour. Geology indicates 3 major groupings - metamorphic, sedimentary, & igneous - all generally of fairly low fertility. This explains why the region had not been exploited by our early settlers or degraded by recent economic and technical developments.

Werrikimbie should be regarded as a great wilderness, and as well contains two of our few 'wild' rivers - the Hastings and the Forbes. See it soon but be prepared to see it closely - on foot. There are some good walking tracks, but limited vehicular access. You will need good maps, know how to use a compass, and must appreciate your own company because it is one of the few spots where you are unlikely to have to put up with your fellows.

**Further reading:** "NSW Rainforests The Nomination For The World Heritage List" Paul Adam/NPWS 1987

NSW NP&WS - various reports and records.

## THE McKEWS COLLECTED SOME NORTH QLD PUBLICATIONS FOR OUR INTEREST

Space always limits me, but items included a controversy over power to the Daintree. Seems the community is split on the proposal. There is no hospital, garbage collection, sewerage, opera house or most other basic services to that isolated place, but many do want electricity. Others say power lines will be a disaster, and that buyers bought their blocks cheaply, in full knowledge that provision of normal urban services was most unlikely. It has been said that there are 1200 house blocks scattered behind Cow Bay and Cape Trib. though only 300 are built on (thanks Mr. Quaid). If electricity is laid on further development will surely proceed and bring more people to the area, but there are no jobs. But if solar power is used "the present 1200 blocks (most unoccupied?) would require 1 million tonnes of lead acid batteries." (Ed. the paper doesn't say so, but that equals 830kg of batteries per household. That is a lot. Perhaps the locals should make enquiries further south in Qld. or even NSW to find out a system less costly to the environment & the pocket. Or maybe the Power Assn should tell the truth). The opposing side declared that if further development does proceed, half of the remaining lowland RF will be lost.

"The Northern Sun" (editor RG Starkey, published in Ravenshoe) is to me, somewhat enigmatic. Our last visit to Ravenshoe was in 1988, just after that famous 'Richardson incident' when old Graham thought his days had come, and where we were somewhat unimpressed by the signs in the CBD attacking greenies, and unsurprised by the lousy spelling of simple words. In between the expected attacks on 'conservationists & greenies', including 'are in the great unwashed category who have little use for water'. There is talk of 'and the Quaid dam (present and proposed) is poor eucalypt and ti-tree bushland with nothing to recommend it' (sic). On the need for more electricity 'In some towns it is impossible to read street signs at night when driving'. (Ed. I have that problem even when I am sober - I have to stop to read them, and I don't wear glasses either.)

For job creation, 'brass should be produced at Irvinebank using local tin & copper'. And to export jobs overseas, the Norman River at Karumba should be dredged so that live cattle can be exported to Asia' (instead of value adding and employing people in Oz abattoirs).

Thank you for this contribution to the humour column of the N/L. Joy and Fred.

On a more serious vein, they sent me a copy of "Wet Tropics - Dry Season 1996" that included an item about a govt funded initiative to commit \$23 million to the 'Daintree Rescue Program'. So far, land on the banks of Noah Creek and in the Cooper Ck catchment has been obtained and money has been used to encourage sustainable tourism, for residents to minimise impacts on private land, and removal of weeds and feral animals. Other topics were on wildlife, things to do and places to see.

### ALPHITONIA EXCELSIA - THE RED ASH - SOME COMMENTS TO BART'S QUESTION

Dorothy Meadows of Tallai says that "their house adjoins a pocket of uncleared land, on the edge of which an *Alphitonia* has seeded regularly. The easiest way for germination is to let the covering drop off, leaving the seed exposed but still attached to the branchlets. Exposure to the weather makes the red, glossy coating very brittle, easily removed by rubbing each seed between the thumb & forefinger. Plant those fresh, green seeds into a box of wet sand. (If the coating won't easily rub off, set those fruits aside in an open container to dry for a month or two before sowing. Though we haven't recorded germination results, an approx. 25% success is estimated.

Since we started planting our RF and poisoning grass and weeds, *A. excelsa* has been popping up everywhere - self seeding. This question has encouraged us to keep better propagation records and we will endeavour to collect seed regularly for our seed bank. Also, since we don't need to plant out this species on our property, we try to sell them to others, but they don't attract much enthusiasm from customers in S.E.Q/Gold Coast hinterland.

Last summer, we discovered a Possum feeding on the Ash fruits, and were very excited as we had not imagined any animals except for birds, that would eat them.

