ASSOCIATION OF SOCIETIES FOR GROWING AUSTRALIAN PLANTS

RAINFOREST STUDY GROUP

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" People depend on biodiversity for their very existence, and biodiversity in turn depends on how we treat it." (Life Lines vol 4 no 1)

THIS IS THE 35TH NEWSLETTER PRODUCED BY ME DURING 8 1/2 YEARS LEADERSHIP

The main reasons that I became RFSG leader was to prove that regular quarterly N/l's could be produced and that people running Groups should have some commitment to the membership. None of this total of six N/l's produced randomly over the previous 8 years! - it's a wonder there were any members remaining in our Group to form a base, and to encourage me to gather and pass on relevant information to a steadily expanding band of enthusiasts.

Leadership does give a lot of satisfaction to the incumbent - an awareness of SGAP's Oz-wide activities, regular contact with many pleasant and knowledgable individuals, and learning far more than one would normally acquire. In all my time, only one person has caused me offence (possibly we were both of an equally obstinate nature); the majority of current and previous long term members have been congenial and communicative, while on the few occasions when criticism was directed my way it was generally of a constructive nature. The big bonus is that so many of the initial tentative contacts have, over the years, developed into firm friendships.

Perhaps another person may wish to assume the running of RFSG and either continue the course I have established, or take a different path? I would be happy to maintain a close involvement for an interim, but I think all organisations need a change from time to time in order to maintain their momentum and to stimulate fresh ideas.

ANNUAL SUBSCRIPTIONS

They come around so often, I just don't know how the time goes so rapidly. I thank those who have already renewed, and assume that people who have not yet done so, will send their subs when reminded again, with this issue. I find it difficult to decide whether some who do not renew promptly have mislaid their reminder, or if they really would prefer to cease membership. Always appreciate a brief note if a decision is made to leave RFSG, it being pointless sending unwanted material to uninterested individuals. Remember though, if you don't get a reminder, your subs is OK for the current year.

GROUP ACTIVITIES AROUND BRISBANE

Members interested in participating in these should contact Peter Jurd (phone 07 3345 1445) for details of the get-togethers recently arranged.

WE HAVE AN OFFER TO PLACE THE N/L INTO THE INTERNET

Liz Haylock wrote "we believe it is important that groups such as RFSG seek to promote a deeper understanding of our unique plants and encourage their preservation and regeneration so that these characteristics may be enjoyed by others. To this end I'd be interested in putting our N/L, or excerpts of it onto the Internet. I've Internet access and experience with setting up web pages and would be happy to set up a site under the NSW SGAP site, or alternatively believe that the Victorian State Library would host a site for us for free. Please let me know what you think."

Over to you, members.... If you have a strong view, either way, please let us know.

QUITE A FEW COASTAL LANDCARE GROUPS ARE INVOLVED WITH RAINFOREST ACTIVITIES

Details of some of the Hawkesbury district plans are given in the N/L. As well Wingham and Hastings groups are active in restoring and/ or replanting RF areas. Landcare is a golden opportunity for work of benefit to RF everywhere, and I advocate that RFSG members become involved with a local organisation or at least get in touch with a local group and encourage them to include RF species to be used in its operations. Let me know of local efforts involving RF regeneration for a N/L item.

SPECIES NOW AVAILABLE FROM THE SEED BANK

Abrophyllum ornans Alyxia ruscifolia Alphitonia petrei Araucaria cunninghamii Brachychiton acerifolius Bridelia exaltata Cassine australe Cissus antarctica C. hypoglauca Cordyline stricta Dioscorea transversa Drypetes lasiogyne var australasica Ficus coronata Flindersia xanthoxyla Morinda jasminoides Pandorea jasminoides (2 var. - white, normal) Parsonsia stramineae Pararchidendron pruinosum Polyscias elegans Xanthostemon chrysanthus. Recent donors Richard Logan, David Vance, Oliver Carter, Carol Bentley, Rhoda Jeavons, L & D Meadows, David. All requests to **P. Bennett 20 Belmore Court Pine Mountain Q. 4306** with a stamped self-addressed envelope please.

A SPECIES WANTED

Rhys Mcgregor asks if any member has fresh seed of Hollandia sayeriana available, or a small amount of cutting material. They would love to grow this plant again. Address is 14 Bellevue Cr North Avoca 2260.

THE AUSTRALIAN MAHOGANIES - GENUS DYSOXYLON (FAMILY MELIACEAE)

The genus is fairly large, with around 200 species as yet identified, and distributed from Australia to the Pacific Islands, Malaysia and India. Various species are found within lowland and upland rainforest of the region, though only about 14 have yet been identified in Australia - 12 being endemic. Most of these are confined to North-east Queensland, with a couple ranging to central Qld. and 3 others extending into NSW.

Despite the name being derived from the Greek DYS (ill-smelling) and XYLON (wood), the freshly cut bark and sapwood of D. fraserianum has the strong fragrant smell of roses! Some are giants of the forest, in places locally dominant and are frequent emergents from the canopy in favourable sites. The largest surviving Rosewood in NSW is 57 metres high with a stem diameter of 3 1/2 metres. This is in Koreelah S.F. in nthn NSW. (The largest NSW Red Bean, while reaching 53m, measures just 1.61m dia above its buttresses).

Leaves are compound, usually alternating along the branchlets; the young leaflets being soft and hairy but becoming glabrous (without hairs) with age, on the upper side. Few of our species are widely cultivated and it is rather difficult to obtain a broad description of them, other than those few that were highly prized for their attractive and valuable timber.

Dysoxylon alliaceum, Cape York Cedar or Buff Mahogany, is a tree to 38m, leaflets 3 to 12, 7 - 25cm long. Fruits are reasonably large, orange/ yellow in colour.

D. arborescens, Mossman Mahogany, a shrub or bushy tree to 8m with up to 18 leaflets to 20cm x 6cm. Terminal panicles of fragrant yellow-green flowers. N.E. Qld, also overseas.

D. excelsum (syn. D. klanderi), Buff Mahogany, is another small tree to 12m; up to 8 large, glossy dark-green leaflets, long and pendulous, and bearing clusters of yellowish flowers.

D. fraseranum, Rosewood or Rose Mahogany, is found from Wyong NSW to Blackall Range Southern Qld. A large tree with 6 - 12 leaflets, now uncommon due to heavy logging in the past for its attractive and useful timber.

D. gaudichaudianum, Red Bean, grows to 20m in northern lowland RF as a spreading, round canopied tree.

D. latifolium (syn. D. oppositifolium), Pink Mahogany, a small bushy tree to about 8m, sometimes spreading. Leaflets 4 - 10, large flowers (12mm to 50mm long) in axillary inflorescences (spike-like racemes). In Qld is found in the Mt. Spec - Atherton - Temple Bay areas; also in the monsoon forests around Kakadu, Darwin and the Kimberley as an understorey species.

D. mollissimum (syn. D. muelleri), Red Bean or Onionwood, is a medium sized to large tree growing from Bellingen NSW to Cooktown, in lowland and littoral RF. Freshly cut trees have an onion like smell and were sought after for furniture and joinery manufacturing. Leaflets 11 - 21, glossy and with domatia present underneath. Leaves are large and can be as long as 60cm.

D. pachyphyllum. The only reference to this species that I could find was of a CSIRO herbarium specimen from Lord Howe Island. Its attached description mentioned that 'plants grow in low, dense forest or low hills, and is a cauliferous treelet to 5m high. Flowers are fragrant, in spikes below heads of leaves.'