Geoff Long commented that "Berry Mountain Nursery" (south of Sydney) must have good success, as well grown specimens are always in stock. (Ed. Will they pass on their secrets though?)

### OUR SEED BANK

Leonie Morgan's was our first reply to Patricks request on Seed Bank use. As a general comment and not a matter that can be remedied, her problem is having no idea of the eventual size or requirements of many species on offer. Also isn't keen on growing something from seed and then having no subsequent use for it. Though having the Nicholsons' wonderful booklets and several 'southern references' it seems that they are not enough. (Ed. I well remember the difficulties in my early days of trying to grow unfamiliar species, and of the mistakes made in planning & planting.)

### BOOKS BOOKS BOOKS

I was fortunate enough to pick up a copy of *Rainforest Fungi of Tasmania & South-east Australia* by Fuhrer & Robinson (CSIRO + Tas Forestry) ISBN 0 643 05311 5 for a mere \$2 on a remainder table, but too dumb to also buy the other couple of copies there at the time. (They'd gone the next day). The species described are all found in CTRF, though many are also in other types. 10 different groups of fungi are covered, with good colour photographs and basic descriptions of about 120 species in 70 pages, with a 9 page introduction and a pictorial key. Good value and a most useful reference.

Sue Walston forwarded a resume of *Rainforest Remnants - proceedings of a workshop on RF rehabilitation* held in 1988 on the NSW Nth coast, edited by Stephen Phillips. Themes were Background Papers - present situation: Role of Remnants; RF rehabilitation (of sites in various stages of degradation); Case Studies - Wingham Brush, Coochumbac Island, Brunswick Heads, Victoria & Rotary Parks; Viewpoints - The Bradley Method of Bush Regen; Application of Herbicides. 22 speakers presented a topic including those well-known to most of us as Floyd, Harden, Specht, Recher and the late Milo Dunphy. Members may remember that Sue & Brian are involved in mass plantings of mainly RF species on their place near Wingham (not far from Byabarra), and are very keen to read all that is available on replanting/regen in order to minimise the chance of mistakes and years lost in restoration.

Sue very kindly sent this review of a book previously mentioned -

GROWING RAINFOREST Rainforest Restoration and Regeneration. Recommendations for the humid sub-tropical region of northern New South Wales and south east Queensland. By Robert M Kooyman, State Forests of New South Wales (Casino District) 1996. \$25

This book is clearly designed for people who want to be practically involved in the regeneration of rainforest ecosystems. Reading through it you get a strong sense that Kooyman is really trying to help the reader understand how rainforests work so that anyone attempting to undertake rainforest restoration or regeneration work has a good chance of working with nature rather than against it. This is evident in his systematic treatment of information. He begins in Chapter 1 (*Rainforest types*) with an outline of rainforest types and related climatic factors and provides good references for those who would like to study these in more detail. The book then starts to gather momentum. Chapter 2 (*Rainforest regeneration & succession*) gives a thorough description of the natural processes involved in the regeneration of the rainforest canopy after damage by natural or man-made causes. This gives a good idea of how things work and how best to reproduce these processes if you want to do more for a site than just fence it. Kooyman emphasises the problems that can occur during the regeneration process that can prevent the forest progressing through the various successional stages to its final form and gives useful examples of problems and the reasons for them. Chapter 3 (*Ex-rainforest sites*) builds on this by examining a range of typical problems found in rainforest remnants, including weed problems associated with gaps in the canopy or a high ratio of edge to established forest area, lack of seed sources particularly of late succession species, and various other issues all of which can help in analysing your own site and designing a suitable revegetation plan to suit local conditions. Chapter 4 (*Rainforest plantings*) outlines three planting models designed to minimise the effects of problems discussed in the preceding chapter. Chapter 5 (*Planting guidelines & hints*) provides a comprehensive list of actions required for the planning and implementation of rainforest regeneration programs applicable to various rainforest types. It's practical and is well worth following, particularly for large scale works, and provides information on soil preparation, planting techniques, fertilising and mulching, windbreaks, edge planting and record keeping. Chapter 6 (*Trial comparisons*) gives a critical assessment of the six trial plantings on which the three models described in Chapter 3 are based. Useful transect diagrams are also provided with species and successional information included. Chapter 7 (*Species groups & successional stages*) consists of a list of rainforest species (nearly 200) set out according to their successional stages and growth characteristics. Previously this information has been hard to find and lots of people will welcome it. It will greatly help in the development of planting plans and facilitate forward ordering of plant supplies. Chapter 8 (*Wildlife & rainforest*) lists some of the nectar and larval food plants for butterflies although the chapter title does suggest a wider cross-section of animal life. There also a useful bibliography comprising 72 references on all aspects of planning and managing rainforest projects including articles that address wildlife and ecology issues that are integral to a healthy rainforest.

I hope this work will spawn other practical research of a similar nature for rainforests outside of the humid sub-tropics, although the principles developed in the text can certainly be applied to different climatic environments. Kooyman's book really does fill a huge gap in the practical rainforest literature and I am confident it will result in more of the right trees in the right places for which people and wildlife will consciously, or unconsciously reap benefits. Thanks Robert Kooyman.

### UPDATE ON THE WOLLEMI PINE -- THEIR 'SECRET' LOCATION HAS BEEN DIVULGED

In what has been one of the most petty and disgraceful acts in recent times, a group known as 'The Public Land Users Alliance' who object to any land being set aside for non-human-use purposes - made public the location, and directions on how to get to the area where the species has survived for millions (?) of years. All authorities concerned with their protection are furious at this blatantly unethical stunt. To intensify the coverage, one of this States less credible opposition M.P's further publicised the "P.L.U.A.'s" disclosure for his own divisive purposes. It is likely that both parties acted illegally - if so, they should be prosecuted to the full extent of the law.

Subsequently, it was announced in late August that about 500 plants have been grown on from cuttings and seeds, the tallest was then 75cm and 18 months old. It, and 2 produced from cuttings were displayed at Sydneys Botanic Gardens during Sept. If commercial breeding can commence next year, small plants can be on sale in 1999. Demand is expected to be strong, so tens of thousands of plants will be required for the release. It is predicted that the pine will make an ideal pot plant.

### THE DESPISED CANE TOAD - BUFO MARINUS - IS ON THE MARCH

In the north it is travelling at an alarming rate, around 40kms p.a. and is now at the Daly River from where it is poised to invade Kakadu. Its spread is an absolute disaster to the local wildlife; many species become locally extinct, while others are so decimated it takes decades for them to regain anywhere near their original numbers. As a ranger at Lawn Hill NP explained to us... "The advance Toads are always the biggest, strongest and fittest - they have a whole new 'larder' to select from, and the pickings are easy as their prey have not evolved a survival technique against this new threat. As well, those species (generally reptiles, though birds and other animals succumb) which include frogs in their diet are killed by the toxic chemicals secreted by the Bufos which they unintentionally consume. So you lose basically all the reptiles, large numbers of invertebrates and most other amphibians, both through displacement and in competition for food resources."

Those noxious animals are also moving southward, and I am personally dismayed and terribly concerned at reports that they are breeding at Port Macquarie, less than 40 kms from "Booyong". So it looks as though their depredation could be experienced here within the year. To date we have identified 6 snake, 17 lizard and 13 frog species, all of which will be vulnerable to local extinction. This will of course have an effect on the whole ecosystem because everything relies on the environment as a whole.

Except man of course - we know that we are unique and can exist as a stand-alone species. Why else would we be so knowingly destructive, both individually and collectively, as well as by the thoughtless stupidity of our petty determination to 'improve' on nature by the introduction of as many exotic forms into every environment we can so devalue?

### IS THERE A SAFE AND EFFECTIVE ALTERNATIVE TO "ROUND UP" / GLYPHOSATE HERBICIDES ?

Sue Walston and Brian are a bit dubious about using these chemicals during their replanting/regeneration projects, as there have been many recent reports of failures and unforeseen results. Well documented examples include death and sickness of frogs in WA, weeds developing a resistance to the poison, effects on aquatic life.

They wonder whether our readers may have some personal experiences of alternative products or methods, and what results were obtained. Does anyone have scientific or factual reports that they could gain access to, or tell where they may obtain copies of such reports? Bear in mind that fairly extensive areas are involved, so such methods as hand removal, steam methods and suchlike are out. They would appreciate any info whatsoever.

### MORE NATIONAL PARKS AND WILDERNESS AREAS ANNOUNCED FOR NSW

On 23/9/96, after the RACAC process to establish a 'Comprehensive and Adequate Reserves System (as part of the National Forest agreement), it was announced that 10 new NPs covering 90,000ha and 12 wilderness areas totalling 153,000 ha will be proclaimed. Many will directly benefit and protect RF and I will list those when I obtain further details. A further 671,000ha has been set aside for up to 2 years for further investigation as to suitability for inclusion in reserves.