D. papuanum (syn. D. micranthum), Cream or Spicy Mahogany, can be a large tree to 35m with a 90cm stem diameter. Herbaria specimens nominated sources as Mission Beach and Babinda Qld. Trees have flaky bark and are strongly buttressed. Leaves are large, fruits orange containing 2 seeds. I assume this species is also found overseas, judging from the name given.

D. parasiticum (syn. D. schiffneri), Yellow Mahogany, a small tree to 10m with a spreading crown from north Qld. Up to 12 papery, dark-green leaflets which are relatively large - up to 15cm long. Unusual in that the white flowers are borne in clusters on the trunk and older branches.

D. pettigrewianum, Spur Mahogany, can attain a height of over 30m, with a timber so dense and heavy that it was used for construction purposes. Trees are very prominently buttressed and are found from the Johnstone River, Cairns and Atherton districts. There are 7 - 13 leaflets up to 20cm long, with small yellow flowers borne on short axillary spikes followed by fairly small red fruit.

D. rufum, Hairy Rosewood has large leaves up to 60cm long, with up to 19 leaflets that are greyish green on the upper surface and softly hairy below. Clusters of white flowers in axillary panicles 25cm long are fragrant at first, but become foul smelling as they mature. Timber has an onion-like smell and has no commercial value, due to trees generally reaching only about 15m, though in fertile areas they can be double that height. Their range is extensive, from Buladelah NSW to the Atherton Tableland.

D. setosum (syn D. cerebiforme), Miva Onionwood or Red Bean has an odour, according to some as "strong, like potatoes". Grows to 20m, has fissured bark and hairy fruits.

During my research into the genus, I could find not one reference of known human food or medicinal use of any endemic species. It seems, therefore, that other than the few varieties valued for timber, they have no economic value, which probably explains the paucity of information available on this group of attractive plants.

Has anyone experience of Dysoxylon in horticulture, or knowledge of any of the species growing in natural situations - their seasonal characteristics, value to animals, benefits to the local ecology, etc ?

At 'Booyong', we have found just 2 specimens of D. fraseranum (both mere saplings), and whilst reasonably numerous, few D. rufum are of any size and only once have we seen unripe fruit (and omitted to get back to collect some). However at the nearby 'Boorgana Nature Reserve' on the Comboyne Plateau, there are very many fine, emergent Rosewoods which have huge quantities of fruit in season.

TWO SPECIES THAT TAKE MANY YEARS TO FLOWER

In Jan Sked's editorial in **SGAP Qld Bulletin March '98** mention was made of 2 of her garden specimens that had finally blossomed. Phaleria chermsideana, the Scrub Daphne, was 11 years old and 5m high when it bore white, sweetly perfumed tubular flowers, followed by a few globular red fruits (which disappeared during heavy rain). Of an even greater age was Archidendron grandiflorum (Fairy Paint Brushes or Lace-flower tree planted in 1980. Slow growing - only 4m tall and very spindly, after 18 years. Buds were noticed on one branch; these opened after about a week and it was obvious how the plant gained its common name. Each flower consists of a cluster of long stamens that are white at the base and brilliant red at the ends, giving the appearance of a paintbrush dipped in paint. Jan concluded "I guess 18 years is not too long to wait for such a vision. Now, I am waiting hopefully for the seed pods to form."

ITS A FRAGILE PLANET - DISASTER STALKS THE WORLD'S PLANTS

The first international survey of plant diversity, a 20 year effort among 16 organisations show habitat destruction and introduction of non-native species have caused about 34,000 plants to become so rare they could easily disappear. Thats about 12.5% of the 270,000 plant species known worldwide. The United States tops the list with about 29% of 16,000 species at risk. Australia and South America have similar percentages. In some cases entire families are in trouble eg the Yews, Lilies & Irises, Palms, Roses.

CALLITRIS MACLEAYANUS SEED IS A SPECIES WITH VARYING SUCCESS IN GERMINATION

Brian Collis has done some comparison sowing recently and he reports "A couple of Stringybark Pines planted around 4 years ago are producing fruits. The earliest cones are mature so I collected some last December, quickly dried and promptly sowed. Only about 10% came up, so I tried more collected 2 months later. These gave a better result - 20%. A further trial in April, again freshly picked and dried resulted in a fast germination (all up in a week or two) and 100% success". Brian feels that time of year could make a big difference in results from seed, and wonders whether that is due to an optimum temperature or the collection of seed at a time of peak viability.

Have others done such seasonal trials on species where seed can be obtained over an extended time? Alphitonia, Hibiscus, Notelaea, Melia, and Gmelina could be in this category.

RESPONSES TO PREVIOUS TOPICS

Eupomatia laurina: Bill Jones says his specimen, planted about 7 years ago flowers regularly. The blossoms have a very strong and characteristic fragrance which can be massively overpowering, and even though the plant is around 5 metres from the house "we are overcome with this fragrance. We are not sure whether it is pleasant or disagreeable".
Even without flowering, Bolwarra is a delightful plant with its attractive shining leaves."

Bill added - "our **Anopterus macleayanus** (Macleay laurel) also gives us a lot of pleasure. It is now about 6m high and has flowered for 2 years in a row. It may be a little stressed because it is in a hot dry spot, and the leaves are smaller than are usual in their natural habitat but this may benefit the flowering frequency."

Support for **Trema aspera** comes from Paul Brady who notes that regular guests on his trees are Lewin's Honeyeater and olive-Backed Orioles. Bulbuls also seem to like the fruit. "Although not an attractive tree I can certainly recommend it on the basis of the number of birds which eat the fruit, or otherwise visit it. Also, it is a reasonably fast grower." Paul put in a good word for **Eupomatia laurina** too, saying "It is another shrub which has value for differing reasons. The fruit is quite tasty, has highly perfumed flowers, attractive glossy leaves and its suckering habit makes it valuable for binding sloping areas. I would recommend anyone in Sydney to grow it. As it is a strong grower, it is an ideal plant for the beginner."

Placing tubes with small seedlings well above ground (not less than 6") has many advantages agrees Rhoda Jeavons. "Not only preventing worms, but for free drainage, no contamination from 'splash' off the soil (weed seeds, possible unwanted organisms) and most of all the suppression of external roots (air pruning) which can get into the ground and cause problems when planting out. I use a piece of square section galvanised mesh which fits most tubes, supported on legs. (I think it is for concrete reinforcing - it comes in various sizes).

Wallabies eating young plants. Garry Daly adds to previous comments on this problem - "My salvation may lie in a natural organic remedy, Araucaria cuttings. About 8 years ago I planted out about 10 Hoop and 5 Bunya pines that are now up to 6 metre high. I've been cutting off the lower branches and placing these around the base of select trees. The idea is that the spines on such foliage will ward off wallabies from those plants."

RICHARD LOGAN DESCRIBES SOME NEW PLANT RELEASES

Syzigium 'Royal Flame'. A cultivar of S. luehmannii which apparently grows to only 1m x 1m. The leaves of this cultivar are very small compared to the normal variety. The new growth maintains the pink to purple coloration. PBR (371/41).

Syzigium dansiei (Aussie Dazzler). This one has bronze coloured older new growth (if that makes sense) with rather dense foliage right to the ground. Which makes this plant suitable for screening or hedges. The new flushes of growth are red/ orange in colour; it bears terminal white flowers which are followed by 2.5 - 3cm edible fruits coloured pink, and tinged with lavender or purple. It makes an excellent tub plant and grows to approx. 3 - 5m in the garden.

Syzigium alatramulum (Tinkling Satinash). An unusual, medium shrub or small tree that can grow to 4m. It produces soft pink new growth and white flowers that are followed by small purple globular fruit. An ideal container or indoor plant, the tag goes on to say. To me, this plant looks very similar to S. apodophyllum. Leaves are deeply veined - they look almost quilted.