This decision was a serious attempt by government to balance all interests, and despite some half-hearted whingeing from a few most interest groups are pretty happy with the result. The whole matter was brought to a head immediately following the change of NSW govt, who, immediately after the election were informed of a serious situation in the forests. They were told that over-exploitation was so critical that an immediate 30% reduction in logging must be imposed. This was done last July, but in order to gain some sustainability a further 5 20% reduction in quotas will be enforced soon.

As a trade-off, \$120 million has been allocated to restructure the industry as some mills will have to close, others will require new equipment, and many forest workers will be retrained, relocated or lose their jobs. This seems to be a generous amount and figures I have seen indicate that up to \$10,000 will be granted for relocation to another job; an additional \$100 a week on top of normal retraining allowances for those leaving the industry; and other benefits both to individuals and employers.

A somewhat controversial element, something the industry has always wanted - resource security - was handed to them in the form of a 5 year guarantee, plus a 5 year extension, of log supply. A concern is that there may be just insufficient timber available in certain areas to justify this concession. If that is the case and licenses are withdrawn, compensation will be payable and the taxpayer will again have to fork out heaps for something that originally cost nothing.

All in all, these compromises should reduce confrontation and hostility in at least some of our nations forests. Will other states show some leadership and reach similar compromises, I wonder. Or will they continue to ensure such community divisiveness that so many administrations seem to thrive upon?

### SHOULD WE SELL 'OUR' TELSTRA TO SAVE THE RAINFORESTS ?

There is no dispute that Telstra is a vital communications service to our nation, nor that it makes a profit of about \$2.5 billion each year, money that is either passed back to our community or used to increase and improve services. There has been comparatively little public money invested from its inception and certainly no increase in capital since 1972, according to my enquiries.

No decision has been made to use any sale proceeds on such expenses as defence, education welfare or health, so it can only be speculated as to why the environment was singled out. The federal govt. has listed funding of \$928 million over 5 years on environmental issues, with another \$279 mill for 'sustainable agricultural initiatives'. So environmental spending of a mere \$186 million a year surely cannot justify selling off such a world class institution as Telstra which once gone, could never be replaced.

Governments always seem to sell off public assets far too cheaply - recent examples are the Commonwealth Bank, Serum Laboratories & Tabcorp - all have more than doubled in value in just a few years. Other state and federal organisations through less

spectacularly were sold for less than their worth. Friends and advisers have done extremely well on all the deals, but should we keep Telstra continue to use all its profits for all Australians and perhaps dedicate \$186 million (a mere 7% of that 2 1/2 billion) each year to maintain and improve our Rfs and all the other basic environments we rely on? After all it is claimed over 60% of the populace want to keep it in public ownership.

#### **A GOVERNMENT SPONSORED SUSTAINABLE AGRICULTURE 'DOCUMENT' WAS RELEASED IN SEPTEMBER**

As yet I have been unable to obtain a copy of this report, but the minister for Primary Industry referred to it and stated "The Australian landscape has been dramatically altered by the removal of approx. 20 billion trees in the 200 years since European arrival."

We all know the monetary and environmental costs that have resulted from such destruction, so there is much community bewilderment as to why removal of vegetation is continuing with obvious official approval and encouragement. The coast and lowlands are particularly copping it presently, current and proposed developments that readily come to mind include Hinchinbrook, Fraser Island (Qld). Terranora, Scotts Head, Forster in NSW, Hindmarsh Island (SA) - all these will effect littoral areas or RF.

#### **SPEAKING OF FRASER ISLAND -- THAT GREAT WORLD HERITAGE LISTED AREA**

The "Financial Review" 1/8/96 reported that the Qld govt held talks with developers re 2 new tourist developments there. Supposedly, no decisions had been made but there is concern that two major blocks of tourist-style accommodation may get a go-ahead. (Ed. I understood that a previous decision that one, and only one, major development would be approved, and this is now completed).

Anyone know the actual situation, and is the present govt. going back on an earlier agreement? Can the status of World Heritage be affected by over-development. or is this the actual intention?

#### **OTHER MATTERS AFFECTING THE FORESTS MAY BE OF INTEREST TO SOME**

N.Q.'s Tully - Millstream hydro power proposal has been abandoned. This will save the 1400ha of World Heritage forest that would have been flooded or otherwise lost. It will also save the States taxpayers the best part of a billion dollars. 'Community concern' was the reason given for rejection.

That NSW-Vic gas pipeline has received govt. approval (N/L 32). Though the route is through much bushland and RF, the Premier declared that "serious environmental damage is unlikely". As previously reported, there are 2 existing lines that could be connected up and used to transport the additional product. Saves money; saves forest.

"No significant damage to the environment" has been heard a lot this year as justification for approving many projects. They include Hinchinbrook (? mangroves, wetland); Olympic Dam/Roxby (? radiation to underground water); Jabiruka (? mining and moving uranium within Kakadu); Century (? pollution of Gulf waters, effects on underground water). To say nothing on their immediate, widespread and long term effects to flora and fauna.

"We must create jobs". NO DOUBT IN THE WORLD! WE MUST But it is odd that we justify Lake Cowal gold mining because 180 jobs will be created, Hinchinbrook for its employment benefits to Cardwell, various mines of very high capital costs but low labour needs. at the very time of saying "Sorry, but we have to retrench tens of thousands of Telstra workers, even more public servants, and soon to come thousands of bank employees (when the Wallis enquiry concludes and advocates that big financial institutions be allowed to merge)." Makes one wonder about the credentials and beliefs of the decision-makers?

Two new northern Turtle species have been confirmed. One a long-necked, the other a short-neck were discovered in a billabong near N.T.'s Katherine Gorge. Is their habitat within a monsoon RF area, does anybody know?

#### **A COLONY OF AN ASSUMED NEAR - EXTINCT FROG SPECIES HAS BEEN DISCOVERED NEAR NEWCASTLE NSW**

Classified rare and vulnerable, the Southern Burred or Stuttering Frog Mixophyes balbus has been found at Gap Creek in Watagan State Forest north of Sydney, and well known to RF enthusiasts. This frog used to be numerous in RF & wet sclerophyll habitat from Gippsland to northern NSW, but virtually disappeared from its range in 1986, leaving no clues as to its demise. Some of the newly found animals have had tracking devices implanted to follow their movements and study behaviour. They are also reported to have been rediscovered at Narooma and closer to Sydney.

#### **MINING OF DECLARED WILDERNESS AREAS HAS BEEN PROPOSED BY THE NEW GOVERNMENT**

The minister for Resources, one W Parer is most unhappy about protected areas having legislated "management regimes preventing the exploitation of vast mineral resources" (S.M.H. 26/9/96) "though some areas should never be disturbed because of their environmental importance". The minister for Anti-Environment, replying to a question on multiple land use in wilderness areas said "The concept is OK as far as we're concerned, provided that other uses are not inconsistent with the natural heritage values that we are trying to protect. I am looking at in terms of the whole review of Commonwealth-State environmental relations and then within that the legislation that's necessary to implement what we say is the important roles and responsibilities of each in the future". (Ed. I realise that this is an abridged report of 2 interviews of ministers with legal backgrounds, but does anybody know what they mean?)

A candidate for 'quote of the year' must be Meg Lees' "I shudder to think where this government is heading, when one of its senior ministers suggests we should violate our remaining and biologically significant wilderness" ... Parer's proposal was, coincidentally, released on the very same day that the CSIRO launched its book 'Australia: state of the Environment', an alarming report on the situation of our environment, ecology & biodiversity. I should review this for a later N/L, though for the mere \$50 cost, everybody should have it on their shelf. It is that important.

#### **ENVIRONMENTAL IMPACT STATEMENTS ARE AS CONTROVERSIAL AS EVER**

The latest claim of haste and incompetence has been directed by concerned locals at their Shire Council in its zeal to have a 300ha coastal development proceed quickly. The property adjoins the dune system, and is said to be low-lying and flood prone, close to the village of Scotts Head, a pleasant little settlement on the NSW coast. The general area has much wetland and some LRF, is generally undisturbed and maintains good habitat for plants and animals. It was reportedly only a partial EIS as the Council said it couldn't afford a full one. (Thought developers were meant to meet the cost.) Surprise was expressed that only one reptile, a Skink, was found during the survey but the mystery was quickly solved when it was admitted the EIS was carried out over 3 days in mid July - the very time when virtually all reptiles hibernate. Another complaint was that though endangered Glossy Black Cockatoo were feeding there at that time, they were not listed as fauna sighted, but merely that "they may inhabit the area"