Austromyrtus 'Weeping Beauty'. This one is a small bushy shrub with glossy weeping foliage, new growth is a silvering red. The flowers are delicate, wax-like and borne in summer. Flowers are followed by small purplish fruit. It is recommended as a patio or tub specimen and foliage accent plant for the garden. It looks rather like a Syzigium luehmannii, I feel this could look quite attractive once it grows.

Austromyrtus 'Aurora'. Goes through seasonal colour changes ranging from light rose flush during the warmer months, darkening to red through to a deep burgundy during cooler times. Aurora is a versatile shrub, with a gentle weeping habit and leaves with a velvet feel. Uses include hedging, screening, specimen planting and tub plant. Proven to be easily grown, disease resistant and a bush tucker plant. It grows best in full sun or light shade, it handles frost to extremely humid weather. Grows to approx 2.5m x 1.5m wide. Also has PBR.

Piliodistigma glabrum 'Dwarf'. A shapely, bushy shrub growing to 1.5 - 2m with a spread of 1m. Foliage is shiny green, with red new growth. Flowers in autumn, white and fluffy stamens, about 2cm across. Fruit are black and pear-shaped but inedible (bird attractive though). They say it comes from the RF of SE Q & NE NSW and requires a moist and sunny location, though is apparently quite cold tolerant.

Acmena sp East Normandy River (Aussie Blood Oath). The tag tells us that "I am probably the rarest of the Lilly pilly family having been discovered only in 1989." It grows to a height of 1.5 - 2.5m with a spread of 1.5m in a protected sunny position. It makes a fabulous tub specimen and looks classy in a courtyard. New growth is blood red, with flushes occurring throughout the year. Flowers are white, followed by green berries. The foliage hangs quite loosely.

These are some of the plants that I have picked up at work - all of them certainly have a place in the home garden. To me this makes sense, by bringing a plant into cultivation it could be saved from extinction. After all, man has caused so much damage to the Australian forests, so why shouldn't we foster these plants? Therein lies a trap, I feel the provenance of plants should be provided at purchase time though I can't really see this happening, due to a simple thing called greed.

PBR needs to be used for cultivars that have been bred in captivity, not for a variety that occurs naturally and someone rips it off from the bush. Who knows if this could be the last known specimen? It also annoys me that some PBRs don't list what species the plant is, there may be the occasional species that are new.

You want a good fertiliser? I find Native Osmocote works well with the RF natives.

HERE'S A TIP ON TRANSPLANTING SMALL 'VOLUNTEER' SEEDLINGS

Judith Brass mentioned that such plants regularly come up in her garden, mainly Ficus coronata and Macaranga tanarius. These are easily moved using a bulb planter. First cut a planting hole with the planter and place removed soil out of the way. Next, carefully slide the bulb planter over the seedling and twist into the soil; remove planter with soil and seedling and place in the previously prepared hole and water in. This tool enables transplanting small seedlings with little or no root disturbance. **(Ed.** I'd imagine that the method would also be effective in moving such 'wildlings' into pots for growing on, so I must check out the planter as I am not familiar with it.

JAN WILTON TELLS OF RECENT PROPAGATION RESULTS

"I have been having some good results over the past 12 months, since I started using a more moist seed raising mix - 50/ 50 commercial potting mix and peat moss. Species potted up were Rhodosphaera rhodanthema, Planchonella australis, Sarcopterix stipata, Sloanea woolsii, Synoum glanduosum, Dysoxylon fraserianum, Acmena ingens, Cupaniopsis newmanii, Citronella moorei, Cryptocaria erythroxylon.

Also have had 2 Drymorphila moorei germinate from about a dozen seeds, and those took ages to appear. In March I was able to buy some hard to get Nth Qld plants (including Proteaceae) from Kay Briants nursery at Bexhill near Lismore; Kays daughter Rhonda being an excellent propagator.

Now - **a couple of questions.** With Phaleria chermsidiana, I had only on germinate from 10 seeds sown. Is this one difficult? Had a massive germination of Piper novae-hollandiae. I would like to grow this vine on a tree in my RF, but as they seem really not big enough to support it I wondered if Blackbutts would be suitable, owing to the flaky bark about 5 - 6 metres up the trunk. **Do any of our readers have any ideas or suggestions here?**

THE RANKS OF MEMBERS INTO ESTABLISHING RF WOODLOTS (PLANTATIONS) IS EXPANDING

Pip and Tom Gibian mentioned at the Easter get-together that they are planting out their place at Gloucester with various species, Eucs and RF, and in due course to harvest the crop for a prime timber product. Despite her time consuming professional requirements, Pip has run a small nursery for many years and has propagated the bulk of the plantation stock. They have offered to host a get-together of our group on their property so I have made a mental note to organise it in spring.

On the same subject, **Rhoda Jeavons** wrote on the progress of the ongoing debate with Council over concerns about their decision to turn a citrus orchard into a wood farm (oranges are not a viable living for small farmers any more). Approval has finally been given despite some concern with possible noise pollution. Perhaps they receive frequent complaints from residents of the noise emitted by fast growing trees?

Rhoda mentioned that species that have been either total failures or shown disappointing growth have all been locally common - Coachwood, White Beech, and Rosewood being the worst. Rather surprising and I wonder whether they were 'local provenance' or perhaps were sourced from an area of different climate and soil type?

EDIBLE PLANT OF THE MONTH - ALECTRYON TOMENTOSUS (HAIRY BIRDS EYE)

Saw my first plant in fruit this week, a self sown specimen growing among a patch of Acacia maidenii and perhaps 8 years old. Its foliage is dense and most attractive, though a lot of light does reach this specimen in its relatively open situation. Alex Floyd describes it as "a tree reaching 15m, an attractive species and worthy of more extensive planting for ornamental purposes."

The fruit on our plant really stands out - about 15mm and sphere shaped after breaking out of its covering. The black seed of about 5mm dia is almost enveloped in a wrinkled, fleshy, scarlet aril, edible by humans as well as animals. Taste is somewhat tart, but it would make a refreshing drink; perhaps I should try a batch of wine from the fruit. That seed appearing within the aril certainly looks like an eye of a bird so the common name is apt.

In my view, this species is more attractive than the more familiar A. subcinereus both in foliage density and colour, also the fruit is larger and more colourful. I feel that seed should be fresh (most Sapindaceae from my experience do not remain viable for long) so I won't send a batch to Patrick. However should anyone wish to try it, let me know quickly and I shall pick you some.

TUB PLANT OF THE MONTH - NEORITES KEVEDIANA (FISH-TAIL SILKY OAK)

Of the Proteaceae family, Fishtail Silky Oak is one of the most stunning foliage plants in the Oz flora. It occurs at altitude, in the tropical forests of the Atherton Tableland.

It was only recently described in 1969, though it was first collected in 1952. It was named Neorites because of its similarity to the genus Orites. In the wild it can grow to 20m high.

The young shoots are reddish, developing into large, stiffly pinnate leaves - which can grow to 30cm in length containing 15 pairs of sickle-shaped leaflets. As the plant matures, leaves may grow to 60cm long with up to 21 pairs of leaflets. The upper leaf surface is a bright glossy green colour with a paler undersurface.

As a species from higher altitudes, I believe that it should cope with cooler temperate winter temperatures. Wrigley (1991): suggests that Neorites has great potential as an indoor plant, and Jones (1986): commends the foliage for use in floral arrangements as it keeps well in water.

It has put on rapid growth over summer, trebling its height. It is being grown in a semi-shaded position.

(Contributed by Rhys and Julie McGregor - North Avoca)

RESEARCH ON OUR DECREASING FROGS HAS COME UP WITH VARIOUS CAUSES

An interesting item in SGAP Tas **'Eucryphia' of Mch 98** (originally published in 'Land & Water News' Oct 97) reports a theory on the cause of recent high mortality of our frogs. Some of the details include -

"Scientists in Geelong believe they may have solved the mystery behind recent die-offs of Queensland's native RF frogs - and it is not environmental degradation, as is popularly believed. Instead, the culprit behind waves of tropical frog extinctions appears to be a tiny micro-organism, possibly introduced to Oz, which lives under the outer skin of frogs. The same micro-organism has also been found on sick and dying native frogs collected from NSW, Victoria and SA, although it is thought to be just one of many frog-killing forces at work in southern Oz." The micro-organism was first discovered in 1993, however its lethal effect on frogs has only recently been demonstrated by Lee Berger of CSIRO Geelong.

"Scientists remain puzzled that many frogs are disappearing from relatively pristine areas which are hardly touched by pollution, and also that frogs survived major extinction events in the distant geological past, which wiped out many apparently less-sensitive species..

Dr Berger said there was no doubt that pollution and habitat degradation were major causes of frog declines, but the skin dwelling micro-organism she had investigated at Geelong could explain why the animals were also dying in large numbers in pristine areas of tropical RF.

In less than 20 years as many as 14 frog species have suffered sudden population crashes in tropical Qld, in a slow moving wave of mass die-offs. At least 2 species are believed to be now extinct, and 5 others have vanished from their native habitats." ... "The bug had been found in diseased frogs of 10 different species from Qld, NSW, Vic and SA. It has also been shown to kill frogs in the laboratory." (In one experiment, the water of 6 captive Great Barred frogs was deliberately infected with skin scrapings taken from other stricken frogs. All became lethargic, and infection with the organism was observed after 2 -3 weeks. One died and the rest were euthanised.)

Though it may be an introduced disease, there is as yet no hard evidence of its origin, though the high mortality rate among infected frogs, and the pattern of spreading waves of frog deaths suggested our frogs have no resistance to it.

In a scientific coincidence, US scientists have also discovered a very similar microorganism on dying frogs in Panamanian RF. This organism was very similar to the main bug responsible for massive oyster kills which has devastated the US oyster industry."

* * * *

Subsequently, Morton Kaveney and Ted Teutsch both sent me some details of work that Joe Friend had done at The Channon, NSW North Coast. Joe was here at the Easter gathering so filled me in with further details and the other day, an up to date summary of his research.

Joe became aware that areas around The Channon had lost their frog population, and discovered that those sites carried large numbers of Camphor Laurel (Cinnamomum camphora) trees. Further investigation showed that even in nearby similar environments but where natural vegetation was intact, frog numbers were high, and species expected were well represented. Joe, who has a scientific background and has been involved in plant and animal research, became very concerned at these coincidences and checked further.

"Our" Camphors have hybridised (from the 2 varieties originally imported - one from China in 1820, the other from Japan around the 1880's) and have become particularly toxic. Little work had been done on their effects on animals, both native and domestic, but the records included deaths of juvenile fish from leaves falling into streams, which was confirmed by experiments statistically verified. It is thought that many dead birds, especially RF pigeons and flying foxes could have been killed by a build up of chemicals from Camphors as it is known that those animals eat the fruit at times. Budgerigars in a US aviary are thought to have been killed by camphor leaves.

To confirm his fears, Joe experimented with local amphibians, and found that they can be readily killed by even minute quantities of extracts from leaves, green berries or roots. Three tadpole species - Green Tree and Striped Marsh as well as the introduced Cane toad were tried, and were unable to survive such contact.

"Australia has a unique problem: the first time in the world that a prominent, once popular shade-tree species has been declared a noxious weed AND NOW SHOWING UP AS A CHEMICAL POLLUTER OF WATERWAYS AND KILLER OF WILDLIFE. Luckily, CSIRO's Division of Wildlife Ecology is beginning to show some real interest in this complex multidisciplinary problem."

* * * *

During all this I approached FATS (the Frog and Tadpole Society) to ascertain details of their group and what publications are available. They sent me 5 Frogfact sheets - 'Establishing Frog Habitats on your property'; 'Rainforest Frogs'; 'Keeping Green Tree frogs'; 'Keeping Fogs in Your Garden'; 'Green and Golden Bell Frogs' at no cost. Lots of facts and hints on assisting Lady Gaia in keeping our planet in good order for our benefit..... Their annual subs is $15 and address is PO Box A2405, Sydney South 2000. Naturally, I have joined, partly from personal interest, partly to pass on useful info to RFSG members.

Footnote: Scientists have reported the disappearance of many frog species all over the world. In Australia at least 8 species have become extinct in the past 25 years. Others have had their numbers reduced, and have gone from being locally common to rare, or from rare to endangered. A branch of the animal kingdom in big trouble.

"AN ECO-INVESTMENT TO ROCK YOUR IMAGINATION" SAYS THE BLURB FROM AN ENVIRONMENTAL(?) GROUP

I was somewhat surprised to receive a colour brochure setting out the wondrous benefits of a tourist development at the very gates of Queenslands Girraween National Park. Termed an 'Ecotourism Lodge' it has construction of 20 eco-chalets, restaurant, executive conference centre, solar heated 'natural' rock pool and spa now under way. But wait..... there's more! Future plans include an up-market campground; bunkhouse style environmental study centre for schools, interest groups, backpackers and day visitors; additional chalets; a kiosk/restaurant and interpretive centre. And maybe a wine expo pavilion depicting the history of local vineyards with tastings and sales of local wines. All this is happening on a 400 acre property of 'exceptional beauty and potential at the entrance to the magnificent NP'. The block seems to be an enclave within Girraween, being bordered on 3 sides by the park.

If Qld environmental groups are prepared to support such developments which will surely bring a huge increase of human pressure on areas supposedly set aside for nature, what do local anti-environment associations and developers seek ?

As long ago as 1988 in the Petersen era, during a stay at Bunya Mountains NP we were told of a proposal for a resort type development at the edge of that Park. It was fought bitterly by Park people and many locals, with petitions and an organised letter writing campaign set up. As far as I know, the development was stopped with the help of conservation groups. How things change in such a short time.

HISTORY LESSON OF THE MONTH - HOW THEY GOT THE CEDAR OUT OF (ALMOST) IMPOSSIBLE LOCATIONS

The following description was related to us by a history buff after we mentioned the local 'Rollover' on Bago Mountain to her.... " Rollover is not a legend - it is a fact. The method was recorded on film, many years ago.

The Cedar Getters were a remarkable and very handy lot. As easy to get trees were cut out, they moved into the deep gorges and cliffs. They would fell trees and winch the logs to the cliff edge. A winch would be lowered and anchored half way down the cliff face, and another anchored at the top. This one would lower the log to the one half way down on steel cables, then the second would lower it to the valley floor for cartage out. This method was also used in reverse, logs gained in inaccessible gorges were winched to the mid point, then drawn to the top to be transported to loading ramps or adjacent mills.

The winching process was very dangerous, as some of the cliffs used in retrieving timber were exceptionally high. ... Where there is a will, there is a way.

A friend of mine, long retired, used to log the 'eastern falls' (NSW Great Divide) and in PNG earlier. He used a light plane to spot the Cedars when they stood out with their new leaf growth in spring and radio in the map readings, etc. to his team. He would also guide the ground crew to difficult locations, as well as delivering any necessary machinery replacements or spare parts by aerial drop."

THREAT TO THE FORESTS - AN INTRODUCED WEED MICONIA SP.

Reported on ABC wireless in March - one of the Miconias (there are around 700 spp. of the tropical America/ West Indian genus) is causing great concern by its rapid spread in North Qlds tropical RF. It was introduced to Townsville Botanic gardens in 1963 and was considered to be so attractive that the nursery trade had no trouble promoting it and ensured it was widely spread over the next 20 - 25 years. The plant was banned in 1996, 33 years too late.

Its seeds have been dispersed by birds into many locations and as it is able to germinate in low light conditions, is taking over even undisturbed forest. 700 trees were recently found growing near Kuranda and have been 'sprayed'.

The species was also introduced into Hawai in the '60's and has by now threatened 2/3 of its RF. Tahiti received it in the 1930's at the cost of 30 endemic species becoming extinct to date.

Miconia is of the family Melastomataceae, many of its species have already been proved extremely devastating when released in alien areas. Another family causing concern is the Bignoniaceae where species have become troublesome in areas where in hindsight, they should never have been introduced.

Perhaps, for a change we should use a bit of foresight and resist importing plant species, but instead rely on the vast range of our own plants for decorative, fodder and shade purposes and only bring in improved varieties or new species only, of food plants?

OTHER WEED THREATS TO THE FORESTS - PARTICULARLY OF NSW AND QLD.

Some weed species are becoming increasingly troublesome, but at long last community concern has forced authorities to look at the problem and to undertake serious measures to control certain plants.

Lantana. A Lantana Biological Control Task Force has been set up at Northern NSW; those seeking information on methods of reducing the impact of this South American weed can write to PO Box 238 Casino 2470. As there are at least 29 distinct strains, or genotypes of the species in Oz, the methods of treatment and biological agents have to be carefully selected and trialed, with ongoing monitoring. **(From Hawkesbury RF Network N/L No 3, Apr 98.)**

Camphorlaurel. The NSW Minister for Agriculture has been asked to declare the species a noxious weed in the shires of Casino, Copmanhurst, Kyogle, Richmond River, Lismore and the non-endemic (sic) parts of Ballina. Byron and Tweed Shires will be exempt from the declaration. Apparently this pest is held in high regard by, I suppose, some individuals with power and influence who have formed a 'Save the Camphor Society'. They want the weed protected in parts of Ballina, as well as Byron and Tweed and one can only wonder at their motives.

One reason given for excluding any forced removal of this weed in Byron and Tweed Shires "would have placed excessive economic burdens on landholders because the species was endemic. The main thrust of the decision was to prevent the cleaner areas of the region becoming as badly affected as the endemic areas."

I know I'm dumb (all Greenies are, I am constantly reminded) but I understood endemic was both native and restricted to specific areas. This weed is neither. Is it not an exotic?
Further details of its threat are in the frog deaths item in this N/L.

Madeira Vine or Jollop (Anredera cordifolia). This vine has enormous potential for damage to native vegetation by reducing light penetration and by placing too much weight on tree branches and shrubs.

An application for funding has been made by the Big Scrub Environment Centre in northern NSW to map the distribution throughout the area in preparation for a major control effort. From South America, it is also bad news in many other parts of NSW, Brisbane and S.E. Qld.

ALL 20 NATIONAL ENVIRONMENTAL LAWS WILL BE SCRAPPED OR REWRITTEN

Despite not having the proverbial 'mandate' to delete or change this legislation, much of it hard won over the past 20 years, all existing environmental, conservation and heritage acts of parliament will be revoked and included in just 3 new bills. To make sure there is minimum input by interested or concerned voters, a mere 27 day consultation period has been allowed and minimal publicity was given.

The World Heritage Act, which includes allowance for interim protection of areas of high conservation value until proper research and investigation can be carried out, among other important clauses, is intended to be revoked. (It has been claimed that this is a payback for efforts to prevent the Hinchinbrook/ Williams development proceeding).

Five current environmental laws are to be condensed into a 'Biodiversity Conservation Act'. Those to go include 'National Parks and Wildlife Act 1975'; 'Whale Protection Act 1980'; 'Endangered Species Protection Act 1992'; 'World Heritage Properties Conservation Act 1983'.

People involved with biodiversity believe that some improvements will result in the new Bill, but also that there are many limitations and weaknesses, like words that the Commonwealth **may** take actions, when **will** should be used. References to multiple use allow loopholes and insufficient protection is given to special areas; no process for the listing of critical habitat; omission of important measures and some ambiguous clauses.

Green groups believe that a key aim of the overhaul is to hand over Commonwealth environmental responsibilities to the States. Perhaps some of those groups supported the coalition in the last election in the belief that it had a good environmental policy platform, and that it could be trusted to honour its conservation 'commitments'. It will be interesting to see whether the environmental vote remains with the present government at the imminent election.

IF YOU HAVE INTERNET ACCESS - HERE ARE SOME USEFUL SITES

Richard Logan has come across interesting info during his spare time, and passes on some addresses to members. A good start is **"Birth of a Volcano. Wollumbin - Australia".** This site details the formation of the volcano etc, World Heritage listing, RF types, reserves of the volcano and National Parks. You can locate this at www.bigvolcano.com.au... Other places are -
State Forests NSW. www.forest.nsw.gov.au. **Dept. of Environment.** www.erin.gov.au. **Greening Australia.**
http://www.greenwork.org.au.

(Ed. All double Dutch to me, I'm afraid Rich, but I'll pass it on to the unLuddites in the group.
Richard adds "If anyone in the Group by any chance wishes to E-Mail me, address is **C.J.Logan@bigpond.com.au."**

RAINFORESTS WORLD - WIDE ARE BEING DESTROYED OR UNDER SEVERE THREAT

While preparing this N/L, I've half heard a number of reports on forest fires in many countries and from other causes. We should document such current threats, so if you have appropriate information could you send it to me to be summarised.

EASTER GROUP GET-TOGETHER AROUND WAUCHOPE WAS HIGHLY SUCCESSFUL

Twenty three members and friends were involved in various weekend activities. Martin & Anske Hazenveld gave us a great tour of their 15,000 acres, with some spectacular scenery, an extensive section of the upper Hastings River in its natural state and much intact forest. They are going to a great deal of effort and expense in getting rid of troublesome weeds - lantana, tobacco, giant Parramatta grass and cotton bush mainly.

The Collis' spoiled us with a sumptuous morning tea during a break in looking at their areas of regeneration, and recent plantings. Some of us have seen their small acreage on other occasions over the past few years, and rates of growth there have been quite noticeable. They are at the limit of the Hastings flood plain, and part of the place is sometimes inundated - obviously a fertile area of alluvial soils.

Jo McNab also put on a pretty good spread following an inspection of her extensive plantings made during the past 12 years, mainly for shelter belts and as wind breaks. Jo has put in thousands of plants since 1986, mostly RF species, and many 'offspring' are now appearing. Her property is on obviously fertile volcanic-derived soil, and though not well watered, many plants have grown extremely fast. Those especially notable include Candlenut, Aleurites moluccana; Deep Yellow Wood, Rhodosphaera rhodanthema, Blue Quandong, Elaeocarpus grandis as well as specimen trees such as Caldcluvia paniculosa.

Beryl J. put in a lot of work, as did Alison Siliakus, in hosting the 'Booyong' day and their efforts were appreciated by all. We sampled Jan Parkin's delightful Davidsonia wine and jam, plus (all estate grown and bottled) Mead, and Ficus coronata & Kiwi Fruit wine, with no obvious ill effects. Members travelled from Sydney, Bellingen and Lismore areas, others from closer in; it was good to have so many turn up - makes it well worth the effort in organising such an event.

However, an earlier Sydney meeting was somewhat disappointing. Paul Brady reported that just 3 people turned up to the February get-together and garden tour, and thought that the hot weather at the time probably didn't help. Its not my place to be critical, but I have to point out that if people willing to host RFSG activities are not supported, nobody will bother to arrange further get-togethers. Then in due course there would be complaints from some that "we don't have any meetings/ excursions to disseminate ideas and knowledge, or be able to meet other members."

GARRY DALY MENTIONS NEW CALEDONIA AND S. E. NSW

He was a member of an organised 'palm tour' of New Caledonia last year, and others of the group were also keen on RF vegetation generally. Garry collected seed for the Wollongong Botanic Gardens, and it will be interesting to see the results of this in due course. "In short, New Caledonia is mostly paperbark woodland on the coastal flats and grassland on the mountains. The areas which have RF are small and under threat from fire and cyclones. However the biodiversity is very high for palms and lizards.

On the local front there has been little rain over the past few months. I think that most of Oz has been in drought this summer. An inch of rain early March saved the day and my losses are relatively small. I will not resume planting until we get decent rain."

He mentioned that he has been busy doing work for the NP&WS which is doing comprehensive regional assessments of flora and fauna. His team has been surveying around Nowra (NSW south coast) and have detected numerous threatened species. Hopefully the final assessments will be used to determine further areas to be added to existing NPs, or become Nature Reserves.

JULIE HO IS A VOLUNTEER GUIDE AT SEA ACRES (PORT MACQUARIE) RESERVE

When renewing her membership, Julie wrote "Delighted with the N/L, always chock full of useful stuff and hands-on experiences I can use in my guide's talks at Sea Acres.

What's so special about Rainforest, and Sea Acres in particular, to me? Partly the 'pre-life' geological events - so awesome and strange - that can be seen and felt today; events writ large in the scenery and the mix of habitats. To me, that place is really a time machine displaying the history of plant evolution. I try to enthuse the visitors - they all respond to the cathedral-like beauty of the rainforest and they are interested in it as a place to live and forage (as in bush tucker and hardware).

Its value? I wonder if there is any future in the concept of a government service making a profit from what it's meant to protect? This is already being done via the 'Earth Sanctuaries' strategy of selling shares. You can buy into ownership of feral free areas where endangered species are thriving and multiplying. They will eventually expand into RF habitats.

So little RF is left and it is degrading all the time, due to the ferals - including us, and (locally) due to Bitou. Maybe Gaia has the answer to our problems and maybe our children will listen to her."

(Ed. I think that this outlook is one of the most perceptive that I have seen, and it will encourage me to look at each surviving remnant of RF with a greater awareness than I may have previously envisaged.

FROM VICTORIA - RICHARD WICKHAM TELLS OF THE STATUS OF HIS FISH CREEK PLANTINGS

"The last 2 years have been very dry but all our RF plants have survived so far. Randia fitzalani didn't like our cold winters so it is now growing in a large pot inside. Alloxylon wickhamii was growing well until a wombat decided to undermine it. However it did flower well after it fell over and is still flowering and struggling to survive some 2 years later. A 3 year old Toona australis is now 3m high; Archidendron grandiflorum flowered for the first time this autumn; Rhododendron lochae is growing and flowering well. Other plants are slow - Castanospermum australe was very slow to begin with but has now improved and is 2m after 6 years; Buckinghamia celsissima seems not to like its position so I may have to shift it to a moister spot, while the Firewheel Tree could also be too dry and may have to be moved.

We are slowly 'renovating' our 3 acres of bush and working towards the final completion of our small home so every weekend is a busy time for us. I enjoy the RF N/L and agree with your comments on conservation and our spineless pollies."

OLIVER CARTER WRITES ON RF PLANTS GENERALLY

"I have all of the named native Syzigiums except S. amplum, at least 23 of the 43 endemic Ficus spp. and a considerable number of other perennial native species with food potential. I propagate most of these by cuttings so if you are looking for a particular species, there is a fair chance that I may have it." **Note for new members** - Oliver has the 'Manna Nursery' at Toowoomba, his address is included in the list of members.

"None of those cuttings of Smilax glyciphylla took (from Van Klaphake), so I'll have to get a rooted plant from somewhere, some day. I'm still seeking Marsdenia viridiflora. This should be easy from cuttings, being of the same genus as Hoya and the local M. rostrata strikes well."

(Ed, Perhaps another member could supply Oliver with Smilax material? It is locally common in some districts.

IN MELBOURNE - DON O'GORMAN AND LIZ HAYLOCK UPDATE RECENT HAPPENINGS

Red Cedar from cuttings. In October we removed many of the side shoots at the top of our 2 cedars to encourage them to grow taller and straighter. The cuttings were prepared immediately and placed in the polyhouse, about 25 in all. The tender top shoots we lost fairly quickly. The 2nd and 3rd pieces hung-in for a couple of months and sprouted quite a bit of new growth before they too lost the battle. Maybe its a hard plant to strike or maybe the conditions were a little too moist. Anyway, we'll try again next year.

Our first vandalism. Someone had slashed the front door of our polyhouse the other day. Thankfully no plants were damaged or taken, but very disheartening. One can only speculate on what they thought we were growing; guess they would have thought our collection pretty boring.

Fast growers. Especially doing well are Elaeocarpus grandis (blue quandong), Alphitonia petrei (pink ash), Rhodosphaera rhodanthema (deep yellowwood) and Pseudowinmannia lachnocarpa (rose marara) each of which is now 6ft high after being planted out at about 18 inches a year ago, and despite some frost damage over last winter. Amazing progress. We'll be interested to see how they slow down this year over the cooler months.

Potting up Red Cedar seedlings. Very happy with such ready germination, with about 100 potted, about 4" tall. But it does again raise the question of our finding a suitable permanent home for these and our other plants. We would also be grateful of obtaining cedar seed from others in the group so as to broaden the gene pool available for planting on 'our block'. Though generally I'm a fan of local provenance, it's likely that our future site for the cedars won't have others native to the region so a bit of mixed crossing is only likely to add greater vigour.

Tasmania in autumn. Spent a week there in late March. As usual most of our holiday fell into the ecotourist category - among the highlights was a visit to the specialist Tas RF Nursery at Ferntree just south of Hobart; the Hartz Mountains NP with truly lovely alpine vegetation; the Tahune forest drive with Huons, Sassafras, Celery Top pine and Myrtle beech; the Wild rivers NP (with views over the Franklin River) and Cradle Mountain with the magnificent Weindorfers forest of King Billy pines.

In considering its future, the King Billy shares many attributes with the Huon pine. It too takes a long time to grow, has a relatively specialised range, is vulnerable to fire and has been heavily logged in the past for its exceptional keeping qualities - which make it prized for boat building. It splits fairly easily and is fairly rot resistant and so comprises a number of the mountain huts. In addition it is prized as a timber for soundboards in musical instruments. Classified as scarce, its natural habitat is Rf at mostly high altitudes.

The King Billy Athrotaxis selaginoides is also of interest botanically, and that apart from 2 related pines in Tas, no other members of this family occur in the Southern Hemisphere. The pencil pine A. cupressoides grows in wet situations in alpine areas, particularly around pools. The rare A. laxifolia often grows in association with pencil pines. Relatives in the Northern Hemisphere include the Californian redwoods. Additionally the species along with the Araucarias and Podocarps may be representative of some of the gymnosperms that were dominant before the rise of flowering plants during the Cretaceous period (140 - 066m. years ago).

Whilst the long term future of the species is to some extent protected by World Heritage listing of a large part of S W Tasmania, this action possibly increases commercial pressure on stands of larger trees on private lands. The tree takes a very long time to grow to millable size and it would be a great shame if stands outside National Parks were to slowly disappear as a result. Its surely an important exercise in risk management to ensure that the fire-sensitive King Billy does not become isolated to only a few areas.

MANY MEMBERS HAVE COMMENTED ON THE RECENT EXTREMELY DRY WEATHER CONDITIONS

Aub Podlich at Boonah Qld says 'Dryz a bone here - and hot! Trees suffering." (Mid March)

Oliver Carter from Toowoomba wrote in March - "We Have had the hottest 3 months on record, both night and day. Been flat out in just keeping plants alive, and doing little else most of the time. No wonder I've been getting so many migraines brought on at least in part by heat stress.

Around Karalee (Ipswich), Judith Brass reports that though it has been warm and humid, there was little rain until Easter so she wasn't able to do much in the garden.

Brian Timmis, Kangaroo Valley (NSW South Coast) - "No rain! and would you believe water restrictions? We have brown grass and some plants barely making it; lots have died. Water from our river goes to Sydney where they have no restrictions. But... our Kangaroo River stopped running a few days ago." (Mid March)

The same situation here at **Byabarra.** Just 11" of rain during the four hottest and supposedly wettest months hasn't done wonders for those 100 odd RF timber plants - fortunately they are interplanted with irrigated Kiwi Fruit vines so at least I can water them until the dam is empty.

At Melbourne, Don and Liz said "the long dry spell has taken its toll on a number of the plants that we don't water. Our RF trees - which have a drip system - have fared well, even a group of trees that didn't get any supplementary watering due to failure of the system."

Yet, **Harry Franz that Goomeri (Qld) district** has had more rain this year though March was pretty dry, and his trees are doing well.

*I say again - **Ms Gaia is trying to tell us something, but no one is listening.** Nobody with influence, in authority, is anyway.* Obviously few of us care enough to hammer on their doors and make them do something. More people need to talk to Con Mann. Write to him. Join a couple of environmental groups, a political party. Decide you want to survive to a ripe old age. Don't sit back and say "I can't make any difference" - we all can, together!

ROB CROSS FOUND BIG CHANGES AROUND FRASER ISLAND ON A RETURN VISIT

(Rob is a Melbourne member) "During our trip north last year (when we had planned to call on you at 'Booyong' and were unable, due to our damaged van), we had planned to show our son the marvellous Fraser Island. Both my wife and I had wonderful memories of the place from the 1970's. Arriving in Harvey Bay was a shock. Could this be the sleepy coast we had remembered? We didn't have time to answer that question before we were hit in the back of the van by a 4 wheel drive while giving way at a roundabout. Though we were able to drive still, we were restricted to the main roads during the long trip back to Victoria.

We decided to still visit Fraser Island anyway. That was a disappointment too, with 4wd's everywhere. It was like Bourke Street!

Not the natural peaceful place we had remembered.

When one sees that amount of change in such a short period of time, it automatically raises questions as to what is happening to our beautiful country. How much more destruction through uncontrolled development will it take before people realise they are losing the very qualities that this country has over most others?

We hope to get up to your way again soon and make that belated visit. In the meantime, I'll enjoy reading your N/L."

RICHARD LOGAN HAS BEEN ADDING TO THE MANY SPECIES HE GROWS IN WOLLONGONG

12 recent acquisitions include Ardisia humilus, Cryptocaria mackinniana, Austromyrtus fragrantissima, Sarcopterix stipata, Melodorum leichhardtii. Of recent germinations, Flindersia xanthoxyla and Hakea trineura did particularly well in polythene boxes. Just collected many species of seed and cuttings including interesting plants, and have ordered some unusual species that could go well in the garden. These include Syzigium boonjee, S. canicortex, S. dansiei, S. puberium, S. angophoroides, & S. zeyheri.

Among the plants fairly recently established, a Xanthostemon chrysanthus in the ground for under 12 months had a single flower a while ago and I look forward to next season for a better show. I've obtained cuttings of a pine new to me - Podocarpus smithii with foliage more glaucous and larger. Hopefully at least one will strike.

Must be a good season for frogs - there are taddies everywhere here, as well as little frogs. A good sign for the local environment, I trust.

BILL JONES HAS A FASCINATING PART TIME OCCUPATION

He acts as a guide for 'Australian Special Interest Tours' and focuses on their native plant dominated activities. ASIT also runs regular bird-watching tours led by a keen ornithologist. Knowing that many RFSG members are looking for worthwhile itineraries, he suggests that anyone so interested should ring the company at 02 9973 1673 and ask to be put on the mailing list for the plant ("Escape to Nature"), or bird tours (or both if so desired).

RESPONSES TO PREVIOUS TOPICS

Plant provenance. One problem is the nursery industry - some growers who select certain specimens from the bush will not disclose the source to prevent others getting it.

Our oldest tree. No, not a Euc. I remember an item in the news back in 1996 about a Huon Pine that was carbon dated at approx 10,000 years old. The monster covered a hill side, and also had multiple trunks.

Wollemi Pine. Sydneys Bot. Gardens have recently planted a specimen near the Herbarium - it is about 3' high and looks magic. They have done a planting of rare and endangered species (includes natives and exotics). Some of the natives that come to mind are Prumnopitys ladei, Syzigium paniculatum, Uromyrtus australis and Cycads/ Zamiads. Garden visitors should check out the glasshouses as there are a lot of RF species well established in them.

Plants in pots - I use 'Super Native Tubes'; they have root guides in them as well. They seem to be effective in directing roots down to avoid bunching and coiling. (All these comments from Richard Logan.)

Abrophyllum ornans. Gwen Caddy confirms my experience with tiny seeded species, saying "I can see one or two surviving A. ornans. They are still pinhead size so I have to be careful not to drown them. Don't think they have much of a chance."

Dry RF plants for Brisbane region. Sue Walston did like that item in our last N/L taken from BRAIN's journal, but wishes that there was more information available for the drier, colder areas. They have just emerged from the busiest planting and bush regeneration programme since moving to Marlee, and despite the long dry those new areas are doing really well, while the creeks and bush are bustling with life.

ROBIN WOODS IS ACTIVELY INVOLVED IN THE HAWKESBURY RAINFOREST NETWORK

The 'Hawkesbury' is a river just north of Sydney, and one of its claims to fame is that it was probably the first area where Red Cedar was exploited in the Colony of NSW. It was also one of Sydneys earliest 'bread baskets', producing an amazing (for the time) range of foodstuffs. ("A rich agricultural and fishing source; an early settlement; botanically Dry RF")

However, like all good (un)economically (un)sustainable situations relied on by modern society, the area went into rapid decline and its present plight was described in Sydney's press (S.M.H. 26/11/97) as "in this case, our record reads almost like a perfect how to kill a river guide: dam it, dredge it, suck it half dry, strip its banks of plants, turn its tributaries into polluted drains, quarry its sand and gravel, wreck its flow, pump it full of sewerage and nutrients, add a dose of exotic plant and animal invaders - then sit back and watch it go to hell!" (Bob Beale commenting on NSW Healthy Rivers Commission report calling for much tougher controls on water removal, sand and gravel extraction, run-off from unsewered residential areas, recreational users)

Anyway Robin has been actively involved in efforts at reversing this sorry situation for some years now, both in regenerating her own property and in helping organise others to recognise the situation and to ensure that various, appropriate measures are set in train to turn around a 200 year unintended, but certainly predictable outcome.

The 'Network' is seeking funds to employ a Bushcare Officer to work with private landholders in the region, advising them about their remnant bush and how to manage it.

Its aims include - * Setting up a study of remnant RF. * Finding ways to conserve what is there.
* Providing information on species in the area to landholders. * Site visits and site assessment.
* Training in bush regeneration and weed control strategies. * Developing plans of management.
* Creating a network to liaise with experts in the field. * Studies of associated wildlife.
* Creating inventories of reserved RF on private and public lands. * Revegetation programs and propagation methods.

Sydney members, especially those living in the north-west, may well be interested in some involvement in this scenic and historical area in bringing back some of its original beauty.

WORK IS BEING DONE TO HELP RESTORE THE MAROOCHY RIVER

Environmentally conscious local farmers have been undertaking a project for 3 years, of mangrove replacement and regeneration with Landcare funds of $6,400. Early attempts of seed germination and growing on seedlings gave disappointing results. Over time they developed more successful techniques, including placing seeds in pots of river mud, placed in trays between high and low water levels to be watered naturally. Advanced seedlings were then planted into bare areas protected by stone walls; many of them are now over 1/2m tall. The group has applied for further funding to propagate 10,000 plants a year for 3 years.

The problem arose from carelessness or ignorance many years ago, when patches of mangroves were lost after a local authority sprayed Groundsel Bush with herbicide, only to find that mangroves were highly susceptible to the chemical. Some natural re-establishment of river mangroves has occurred, but not of grey mangroves (Avicennia marina) which provides main riverbank protection. Once the full mangrove cover has gone, natural re-establishment is difficult due to frequent disturbance by speedboats (!) Most affected areas have been stretches of high riverbank which become undermined during floods, then cave into the river as tree roots are ripped out by swirling waters later on.

(Contributed by Harry Franz of Goomeri, summarised by the N/L editor).

AT LONG LAST SOME INTELLIGENT ECONOMISTS ARE HAVING THEIR SAY

An item in the bulletin of the Community Biodiversity Network 'Life Lines' Vol 4 No 1 Autumn 1998, thoughtfully sent to me by Ian Cox, details a study by CSIRO scientists Roger Jones and Barrie Pittock on the estimated value of Australian ecosystems. The accompanying table lists 12 different ecosystems, 4 marine and 8 terrestrial totalling an annual value of $1327 billion, around 4 times our Gross National Product.

Tropical Forest (uncleared RF) alone is an estimated 13 billion $, while Forest and Woodlands are worth $54 billion. The value of our total marine biomes is a staggering $960 billion. "For ecological sustainability to contribute to policy on an even footing with issues of food security and economic sustainability, it is important that both the economic and non-economic values provided by ecosystems are assessed for global change impacts, including climate change".

One can only hope that our decision makers take such values into account as they determine how to further enrich themselves and their cronies while claiming to ensure 'environmental sustainability' for evermore.

THE RECENT FEDERAL BUDGET WAS PRETTY MEAN FOR THE ENVIRONMENT

An amount of $290 million was allocated. Thoug there was an increase in funds from the Telstra sale, base spending was reduced by 10% this year (making a drop of 35% since 1996). This has been despite a pre-election 'commitment' to maintain such spending. Either a 'non-core' promise or a lie, depending on one's degree of respect for politicians. The Great Barrier Reef Marine Park has been cut by 20% and core funding for other World Heritage areas has been slashed - from $8 million to just 3 1/2 million, or more than 50%.

The overall increase (National Heritage Trust) has been added to the pork barrel for a large increase in Bushcare projects, especially for landholders to repair degraded property but also to community groups 'for vegetation protection and revegetation initiatives.'

BOTH THE QUEENSLAND AND NATIONAL ELECTION CAMPAIGNS HAVE AVOIDED ENVIRONMENTAL DISCUSSION

Either both sets of contenders are unaware, unconcerned or plainly apathetic on ecological or conservation issues and problems. Perhaps though, as my mate Con Mann assures me, they "all avoid the topic in the hope that it may go away, and anyway the basis of all life is the economy, growth, development, efficiency, increasing levels of consumption, worlds best practise". He's right too, Labor gave us a new uranium mine, increased woodchip exports, higher road funding, unchecked land clearing, more aid money to corrupt nations with poor human rights records. The coalition in contrast has over the past 2 years increased aid to corrupt regimes, allowed land clearing to continue, built more roads, increased woodchip exports, is giving us a new uranium mine. And we argue about who will better run the country to benefit everyone? Another question - does the new Party have an environmental policy? It claims it has the answers to everything else.

As the Cree Indian saying states - "Only when the last tree has died and the last river been poisoned and the last fish been caught will we realise we cannot eat money."

I will listen to arguments to the contrary, but you will need to express your claims better than do Con Mann's associates.

URANIUM - KAKADU NATIONAL PARK - ATOM BOMBS

There has been some concern at the intention to add another uranium mine to enhance the attractions of the wonderful Kakadu National Park, the property of its long term inhabitants and owners, the Mirrar people. Opposition has been declared by the Mirrar who have been supported by concerned individuals who set up a blockade of the development, and by individuals like myself who can offer only moral support.

Our deputy prime minister, speaking in his usual halting English (can't speak the language, can't run the country) made a dumb assertion in April that the mine (Jabiluka) "was not a core area of Kakadu NP". I don't really know the definition of core, but nevertheless the lease is totally within the park (it is about a 50 sq km excision), with the important Magela creek flowing through it, the East alligator river nearby, and 2 park camping areas adjacent. Good enough for me Tim - its a core area.

And importantly for our common interest, there is presently a considerable area of monsoon RF in good condition; forest that will be destroyed, degraded, or will end up glowing in the night - no good at all for man or beast.

Obviously mining such a dangerous mineral does create a risk to the immediate environment, and to everyone dealing with the product. Its end use, either in nuclear reactors or atom bombs has been found to be rather disastrous.

In the meantime I find it offensive that the senior traditional owner was arrested on her own land for objecting to the mining, and that the Tactical Response Group, the N.T's toughest wallopers were used against such an inoffensive gathering of concerned young people opposing a project, the outcome of which may threaten their very survival.

Long term, leaving uranium in the ground and encouraging tourism will give far greater economic and environmental benefits than a one-off 'add to greenhouse, create a few short term jobs and a little profit to a few capitalists buggering up such region in perpetuity.

DEBATE ON EFFECTS OF INTRODUCED BEES TO THE FLORA CONTINUES

It has been well documented that the commercial honey-bee has wide ranging effects on pollination of many native plants and also displace or cause local extinction of endemic bees. One of the results of such research was to ban apiarists from using National Parks in NSW as a source of blossom for their hives. From memory it was also intended to phase out beekeeping licenses in State Forests.

However the industry has been constantly fighting this decision and they have now won their battle. Bees are to be allowed back into the Parks; a decision taken by the Minister for Environment, who, at the time stated that the science was incorrect and the Italian bee has no effect on the natural order. Perhaps we need proof that this is so - it is difficult to take the word of elected or appointed individuals any more, and some of us feel uneasy that a well considered decision has been so quickly reversed.

The bee industry has not been to the fore in protesting about the continual clearing of their resource on freehold or leasehold lands, but is long and loud at demanding the use of the insufficient areas set aside for nature conservation. Perhaps they should be financially involved in independent research either proving beyond doubt that their activities do not effect natural succession, or otherwise.

It would be a good field of study for RFSG members to observe and record pollination methods, or else obtain and disseminate information already gained so that such results can be confirmed or further researched. Our forests are under so many threats that decreasing, or totally preventing flower fertilisation due to yet another exotic species could be the last straw.